Soledad Village Environmental Impact Report

SCH NO. 2005041100

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RBF CONSULTING

DRAFT
ENVIRONMENTAL IMPACT REPORT

SOLEDAD VILLAGE

SCH NO. 2005041100

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TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

TABLE OF CONTENTS (continued)

TABLE OF CONTENTS (continued)

EXHIBITS

EXHIBITS (Cont'd)

TABLES

TABLES (continued)

TABLES (continued)

TABLES (continued)

Section 1.0
INTRODUCTION AND PURPOSE

1.0 INTRODUCTION AND PURPOSE

1.1 PURPOSE

The City of Santa Clarita (City) is the Lead Agency under the *California Environmental Quality Act* (CEQA), and is responsible for preparing the Environmental Impact Report (EIR) for the Soledad Village project (State Clearinghouse No. 2005041100). This EIR has been prepared in conformance with CEQA (California Public Resources Code Section 21000 et seq.), and the *CEQA Guidelines* (California Code of Regulations, Title 14, Section 15000 et seq.). The principal *CEQA Guidelines* sections governing content of this document are Sections 15120 through 15132 (Content of an EIR), and Section 15161 (Project EIR).

In accordance with Section 15121 of the *CEQA Guidelines*, a primary purpose of this EIR is to provide decision-makers and the public with specific information regarding the environmental effects associated with development of the site, identify ways to minimize the significant effects and describe reasonable alternatives to the project. Mitigation measures are provided which may be adopted as Conditions of Approval in order to reduce the significance of impacts resulting from the project. In addition, this EIR is the primary reference document in the formulation and implementation of a mitigation monitoring program for the proposed project.

The City, which has the principal responsibility of processing and approving the project, and other public agencies (i.e., responsible and trustee agencies) that may use this EIR in the decision making or permit process will consider the information in this EIR, along with other information that may be presented during the CEQA process. Environmental impacts are not always mitigable to a level considered less than significant; in those cases, impacts are considered significant unavoidable impacts. In accordance with Section 15093(b) of the *CEQA Guidelines*, if a public agency approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts), the agency shall state in writing the specific reasons for approving the project, based on the Final EIR and any other information in the public record for the project. This is termed, per Section 15093(b) of the *CEQA Guidelines*, a "statement of overriding considerations."

This document analyzes the environmental effects of the project to the degree of specificity appropriate to the current proposed actions, as required by Section 15146 of the *CEQA Guidelines*. This analysis considers the actions associated with the project, to determine the short-term and long-term effects associated with their implementation. This EIR discusses both the direct and indirect impacts of this project, as well as the cumulative impacts associated with other past, present, and reasonably foreseeable future projects. CEQA requires the preparation of an objective, full disclosure document to inform agency decision makers and the general public of the direct and indirect environmental effects of the proposed action; provide mitigation measures to reduce or eliminate significant adverse effects; and identify and evaluate reasonable alternatives to the proposed project.

1.2 COMPLIANCE WITH CEQA

The Draft EIR is subject to a 45-day review period by responsible and trustee agencies and interested parties. In accordance with the provision of Sections 15085(a) and 15087(a)(1) of the *CEQA Guidelines*, the City, serving as the Lead Agency: 1) publishes a notice of availability of a Draft EIR in *The Signal*, a newspaper of general circulation, which states that the Draft EIR will be available for review at City Hall, located at 23920 Valencia Boulevard, and three Los Angeles County public library branches (Newhall, Valencia, and Canyon Country branches); 2) prepares and transmits a Notice of Completion (NOC) to the State Clearinghouse; and 3) sent notices to all property owners within 1,000 feet of the subject property. Proof of publication is available at the City.

Any public agency or members of the public desiring to comment on the Draft EIR must submit their comments in writing to the individual identified on the document's NOC prior to the end of the public review period. During the public review period, the Santa Clarita Planning Commission will hold a regularly scheduled public hearing regarding the Draft EIR. The public will be afforded the opportunity to orally comment on the Draft EIR at the public hearing. Such comments shall be recorded and shall have the same standing and response requirements as written comments provided during the public review period. Upon the close of the public review period, the Lead Agency will then proceed to evaluate and prepare responses to all relevant oral and written comments received from both citizens and public agencies during the public review period.

The Final EIR will consist of the Draft EIR, and revisions to the Draft EIR and responses to comments addressing concerns raised by responsible agencies or reviewing parties. After the Final EIR is completed and at least 10 days prior to its certification, a copy of the response to comments made by public agencies on the Draft EIR will be provided to the respective agency.

1.3 EIR SCOPING PROCESS

In compliance with the *CEQA Guidelines*, the City has taken steps to maximize opportunities to participate in the environmental process. During the preparation of the Draft EIR, an effort was made to contact various Federal, State, regional, and local government agencies and other interested parties to solicit comments and inform the public of the proposed project. This included the distribution of an Initial Study and Notice of Preparation (NOP).

1.3.1 INITIAL STUDY

The proposed project would develop a maximum of 437 residential units, approximately 8,000 square feet of commercial uses, recreational uses (common and private open space areas) and on-site private roads on approximately 30 acres.

In accordance with Section 15063(a) of the *CEQA Guidelines*, the City undertook the preparation of an Initial Study. The Initial Study determined that a number of environmental issue areas may be impacted by implementation of the Soledad Village project. As a result, the Initial Study determined that this Draft EIR should address the project's potentially significant impacts on a variety of environmental issue areas.

The EIR focuses primarily on changes in the environment that would result from the proposed project. The EIR identifies potentially significant impacts resulting from the construction and operation of the proposed project and provides measures to mitigate potential significant impacts. Those impacts that cannot be mitigated to levels less than significant are also identified. This EIR addresses impacts in the following areas:

- Land Use and Planning;
- Population, Employment, and Housing;
- Aesthetics and Visual Resources;
- Traffic and Circulation;
- Air Quality;
- Noise;
- Hydrology and Drainage; and
- Public Services and Utilities.

Based on the Initial Study, issues for which no significant impacts are anticipated to occur are addressed in Section 9.0, Effects Found Not to be Significant, contained in this EIR.

1.3.2 NOTICE OF PREPARATION

Pursuant to the provision of Section 15082 of the *CEQA Guidelines*, the City circulated a NOP to public agencies, special districts, and members of the public requesting such notice for a 30-day period commencing April 18, 2005 and ending May 18, 2005. The purpose of the NOP was to formally convey that the City is preparing a Draft EIR for the Soledad Village project, and that as Lead Agency, was soliciting input regarding the scope and content of the environmental information to be included in the EIR. The Initial Study was circulated with the NOP. The NOP, Initial Study, and responses to the NOP are provided in Appendix A, Initial Study/Notice of Preparation, and Appendix B, NOP Responses.

1.3.3 NOP AND SCOPING RESULTS

During the NOP circulation period, the City advertised a public scoping meeting. The meeting was held on May 11, 2005 at City Hall, located at 23920 Valencia Boulevard in Santa Clarita, and was intended to facilitate public input. The meeting was held with the specific intent of affording interested individuals/groups and public agencies a forum in which to orally present input directly to the Lead Agency in an effort to assist in further refining the intended scope and focus of the EIR as described in the NOP and Initial Study.

The NOP/Initial Study was distributed for 30 days to various public agencies (refer to Appendix A for the distribution list) in order to receive input as to the scope and content of the environmental information to be provided in this EIR. Comments were received from the following agencies/organizations:

- California Regional Water Quality Control Board – Los Angeles Region;
- California Water Impact Network;
- Castaic Lake Water Agency;
- County of Los Angeles Department of Public Works;
- County of Los Angeles Fire Department;
- County Sanitation Districts of Los Angeles County;
- Department of California Highway Patrol;
- Department of Transportation District 7;
- Friends of the Santa Clara River;
- Metropolitan Transportation Authority;
- Santa Clarita Organization for Planning and the Environment;
- Santa Monica Mountains Conservancy;
- South Coast Air Quality Management District;
- Southern California Association of Governments;
- State Clearinghouse and Planning Unit; and
- State of California Public Utilities Commission.

The following specific environmental concerns were raised in response to the NOP (the numerical reference in parenthesis is the EIR section in which the analysis is provided). The NOP comments are contained in Appendix B:

- Increased traffic volumes on surrounding roadways resulting in traffic delays on I-5 and SR-14 (refer to Section 5.4, Traffic and Circulation);
- Impacts to the County Sanitation Districts of Los Angeles County (Districts) as a result of an increase in wastewater (refer to Appendix A, Initial Study/ Notice of Preparation);

- Traffic impact analysis is consistent with the California Department of Transportation Traffic Impact Study Guidelines (refer to Section 5.4, Traffic and Circulation);

- Inclusion of the State of California Congestion Management Plan (CMP) Guidelines for Los Angeles County in the Traffic Impact Analysis (TIA) (refer to Section 5.4, Traffic and Circulation);

- Cumulative loss of upland habitat (refer to Section 9.0, Effects Found Not To Be Significant);

- Increase of chloride levels in the treated effluent water released to the Santa Clara River (refer to Section 5.7, Hydrology and Water Quality);

- Cumulative loss of groundwater recharge areas along the Santa Clara River, which may impact water quality (refer to Section 5.7, Hydrology and Water Quality);

- Possible contamination of fill dirt used to fill the area (refer to Section 9.0, Effects Found Not To Be Significant);

- Seismic impacts including liquefaction (refer to Section 9.0, Effects Found Not To Be Significant and Appendix A, Initial Study/Notice of Preparation);

- Cumulative impacts to flora and fauna due to continued encroachment by development into the River floodplain and terrace lands (refer to Section 9.0, Effects Found Not To Be Significant and Appendix A, Initial Study/Notice of Preparation);

- Cumulative effects of the filling and channelization of the Santa Clara River, resulting in the alteration of the hydrology of the watershed, increasing storm runoff, and decreasing water quality (refer to Section 5.7, Hydrology and Water Quality);

- Quantification of all construction and operational air quality impacts in conformance with the South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook (refer to Section 5.5, Air Quality); and

- Compliance with County of Los Angeles Fire Department requirements (refer to Section 9.0, Effects Found Not To Be Significant).

1.4 FORMAT OF THE EIR

The Draft EIR is organized into 11 sections, plus 11 Appendices, as follows.

Section 1.0, Introduction and Purpose, provides CEQA compliance information.

Section 2.0, Executive Summary, provides a brief project description and summary of the environmental impacts and mitigation measures.

Section 3.0, Project Description, describes the project in detail indicating project location, background and history, and project characteristics, phasing and objectives, as well as associated discretionary actions required.

Section 4.0, Basis of Cumulative Analysis, describes the approach and methodology for the cumulative analysis.

Section 5.0, Environmental Analysis, contains a detailed environmental analysis of the existing conditions, project impacts (including direct and indirect, short-term and long-term, and cumulative), recommended mitigation measures and unavoidable adverse impacts. The analysis of each environmental category in this section is organized into five sections as follows:

- "Environmental Setting" describes the physical conditions that exist at this time and that may influence or affect the issue under investigation;

- "Significance Threshold Criteria" provides the thresholds that are the basis of conclusions of significance, which are primarily the criteria in the *CEQA Guidelines*) *Appendix G*, *Environmental Checklist*;

- "Impacts and Mitigation Measures"

    - The "Level of Significance Prior to Mitigation" identifies the impact significance level prior to analysis and prior to the imposition of mitigation measures. Potential impacts are generally classified as potentially significant impact, less than significant impact, or no impact.

    - Project impacts are the potential environmental changes to the existing physical conditions that may occur if the proposed project is implemented;

    - Mitigation measures are those project-specific measures that would be required of the project to avoid a significant adverse impact; to minimize a significant adverse impact; to rectify a significant adverse impact by restoration; to reduce or eliminate a significant adverse impact over time by preservation and maintenance operations; or to compensate for the impact by replacing or providing substitute resources or environment;[1] and

    - The "Level of Significance After Mitigation" states whether the project impact and the project's contribution to cumulative impacts can be reduced to levels that are considered less than significant.

- "Cumulative Impacts and Mitigation Measures" describes potential environmental changes to the existing physical conditions that may occur with the proposed project together with all other reasonably foreseeable, planned, and approved future projects;

[1] The measures presented in this EIR are either "project design features" (those that would be implemented as part of project design) or mitigation measures (those that would mitigate project impacts above and beyond any reduction in impacts accomplished by project design features).

- "Significant Unavoidable Impacts" describes impacts that would be significant, but cannot be feasibly mitigated to less than significant, so would be unavoidable.

Section 6.0, Alternatives, describes a reasonable range of alternatives to the project or to the location of the project that could feasibly attain the basic project objectives.

Section 7.0, Long-Term Implications of Proposed Project, discusses growth inducing impacts and irreversible changes associated with the proposed project.

Section 8.0, Significant Environmental Effects Which Cannot be Avoided if the Proposed Action is Implemented, discusses significant environmental changes that would be involved in the proposed action, should it be implemented.

Section 9.0, Effects Found Not to Be Significant, explains potential impacts that have been determined not to be significant.

Section 10.0, Organizations and Persons Consulted, identifies all Federal, State or local agencies, other organizations and individuals consulted in the preparation of the EIR.

Section 11.0, Bibliography, identifies reference sources for the EIR.

The following Appendices contain the technical documentation for the project:

A. Initial Study/Notice of Preparation;
B. NOP Responses;
C. Cumulative Growth Calculations;
D. Traffic Impact Analysis;
E. Air Quality Impact Analysis;
F. Noise Impact Analysis;
G. Water Quality Technical Report;
H. Water Study;
I. Correspondence;
J. School Funding Agreements; and
K. SCAQMD Santa Clarita Subregional Analysis.

1.5 RESPONSIBLE AND TRUSTEE AGENCIES

Certain projects or actions undertaken by a Lead Agency require subsequent oversight, approvals, or permits from other public agencies in order to be implemented. Such other agencies are referred to as Responsible Agencies and Trustee Agencies. Pursuant to Sections 15381 and 15386 of the *CEQA Guidelines*, Responsible Agencies and Trustee Agencies are respectively defined as follows:

> *"Responsible Agency" means a public agency that proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the Lead Agency which have discretionary approval power over the project." (Section 15381)*

> *"Trustee Agency" means a State agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. Trustee Agencies include...." (Section 15386)*

Responsible and Trustee Agencies and other entities that may use this EIR in their decision-making process or for informational purposes include, but may not be limited to, the following:

- Army Corps of Engineers;
- California Department of Fish and Game;
- California Department of Health Services;
- California Department of Transportation (Caltrans);
- California Water Resources Control Board, Los Angeles Region;
- Castaic Lake Water Agency, Santa Clarita Water Division;
- Los Angeles County Fire Department;
- Los Angeles County Sanitation District;
- Los Angeles Regional Water Quality Control Board;
- Office of Emergency Services;
- Regional Water Quality Control Board, Region 4;
- South Coast Air Quality Management District; and
- Southern California Association of Governments.

1.6 INCORPORATION BY REFERENCE

Pertinent documents relating to this EIR have been cited in accordance with Section 15148 of the *CEQA Guidelines*, which encourages "incorporation by reference" as a means of reducing redundancy and length of environmental reports. The following document, which is available for public review at the City of Santa Clarita Planning Department, located at 23920 Valencia Boulevard, Santa Clarita, California, is hereby incorporated by reference into this EIR. Information contained within this document has been utilized for each section of this EIR. A brief synopsis of the scope and content of this document is provided below.

City of Santa Clarita General Plan. Adopted 1991 (with subsequent updates). The *City of Santa Clarita General Plan* (*General Plan*) is the long-range planning guide for growth and development for the City. The *General Plan* has two basic purposes: 1) to identify the goals

for the future physical, social and economic development of the City; and 2) to describe and identify policies and actions adopted to attain those goals. It is a comprehensive document that addresses seven mandatory elements/issues in accordance with State law. These elements include Land Use, Housing, Circulation, Conservation, Open Space, Noise and Safety. Other optional issues that affect the City have also been addressed in the Plan. The *General Plan* was utilized throughout this EIR as the fundamental planning document governing development on the project site. Background information and policy information from the Plan is cited in several sections of the EIR.

Section 2.0
EXECUTIVE SUMMARY

2.0 EXECUTIVE SUMMARY

2.1 PROJECT LOCATION

The City of Santa Clarita (City) is located 35 miles northwest of downtown Los Angeles between the Interstate 5 (I-5) and State Route 14 (SR-14) freeways, has an area of 47 square miles and a population of 165,000. The City encompasses the communities of Canyon Country, Newhall, Saugus and Valencia. Surrounding the City are various unincorporated areas of Los Angeles County and the Angeles National Forest.

The approximately 30-acre project site is centrally located within the City, along the north side of Soledad Canyon Road adjacent to the Santa Clara River, between Bouquet Canyon Road and Golden Valley Road. The site is triangular shaped with approximately 2,600 feet of frontage along Soledad Canyon Road. A 1,400-foot long by 10-foot wide drainage easement extends along portions of the front of the property parallel to Soledad Canyon Road.

2.2 PROJECT OBJECTIVES

The *California Environmental Quality Act* (CEQA) *Guidelines* requires that an environmental impact report (EIR) include a statement of the objectives sought by a project applicant (Section 15123(b) of the *CEQA Guidelines*). The following are the applicant's stated objectives:

LAND USE PLANNING

- Create a new community that allows for residential, commercial, and recreational development.
- Provide new housing units to accommodate projected regional growth in a location, which is adjacent to existing and planned infrastructure, urban services, public transit, transportation corridors, and major employment areas.
- Provide development that is compatible with surrounding communities and land uses.
- Provide for the long-term maintenance of public infrastructure and recreational facilities including parks, trails, landscaping, storm drains, etc., that serve the project site.
- To create a small, safe, human scale, residential development enclave, by incorporating traffic calming measures and avoiding the use of long through streets, to foster closer-knit resident interaction, and to reduce and downplay the dominance of the automobile.

ECONOMIC

- Develop the site to include housing of varying types, accommodating a range of incomes, and commercial opportunities for the residents of the project as well as the local area.

- Provide neighborhood commercial element that would provide retail and services for local residents and area workers.

- Create an economically feasible project.

MOBILITY

- Provide a safe, efficient, and aesthetically attractive street system, which includes pedestrian walkways (sidewalks) with connection to adjoining regional transportation routes.

- Provide an efficient street circulation system that minimizes impacts on residential neighborhoods and environmentally sensitive areas.

- Takes advantage of the adjacent Metrolink commuter rail station and other transit services.

PARKS AND RECREATION

- Provide a range of active recreational opportunities, including a recreation center, tot lots, and access to the Santa Clara River Trail and the Soledad Canyon multi-purpose trail.

- Provide passive recreational opportunities such `as pocket park areas and private patios.

RESOURCE CONSERVATION OBJECTIVES

- To provide a sensitive and protective interface with the Santa Clara River by utilizing appropriate landscape, bank stabilization, and water quality treatments.

- To foster the design and integration of a mutually beneficial relationship between the natural and built environments, sensitive land use transition treatments, attractive street scenes, and indigenous architectural and landscape design guidelines.

2.3 PROJECT SUMMARY

The proposed project will develop with residential, commercial, and recreational uses (common and private open space areas) and on-site private roads on approximately 30 acres. The proposed project will require an Amendment to the *City of Santa Clarita General Plan* (*General Plan*) and zone change from Commercial Office (CO) to Residential Medium High (RMH) and Commercial Neighborhood (CN). The proposed project will maintain the Planned Development (PD) zone and Valley Center Concept (VCC Overlay). A Conditional Use Permit (CUP) will also be required, which will implement the Planned Development and allow for an increase of architectural treatment projections from 35 feet, up to 50 feet. Approval of the Tentative Tract Map (TTM No. 62322) is also required to subdivide the Project site for condominium uses, and the applicant is requesting to vacate Finch Court and portions of Gladding Way.

RESIDENTIAL

A total of 437 residential units will be developed including 275 attached townhomes and 162 triplexes. Two-story triplex units will be developed, with three different floor plans ranging from 1,303 square feet to 1,892 square feet. Two-story townhome units will be developed with four different floor plans ranging from 1,263 square feet to 1,513 square feet. The architectural style will incorporate elements of the California ranch style homes and the Santa Fe and Mediterranean-style houses that are characteristic of the neighboring residential communities. Approximately five percent of the housing will be designated for workforce housing, offering units at approximately 10 percent below market rates.

COMMERCIAL

An 8,000 square foot retail building will be located at the northeast corner of Gladding Way and Soledad Canyon Road. This will allow for a variety of smaller retail, eatery and service tenants, which is consistent with the CN zone. The architectural elements of the retail building will be consistent with the proposed design of the residential structures. As previously discussed a CUP will need to be approved by the Planning Commission to permit structures over 35 feet in height and up to 50 feet in height. The specific site plan, building elevations, number of parking spaces, landscaping and other improvements for the commercial site will be reviewed separately under the City's Development Review process.

RECREATIONAL/OPEN SPACE/PEDESTRIAN CIRCULATION

Active Recreational Facilities. A private recreational center will be located north of the commercial building. The facilities will include an approximately 1,200 square foot recreation building (including a community room, restrooms, and a pool equipment room), swimming pool, wading pool, spa, shade structures and a cabana. A private tot lot will also be provided for Soledad Village residents within the eastern portion of the project site. In addition, public pedestrian trails will extend along Soledad Canyon Road, and along the western and southern boundary of the project site along the Santa Clara River. Primary and secondary trails will also be provided throughout the project site. A pedestrian bridge will

also be developed west of the project site. The pedestrian bridge will connect from a trail along the Santa Clara River, cross Soledad Canyon Road to the Metrolink Commuter Rail station.

Passive Recreational Facilities. A total of approximately 2.5 acres of open space will be provided, allowing for passive recreational areas throughout the project site. The project will be buffered from Soledad Canyon Road by a minimum 15-foot wide landscaped setback area. In addition, a sound wall will be constructed along the residential components of the project.

CIRCULATION/PARKING

Main access to the project site and commercial pad will be provided via Gladding Way off of Soledad Canyon Road. This intersection is already improved with a traffic signal. When entering the project site, Gladding Way will be a four lane divided roadway, which will merge into a two-lane roadway with smaller roadways and driveways extending east and west. Secondary access will be provided via QQ Street, also off of Soledad Canyon Road. Both entrances will include approximately 300-foot right turning pockets (deceleration lanes). A total of 1,094 parking spaces will be provided with 874 covered parking spaces and 220 on-street guest parking spaces. Additional parking spaces will be provided for the commercial site, based on the type of use.

2.4 SUMMARY OF PROJECT ALTERNATIVES

In accordance with *CEQA Guidelines* Section 15126.6, Section 6.0, Alternatives, describes a range of reasonable alternatives to the proposed project that could feasibly attain the basic objectives of the proposed project, while evaluating the comparative merits of each alternative. The analysis focuses on alternatives capable of eliminating significant adverse environmental effects or reducing them to less than significant levels, even if these alternatives would impede, to some degree, the attainment of the project objectives. Potential environmental impacts are compared to impacts from the proposed project. The following is a description of each of the alternatives evaluated in Section 6.0, Alternatives.

NO PROJECT/NO DEVELOPMENT ALTERNATIVE

The No Project/No Development Alternative assumes the Soledad Village Project would not be implemented and land uses and other improvements would not be constructed. The existing project site would remain unaltered and in its current condition. All infrastructure improvements including water, wastewater, drainage, and circulation facilities identified on the Soledad Village Tentative Tract Map would not be constructed, and the project site's *General Plan* and zoning designations would not be changed. No additional entitlements would be required under this Alternative.

REDUCED DENSITY ALTERNATIVE

The Reduced Density Alternative would be similar to the proposed project in terms of land use types, but would provide multi-family residential units at a lower density. This

Alternative would still require approval of the entitlements required under the proposed project, including the following: Tentative Tract Map, *General Plan* Amendment, zone change, and CUP. The Reduced Density Alternative would retain the 8,000 square feet of commercial retail uses included in the proposed project, but would provide a similar proportion of triplex and townhome dwelling units, but the residential portion of the site would be zoned RM-PD. The RM-PD zone allows for multi-family residential uses at a maximum density of 11 dwelling units per acre (du/acre). Given that the Reduced Density Alternative would still include 8,000 square feet of commercial, a minimum lot size of approximately 1-acre is required for the commercial uses and associated roadways and setbacks under the CN-PD zone, which provides for a maximum floor-area ratio (FAR) of 0.375:1. Per the *Unified Development Code* (*UDC*), a CUP is required for all development within a Planned Development overlay, as well as for architectural elements above the 35-foot maximum building height within the RM and CN zones. As such, the remainder of the project site, approximately 29 acres, would be zoned RM-PD, allowing a density of 319 multi-family dwelling units. As previously indicated, the proportion of housing types in the residential portion of the project under this Alternative is anticipated to be comparable to that of the proposed project, yielding 201 townhome units and 118 triplex units. All other proposed facilities, infrastructure, and amenities would also be provided, to the extent required by the City or other affected agencies.

EXISTING GENERAL PLAN ALTERNATIVE

The Existing *General Plan* Alternative would eliminate all of the residential uses and dramatically increase the amount of commercial uses on site relative to the proposed project. Under the Existing *General Plan* Alternative, the entire 30-acre project site would remain designated and zoned CO-PD with the VCC overlay. This Alternative would still require approval of a Tentative Tract Map and a CUP, the latter of which is required for all development within a Planned Development overlay. Under this Alternative, no residential units would be constructed on-site, but instead the site would be developed with a mix of office and retail uses. The commercial development would be comprised of approximately 60 percent office uses (980,100 square feet) and 40 percent retail uses (653,400 square feet), totaling 1,633,500 square feet, the maximum allowable density under the CO zone, which limits the FAR to 1.25:1. All other, facilities, parking, landscaping, and infrastructure would also be provided, as required for the CO zone per the UDC.

WORK-LIVE UNIT ALTERNATIVE

Under the Work-Live Unit Alternative, the proposed project would be modified to provide 22 work-live units in the central portion of the development. These work-live units would be townhome units, which would be intended to provide a convenient, innovative form of workforce housing by allowing homeowners to live and work at home, thereby also reducing vehicle trips. All other aspects of the project under the Work-Live Unit Alternative would be similar to the proposed project, with 412 total residential units (including 222 townhomes, 168 triplex units, and 22 work-live units). In addition, the size of the commercial component will be increased to include 8,000 square feet of first-floor retail uses, and 8,000 square feet of second-floor office.

This Alternative would still require approval of the entitlements required under the proposed project, including the following: Tentative Tract Map, General Plan Amendment, zone change and CUP. The boundaries of the zone change would be modified, as a larger portion of the project site would be zoned CN-PD to allow for the inclusion of work-live units on-site. In addition, the scope of the CUP would be expanded to include the construction of three-story buildings up to 50 feet in height and to include the inclusion of work-live units on-site. In addition, this Alternative would require the approval of a Parking Adjustment, to reduce the parking requirements for the commercial component by 20 percent.

All other proposed facilities, infrastructure, and amenities, including landscaping open space, pathways/trail connections, recreational facilities and pedestrian bridge over Soledad Canyon Road, would still be provided to the extent required by the City or other affected agencies.

2.5 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The summary includes impact statements, level of significance before mitigation, mitigation measures, and level of significance after mitigation.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
LAND USE			
Santa Clarita General Plan			
The proposed project would be consistent with the applicable goals and policies of the City of Santa Clarita *General Plan*.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
Unified Development Code			
The proposed project would not conflict with the standards and requirement of the City of Santa Clarita *Unified Development Code*.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
SCAG Regional Comprehensive Plan and Guide			
The proposed project would not conflict with applicable policies of the Southern California Association of Governments' *Regional Comprehensive Plan and Guide.*	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
SCAG Southern California Compass Growth Visioning Program			
The proposed project would be consistent with the principles and strategies of the Southern California Association of Governments' Southern California *Compass Growth Visioning Program.*	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
Cumulative Impacts and Mitigation Measures			
Development associated with the proposed project and other related cumulative projects would not result in cumulatively considerable land use and planning impacts.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
POPULATION, EMPLOYMENT, AND HOUSING			
Housing			
Project implementation includes the development of a maximum of 437 residential units.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
Employment			
Project implementation would include development of a maximum of 8,000 square feet of commercial uses.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
Population			
Project implementation could induce population growth in the City of Santa Clarita.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
Cumulative Impacts and Mitigation Measures			
Implementation of the proposed project, in conjunction with related projects in the City of Santa Clarita, would not result in significant cumulative population, employment, and housing impacts.	Less than Significant Impact.	No mitigation measures are required.	Not applicable.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
AESTHETICS			
Short-Term Construction Aesthetic, Light, and Glare Impacts			
Development of the proposed project would result in grading and construction activities that would temporarily alter the existing visual character of the project site and the surrounding area and introduce new sources of light and glare.	Potentially Significant Impact.	AES1 Construction equipment staging areas shall be located a minimum of 200 feet from existing residential uses and appropriate screening (i.e., temporary fencing with opaque material), shall be used to buffer views of construction equipment and material, when feasible. Staging location shall be indicated on project Final Development Plans and Grading Plans. AES2 All construction-related lighting shall be located and aimed away from adjacent residential areas and consist of the minimal wattage necessary to provide safety at the construction site. A construction safety lighting plan shall be submitted to the City for review concurrent with Grading Permit application.	Less Than Significant Impact.
Long-Term Aesthetic Impacts			
Development of the proposed project would alter the existing visual character and viewshed from surrounding locations.	Potentially Significant Impact.	AES3 The site plan, building elevations, number of parking spaces, landscaping and other improvements for the commercial site shall be reviewed in accordance with the City's Development Review process.	Less Than Significant Impact.
Long-Term Light and Glare Impacts			
Development of the proposed project would introduce new sources of light and glare into the project area.	Potentially Significant Impact.	AES4 Prior to plan approval, the City of Santa Clarita Planning Division shall ensure that the following elements are included in the project plans, as appropriate: ◆ A photometric study shall be completed indicating compliance with all lighting standards contained the City's *Unified Development Code* (*UDC*), including, but not limited to Chapter 17.15, *Property Development Standards*, and Chapter 17.19, *Sign Regulations (Private Property)*;	Less Than Significant Impact.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		◆ All exterior lighting shall be designed and located as to avoid intrusive effects on adjacent residential properties and undeveloped areas adjacent to the project site. Low-intensity street lighting and low-intensity exterior lighting shall be used throughout the development to the extent feasible. Lighting fixtures shall use shielding, if necessary to prevent spill lighting on adjacent off-site uses; ◆ Design and placement of site lighting shall minimize glare affecting adjacent properties, buildings, and roadways; ◆ Fixtures and standards shall conform to state and local safety and illumination requirements; ◆ Development projects shall use minimally reflective glass and all other materials used on exterior building and structures shall be selected with attention to minimizing reflective glare; and ◆ Automatic timers on lighting shall be designed to maximize personal safety during nighttime use while saving energy.	
Cumulative Impacts and Mitigation Measures			
Implementation of the proposed project, in conjunction with related cumulative projects in the City of Santa Clarita, could result in significant cumulative aesthetic, light, and glare impacts.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
TRAFFIC AND CIRCULATION			
Project Impacts Phase I			
Development associated with Phase I of the proposed project could result in adverse impacts to the function of intersections in the project area for short-range traffic conditions.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
Project Impacts - Buildout			
Development associated with the buildout of the proposed project could result in adverse impacts to the function of intersections in the project area for the interim year (2015) traffic conditions.	Potentially Significant Impact.	TR1 At Project Driveway No. 2 and Soledad Canyon Road, construct a new project intersection with limited access (left-in and right-in, right-out only). TR2 Minimum 300-foot deceleration lanes shall be constructed at both westbound entrances off of Soledad Canyon Road.	Significant and Unavoidable Impact.
Cumulative Impacts and Mitigation Measures			
Development associated with the buildout of the proposed project and other related cumulative projects could result in adverse impacts to the function of intersections in the project area for the interim year (2015) traffic conditions.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
AIR QUALITY			
Construction Impacts			
Construction activities associated with the proposed project could result in significant air pollutant emissions impacts.	Potentially Significant Impact.	Although construction-related air quality impacts cannot be reduced to less than significant, the following standard air pollution control mitigation measures would serve to reduce impacts to the maximum extent feasible:	Significant and Unavoidable Impact.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		AQ1 During construction, the construction contractor shall be responsible for ensuring that all measures listed below in Table 5.5-8, Standard Measures for Construction-Related Emissions, are implemented. To achieve the particulate control efficiencies shown, it is assumed that finished surfaces would be stabilized with water and/or dust palliatives and isolated from traffic flows to prevent emissions of fugitive dust from these areas. In addition, the following water application rates are assumed: ◆ Roads traveled by autos, rock trucks, water trucks, fuel trucks, and maintenance trucks: up to twice per hour; ◆ Roads traveled by scrapers and loaders in active excavation areas: up to three times per hour; ◆ Finish grading areas: up to once every two hours. AQ2 All construction equipment shall be maintained in good operating condition so as to reduce operational emissions. The construction contractor shall ensure that all construction equipment is properly serviced and maintained. AQ3 The construction contractor shall utilize, as much as possible, precoated/natural colored building materials, water-based or low-VOC coating, and coating transfer or spray equipment with high transfer efficiency, such as HVLP spray method, or manual coatings application such as a paintbrush, hand roller, trowel, spatula, dauber, rag, or sponge.	

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Long-Term Operational Impacts			
Development associated with the proposed project could result in significant air pollutant emissions impacts.	Potentially Significant Impact.	Although no mitigation measures are required to reduce stationary source impacts to less than significant, the following standard measures are recommended for project design to minimize air quality impacts: AQ4 Project design shall incorporate energy-saving features throughout the project, including low-emission water heaters, central water heating systems, and built-in energy efficient appliances. AQ5 Parking areas shall be planted with trees to insure shading and prevent heat buildup.	Significant and Unavoidable Impact.
Air Quality Management Plan Consistency			
Development associated the proposed project would result in conflicts with the SCAQMD's adopted air quality management plan.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
Cumulative Impacts and Mitigation Measures			
Development associated with the proposed project and other related projects could result in cumulatively considerable air quality impacts.	Potentially Significant Impact.	No mitigation measures are required.	Significant and Unavoidable Impact.
NOISE			
Construction-Related Noise			
Project-related grading and construction activities could result in temporary noise impacts on nearby noise-sensitive receptors.	Potentially Significant Impact.	N1 Construction shall be limited to the hours of 7:00 AM to 7:00 PM, Monday through Friday, and 8:00 AM to 6:00 PM on Saturday, in accordance with the City of Santa Clarita's Noise Control Ordinance. No construction activities shall be permitted outside of these hours or on Sundays and Federal holidays.	Less Than Significant Impact.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		N2 During all site excavation and grading, the project contractor(s) shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. N3 The project contractor(s) shall place all stationary construction equipment a minimum of 200 feet from any residential unit, so that emitted noise is directed away from sensitive receptors nearest the project site. N4 The project contractor(s) shall locate equipment staging a minimum of 200 feet from any residential unit during all project construction.	
Short-Range Operational Traffic Noise			
Development associated with Phase I of the proposed project could permanently increase traffic-related noise in the project area.	Potentially Significant Impact.	<u>Outdoor Active Use Areas</u> The following mitigation measures would be required for outdoor active use areas associated with residential uses: N5 A sound barrier with a minimum wall height of six feet shall be required for ground-floor front-line outdoor active use areas associated with the all dwelling units located directly adjacent to Soledad Canyon Road. N6 Balconies or decks, if proposed for front-line dwelling units located directly adjacent to Soledad Canyon Road, shall require a noise barrier with a minimum height of five feet along the perimeter of balconies or decks (balconies or decks on the side of the building facing away from the street or outside of the 65-dBA CNEL impact zone shall not require sound wall protection).	Less Than Significant Impact.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		Interior Noise Sound Wall To meet the City's 45-dBA CNEL interior noise standard, the following mitigation measures would be required: N7 Mechanical ventilation, such as an air-conditioning system, shall be required for all dwelling units along the project's southern boundary adjacent to Soledad Canyon Road to ensure that windows can remain closed for prolonged periods of time. N8 Windows with STC-30 or higher shall be required for bedrooms of the dwelling units located adjacent to Soledad Canyon Road west of Gladding Way where no retaining walls are proposed between residential structures and the Soledad Canyon Road right-of-way. N9 Windows with STC-32 or higher shall be required for bedrooms of dwelling units adjacent to Soledad Canyon Road east of Gladding Way. N10 Mechanical ventilation, such as an air-conditioning system, shall be required for the commercial uses proposed on the project site.	
Interim Year (2015) Operational Traffic Noise			
Development associated with buildout of the proposed project could permanently increase traffic-related noise in the project area.	Potentially Significant Impact.	Refer to Mitigation Measures N1 through N10. No additional mitigation would be required.	Less Than Significant Impact.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Stationary Source Noise			
Development associated with the proposed project could permanently increase stationary-source noise in the project area.	Potentially Significant Impact.	N11 Prior to sale of any residential units, future homeowners shall be informed via language in the disclosure documents of the presence of the Saugus Speedway facility, the types of events that can potentially occur at the speedway, the expected frequency of their occurrence, and that noise from events at the speedway may be intermittently audible at their properties during daytime, evening, and late night hours.	Significant and Unavoidable Impact.
Metrolink And Freight Train-Related Noise			
Railroad-related noise could result in adverse noise impacts on sensitive receptors in the project area.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
Cumulative Impacts and Mitigation Measures			
Development associated with the proposed project and other related cumulative projects could result in cumulatively considerable noise impacts.	Potentially Significant Impact.	Refer to Mitigation Measures N5 through N11. No additional mitigation measures are required.	Less Than Significant Impact.
HYDROLOGY AND WATER QUALITY			
Hydromodification Impacts			
Development associated with the proposed project could result in adverse hydrology and drainage impacts.	Potentially Significant Impact.	*Tables 5.7-4* and *5.7-5* identify the proposed project's SUSMP requirements and corresponding Project Design Features, and treatment control BMPs that would fully mitigate project impacts. No additional mitigation measures are required.	Less Than Significant Impact.
Groundwater Recharge Impacts			
Development associated with the proposed project could result in adverse groundwater recharge impacts.	Potentially Significant Impact.	*Table 5.7-4* identifies the proposed project's SUSMP requirements and corresponding Project Design Features that would fully mitigate project impacts. No additional mitigation measures are required.	Less Than Significant Impact.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Operational Surface Water Quality Impacts			
Operation of development associated with the proposed project could result in adverse surface water quality impacts.	Potentially Significant Impact.	*Tables 5.7-4* and *5.7-5* identify the proposed project's SUSMP requirements and corresponding Project Design Features, and treatment control BMPs that would fully mitigate project impacts. No additional mitigation measures are required.	Less Than Significant Impact.
Construction-Related Surface Water Quality Impacts			
Construction activities associated with implementation of the proposed project could result in adverse impacts to surface water quality.	Potentially Significant Impact.	*Tables 5.7-4* and *5.7-5* identify the proposed project's SUSMP requirements and corresponding Project Design Features, and treatment control BMPs that would fully mitigate project impacts. No additional mitigation measures are required.	Less Than Significant Impact.
Groundwater Quality Impacts			
Development associated with the proposed project could result in adverse groundwater quality impacts.	Potentially Significant Impact.	*Tables 5.7-4* and *5.7-5* identify the proposed project's SUSMP requirements and corresponding Project Design Features, and treatment control BMPs that would fully mitigate project impacts. No additional mitigation measures are required.	Less Than Significant Impact.
Cumulative Impacts and Mitigation Measures			
Development associated with the proposed project and other related cumulative projects would contribute to cumulative hydrology and water quality impacts.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
WATER SUPPLY			
Water Demand and Supply			
Development of the Soledad Village project could create demand for water that exceeds available supplies.	Potentially Significant Impact.	WS5 Prior to the issuance of building permits that allow construction, the applicant of the proposed project shall finance the expansion costs of water service extension to the subdivision through the payment of connection fees to the appropriate water agency(ies).	Less Than Significant Impact.
Cumulative Impacts and Mitigation			
Development associated with the proposed project and other related projects would increase demand for water supplies.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
SCHOOLS/EDUCATION			
Saugus Union School District			
Development associated with the proposed project would increase student enrollment within the Saugus Union School District.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
Hart District			
Development associated with the proposed project would increase student enrollment within the Hart District.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
County Development Monitoring System (DMS) Buildout Scenario			
Development associated with the proposed project and other related cumulative projects would increase the demand for school facilities within the Saugus and Hart school districts.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
Cumulative Buildout Scenario			
Development associated with the proposed project and other related cumulative projects would increase the demand for school facilities within the Saugus and Hart School Districts.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
PARKS AND RECREATION			
Neighborhood and Community Parks			
Development of the proposed project would increase usage of neighborhood and community parks.	Potentially Significant Impact.	PR1 The project shall comply with the City Ordinance and Quimby Act in providing a minimum of 4.0 acres of parkland either through the dedication of park area, and/or payment of fees in-lieu of the dedicated parkland.	Less than Significant Impact.
Regional Parks			
Development of the proposed project would increase usage of regional parks.	Less Than Significant Impact.	No mitigation measures are required.	No applicable.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
State and Federal Recreation/Forests			
Development of the proposed project would increase usage of State and Federal recreation/forests.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
Trails			
Development of the proposed project would increase usage of local trails.	Less Than Significant Impact.	No mitigation measures are required.	Beneficial Impact.
Cumulative Impacts and Mitigation Measures			
Development associated with the proposed project and related cumulative projects would increase demands for parks and recreational facilities in the Santa Clarita Valley.	Less Than Significant Impact.	No mitigation measures are required.	Not applicable.
SOLID WASTE			
Construction-Related Impacts			
Construction of the proposed project would generate solid waste, which would incrementally decrease the capacity and lifespan of landfills.	Potentially Significant Impact.	SW1 The project applicant/individual project applications shall adhere to all source reduction programs for the disposal of construction materials and solid waste, as required by the City of Santa Clarita. Prior to issuance of building permits, a source reduction program shall be prepared and submitted to the Director of Field Services for the project to achieve a minimum 50 percent reduction in waste disposal rates, including green waste and construction debris.	Significant and Unavoidable Impact.
Operation-Related Impacts			
Operation of the proposed project would generate solid waste which would incrementally decrease the capacity and lifespan of landfills.	Potentially Significant Impact.	**General** SW2 The location of recycling/ separation areas shall be in close proximity to dumpsters for non-recyclables, elevators, loading docks, and primary internal and external access points.	Significant and Unavoidable Impact.

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		SW3 The location of recycling/ separation areas shall not be in conflict with any applicable federal, state or local laws relating to fire, building, access, transportation, circulation, or safety. SW4 The location of recycling/ separation areas shall be convenient for those persons who deposit, collect, and load the recyclable materials. SW5 Recycling containers/bins shall be located so that they do not block access to each other. SW6 Yard waste shall be reduced through the use of drought-tolerant and native vegetation in common area landscaping wherever possible. **Commercial** SW7 For commercial developments and residential buildings having five or more living units, no refuse collection or recycling areas shall be located between a street and the front of a building. SW8 On-site trash compactors shall be installed for non-recyclables in all restaurants/food services areas. **Residential** SW9 If possible, kitchen, garage or garden design shall accommodate trash and recyclable components to assist in the City's recycling efforts. SW10 Property buyers shall receive educational material on the City's waste management efforts.	

IMPACTS	LEVEL OF SIGNIFICANCE PRIOR TO MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		SW11 The applicant shall comply with all applicable state and Los Angeles County regulations and procedures for the use, collection and disposal of solid and hazardous wastes.	
Cumulative Impacts and Mitigation Measures			
Development associated with the proposed project and related cumulative projects would increase the demand for landfill disposal capacity.	Potentially Significant Impact.	Refer to Mitigation Measures SW1 through SW11. No additional mitigation measures are required.	Significant and Unavoidable Impact.

Section 3.0
PROJECT DESCRIPTION

3.0 PROJECT DESCRIPTION

3.1 PROJECT LOCATION

The City of Santa Clarita (City) is located 35 miles northwest of downtown Los Angeles between the Interstate 5 (I-5) and State Route 14 (SR-14) freeways, has an area of 47 square miles and a population of 165,000. The City encompasses the communities of Canyon Country, Newhall, Saugus and Valencia. Surrounding the City are various unincorporated areas of Los Angeles County and the Angeles National Forest; refer to *Exhibit 3-1*, *Regional Location Map*.

The approximately 30-acre project site is centrally located within the City, along the north side of Soledad Canyon Road adjacent to the Santa Clara River, between Bouquet Canyon Road and Golden Valley Road; refer to *Exhibit 3-2*, *Project Vicinity Map*. The site is triangular shaped with approximately 2,600 feet of frontage along Soledad Canyon Road. A 1,400-foot long by 10-foot wide drainage easement extends along portions of the front of the property parallel to Soledad Canyon Road.

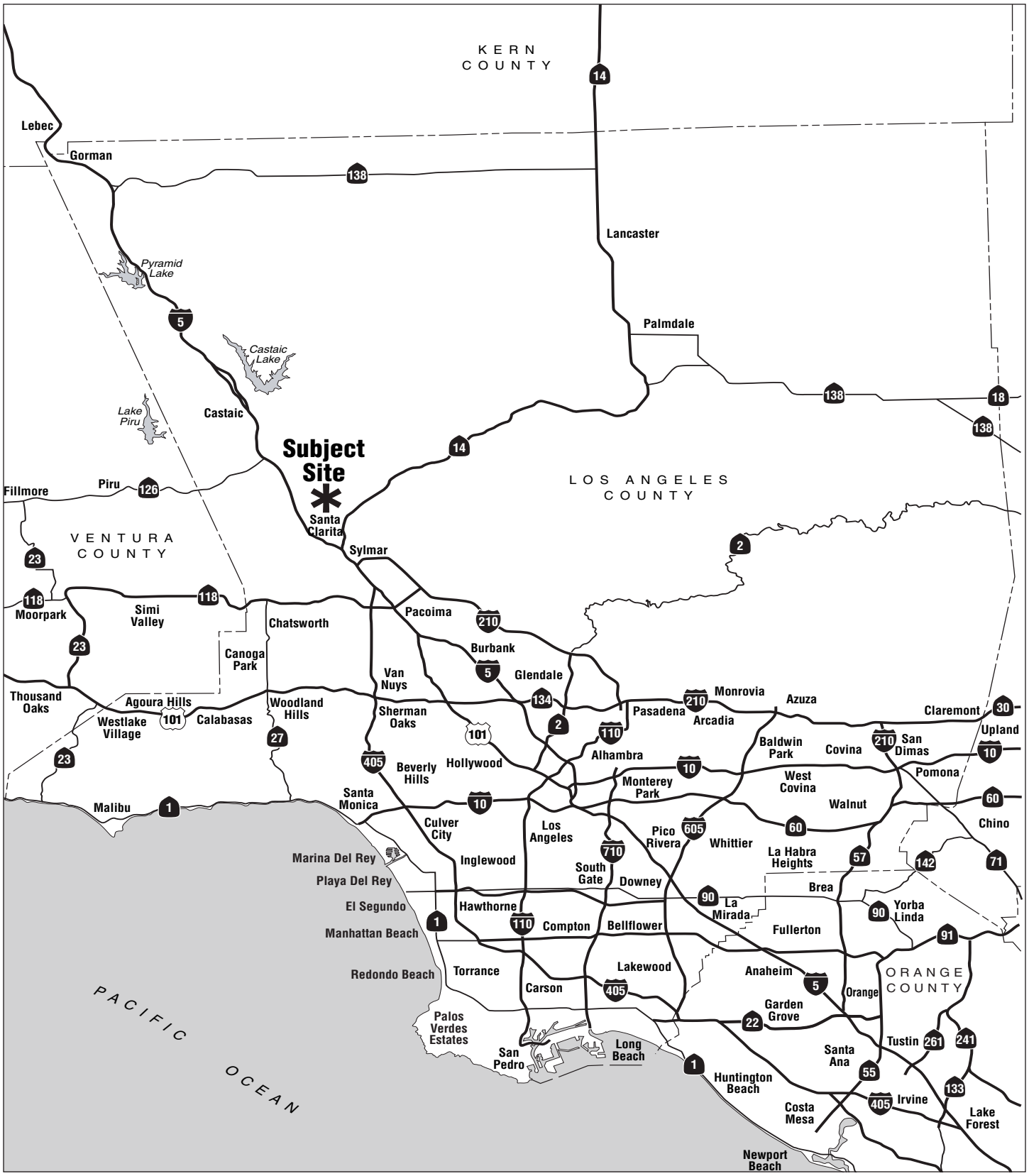
3.2 PROJECT SETTING

3.2.1 OVERVIEW OF EXISTING SITE CONDITIONS

The project site is currently vacant but has been rough graded pursuant to the recorded Parcel Map No. 20838. In 1992, the Planning Commission approved Tentative Parcel Map No. 20838 (Master Case No. 90-054) to divide the site into six parcels for future development. As part of the approval, a Mitigated Negative Declaration was completed as part of the *CEQA* review process. Prior to the tentative map approval, the site was used for agricultural purposes.

In summary, the approval allowed for the construction of the following completed improvements:

- Construction of a new street entrance (Gladding Way) with signal improvements;
- Grading to recompact unconsolidated soils and create site pads above high water flood levels;
- Constructing buried bank stabilization 40 feet wide and 2,600 feet long along the southern bank of the Santa Clara River; and
- Constructing a trail system along the northern and southern site boundary (Santa Clara River Trail and Soledad Canyon Road Class 1 trails).



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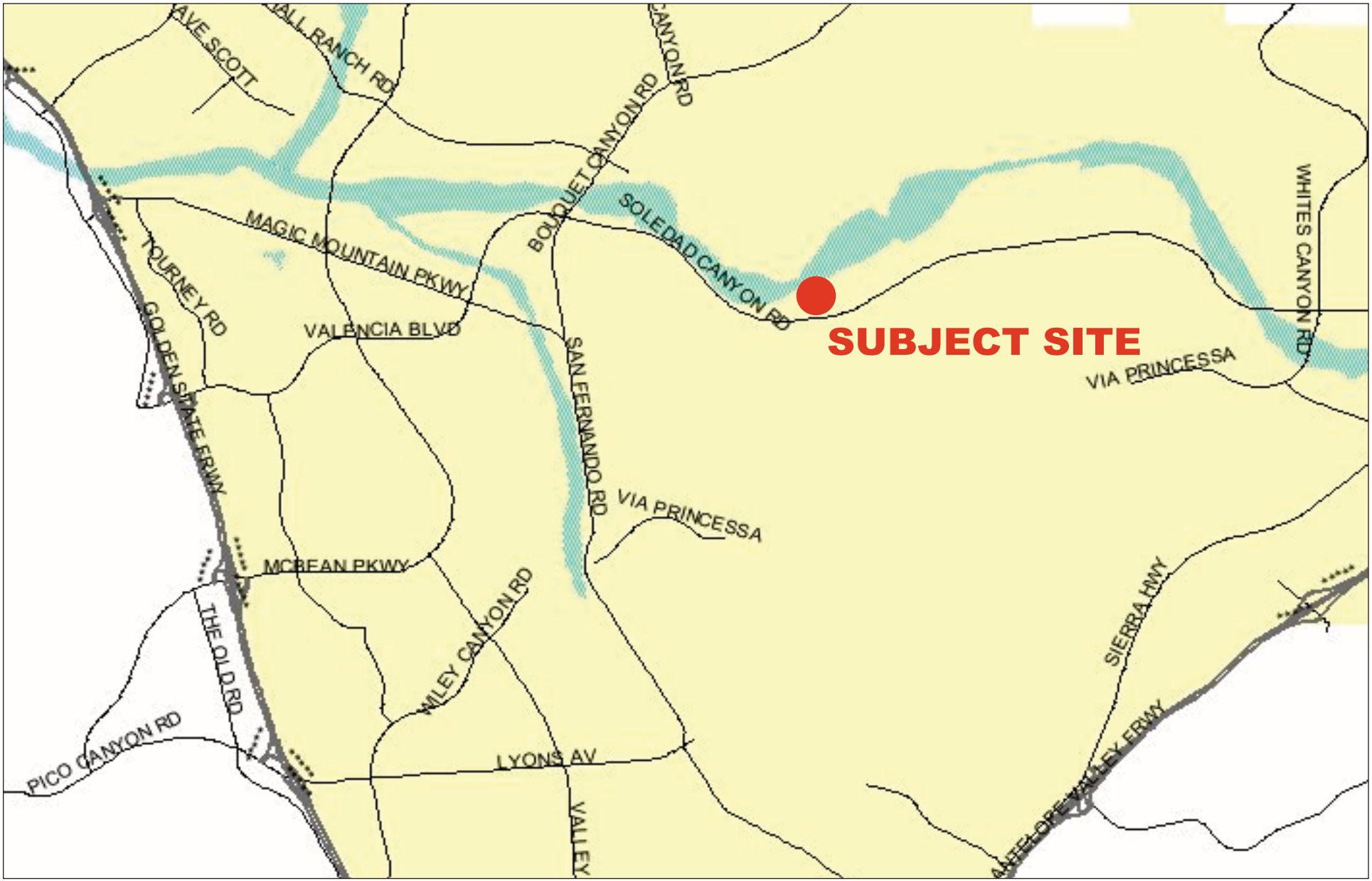
SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Regional Location Map

Exhibit 3-1



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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Project Vicinity Map

Exhibit 3-2

3.2.2 EXISTING GENERAL PLAN AND ZONING DESIGNATIONS

General Plan. The *City of Santa Clarita General Plan* designates the project site as Commercial Office. This category includes both commercial and commercial recreation businesses that offer goods for retail sale to the public and service and professional businesses housed in offices (accountants, architects, etc.). The project site is also located within the Valley Center Concept (VCC Overlay), which provides for densities of up to 50 dwelling units per acre.

Zoning. The zoning designation for the project site is Commercial Office with a Planned Development overlay (CO–PD). This zone is intended primarily for offices and professional services. While retail and service uses may be considered on the ground floor of such developments, the zone does not permit commercial centers or large single-tenant retail stores. The Planned Development overlay requires Planning Commission approval for any proposed development.

3.2.3 EXISTING SURROUNDING LAND USES

The areas adjacent to the project site include the following uses:

- North and West: Land uses north and west consist of the Santa Clara River, open space areas and single-family residential uses. In June 2005, the City Council approved the 695-acre Riverpark project directly across the project site along the northern side of the Santa Clara River. The project would include 1,089 single and multi-family residential units, a small commercial component, open space and recreation areas and the construction of a portion of the Cross Valley Connector highway.

- East: Land uses east consist of a mobile home park, soccer field, and a bowling alley.

- South: Soledad Canyon Road and commercial and industrial business are located to the south. Located approximately one-quarter mile to the west is a Metrolink Commuter Rail station, which connects the City to Downtown Los Angeles.

3.3 PROJECT OBJECTIVES

The *California Environmental Quality Act* (CEQA) requires that an Environmental Impact Report (EIR) include a statement of the objectives sought by a project applicant (Section 15123(b) of the *CEQA Guidelines*). The following are the applicant's stated objectives:

LAND USE PLANNING

- Create a new community that allows for residential, commercial, and recreational development.

- Provide new housing units to accommodate projected regional growth in a location, which is adjacent to existing and planned infrastructure, urban services, public transit, transportation corridors, and major employment areas.

- Provide development that is compatible with surrounding communities and land uses.

- Provide for the long-term maintenance of public infrastructure and recreational facilities including parks, trails, landscaping, storm drains, etc., that serve the project site.

- Create a small, safe, human scale, residential development enclave, by incorporating traffic calming measures and avoiding the use of long through streets, to foster closer-knit resident interaction, and to reduce and downplay the dominance of the automobile.

ECONOMIC

- Develop the site to include housing of varying types, accommodating a range of incomes, and commercial opportunities for the residents of the project as well as the local area.

- Provide neighborhood commercial element that would provide retail and services for local residents and area workers.

- Create an economically feasible project.

MOBILITY

- Provide a safe, efficient, and aesthetically attractive street system, which includes pedestrian walkways (sidewalks) with connection to adjoining regional transportation routes.

- Provide an efficient street circulation system that minimizes impacts on residential neighborhoods and environmentally sensitive areas.

- Takes advantage of the adjacent Metrolink commuter rail station and other transit services.

PARKS AND RECREATION

- Provide a range of active recreational opportunities, including a recreation center, tot lots, and access to the Santa Clara River Trail and the Soledad Canyon multi-purpose trail.

- Provide passive recreational opportunities such as pocket park areas and private patios.

RESOURCE CONSERVATION OBJECTIVES

- To provide a sensitive and protective interface with the Santa Clara River by utilizing appropriate landscape, bank stabilization, and water quality treatments.

- To foster the design and integration of a mutually beneficial relationship between the natural and built environments, sensitive land use transition treatments, attractive street scenes, and indigenous architectural and landscape design guidelines.

3.4 PROJECT CHARACTERISTICS

The proposed project will develop with residential, commercial, and recreational uses (common and private open space areas) and on-site private roads on approximately 30 acres; refer to *Exhibit 3-3*, *Soledad Village Site Plan*. The proposed project will require a General Plan Amendment and zone change from Commercial Office (CO) to Residential Medium High (RMH) and Commercial Neighborhood (CN). Refer to *Table 3-1*, *Residential Project Breakdown* for a comparison of the zoning regulations to the proposed project. The proposed project will maintain the Planned Development (PD) zone and Valley Center Concept (VCC Overlay). A Conditional Use Permit (CUP) will also be required, which will implement the Planned Development and allow for an increase of architectural treatment projections from 35 feet, up to 50 feet. Approval of the Tentative Tract Map (TTM No. 62322) is also required to subdivide the Project site for condominium uses, and the applicant is requesting to vacate Finch Court and portions of Gladding Way.

Table 3-1
Residential Project Breakdown

Requirement	RMH Zoning Requirements[1]	Proposed Development
Minimum Lot Area	5,000 square feet	30 acres total (29 acres for residential)
Minimum Lot Width	50 feet	2,600 feet
Density	20.0 units per gross acre or 580 units	15.1 units per gross acre or 437 units
Common Open Space	Minimum 200 square feet per ground floor units and 150 square feet per upper floor unit, or 85,400 square feet (2.0 acres). Should include private areas and common areas such as play areas, picnic areas or swimming pools	2.5 acres located in four main areas, includes picnic areas, recreation room, and swimming pool
Private Open Space		30,000 square feet total, or an average of 75 square feet per unit
Minimum Building Setbacks	Front – 15-20 feet Side – 5 feet Rear – 15 feet Between Buildings – 10 feet	Front – 15-20 feet Side – 5 feet Rear – 15 feet Between Buildings – 10 feet
Building Height	35 feet	25 to 50 feet
Parking Spaces	2 covered spaces per unit and 1 guest space per 2 units, or 874 covered spaces and 219 guest spaces	874 covered spaces and 220 guest spaces for a total of 1,094 parking spaces

Note:
1. The standards for RMH zoning are for single-family subdivision, whereas the proposed project is a common interest subdivision.

RESIDENTIAL

A total of 437 residential units will be developed including 275 attached townhomes and 162 triplexes. Two-story triplex units will be developed, with three different floor plans ranging from 1,303 square feet to 1,892 square feet. Two-story townhome units will be developed with four different floor plans ranging from 1,263 square feet to 1,513 square feet. The architectural style will incorporate elements of the California ranch style homes and the Santa Fe and Mediterranean-style houses that are compatible with existing residential development in the community. Approximately five percent of the housing will be designated for workforce housing, offering units at approximately 10 percent below market rates. A sound wall/berm combination will be constructed adjacent to the residential uses along Soledad Canyon Road; refer to Section 5.6, Noise.

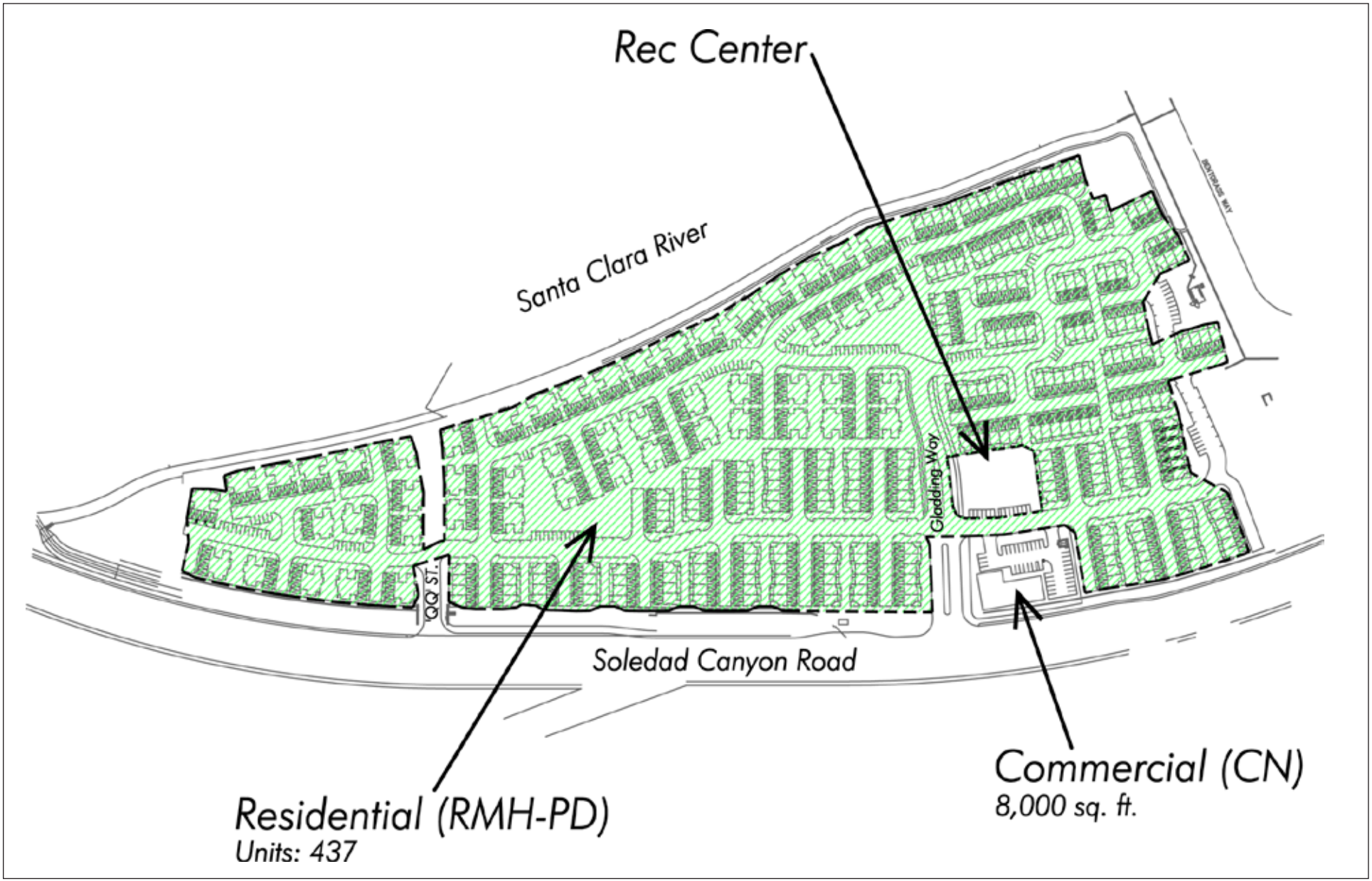
COMMERCIAL

An 8,000 square foot retail building will be located at the northeast corner of Gladding Way and Soledad Canyon Road. This will allow for a variety of smaller retail, eatery and service tenants, which is consistent with the CN zone. The architectural elements of the retail building will be consistent with the proposed design of the residential structures. As previously discussed a CUP will need to be approved by the Planning Commission to permit structures over 35 feet in height and up to 50 feet in height. The specific site plan, building elevations, number of parking spaces, landscaping and other improvements for the commercial site will be reviewed separately under the City's Development Review process.

RECREATIONAL/OPEN SPACE/PEDESTRIAN CIRCULATION

Active Recreational Facilities. A private recreational center will be located north of the commercial building. The facilities will include an approximately 1,200 square foot recreation building (including a community room, restrooms, and a pool equipment room), swimming pool, wading pool, spa, shade structures and a cabana. A private tot lot will also be provided for Soledad Village residents within the eastern portion of the project site. In addition, public pedestrian trails will extend along Soledad Canyon Road, and along the western and southern boundary of the project site along the Santa Clara River. Primary and secondary trails will also be provided throughout the project site. A pedestrian bridge will also be developed west of the project site. The pedestrian bridge will connect from a trail along the Santa Clara River, cross Soledad Canyon Road to the Metrolink Commuter Rail station.

Passive Recreational Facilities. A total of approximately 2.5 acres of open space will be provided, allowing for passive recreational areas throughout the project site. In addition, the project will be buffered from Soledad Canyon Road by a minimum 15-foot wide landscaped setback area. In addition, a sound wall will be constructed along the residential components of the project.



Source: Newhall Land and Farming, October 2005.

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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Soledad Village Site Plan

Exhibit 3-3

CIRCULATION/PARKING

Main access to the project site and commercial pad will be provided via Gladding Way off of Soledad Canyon Road. This intersection is already improved with a traffic signal. When entering the project site, Gladding Way will be a four-lane divided roadway, which will merge into a two-lane roadway with smaller roadways and driveways extending east and west. Secondary access will be provided via QQ Street, also off of Soledad Canyon Road. Both entrances will include approximately 300-foot right turning pockets (deceleration lanes). A total of 1,094 parking spaces will be provided with 874 covered parking spaces and 220 on-street (both 90 degree and parallel) guest parking spaces. Additional parking spaces will be provided for the commercial site, based on the type of use

WATER QUALITY PROJECT DESIGN FEATURES

Water Quality Project Design Features (PDFs) have been incorporated into the project design. In summary they include the use of vegetated swales, bioretention and catch basin inserts. A more detailed discussion of the project's water quality impacts can be found in Section 5.7, Hydrology/Drainage of this EIR).

3.5 PROJECT PHASING

The Soledad Village project will be developed in two phases. Phase I will begin in April 2006 and will consist of construction of approximately half of the residential units and the commercial component, with completion anticipated by the winter of 2007. The second half of the residential units will be constructed beginning in February 2007, with completion anticipated by Winter of 2008.

3.6 PROJECT AGREEMENTS, PERMITS, AND APPROVALS

3.6.1 CITY OF SANTA CLARITA

As the public agency with the principal responsibility of approving the project, the City will serve as the lead agency for the purposes of CEQA. Implementation of the Soledad Village project is contingent upon approval of the following entitlements:

- A certified EIR required by CEQA, as described in Section 1.0, Introduction and Purpose;
- Tentative Tract Map to allow for subdividing the Project site for condominium purposes;
- General plan amendment from commercial office to residential medium high and commercial neighborhood. The project site is located within the Valley Center Concept Overlay, which will be maintained under the proposed project.

- Zone change from CO—PD (commercial office—planned development) to RMH –PD (residential medium-high density-planned development) and CN-PD (commercial neighborhood-planned development);
- Conditional Use Permit to allow for implementation of the PD and for building heights in excess of 35 feet and up to 50 feet in height;
- Vacate Finch Court and portions of Gladding Way; and
- Any other discretionary approval to implement the Soledad Village project.

3.6.2 STATE OF CALIFORNIA AND OTHER REGIONAL AGENCIES

In addition to the lead agency, there are also local, State, and Federal responsible agencies that may have discretionary authority over specific aspects of the project. The responsible agencies may rely on this EIR when acting on those aspects that require their approval. The following agencies may utilize this document in their reviews, although this list is not necessarily exhaustive.

- Army Corps of Engineers;
- California Department of Fish and Game;
- California Department of Health Services;
- California Department of Transportation (Caltrans);
- California Water Resources Control Board, Los Angeles Region;
- Castaic Lake Water Agency, Santa Clarita Water Division;
- Los Angeles County Fire Department;
- Los Angeles County Sanitation District;
- Los Angeles Regional Water Quality Control Board;
- Office of Emergency Services;
- Regional Water Quality Control Board, Region 4;
- South Coast Air Quality Management District; and
- Southern California Association of Governments.

Section 4.0
BASIS OF CUMULATIVE ANALYSIS

4.0 BASIS OF CUMULATIVE ANALYSIS

Section 15355 of the *CEQA Guidelines* provides the following definition of cumulative impacts: *"Cumulative impacts refers to two or more individual effects which, when considered together, are considerable, or which compound or increase other environmental impacts."* Pursuant to Section 15130(a) of the aforementioned Guidelines, cumulative impacts of a project shall be discussed in an EIR when the project's effect is cumulatively considerable, as defined in Section 15065(a) of the *CEQA Guidelines*. The Initial Study Checklist provided as part of Appendix A indicates that the proposed project may yield potentially significant cumulative effects. As a result, this EIR provides a cumulative impact assessment for each applicable environmental issue in each respective section, and does so to a degree that reflects each impact's severity and likelihood of occurrence.

As indicated above, a cumulative impact involves two or more individual effects. Per *CEQA Guidelines* Section 15130, the discussion of cumulative impacts shall be guided by the standards of practicality and reasonableness. Per *CEQA Guidelines* Section 15130(b), the following elements are necessary in 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;

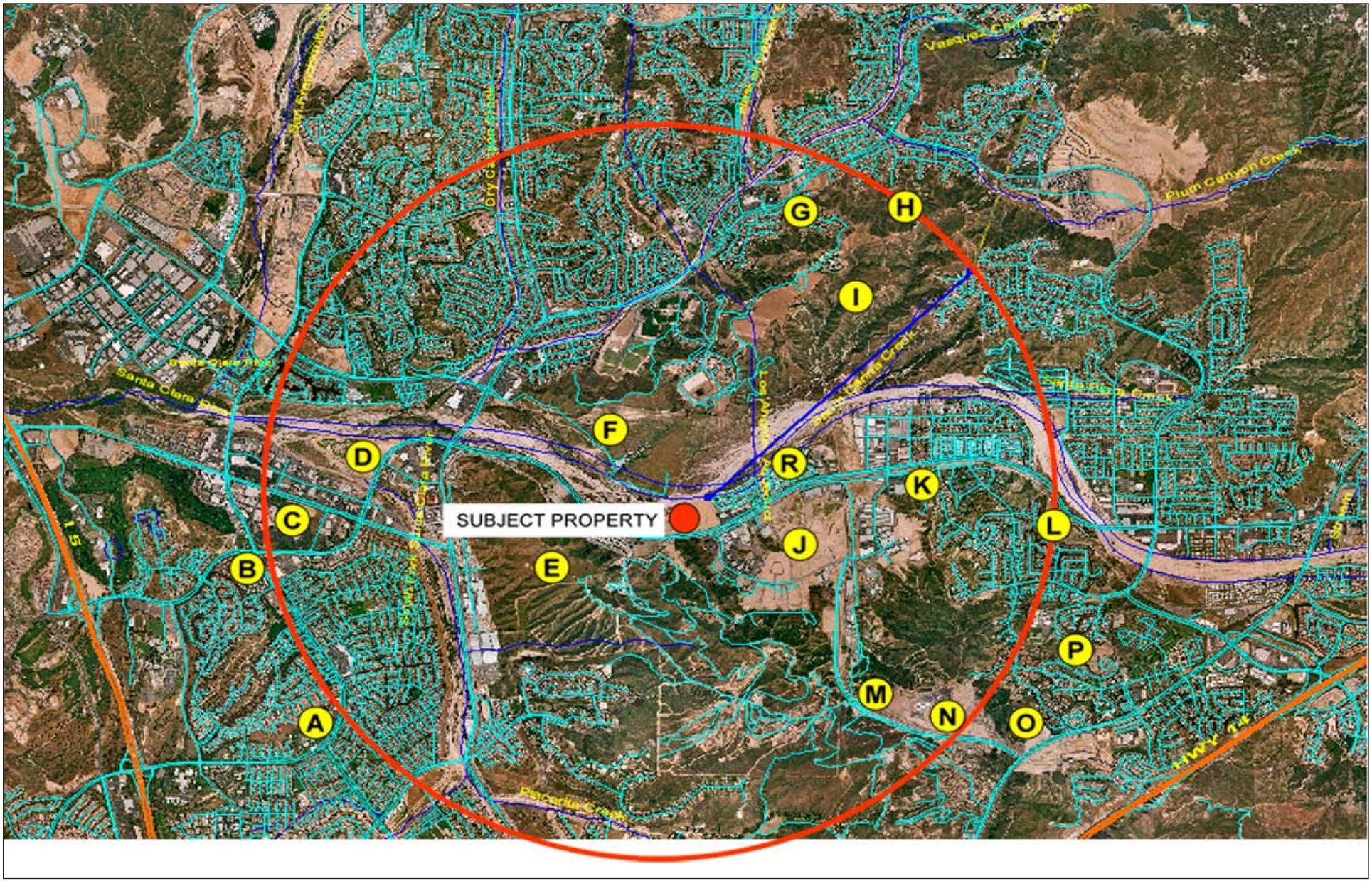
2. A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

3. A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects of a proposed project.

Table 4-1, *Cumulative Projects List*, identifies related projects and other possible development in the area determined as having the potential to interact with the proposed project to the extent that a significant cumulative effect may occur; refer to *Exhibit 4-1*, *Cumulative Project Locations*, for a map illustrating the locations of related projects. Information integral to the identification process was obtained from the City of Santa Clarita and County of Los Angeles. The resulting related projects include primarily only those determined to be at least indirectly capable of interacting with the proposed project.

Table 4-1
Cumulative Projects List

Name and/or Location	Description
A) MC 04-325 -- Henry Mayo Newhall Memorial Hospital Master Plan	600,000 square feet of medical office uses.
B) Facey Medical Building	79,000 square feet of medical office uses.
C) Valencia Town Center Expansion	600,000 square feet of retail uses.
D) MC 02-022 Pony League (auto sales)	115,000 square feet of retail uses.
E) TR 51599 -- Whittaker Bermite	1,648 single-family residential units, 1,560 multi-family residential units, 538,000 square feet of retail uses, 971,000 square feet of office uses, 973,000 square feet of industrial uses, 20 acres of school uses, and 30 acres of park uses.
F) TR 53425 – Riverpark	432 single-family residential units, 657 multi-family residential units, 16,000 square feet of retail uses, and 29 acres of park uses.
G) TR 54349 – Sonrisa Residential	35 multi-family residential units.
H) TR 31803 -- Plum Canyon	498 single-family residential units.
I) TR 60258 -- Keystone Project	96 single-family residential units, 883 multi-family residential units, 21 acres of school uses, and 4 acres of park uses.
J) TR 42670 – Centerpoint Business Park (portions that have not been completed)	560,000 square feet of retail uses, 40,000 square feet of office uses, and 400,000 square feet of industrial uses.
K) MC 04-358 -- Golden Triangle	180 multi-family residential units and 10,000 square feet of retail uses.
L) TR 62343 -- Soledad Circle Estates	150 multi-family residential units.
M) Golden Valley High School	12 acres of school uses.
N) TR 61811 -- Centex Homes	166 single-family residential units.
O) TR 53419 -- Valle de Oro Residential	111 multi-family residential units.
P) TR 52385 – Friendly Valley Association 11	44 single-family residential units.
R) MC 02-273 -- Aspen Investment Co.	109,000 square feet of industrial uses.



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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Cumulative Project Locations

Exhibit 4-1

Section 5.0
ENVIRONMENTAL ANALYSIS

Section 5.1
LAND USE

5.0 ENVIRONMENTAL ANALYSIS

5.1 LAND USE

The purpose of this section is to identify the existing land use conditions, analyze proposed project compatibility with existing uses and consistency with relevant planning policies and to recommend mitigation measures to avoid or lessen the significance of potential impacts. Information presented in this section is based upon the *City of Santa Clarita General Plan* and *Unified Development Code* (UDC), as well as the Southern California Association of Governments' (SCAG) *Regional Comprehensive Plan and Guide Policies* and strategies of the SCAG *Compass Growth Visioning Program*. This section identifies on-site and surrounding land use conditions and land use policy requirements set forth by the City of Santa Clarita.

5.1.1 ENVIRONMENTAL SETTING

ON-SITE LAND USES

The Soledad Village Project Site encompasses approximately 30 acres of land located immediately south of, and adjacent to, the Santa Clara River. The project site is contiguous to and north of Soledad Canyon Road, east of Bouquet Canyon Road, and west of Golden Valley Road. The project site is currently vacant but has been rough graded pursuant to the recorded Parcel Map No. 20838. In 1992, the Planning Commission approved Tentative Parcel Map No. 20838 (Master Case No. 90-054) to divide the site into six parcels and permitted the grading and construction of flood protection facilities to allow for future development. As part of the approval, a Mitigated Negative Declaration was completed in compliance with CEQA. Prior to the tentative map approval, the site was used for agricultural purposes.

SURROUNDING LAND USES

The areas adjacent to the project site include the following uses:

- North and West: Land uses north and west consist of the Santa Clara River, open space areas and single-family residential uses. In June 2005, the City Council approved the 695-acre Riverpark project located directly north of the project site. The project would include 1,089 single and multi-family residential units, a small commercial component, open space and recreation areas and the construction of a portion of the Cross Valley Connector highway.
- East: Land uses east consist of a mobile home park, soccer field, and a bowling alley.
- South: Soledad Canyon Road and commercial and industrial business are located to the south. Located approximately one-quarter mile to the west is a Metrolink Commuter rail station, which connects Santa Clarita to Downtown Los Angeles.

Exhibit 5.1-1, *Surrounding Land Uses*, illustrates the uses described above.

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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Surrounding Land Uses

Exhibit 5.1-1

RELEVANT PLANNING DOCUMENTS

City of Santa Clarita General Plan

In the late 1980s, the City of Santa Clarita undertook preparation of a general plan for future development of the City. The *City of Santa Clarita General Plan* (General Plan) comprises goals, objectives, and policies addressing a variety of issues affecting future development of the City. The *General Plan* is a comprehensive document with seven elements that address mandatory issues in accordance with State law. These elements are Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. The *General Plan* also contains six additional, elements: Community Design; Economic Development/Community Revitalization; Human Resources; Public Services, Facilities, and Utilities; Parks and Recreation; and Air Quality. The *General Plan* was adopted on June 26, 1991 by City Council Resolution 91-98.

Land Use Element

The Land Use Element is a required element of the General Plan and "*… plays the central role in correlating all land use issues into a set of development policies. While all General Plan elements carry equal weight, the Land Use Element is often perceived as the single most representative element of the General Plan. The element serves as a guide for future development, indicating the location and extent of existing and planned land uses.*" [1]

The Land Use policies set forth goals, policies, and objectives that cover a wide range of issues, including slopes, preservation of ridgelines (Ridgeline Preservation and Hillside Preservation Ordinance), infrastructure, water, seismic and flood hazards, the City's Oak Tree Preservation Ordinance, and other constraints on development. These goals and policies are listed on pages L-22 to L-34 of the *General Plan*.

In addition to the land use categories that describe the type, intensity, and density of development throughout the planning area, the Land Use Element contains overlay designations, which identify additional potential for development and/or preservation. The project site contains a portion of Significant Ecological Area (SEA) No. 23, the Santa Clara River SEA, which is the largest SEA in the Santa Clarita Valley. The General Plan Land Use Element indicates that the Significant Ecological Area (SEA) Overlay designation: *"…designates areas of prime importance to the City and the Valley for protection and preservation. Development in these areas is severely limited. Specific environmental studies must be performed to assess the potential for damage or destruction of an SEA prior to approval of any plans for development in an area identified with an SEA Overlay."* In approving Parcel Map 20838, the City of Santa Clarita permitted the construction of bank stabilization and grading within the SEA. This work has been completed in accordance with that approval. The project proposes no further development or encroachment into the SEA.

[1] City of Santa Clarita. *Santa Clarita General Plan – Land Use Element*. June 25, 1991. Page L-1.

The Santa Clarita General Plan Land Use Element indicates that the proposed project is located within the Valley Center Concept ("VCC") overlay area of the City's *General Plan*, which specifically outlines the type and intensity of development in the core of the City of Santa Clarita. The VCC component represents the City's desire for designating that central portion of the City that has the potential for creating a Valley-wide focal point. The purpose of the overlay is to permit and encourage master planning at a more detailed level than that provided in the *General Plan*, and provides for a wide range of activities. Residential densities of up to 50 units per acre should be considered in the VCC area.

The *General Plan* land use and zoning designations for the project vicinity are shown in *Exhibit 5.1-2*, *Existing General Plan and Zoning Map*.

Housing Element

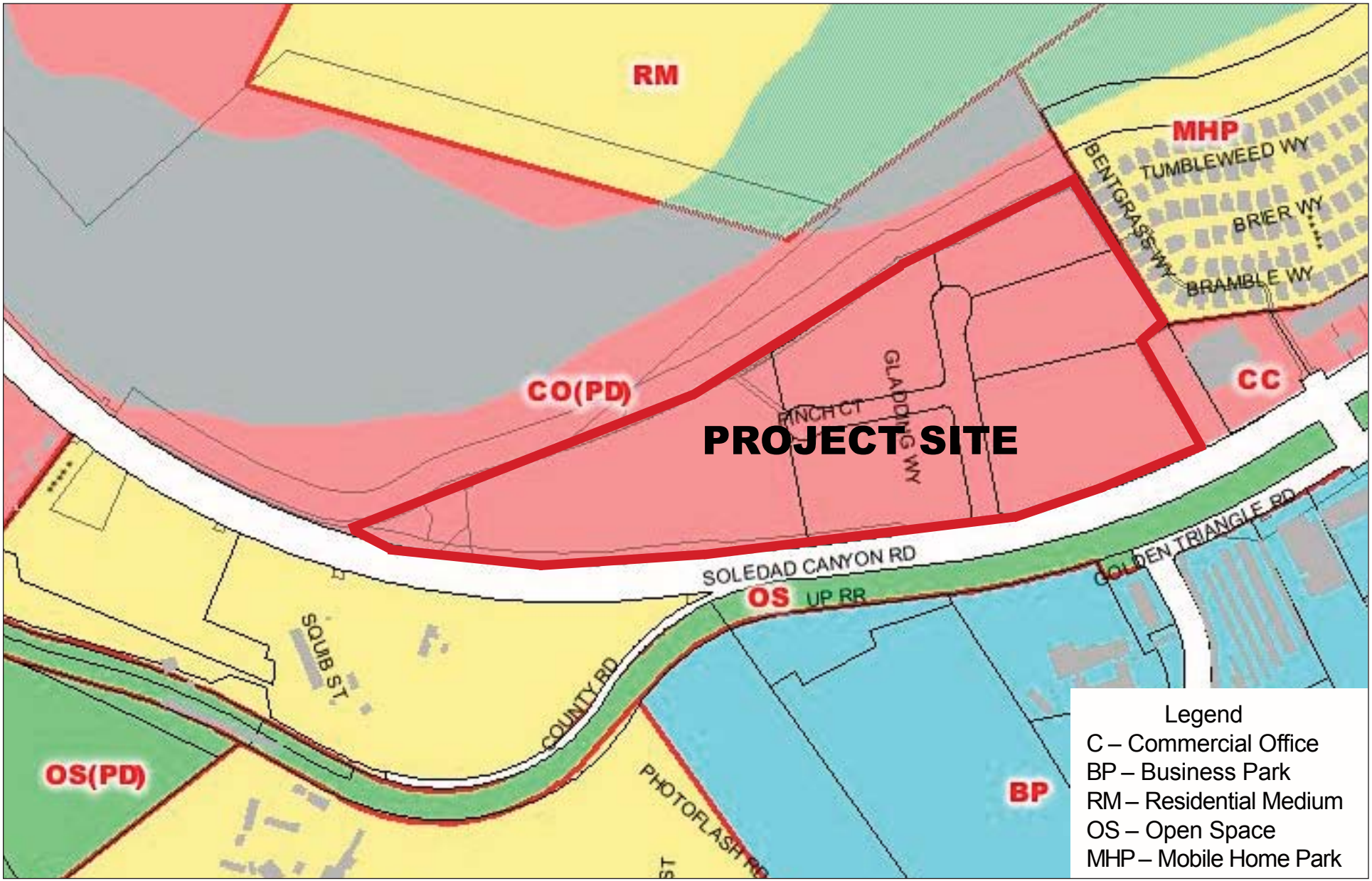
The Housing Element is a required element of the City's *General Plan* and was completed and certified by the State of California in May 2004. The Housing Element establishes goals and policies to guide officials in making decisions to address local housing needs within a regional context. State law requires preparation of a housing element to ensure that housing opportunities exist for existing and future residents at all income levels. Requirements include assessment of existing and projected housing need, identification of community goals, and statement of objectives and policies as they relate to housing.

The Housing Element contains the following main components: (1) regional housing needs assessment; (2) vacant land inventory; (3) housing constraints; (4) goals and policies; (5) housing programs and quantified objectives; and (6) an implementation program. Additionally, the element addresses special housing needs for specific populations such as the elderly, the disabled, female heads of households, and the homeless.

The Housing Element also includes an inventory of sites available and suitable for residential developments within the City limits, and the project site was identified within this inventory. Additionally, the Housing Element (page H-69) in summary indicates that the site is well suited for higher density development based on its flat topography and transit accessibility.

Community Design Element

The Community Design Element, although not a required element of the City's *General Plan*, serves as a comprehensive guide for local planners for immediate improvements and long-range developments within the planning area. The element is a tool for the improvement and maintenance of the visual and aesthetic quality of the City of Santa Clarita and the entire planning area by identifying areas of concern as well as areas of exemplary aesthetic value. The Community Design Element will assist in guiding growth of future development to achieve the visual integrity of the City and the planning area.



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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Existing General Plan and Zoning Map

Exhibit 5.1-2

Economic Development/Community Revitalization Element

The Economic Development/Community Revitalization Element, although not a required element of the City's *General Plan*, addresses the planning factors that improve or retard the City's ability to meet economic development objectives. These include such issues as City identity; aesthetic quality of the City; cost and availability of infrastructure and public services; availability of a wide range of housing types and prices; and availability of supporting commercial uses such as shopping, hotels, restaurants, and the like. Also important are factors over which the City has the most direct control. These would include City environmental and permitting processes, and the fees and exactions to which businesses and employees that reside in the City will be subject.

Circulation Element

The Circulation Element is a required element of the City's *General Plan* and serves as a comprehensive plan for vehicular and non-vehicular circulation and transportation within the City of Santa Clarita and its planning area. The element is required by Government Code Section 65302(b), which dictates that "*the General Plan shall have a circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the land use element of the General Plan*." These subjects are all contained within the circulation element with the exception of public utilities and facilities, which are addressed in the City's optional Public Services, Facilities, and Utilities Element.

Human Resources Element

The Human Resources Element, although not a required element of the City's *General Plan*, provides a comprehensive review of existing facilities and identifies the need to create or expand programs to serve the needs of the Santa Clarita planning area. The Human Resources Element serves as a guide to identify existing services and programs and/or identify the need for new services for all members of the community.

Public Services, Facilities, and Utilities Element

The Public Services, Facilities, and Utilities Element, although not a required element of the City's *General Plan*, is a comprehensive review of the existing services and facilities within the City of Santa Clarita. The element identifies and evaluates existing infrastructure, as well as the needs and concerns that are associated with the current and projected population. The element applies to public services and utilities when not preempted by California Public Utilities Commission regulations.

Parks and Recreation Element

The Parks and Recreation Element is a required element of the City's *General Plan* usually combined with Open Space. However, the City's *General Plan* has it as a separate element, which is intended to serve to aid the City Council, Planning Commission, and planning staff, the Parks and Recreation Commission, and Parks and Recreation staff in providing a cost-

effective parks and recreation system to serve the needs of the current and future residents of the City. The element is tailored to the unique character of Santa Clarita and to the needs and desires of its citizens. It provides a comprehensive review of existing park and recreation facilities and future opportunities for developing a park system that will serve the ultimate population of Santa Clarita and the entire planning area.

Open Space and Conservation Element

The Open Space and Conservation Element represents the combination of two required elements of the *General Plan*: the Open Space Element and the Conservation Element. These two elements are integrally related to one another and frequently overlap; therefore, they have been combined in the *General Plan*. The Open Space and Conservation Element covers a wide variety of natural resources in the Santa Clarita Valley. These resources can be broken down into eight categories; open space, biological resources, soils, mineral resources, water resources, energy conservation, cultural resources, and historical resources. From the inventory of these resources, the City can focus appropriate actions and efforts on the preservation and conservation of open space.

Air Quality Element

The adopted 1989 regional *South Coast Air Quality Management Plan* (AQMP) identifies many measures for controlling air pollution, including some that are directed at local governments for implementation. The AQMP requires that each jurisdiction in the South Coast Air Basin incorporate the AQMP goals, policies, and implementation measures intended for local implementation in its *General Plan*. The Air Quality Element describes the local and regional setting, conditions, and environment that affect the air quality in the Santa Clarita Valley.

Noise Element

The Noise Element is a required element of the *General Plan* that must identify and appraise noise problems in the community. It also must recognize the guidelines adopted by the State Office of Noise Control, as well as analyze and quantify the current and projected noise levels for all of the following: highways and freeways; primary arterials and major local streets; passenger and freight on-line railroad operations and ground rapid transit systems; commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflight, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation; local industrial plans, including, but not limited to, railroad classification yards; and other ground stationary noise sources identified by local agencies as contributing to the community noise environment.

Safety Element

The Safety Element is a required element of the City's *General Plan* that addresses seismically induced geologic hazards within the City's planning area. The following hazards were considered in the evaluation: faults, seismically induced groundshaking, ground surface rupture, liquefaction, slope stability and landslides, tsunamis, and seiche.

Unified Development Code

The *Unified Development Code* (UDC) establishes standards for zoning, subdivisions, and grading. The UDC sets forth the details and standards for each of the zone designations.

Zoning

The Santa Clarita zoning code provides a precise guide for the physical development of the City. The project site is zoned Commercial Office (CO) with a Planned Development (PD) overlay. The Commercial Office district is intended primarily for offices and professional services. Retail and service uses may be considered on the ground floor of such development; however, this shall not be construed to permit commercial centers or large single-tenant retail stores. Commercial office developments are generally located in centers or as individual buildings along major and secondary highways. The Commercial Office district allows for a maximum floor area ratio of 1.25:1, and permitted uses include a wide range of commercial office and retail activities.

The Planned Development (PD) overlay zone regulations are intended (1) to facilitate development of areas designated on the zoning map or proposed for rezoning by permitting greater flexibility and, consequently, more creative and imaginative designs for the development of such areas than generally is possible under conventional zoning regulations; (2) to promote more economical and efficient use of the land while providing a harmonious variety of choices, a higher level of amenities and preservation of natural and scenic qualities of open spaces; and (3) ensure that development substantially conforms to plans and exhibits submitted by the applicant for a zone change in instances where such plans and exhibits constitute a critical factor in the decision to rezone. Permitted uses within the Planned Development overlay zone include planned developments, subject to the issuance of a conditional use permit, as well as permitted, minor, and conditional uses of the underlying zone, subject to the issuance of a conditional use permit.

Subdivision

The State Subdivision Map Act, in concert with the City's adopted *Subdivision Ordinance*, establishes the requirements for review and approval of the subdivision of land within the City. A tentative tract map is required for any subdivision of land consisting of more than four lots for residential purposes.

Grading

Both the UDC (UDC Section 17.29) and the *Ridgeline Preservation and Hillside Development Ordinance* (UDC Section 17.80), establish grading procedures for development within the City. The purpose of these regulations is to ensure that developments, grading, and landscaping are sensitive to the natural topography and major landforms. Because the project site does not contain any slope areas with grades greater than 10 percent, the *Ridgeline Preservation and Hillside Development Ordinance* is not applicable to the site.

Southern California Association of Governments (SCAG) Regional Plans and Policies

SCAG Regional Comprehensive Plan and Guide

In addition to locally adopted plans, ordinances, and regulations, a number of regional plans also influence land use planning in the City of Santa Clarita. Regional planning agencies such as the Southern California Association of Governments (SCAG) recognize that planning issues extend beyond the boundaries of individual cities. Efforts to address regional planning issues such as affordable housing, transportation, and air pollution have resulted in the adoption of regional plans that affect the City of Santa Clarita and the County of Los Angeles.

SCAG has evolved as the largest council of governments in the United States, functioning as the Metropolitan Planning Organization for six counties (Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial) and including 184 cities. The region encompasses a population exceeding 15 million persons in an area of more than 38,000 square miles.

As the designated Metropolitan Planning Organization, the Federal government mandates SCAG to research and draw up plans for transportation, growth management, hazardous waste management, and air quality. These mandates led SCAG to prepare comprehensive regional plans to address these concerns.

SCAG is responsible for the maintenance of a continuous, comprehensive, and coordinated planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program. SCAG is responsible for the development of demographic projections, and is also responsible for development of the integrated land use, housing, employment, transportation programs, measures, and strategies portions of the *South Coast Air Quality Management Plan* (AQMP). The following regional plans affect planning in the City of Santa Clarita.

- Regional Transportation Plan (2004 RTP). The 2004 RTP represents an assessment of the overall growth and economic trends in the SCAG Region for the years 2004 through 2025 and provides strategic direction for investments during this time period. The Plan is intended to serve as a catalyst for linking the various transportation agency investments within the SCAG Region to provide a cohesive, balanced, and multimodal transportation system that addresses regional goals and is consistent with Federal and State requirements.

- South Coast Air Quality Management Plan (2003 AQMP). The South Coast Air Quality Management District (SCAQMD) has prepared multiple AQMPs to accomplish the goal of an annual five-percent reduction in air pollutant emissions. The most recent AQMP was published in 2003. The 2003 AQMP was prepared and adopted by the SCAQMD in August 1, 2003. The 2003 AQMP updates the attainment demonstration for the Federal standards for ozone and particulate matter (PM_{10}); replaces the 1997 attainment demonstration for the Federal carbon monoxide (CO)

standard and provides a basis for a maintenance plan for CO for the future; and updates the maintenance plan for the federal nitrogen dioxide (NO_2) standard that the South Coast Air Basin has met since 1992.

This revision to the AQMP also addresses several State and Federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2003 AQMP is consistent with and builds upon the approaches taken in the 1997 AQMP and the 1999 Amendments to the *Ozone State Implementation Plan* (SIP) for the South Coast Air Basin for the attainment of the federal ozone air quality standard. However, this revision points to the urgent need for additional emission reductions (beyond those incorporated in the 1997/99 Plan) from all sources, specifically those under the jurisdiction of the California Air Resources Board and the United States Environmental Protection Agency (EPA), which account for approximately 80 percent of the ozone precursor emissions in the South Coast Air Basin.

SCAG Southern California Compass Growth Visioning Program

In an effort to maintain the region's prosperity, continue to expand its economy, house its residents affordably, and protect its environmental setting as a whole, SCAG has brought together the goals and ideas of interdependent subregions, counties, cities, communities and neighborhoods. This process is called Southern California Compass, and the result is a shared "Growth Vision" for Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. SCAG began Compass in 2002, spearheaded by the Growth Visioning Subcommittee, which consists of civic leaders from throughout the region. Creating a shared regional vision is an effective way to begin addressing issues such as congestion and housing availability that may threaten the region's livability.

In the short term, SCAG's growth visioning process has found common ground in a preferred vision for growth and has incorporated it into immediate housing allocation and transportation planning decisions. In the long term, the Growth Vision is a framework that will help local jurisdictions address growth management cooperatively and will help coordinate regional land use and transportation planning. The result of this growth visioning effort is SCAG's Growth Vision Report (GVR).

The Growth Vision Report presents the comprehensive Growth Vision for the six-county SCAG region as well as the achievements of the Compass process. It details the evolution of the draft vision, from the study of emerging growth trends to the effects of different growth patterns on transportation systems, land consumption, and other factors. The Growth Vision Report concludes with a series of implementation steps – including tools for each guiding principle and overarching implementation strategies – that will guide Southern California toward its envisioned future.

Federal Plans and Policies

Clean Air Act

The Federal Clean Air Act was enacted to protect and enhance air quality and promote the health and welfare of the public. The EPA has established ambient air quality standards for certain criteria pollutants, which are generally implemented by state and local agencies. (Refer to Section 5.5, Air Quality)

Clean Water Act (Section 404)

Section 404(b) of the Federal Clean Water Act was established to preserve water quality and to discourage the alteration or destruction of wetlands. This act requires that the U.S. Army Corps of Engineers (USACE) evaluate the impacts of discharge of dredged or fill materials into any water of the United States. The USACE Wetlands policy requires the implementation of mitigation measures for any impacts on designated wetland areas. (Refer to Section 5.7, Biological Resources)

National Pollutant Discharge Elimination System Permit Program

The National Pollutant Discharge Elimination System Permit Program (NPDES program) requires industrial and municipal dischargers to obtain permits from the appropriate Regional Water Quality Control Board (i.e., the Los Angeles Regional Water Quality Control Board). Point-source dischargers of pollutants into surface waters are required to obtain a National Pollutant Discharge Elimination System permit. Other dischargers, such as those affecting groundwater or from nonpoint sources, are required to file a Report of Waste Discharge. For specified situations, some permits may be waived and some discharge activities may be handled through enrollment in an existing general permit. The existing NPDES (Phase I) stormwater program requires municipalities serving greater than 100,000 persons to obtain a NPDES stormwater permit for construction projects greater than five acres in size. Proposed NPDES stormwater regulations (Phase II) expand this existing national program to smaller municipalities with populations of 10,000 persons or more and to construction sites that disturb greater than one acre. (Refer to Section 5.11, Hydrology and Drainage)

5.1.2 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix A of this EIR. The Initial Study includes questions relating to land use. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

- Disrupt or physically divide an established community including a low-income or minority community (refer to Section 9.0, Effects Found Not to Be Significant);

- Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or

- Conflict with any applicable habitat conservation plan or natural community conservation plan, and/or policies by agencies with jurisdiction over the project (refer to Section 9.0, Effects Found Not to Be Significant).

For the purposes of this impact analysis, a significant impact would occur if implementation of the proposed project would result in inconsistencies or conflicts with the adopted goals and policies of the *City of Santa Clarita General Plan*, applicable rules and regulations of the UDC, and SCAG *Regional Comprehensive Plan and Guide* and *Growth Visioning Program*. Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.1.3 IMPACTS AND MITIGATION MEASURES

PROPOSED PROJECT REQUESTED ENTITLEMENTS AND APPROVALS

The project applicant is requesting the approval of the following discretionary applications or actions from the City of Santa Clarita (Master Case N. 04-444):

- General Plan Amendment and Zone Change. Approval of a General Plan Amendment (GPA No. 04-006) and Zone Change (ZC No. 04-004) from the current Commercial Office with Planned Development and Valley Center Concept Overlay (CO-PD-VCC) designation to Residential Medium High (RMH-PD-VCC) and Commercial Neighborhood (CN-PD-VCC) is required to allow for the development of multi-family residential units and limited neighborhood-serving commercial uses at the project site.

- Conditional Use Permit. Approval of a Conditional Use Permit is required, which will implement the Planned Development and allow for residential building heights up to 50 feet within the RMH district.

- Tentative Tract Map 62322. Approval of the Tentative Tract Map (TTM No. 62322) is required for the development of 30 acres of land for up to 437 for-sale multi-family residential dwelling units, a maximum of 8,000 square feet of commercial uses, associated recreation uses (common and private open space areas), and on-site private roads.

- Vacate Finch Court and portions of Gladding Way.

Analysis of these applications is discussed below with respect to land use. However, specific impacts with regard to aesthetics, traffic and circulation, noise, air quality, and other issues are discussed in detail within their respective sections of the EIR.

CONSISTENCY CITY LAND USE PLANS, POLICIES, AND ORDINANCES

Santa Clarita General Plan

- ***THE PROPOSED PROJECT WOULD BE CONSISTENT WITH THE APPLICABLE GOALS AND POLICIES OF THE CITY OF SANTA CLARITA GENERAL PLAN.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: The *City of Santa Clarita General Plan* is the primary policy-planning document that guides land uses in the City. If the proposed project is approved, the land use designations for the site would be Residential Medium High (RMH) and Commercial Neighborhood (CN). The RMH and CN categories would become the land use designations for the project site per the requested General Plan Amendment and Zone Change, which is proposed concurrent with approval of the proposed project. The proposed project will maintain the Planned Development (PD) zone and Valley Center Concept (VCC Overlay). With approval of the General Plan Amendment and Zone Change, the proposed project would be consistent with the land use plan contained in the *General Plan*.

The *City of Santa Clarita General Plan* contains numerous goals and policies to guide development and uses planned within the City. See *Table 5.1-1*, *General Plan Element Policy Consistency*, for a detailed analysis of the proposed project's consistency with the goals and policies of the *General Plan*. For the purposes of this consistency analysis, only those goals and policies that are applicable to the proposed project are included in the matrix, in order to simplify the discussion.

Table 5.1-1
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Land Use Element	
Goal 1: To preserve the character of the communities and the integrity of the Santa Clarita Valley by permitting orderly growth through the synchronization of development with the availability of public facilities such as roads, sewers, water service and schools needed to support it.	Consistent. All necessary infrastructure and public facilities to serve the needs of the proposed project would be provided prior to project occupancy and operation, and would be constructed as part of the proposed project, or provided by affected public agencies through payment of fees. Refer to Section 5.4, Traffic and Circulation, Section 5.8, Water, and Section 5.9, Schools/Education, for a discussion of impacts and mitigation measures related to the local traffic system and improvements, water supply and distribution, and schools, respectively.
Goal 2: To achieve the development of a well balanced, financially sound, and functional mix of residential, commercial, industrial, open space, recreational, institutional and educational land uses.	Consistent. The proposed project would provide multi-family residential and commercial uses at the project site. The proposed project also includes recreational facilities and open space areas to serve the new residents. In addition, residents would be closely linked to off-site recreational facilities that serve the larger community.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 2.1: Encourage the development of a broad range of housing types to meet the needs of the existing and future residents of the planning area, including, but not limited to, the development of single-family detached homes, condominiums, apartments, and manufactured housing.	Consistent. The proposed project would provide multi-family housing units to meet the City's housing needs. Refer to Section 5.2, Population, Employment and Housing, for a discussion of impacts and mitigation measures related to housing.
Policy 2.2: Promote the development of service and neighborhood commercial activities to meet existing and future needs. These centers must be non-intrusive, sensitive to surrounding residential land uses, and should be located adjacent to arterial roadways.	Consistent. The proposed project includes retail uses on-site, which are at an appropriate scale with the proposed residential uses. The commercial component of the proposed project is located directly on Soledad Canyon Road, a major thoroughfare in the project area.
Policy 2.3: Establish a hierarchy of commercial centers, including neighborhood, community, and regional serving centers, together with appropriate and compatible levels of use to serve the population. The centers should be located on arterial thoroughfares and be non-intrusive and sensitive to residential land uses so as to provide both convenience and compatibility. Note: this policy is intended to encourage unified commercial theme centers and assembly of properties and shall not be construed to encourage small, multi-tenant and convenience centers located on corners or in strip fashion along commercial streets.	Consistent. The proposed project includes retail uses on-site, which are at an appropriate scale with the proposed residential uses. The commercial component of the proposed project is located directly on Soledad Canyon Road, a major thoroughfare in the project area.
Policy 2.14: Promote the development of commercial and industrial activities in all communities of the planning area.	Consistent. The proposed project would provide neighborhood-serving retail uses on-site, which would serve both on-site and surrounding residential uses.
Policy 2.15: Discourage the development of additional strip commercial centers and corner mini-shopping centers.	Consistent. The proposed commercial uses would be integrated into the project design and would not be a strip commercial center or corner mini-shopping center.
Policy 3.6: Locate higher density residential development in proximity to regional and subregional centers and public transportation corridors.	Consistent. The proposed multi-family residential uses would be located along Soledad Canyon Road, close to Valencia Town Center and downtown Newhall, and directly across Soledad Canyon Road from the Santa Clarita Metrolink station.
Goal 4: To ensure that development in the City is consistent with the overall community character and that it contributes in a positive way toward the City's image.	Consistent. The proposed project would be consistent with the development standards contained in the City's *Unified Development Code* (see separate analysis in this section) and would be subject to the City's design review process to ensure compatibility with the overall community character.
Policy 4.1: Establish a land use pattern that is constructed around a framework of established greenbelts and a linear system of equestrian, pedestrian and bike trails tied to the primary network of the river corridor.	Consistent. The proposed project would be constructed adjacent to, and would be connected to, the existing trail system along the Santa Clara River. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to trails.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 4.9: Ensure that signage on new and existing development is visually attractive and provides a high quality image for the City.	Consistent. Signage for the proposed project would be consistent with the development standards contained in the City's *Unified Development Code* (see separate analysis in this section) and would be subject to the City's design review process to ensure that signage is visually attractive and maintains a high quality image for the City.
Policy 4.14: Regulate lighting in new and existing development so that it does not unduly contribute to nighttime visual pollution and glare, and is compatible with surrounding land uses (tailor standards for lighting so they are compatible with the setting).	Consistent. The proposed project's lighting plans require approval during the City's plan check process to ensure that lighting does not interfere with on-site or surrounding uses. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of light and glare impacts and mitigation measures.
Policy 4.15: Maintain and/or enhance the character of the various communities through compatible land use standards and design guidelines, while promoting an overall identity for the Santa Clarita Valley.	Consistent. The proposed project would be consistent with the development standards contained in the City's *Unified Development Code* (see separate analysis in this section) and would be subject to the City's design review process to ensure compatibility with the City's overall identity.
Goal 5: To provide protection of the environmental setting and habitat through the location of land uses and the use of sensitive design.	Consistent. No sensitive resources exist on-site, as the site has already been graded for development.
Policy 5.3: New development must be sensitive to the Significant Ecological Areas (SEAs) through utilization of creative site planning techniques to avoid and minimize disturbance of these and other sensitive areas.	Consistent. The bank stabilization portion of the proposed project site is located within the Santa Clara River SEA (SEA No. 23). However, the project site does not contain any sensitive natural resources or habitat, as the site has been previously graded for development. No development is proposed within the SEA. Therefore, development of the proposed project would not result in adverse impacts to the habitat or species located within the river or other upland habitat.
Policy 5.5: Follow the recommendations of the Santa Clara River Study.	Consistent. The proposed project would comply with any requirements of affected regulatory agencies with jurisdiction over the Santa Clara River. Because the proposed project would not adversely affect the river or its habitat function, the proposed project would not conflict with the recommendations of the Santa Clara River Study.
Policy 5.8: Preserve and protect designated wildlife corridors from undue encroachment and disruption.	Consistent. The Santa Clara River serves as a wildlife corridor and is adjacent to the project site. However, the proposed project would not impede or otherwise disrupt the movement of wildlife within the river channel, as the development footprint is located behind flood protection infrastructure and outside the river corridor.
Policy 5.11: Preserve and protect endangered fauna and flora species, and their habitats.	Consistent. No endangered species exist on the project site, or would be adversely affected by implementation of the proposed project.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Goal 6: To protect and enhance the integrity of existing residential neighborhoods and to provide for affordable housing.	Consistent. The proposed project would be located adjacent to an existing residential neighborhood to the east, and would provide additional workforce housing for the City.
Policy 6.2: Continue to provide for the development of new housing while ensuring that the character, scale, and density of new residential development is sensitive, compatible and complimentary to existing residential neighborhoods.	Consistent. The character and scale of the proposed residential uses would not conflict with the existing neighborhoods in the surrounding area. The proposed project would be sensitive, compatible, and complimentary to existing neighborhoods.
Policy 6.3: Provide for the retention and maintenance of existing residential neighborhoods which are primarily developed with single-family homes and ensure that new development is compatible with and complementary to existing development in terms of scale, architecture, and density.	Consistent. The character and scale of the proposed residential uses would not conflict with the existing neighborhoods in the surrounding area. Although no single-family neighborhoods are located in close proximity to the project site, the proposed project would be compatible with, and complimentary to, existing neighborhoods.
Policy 6.4: Provide for the retention and maintenance of multiple-family neighborhoods and ensure that new development is compatible with and complements existing structures, in scale and architecture, where a distinctive neighborhood character exists.	Consistent. The character and scale of the proposed residential uses would not conflict with the existing neighborhoods in the surrounding area. Several multi-family neighborhoods are located in proximity to the project site, the proposed project would be sensitive, compatible, and complimentary to existing neighborhoods.
Policy 6.5: Provide low- and moderate-income family and senior citizen households with housing opportunities by promoting types of development that can accommodate such households.	Consistent. The proposed project would provide multi-family dwelling units, including workforce housing, which would help the City achieve its affordable housing goals. Such workforce units would initially be priced for sale at 10 percent below market value, and the number of such units would be a minimum of 5 percent of the total approved number of dwelling units. Refer to Section 5.2, Population, Employment and Housing, for a discussion of impacts and mitigation measures related to housing.
Goal 7: To preserve the character of the communities and the integrity of the Santa Clarita Valley through orderly development practices and the provision of private and public capital improvements, facilities, and services to support existing and future development.	Consistent. The proposed project would provide necessary infrastructure improvements to meet project-related demands, either through development of facilities or through payment of applicable fees.
Policy 7.1: Ensure demand for public facilities and services do not exceed the ability to provide and maintain such facilities and services; necessary facility improvements should precede or be coordinated with future development.	Consistent. Proposed development would be coordinated such that adequate public facilities exist to serve project-related uses, and fees would be paid by the project applicant to mitigate any deficiencies.
Policy 7.2: Ensure, within the City's power, that facilities and services are provided in a timely manner through collection of developer fees.	Consistent. The project applicant would pay applicable fees for necessary public services for the project, as determined necessary by the City of Santa Clarita.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 7.3: Establish and implement necessary safety measures and standards to ensure that development is appropriately restricted in areas where natural hazards are present (seismic, geologic, flooding, fires, etc.), unless such hazards can be mitigated.	Consistent. The project site, given its location, is not subject to notable natural hazards. The site, although located along the Santa Clara River, is not subject to flooding because bank and channel improvements, reviewed and approved by City of Santa Clarita, have been completed that serve to minimize potential flooding on-site. The project site does not contain substantial vegetation, and therefore wildfires would not present a substantial risk to the project. No faults or fault zones exist on-site, and liquefaction hazards have been mitigated by grading and earthwork already performed at the site to allow for development.
Policy 7.7: Avoid or offset the adverse impacts of additional development as a necessary component of the growth control strategy.	Consistent. To the extent practicable, the proposed project avoids adverse impacts on established growth control strategies. The proposed project would provide additional housing, open space, and recreational facilities to meet the City's present and future needs.
Housing Element	
Goal 2: To identify adequate housing sites appropriately zoned with development standards, and public services and utilities needed to facilitate residential development.	Consistent. Upon project approval, the residential portion of the project site would be zoned Residential Medium High, and all applicable development standards would regulate development on-site. All needed utilities, if not already constructed at the site, would be provided as part of the proposed project or through payment of fees to affected public agencies.
Policy 2.2: Locate higher density residential development and housing for the elderly in proximity to public transportation and commercial land uses, and in proximity to public services and recreational opportunities, and/or target the future provision of such services to accommodate existing or new housing for the elderly.	Consistent. The project site is located along Soledad Canyon Road, a major thoroughfare, and is across Soledad Canyon Road from the Santa Clarita Metrolink Station. The project site is also adjacent to the Santa Clara River trail, which provides recreational opportunities and connects to the Santa Clarita Valley regional trail system.
Goal 3: To provide sites suitable for a variety of housing types for all income levels and assist in the development and provision of affordable and proportionally priced and sized homes to meet the needs of all community residents, including low and moderate income, large families, handicapped, families with female heads of households, farm workers, and the elderly.	Consistent. The proposed project would provide workforce housing units, priced initially for sale at 10 percent below market value, which would help the City achieve its overall housing goals. Refer to Section 5.2, Population, Employment and Housing, for a discussion of impacts and mitigation measures related to housing.
Policy 3.5: Existing and future infrastructure needs should be addressed in connection with considerations for new development proposals.	Consistent. Proposed development would be coordinated such that adequate public facilities exist to serve project-related uses, and fees would be paid by the proposed project applicant to mitigate any deficiencies.
Policy 3.6: Seek development which facilitates the efficient use of infrastructure, contributes to solutions of existing deficiencies, and it anticipates and facilitates the orderly provision of future development and infrastructure consistent with this General Plan.	Consistent. Consistent with projected growth, the proposed project provides for expansion of infrastructure needed to serve proposed uses, as well as projected growth in the vicinity.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 3.7: Provide opportunities for the development of adequate housing to provide the City's fair share of low and moderate income households.	Consistent. The proposed project would provide workforce multi-family dwelling units, initially priced at 10 percent below market value, which would help the City achieve its affordable housing goals. Refer to Section 5.2, Population, Employment and Housing, for a discussion of impacts and mitigation measures related to housing.
Policy 3.9: Promote the dispersal of low and moderate income housing throughout the Santa Clarita planning area.	Consistent. The proposed project would provide workforce housing units within the City's central core, intended to serve those residents working in the vicinity. Refer to Section 5.2, Population, Employment and Housing, for a discussion of impacts and mitigation measures related to housing.
Policy 3.10: Encourage the development of residential units which are accessible to handicapped persons and adaptable for conversion to use by handicapped persons.	Consistent. The proposed development would meet all applicable access requirements, including requirements of the Americans with Disabilities Act (ADA).
Goal 6: To promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, age, physical handicap, color or sexual orientation.	Consistent. The proposed development would provide a variety of housing opportunities, irrespective of physical or other personal traits.
Policy 6.1: Promote safe and secure housing and neighborhoods, and encourage housing design which serves to deter crime.	Consistent. Proposed neighborhoods would be designed to be protective of public safety, subject to review and approval by the City of Santa Clarita.
Policy 6.5: Encourage housing design standards that promote accessibility by the elderly and disabled.	Consistent. The proposed project would meet all applicable access requirements, including ADA requirements.
Goal 7: To provide new housing opportunities, which are sensitive to social, aesthetic, and environmental needs.	Consistent. The proposed project includes housing opportunities that meet the various needs of the area, consistent with the housing goals of the City of Santa Clarita.
Policy 7.1: Restrict housing development in areas containing important natural resources consistent with other goals and policies pertaining to natural resource areas.	Consistent. The project site does not contain important natural resources, as the site has been graded and cleared for development as part of Parcel Map No. 20838.
Policy 7.2: Encourage clustering or grouping of structures within areas containing important natural resources in order to preserve those resources.	Consistent. The proposed development would consist of multi-family dwelling units, although there are no important natural resources on-site.
Policy 7.3: Ensure the variety and visual appeal of residential development through project specific design review.	Consistent. The proposed project would be subject to the City's design review process, which would ensure compatibility with surrounding development and consistency with the City's design standards. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to aesthetics, views, and visual character.
Policy 7.5: Designate areas of restricted development due to their highly sensitive natural characteristics; such areas include Significant Ecological Areas, mountain ridgelines, and water resources.	Consistent. The proposed project is not expected to have an adverse effect on the SEA or the habitat or species contained within it.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Goal 8: Provide new housing opportunities, which are environmentally sensitive and energy efficient.	Consistent. The proposed development would meet or exceed all energy efficiency standards, and would minimize impacts on on-site sensitive environmental resources.
Policy 8.1: To the extent feasible, require the incorporation of energy conservation features in the design of all new housing developments and encourage the installation of conservation devices in existing development.	Consistent. The proposed development would incorporate energy-saving technology in building design and construction.
Policy 8.3: Encourage and provide incentives for the installation of energy conservation techniques in new and existing housing.	Consistent. The proposed development would meet or exceed all energy efficiency standards, including California Title 24 efficiency standards for structures.
Community Design Element	
Goal 1: To protect and preserve the scale and character of existing neighborhoods while providing for new development which is consistent with the goals and policies of the General Plan.	Consistent. The proposed project, including the proposed General Plan Amendment and Zone Change, once approved, would be considered consistent with the *General Plan*. The proposed project design would be subject to review and approval by the City of Santa Clarita, which would ensure consistency with City standards.
Policy 1.2: Ensure that clustering of new development is compatible with the character of the existing surrounding neighborhoods.	Consistent. The location and density of proposed development would not conflict with existing surrounding neighborhoods. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to aesthetics, views, and visual character.
Policy 1.3: Consider all design elements, including building size, height, mass, and architectural design, in the design review process so that new development does not conflict with the character of the neighborhoods.	Consistent. Proposed development would be subject to the City's design review process, which would ensure compatibility with the overall community character. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to aesthetics, views, and visual character.
Goal 2: To encourage design excellence in the development of all public and private projects in the City.	Consistent. The proposed project would be consistent with relevant design and aesthetic attributes associated with the City's unique character, and would also be subject to the City's design review process to ensure consistency with the City's design criteria. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to aesthetics, views, and visual character.
Policy 2.2: Provide for residential uses in proximity to business/commercial centers in a manner which promotes the neighborhood/village/town center planning concept and maintains the hierarchy of community centers and the concept of the Valley Center.	Consistent. The proposed project site would be developed with residential and commercial uses in proximity to one another, and the proposed project site is in proximity to existing commercial development.
Policy 2.3: Promote opportunities for greater pedestrian orientation and lifestyles.	Consistent. The proposed project includes paths, sidewalks, and connections to local and regional trails and bikeways, to allow for various opportunities for pedestrian mobility and access to other modes of transit.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 2.7: Promote opportunities for greater bicycle orientation and lifestyles.	Consistent. The proposed project includes paths, sidewalks, and access points to local and regional trails, which could be utilized by cyclists living at the proposed project site and within the surrounding communities.
Goal 3: To promote design excellence in the development of business/commercial centers.	Consistent. The proposed project's commercial component would be designed to promote the City's standards for design excellence, and would also be subject to design review by the City of Santa Clarita. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to aesthetics, views, and visual character.
Policy 3.1: Improve the appearance and function of business and commercial centers within the planning area through architectural form, landscaping, parking and signage schemes.	Consistent. The proposed project's commercial component would include landscaping and attractive design elements, consistent with City commercial development design themes, and would also be subject to design review by the City of Santa Clarita. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to aesthetics, views, and visual character.
Policy 3.6: Encourage the provision of buffering in areas near commercial centers and residential neighborhoods to help separate and delineate business and residential districts and to create visual diversity.	Consistent. The proposed commercial component and existing adjacent commercial properties would be separated from proposed residential uses by parking facilities, landscaping, and on-site roadways. Given the limited nature and intensity of the proposed commercial uses (i.e., 8,000 square feet of retail uses), the parking and roadways would serve to adequately buffer residential uses from commercial activities.
Policy 3.7: Discourage the development of small multi-tenant shopping centers which occupy corners or sections of blocks in favor of larger planned commercial and retail developments exhibiting consistent and uniform quality design themes which contribute in a positive way to the area.	Consistent. The proposed commercial uses would consist of one structure occupying one corner of the Soledad Canyon Road/Gladding Way intersection, and would exhibit a relatively uniform design theme, consistent with proposed residential uses. The commercial uses are intended to serve the needs of the surrounding neighborhoods.
Goal 4: To continue to preserve and maintain special historical features and landmarks as focal points in the planning area.	Consistent. No historical features or landmarks are found on-site, or in the immediate project vicinity that could be affected by the proposed project.
Policy 4.6: Encourage low-level pedestrian scale lighting.	Consistent. The proposed on-site pedestrian facilities would include pathway lighting at an appropriate scale and intensity.
Goal 5: To preserve and integrate the prominent and distinctive natural features of the community as open space for the use and visual enjoyment of all City residents.	Consistent. No prominent and distinctive natural features exist on the project site that could be preserved. The Santa Clara River, located immediately north of the project site, would not be adversely affected by project implementation.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 5.1: Retain designated major landforms, such as ridgelines, natural drainage ways, streams, rivers, valleys, and significant vegetation, especially where these features contribute to the overall community identity.	Consistent. The project site has been previously graded and cleared for development, and no major landforms exist on-site. The Santa Clara River would not be adversely affected or otherwise modified as a result of the proposed project.
Policy 5.3: Where possible, incorporate attractive natural amenities, such as rock outcroppings, vegetation, streams, and drainage areas, into the development of future projects to protect the environment and provide landscape opportunities, visual interest, scale and/or recreational opportunities.	Consistent. The proposed project provides connections to the Santa Clara River trail system, and incorporates views of the river drainage as a focal point of project design.
Goal 6: To protect and enhance open space areas that provides visual and aesthetic character and identity to the community.	Consistent. The project site has been previously graded, and no undisturbed open space exists on-site. The Santa Clara River and associated trail system would not be adversely affected by the proposed project.
Policy 6.3: Establish recreational areas for both passive and active activities.	Consistent. The proposed project includes active recreation areas to serve future residents, and also includes connections to the Santa Clara River trail system. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to parks and recreational facilities.
Policy 6.5: Promote the concept of a network of neighborhood parks and open space areas; where possible integrate neighborhood parks with a larger communitywide system; incorporate jogging and hiking trails, bicycle paths, and equestrian trails links wherever possible.	Consistent. The proposed project includes active recreation areas to serve future residents, and also includes connections to the Santa Clara River trail system. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to parks and recreational facilities.
Policy 6.6: Promote the preservation recreational uses tied to the enhancement of open space and Santa Clara River Corridor as identified in the Land Use Element.	Consistent. The proposed project includes connections to the Santa Clara River trail system. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to parks and recreational facilities.
Goal 7: To develop a safe and efficient circulation system that protects and enhances the overall community character.	Consistent. The proposed circulation system is designed to complement the proposed development and meet the capacity demands of anticipated project-related traffic. The proposed project's circulation system would be subject to review and approval by the City of Santa Clarita and the Los Angeles County Fire Department. Refer to Section 5.4, Traffic and Circulation, for a discussion of impacts and mitigation measures related to the proposed project's circulation system and traffic system improvements.
Policy 7.2: Encourage and enhance identifiable entryways for the overall community, individual residential neighborhoods, and unique or principal business/commercial districts of the City.	Consistent. The proposed development includes a unified design theme, including entryway designs, which would be subject to review and approval by the City of Santa Clarita. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to aesthetics, views, and visual character.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 7.3: Encourage the protection of view windows along major scenic highway and road corridors.	Consistent. No scenic view windows exist on, or in proximity to, the proposed project site. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to the views of, and from, the proposed project site.
Policy 7.5: Except where special rural standards are necessary to maintain the rural characteristics of an area, sidewalks should be provided in all areas; such sidewalks need not always be located adjacent to the street and may meander within landscaped areas, interconnect businesses such as in an industrial park setting and link neighborhoods and services such as the paseo system.	Consistent. The proposed project includes sidewalks and other pathways that connect the project site with off-site areas, including local and regional trails. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to parks and recreational facilities, including trails.
Policy 7.6: Encourage the design and development of multi-use trails and pedestrian ways as an alternative transportation mode and to reduce traffic.	Consistent. The proposed project includes connections to local and regional multi-use trails. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to parks and recreational facilities, including trails.
Goal 8: To ensure that signage throughout the City is visually attractive and minimizes distraction.	Consistent. All proposed signs would be subject to review and approval as part of the design review process. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to aesthetics, views, and visual character.
Policy 8.3: Encourage distinctive signage which identifies principal entries to the City, unique districts, neighborhoods, and public buildings and parks.	Consistent. The proposed project signage would be subject to review and approval by the City of Santa Clarita. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to aesthetics, views, and visual character.
Goal 9: To promote superior landscape design that emphasizes aesthetics, function, and water conservation.	Consistent. The proposed project includes a landscape plan that would be subject to review and approval by the City of Santa Clarita, and which includes low-moisture vegetation to the extent feasible. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to views and visual character.
Policy 9.1: Encourage landscaping around residential, commercial, and industrial buildings and parking areas to enhance views from roadways and surrounding uses.	Consistent. The proposed project would provide landscaping around proposed structures and parking areas to enhance views and provide shading. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to views and visual character.
Policy 9.3: Encourage major landscape themes to provide visual relief in highly urbanized areas.	Consistent. The proposed project would include landscaping according to a landscape plan that provides a unified landscape theme. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to views and visual character.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 9.6: Encourage incorporation of indigenous vegetation and compatible drought tolerant vegetation into landscape themes throughout the planning area.	Consistent. The proposed project's landscape plan includes low-moisture vegetation to the extent feasible.
Policy 9.7: Encourage incorporation of indigenous landscape materials such as, native stone, river rock, and Bouquet Canyon stone into landscape themes.	Consistent. Subject to review and approval by the City of Santa Clarita, the proposed project would include native materials, if consistent with project design themes.
Policy 9.9: Encourage consistent application of materials and vegetation within communities and differentiate between communities.	Consistent. The proposed project would include landscaping according to a landscape plan that provides a unified landscape theme. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to views and visual character.
Policy 9.10: Promote the establishment of landscape maintenance districts, homeowner associations, assessment district, property owners assessment district or other methods to maintain open space and slope areas around residential areas.	Consistent. The proposed project's landscaping elements would be maintained by the project's Homeowners' Association.
Goal 10: To achieve architectural themes and forms that promote human scale and provide a comfortable human interaction with buildings.	Consistent. The proposed project is designed to address residents, employees, and patrons and to provide for comfortable interaction with on-site structures.
Policy 10.1: Provide design flexibility for urban design and architectural concepts in order to avoid architectural monotony and lack of design innovation.	Consistent. The proposed development includes a unified design theme, which would be subject to review and approval by the City of Santa Clarita. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to aesthetics, views, and visual character.
Policy 10.2: Encourage the use of materials that complement adjacent buildings and their surroundings.	Consistent. The proposed development includes a unified design theme, which would be subject to review and approval by the City of Santa Clarita. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to aesthetics, views, and visual character.
Policy 10.3: Encourage design solutions that consider physical scale of the area and adjacent buildings.	Consistent. The proposed project's design would be subject to review and approval by the City of Santa Clarita, which would address physical scale and design compatibility with surrounding uses.
Goal 11: To achieve a coordinated and efficient infrastructure system that is visually unobtrusive while designed to meet the current and future needs of the planning area.	Consistent. Infrastructure for the proposed project would be integrated into the project design and would not be visually obtrusive, but would be designed to meet anticipated demands.
Policy 11.4: Ensure that utilities and connections which are located aboveground do not interfere with or adversely impact access, visibility, appearance, or the character of the structures near which they are located.	Consistent. All utilities infrastructure on-site would be placed underground in the initial stages of development.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 11.6: Incorporate landscaping, undergrounding, berms, and other techniques and design measures to integrate public facilities, such as water tanks and major water transmission lines, where visible, into the community design.	Consistent. All project-related infrastructure would be shielded from view through the use of undergrounding, landscaping, and overall project design (i.e., location of structures), such that on-site infrastructure is not visually intrusive. Refer to Section 5.3, Aesthetics and Visual Resources, for a discussion of impacts and mitigation measures related to aesthetics, views, and visual character.
Policy 11.10: Encourage a community design relative to housing, commercial, and industrial uses that provides convenience and fiscal stability.	Consistent. Development would be located such that related facilities are conveniently accessible for residents and employees. The proposed neighborhood commercial uses on-site would serve the needs of the proposed residences, as well as the surrounding community.
Economic Development and Community Revitalization Element	
Goal 1: To achieve a balanced mix of manufacturing, commercial, retail, cultural, entertainment, and service uses that result in a diversified, stable, and environmentally sound local economic base.	Consistent. The proposed commercial component would be located adjacent to the proposed residential component and would benefit from such a location.
Goal 2: To ensure adequate infrastructure and economic base support, the City should seek to stimulate simultaneous development of businesses and housing occurring within its boundaries and within the planning area.	Consistent. The proposed project includes the concurrent development of residential and commercial uses within the project boundaries.
Policy 2.5: Coordinate the timing of development with the phased provision of local infrastructure including: • arterial roadway development; • wastewater treatment capacity, plants, and expansion; • water supply districts and extensions; • county roadway/bridge assessment districts; • allocations of utility pipeline communications franchises within the planning area; • adequate school facilities; • fire station facilities; • parks and trails; and • public facilities.	Consistent. All infrastructure would be constructed prior to, or concurrent with, development of proposed residential and commercial uses.
Goal 5: To ensure the City's present and future fiscal balance of municipal revenues and expenditures is maintained.	Consistent. The proposed project includes residential and commercial uses that would provide tax revenue to the City, while increased demands on public services and utilities would require additional expenditures. On-site recreational areas, landscaping, and roadways would be privately maintained by the Homeowners' Association, further reducing demand for City expenditures.
Policy 5.4: Developers should provide fiscal impact analysis and pro forma information to the City on development projects.	Consistent. The project applicant would provide a fiscal analysis of the project's impact as part of the project approval process.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Circulation Element	
Goal 1: To provide a circulation system to move people and goods safely and efficiently throughout the City of Santa Clarita and the general planning area.	Consistent. The proposed project includes a circulation plan that is subject to review and approval by the City of Santa Clarita.
Policy 1.4: Enforce dual access requirements where appropriate for safety and circulation purposes.	Consistent. The proposed project provides multiple access points to ensure adequate emergency access and adequate ingress and egress capacity.
Policy 1.11: Improve circulation facilities to provide improved levels of service and standards of safety over current traffic operations with a priority to improve local transportation patterns.	Consistent. The proposed project includes transportation improvements to improve levels of service at local intersections and along local roadways, to offset traffic increases resulting from proposed project implementation. Refer to Section 5.4, Traffic and Circulation, for a discussion of impacts and mitigation measures related to traffic facilities and levels of service.
Policy 1.12: Maintain appropriate levels of service at all intersections in the City during peak hours to ensure that traffic delays are kept to a minimum.	Consistent. The proposed project involves transportation improvements to improve levels of service at local intersections and along local roadways, to offset traffic increases resulting from the project. Refer to Section 5.4, Traffic and Circulation, for a discussion of impacts and mitigation measures related to traffic facilities and levels of service.
Policy 1.13: Preserve the quality of residential neighborhoods by discouraging the flow of truck and through traffic in these areas consistent with circulation and emergency needs.	Consistent. Given the location of proposed residential uses, only very limited truck traffic is expected near residential neighborhoods, which would include incidental deliveries to on-site commercial uses, garbage trucks, and construction truck traffic. Through traffic is not expected, given the physical layout of the proposed project.
Policy 1.15: Maximize and improve the operating efficiency and safety of the existing roadway system wherever possible.	Consistent. The proposed project includes transportation improvements to improve levels of service at local intersections and along local roadways, to offset traffic increases resulting from the project. Refer to Section 5.4, Traffic and Circulation, for a discussion of impacts and mitigation measures related to traffic facilities and levels of service.
Policy 1.16: Limit the number of intersections and driveways on all major, secondary and limited secondary roadways to accommodate a safe, efficient and steady flow of traffic.	Consistent. The proposed project includes a limited number of intersections to allow adequate access for residents and commercial patrons.
Policy 1.18: Require vehicular access to higher density land uses and commercial developments from major, secondary and limited secondary roadways, and not from low-density residential neighborhoods.	Consistent. Access to the site would be provided solely off of Soledad Canyon Road, and no low-density residential neighborhoods exist in close proximity to the project site, thereby precluding the use of such neighborhoods for through-access to the project site.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 1.20: Optimize use of all major, secondary and limited secondary roadways while minimizing use of all collectors and local streets. Encourage development design that ensures that local streets function as designed and not as collector streets or other higher capacity roadways.	Consistent. Given the design of the proposed project's location and circulation system, Soledad Canyon Road would be the only major roadway that could be utilized for through-access in the project area.
Policy 1.22: Implement traffic calming measures to slow traffic on local and collector residential streets and prioritize these measures over congestion management. Include traffic circles and other traffic calming devices among these measures.	Consistent. On-site streets are either dead-end and/or curvilinear, in order to reduce speeds within the development.
(a) Need for Local and Regional Transit Services	
Goal 2: Promote a diversified public transportation system that is safe, convenient, efficient, and meets the identified needs of the City of Santa Clarita and the general planning area.	Consistent. The proposed project would be served by Santa Clarita Transit, and a new bus stop would be provided on Soledad Canyon Road in front of the project site to serve the resident population and commercial uses. The Santa Clarita Metrolink commuter rail station is also located directly southwest of the project site.
Policy 2.5: Incorporate accommodations and facilities to support local transit services (i.e., bus lanes, bus stops and bus shelters) in new and redeveloped projects, where feasible that are consistent with local transit planning.	Consistent. The proposed project includes a new public transit stop to serve residents and commercial patrons.
Policy 2.6: Provide for the mobility of City residents to access local services and employment, particularly for those who may experience mobility difficulties, including the elderly, disabled, low-income residents and youth.	Consistent. Multiple modes of transit would be provided on-site that meet ADA requirements, as necessary, and public transit service would be provided at a new bus stop on Soledad Canyon Road to serve residents, employees, and retail patrons.
Policy 2.8: Develop adequate pedestrian access and encourage the use of these systems.	Consistent. Several types of pedestrian access and pathways would be provided throughout the project site.
Policy 2.9: Require right-of-way dedication and/or construction of appropriate facilities in support of a public transportation system in new and redeveloped projects.	Consistent. The proposed project would include new public transit facilities, including right-of-way dedication for a bus turnout lane, to serve the resident population and commercial patrons.
(b) Transportation Alternatives	
Goal 3: To promote safe and effective alternatives to the personal automobile that will meet the needs of all planning area residents.	Consistent. The proposed project provides various alternative transportation facilities, including pathways, bike lanes, trail connections, and public transit facilities.
Policy 3.3: Provide a system of sidewalks or pathways, tunnels and bridges in residential, commercial and industrial areas that features a safe, attractive and convenient environment, integrating pedestrians and bicycles in a manner harmonious with the surrounding neighborhoods.	Consistent. The proposed project provides various alternative transportation facilities, including pathways, bike lanes, trail connections, and public transit facilities.
Policy 3.7: Promote bicycle and pedestrian accessibility to all commercial, industrial, multi-family residential, and public facilities, including parks, schools, and centers of civic activity.	Consistent. The proposed project provides various pedestrian facilities, including pathways, bike lanes, trail connections, and public transit facilities.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
(c) Parking Facilities	
Goal 4: To provide for and ensure an adequate supply of off-street private and public parking to meet the needs of local residents and visitors to the City and the planning area.	Consistent. The proposed project includes adequate parking facilities to meet anticipated demands, subject to review and approval by the City of Santa Clarita. This includes a two-car garage per unit, guest parking spaces, and parking areas for the commercial component.
Policy 4.3: Screen and/or buffer large parking areas from public view through the use of landscape setbacks, earth berms and hedge screens (to headlight level) and trees and landscaping in parking areas while providing convenient pedestrian access.	Consistent. The proposed project includes a landscaping plan that addresses, among other things, parking area landscaping to provide shade and visual relief.
Policy 4.4: On-street parking should generally be eliminated from all major, secondary and limited secondary roadways.	Consistent. Subject to approval by the City of Santa Clarita, the proposed project would allow on-street parking on private streets within the development where the curb-to-curb width permits safe operation of vehicular traffic along the roadway.
(d) Regional System Impacts	
Goal 6: Encourage the implementation of trip reduction methods to reduce daily auto trip generation through alternate transportation, land use planning and other strategies.	Consistent. The proposed project includes various facilities and infrastructure to promote alternative transportation, including pedestrian and bicycle transit. Additionally, the proposed project includes a new bus stop and access to other public transit services, including the nearby Santa Clarita Metrolink commuter rail station.
Policy 6.3: Encourage implementation of the City's General Plan, Transportation Development Plan, Bikeway Master Plan, Infrastructure Master Plan and other documents with transportation policies through new development and redevelopment.	Consistent. The proposed project would be reviewed by the City of Santa Clarita with respect to consistency with the City's *Transportation Development Plan, Bikeway Master Plan*, and other documents to ensure that the project is supportive of such plans.
Policy 6.5: Encourage "transit friendly" residential, commercial and industrial development that provides convenient pedestrian and bicycle access.	Consistent. The proposed project includes pedestrian and bicycle facilities to encourage utilization of such modes of transit.
Policy 6.6: Encourage new development to use pedestrian "zippers" or walkways to provide a convenient link between different residential neighborhoods and between residential neighborhoods and commercial centers.	Consistent. The proposed project incorporates pedestrian and bicycle connections between on-site neighborhoods, as well as connections to local and regional off-site trails and transit corridors.
Policy 6.9: Use attractive bus stops and transfer points to promote transit.	Consistent. The proposed project would provide public transit facilities, as deemed appropriate by the City of Santa Clarita and public transit agencies.
Human Resources Element	
No applicable goals or policies.	
Public Services, Facilities, and Utilities Element	
Goal 1: Work with utilities and other service providers to ensure adequate and safe public infrastructure and public services for City residents, including upgrading and expansion of existing deficient systems.	Consistent. The project applicant has coordinated with all affected public service and utility agencies to ensure adequate levels of service from such agencies.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 1.5: Require that new developments be prohibited or delayed unless necessary public services and utilities will be available at the time of occupancy or will be provided within a reasonable period of time as part of an adopted improvement plan.	Consistent. According to affected agencies, all public services and utilities would be adequate to serve anticipated project demands prior to project construction.
Policy 1.8: Promote water conservation and reclamation in order to reduce water consumption in existing and future developments.	Consistent. The proposed project would incorporate water-conserving fixtures and irrigation control devices to maximize water efficiency, as required by the City of Santa Clarita. Additionally, landscape materials would include low-moisture species to minimize the need for extensive irrigation.
Policy 1.9: Ensure that the community is provided with adequate trash collection, including the installation and maintenance of public trash receptacles on streets, in parks, and in other public places.	Consistent. The proposed project would comply with all City requirements regarding provision of trash and recycling facilities to serve on-site uses.
Policy 1.18: Work and cooperate with school districts, developers, and the County to ensure appropriate means to facilitate the development of school facilities to accommodate growth and ensure that the school districts can meet future needs.	Consistent. The project applicant has signed an agreement with local elementary and high school districts to ensure that school services are adequate to serve anticipated demand, including demands created by the proposed project.
Policy 1.19: Enhance the level and quality of community services and facilities, and improve availability throughout the Santa Clarita Valley.	Consistent. The proposed project would improve the quality and function of community services and utilities, either through direct improvement of facilities or through payment of fees for improvements.
Goal 3: To allocate the cost of public services, facilities, and utilities on a fair and equitable basis based on service demand generated and benefits derived from services/improvements.	Consistent. The project applicant would pay applicable fees in order to compensate for deficiencies in services and utilities caused by implementation of the proposed project.
Policy 3.2: Utilize, where appropriate, public financing mechanisms, such as special assessment districts, and community facilities districts, such as Mello-Roos, to fund improvement and service costs.	Consistent. The proposed project, as deemed necessary, would utilize such funding mechanisms to provide necessary services in a timely manner.
Policy 3.4: Support funding of infrastructure improvements that are consistent with the City's General Plan and financing guidelines.	Consistent. The proposed project's infrastructure improvements would be consistent with needs indicated in the City's General Plan for Citywide buildout.
Goal 4: Ensure that all public infrastructure improvements are compatible with surrounding and nearby development.	Consistent. Subject to review and approval by affected public agencies, infrastructure improvements would be consistent with surrounding development.
Goal 5: To ensure that all public services, utility systems, and facilities are designed and maintained as stated in the Goals and Policies section of the Public Safety Element to provide acceptable levels of safety and security.	Consistent. All required public services, utilities, and other facilities would be designed and maintained as required by affected agencies responsible for such facilities and services.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Parks and Recreation Element	
Goal 1: Provide, develop, and maintain parks with quality recreational facilities dispersed throughout the area.	Consistent. The proposed project includes active and passive recreational and open space areas intended to meet the recreational demands of the proposed project. Refer to Section 5.10, Parks and Recreation, for a description of impacts and mitigation measures related to parks and recreational facilities.
Policy 1.1: Provide a combination of local park acreage, park facilities, and recreation programs to serve neighborhood needs.	Consistent. The proposed project would provide recreational and open space areas and is expected to include, or be supportive of, recreation programs for the local community. Refer to Section 5.10, Parks and Recreation, for a description of impacts and mitigation measures related to parks and recreational facilities.
Policy 1.2: Develop a variety of park types and sizes (regional, community, neighborhood), which are distributed adequately to serve all area residents and to prevent overcrowding and overuse.	Consistent. The proposed project would include recreational and open space areas, a tot lot, community pool, and open space areas with connections to local and regional trail systems. Refer to Section 5.10, Parks and Recreation, for a description of impacts and mitigation measures related to parks and recreational facilities.
Policy 1.3: Provide programs for a variety of passive, educational, and active recreational opportunities for all area residents.	Consistent. It is anticipated that the proposed project would include recreation programs, or be supportive of existing community recreational programs. Refer to Section 5.10, Parks and Recreation, for a description of impacts and mitigation measures related to parks and recreational facilities.
Policy 1.5: Promote the integration of the network of trails and open space to provide linkages to parks within and outside the planning area.	Consistent. The proposed project includes various trail connections to local and regional trails from the project site. Refer to Section 5.10, Parks and Recreation, for a description of impacts and mitigation measures related to trails.
Goal 2: To establish standards and implementation measures to guide future parkland development throughout the area as provided in this element.	Consistent. The proposed recreational and open space areas are consistent with the standards and implementation measures provided in the Parks and Recreation Element.
Policy 2.2: Implement those service and park area standards identified in the Parks and Recreation Element.	Consistent. Subject to approval by the City of Santa Clarita Department of Parks and Recreation, the proposed project is consistent with the standards identified in the Parks and Recreation Element.
Goal 3: To encourage the improvement, rehabilitation, and maintenance of existing parks and recreational facilities.	Consistent. The proposed project would enhance utilization of, and connections to, existing recreational facilities in the project area, including the Santa Clara River Trails immediately north and south of the site. Refer to Section 5.10, Parks and Recreation, for a description of impacts and mitigation measures related to parks and recreational facilities.
Policy 3.3: Provide low-maintenance, vandal-resistant parks, recreational facilities, and equipment.	Consistent. To the extent practicable, on-site recreational facilities would be low-maintenance and vandal-resistant, to the satisfaction of the City of Santa Clarita.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 3.6: Use reclaimed water, where possible, for park irrigation purposes.	Consistent. To the extent feasible, once reclaimed water is available at the site, the proposed project would utilize reclaimed water for irrigation of recreational areas and landscaping.
Goal 4: Aggressively pursue acquisition of future parkland.	Consistent. The proposed project includes various active and passive recreational and landscaped areas totaling approximately 2.5 acres throughout the project site.
Policy 4.1: Encourage the use of developer fees and land dedication incentive programs.	Consistent. The project applicant would pay fees to enhance and develop off-site park and recreational facilities within the project area, as determined appropriate by the City of Santa Clarita.
Policy 4.3: Incorporate standards to acquire, improve, and maintain new park sites in development agreements.	Consistent. The proposed project includes recreational facilities designed to serve the proposed residential development.
Goal 5: Utilize the Santa Clara River as a central recreational corridor and identify other significant natural features to be designated as open spaces, parks, and recreational opportunities.	Consistent. The proposed project's design incorporates the Santa Clara River Trail into the development by providing several direct connections from the project's internal pathways.
Policy 5.4: Investigate and implement, where appropriate, buffer zones between Sensitive Ecological Areas and proposed development.	Consistent. The proposed project would incorporate various buffer mechanisms between proposed development and the Santa Clara River SEA. Buffering would be provided by the newly constructed vegetated riverbank, rail post fence, river trail and maintenance access road, a 6-foot view fence, pathways and screen trees adjacent to proposed on-site structures.
Policy 5.5: Encourage the development of compatible uses next to the Santa Clara River and the inclusion of development features which provide for public access and use of the river.	Consistent. The proposed project is intended to be sensitive to the Santa Clara River, and the project's design incorporates the Santa Clara River Trail into the development by providing several direct connections from the project's internal pathways.
Goal 6: Develop and implement the design criteria for park areas described in the Parks and Recreation Element, which consider park access, safety, appropriate signage, parking requirements, and the preservation of natural features.	Consistent. The proposed recreational components would be designed to meet all applicable City requirements for such facilities, subject to review and approval by the City of Santa Clarita.
Policy 6.1: Design new recreational areas to minimize the visual, noise, and traffic impacts on neighboring communities.	Consistent. Proposed recreational facilities are limited in scale and intensity, and would be located in the interior portion of the project site, in a manner such that impacts on neighboring residential uses would be minimized or altogether avoided. Other passive open space areas would be located adjacent to surrounding uses to buffer noise impacts.
Goal 7: Provide an efficient public trails system linking public space and adjacent regional systems to meet transportation and recreational needs of the area.	Consistent. The proposed project includes several connections to the local and regional trail system. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to trails.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 7.1: Establish a Valleywide regional trail system complete with staging areas and trail heads which link City parks, wilderness open space areas, regional parks, and the trail system.	Consistent. The proposed recreational areas would connect to, and serve to expand or improve, existing trails in the project area. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to trails.
Policy 7.2: Design trail routes, trail heads, and staging areas and designate trail uses to minimize impact upon adjacent property, neighborhoods and fragile habitats.	Consistent. Trails and trail connections associated with the proposed project would be designed in a manner such that impacts on adjacent property (including the Santa Clara River) and proximate neighborhoods would be minimized. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to trails.
Policy 7.8: Utilize the Santa Clara River as a focal point for development of an integrated system of trails, parks, and open space.	Consistent. The proposed project's design incorporates the Santa Clara River Trail into the development by providing several direct connections from the project's internal walkways to the river trail system.
Policy 7.9: Provide equestrian, bicycle, and pedestrian trail development along routes which are viable to the health and safety of horse and rider.	Consistent. The proposed project would connect to local and regional trails that allow pedestrian and bicycle access, as determined acceptable by affected public recreation agencies. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to trails.
Policy 7.10: Provide equestrian and pedestrian trails and bikeways which are separate from vehicular traffic and provide maximum safety when the crossing of streets or highways is necessary.	Consistent. The proposed project includes exclusive pedestrian and bicycle pathways that are separate from vehicular traffic lanes, in order to ensure user safety.
Policy 7.16: Private open space areas shall be conditioned to provide public trail easements at appropriate locations.	Consistent. The proposed project includes pathway connections from on-site recreational and open space areas to the local and regional trails system. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to trails.
Goal 10: To promote public/private cooperation in developing park improvements, recreational services, and facilities.	Consistent. The proposed project includes active and passive recreational and open space areas that meet the needs of the proposed development, as well as connections to the public Santa Clara River Trails. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to parks and recreational facilities.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 10.6: Encourage developers to improve and/or construct parks and recreational facilities in lieu of paying fees as partial fulfillment of park and recreation requirements.	Consistent. The proposed project proposes active and passive recreational uses that meet the projected park demands of the proposed project. Any deficiency in park provision would require fee payment to the City of Santa Clarita to help fund expansion of existing, or construction of new, park and recreational facilities. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to parks and recreational facilities.
Goal 11: To develop facilities and services that meets the needs of retail, commercial, and industrial businesses in the planning area.	Consistent. The proposed park and recreational facilities have been incorporated into the proposed project to serve the anticipated demands of project-related uses. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to parks and recreational facilities.
Open Space and Conservation Element	
Goal 1: To preserve the special natural features which define the Santa Clarita planning area and give it its distinct form and identity.	Consistent. The only natural feature in proximity to the project site requiring preservation is the Santa Clara River. However, the proposed project would not adversely affect the river or contribute to the degradation of the Santa Clarita planning area's distinct form and identity.
Policy 1.1: Utilize major environmental features (significant landforms, significant ridgelines, significant vegetation, ecologically significant areas, other natural resources) as open space within the planning area.	Consistent. No major environmental features exist on the project site. However, the adjacent Santa Clara River is integrated into project design through trail connections to the Santa Clara River Trail.
Policy 1.11: Encourage the expansion of the paseo systems and the building of paseos or linkages between parks and streets.	Consistent. The proposed project includes linkages between pedestrian and bicycle pathways that serve in a similar capacity as paseo systems that link various portions of the project site and off-site areas.
Goal 3: To protect significant ecological resources and ecosystems, including, but not limited to, sensitive flora and fauna habitat areas.	Consistent. The project site does not contain any significant ecological resources. The proposed project would not adversely affect the Santa Clara River ecosystem or any resident species or habitats.
Policy 3.3: Identify and protect areas of significant ecological value, including, but not limited to, significant ecological habitats such as the wildlife corridor between the Santa Susana Mountains and the San Gabriel Mountains and preserve and enhance existing Significant Ecological Areas (SEAs).	Consistent. The project site does not contain any significant ecological resources. The proposed project would not adversely affect the Santa Clara River SEA, including any resident species or habitats.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 3.4: Consolidate open space areas that represent regionally significant wildlife corridors to promote continued wildlife productivity and diversity on a regional scale and restrict development and intensive human activity in areas which sustain rare or endangered species, such as migratory bird species, fish, and rare plant species.	Consistent. The project site does not currently function as a wildlife corridor, given its location and limited size. Furthermore, the proposed project would not limit the function of the Santa Clara River as a wildlife corridor, as no development is proposed within the river channel.
Policy 3.5: Promote only compatible and, where appropriate, passive recreational uses in areas designated as Significant Ecological Areas (SEA) consistent with the particular needs and characteristics of each SEA, as determined by field investigation.	Consistent. No development is proposed within the adjacent Santa Clara River SEA. As such, no adverse impacts to the SEA are expected.
Policy 3.7: Preserve to the extent feasible natural riparian habitat and ensure that adequate setback is provided between riparian habitat and surrounding urbanization.	Consistent. No riparian habitat exists within the development footprint, and given the nature of the proposed development and the setback distance from the Santa Clara River, the proposed project would not have an adverse effect on riparian habitat within the Santa Clara River channel.
Policy 3.10: Development shall consider to the extent feasible, preservation of wildlife corridors and provide adequate setbacks.	Consistent. The project site does not currently function as a wildlife corridor, given its location and limited size. Furthermore, the proposed project would not limit the function of the Santa Clara River as a wildlife corridor, as no development is proposed within the river channel, and the project design provides an adequate setback from the river channel.
Goal 4: To preserve open space areas for recreational use as a natural buffer to more intensive land uses.	Consistent. The project site has been graded and cleared for development, and no undisturbed open space exists on-site. The proposed project would include 2.5 acres of recreational and landscaped areas, which would allow for passive recreational uses.
Policy 4.1: Identify potential sites for parks and recreational open space within the City, including the Santa Clara and South Fork Rivers.	Consistent. The project site is located along the Santa Clara River, and includes recreational and open space areas that would serve to provide views of the river and offer access to the Santa Clara River Trails.
Policy 4.3: Provide a diverse mix of recreational use and scenic view areas within open space sites.	Consistent. The proposed project includes recreational and open space areas that would serve to provide views of the Santa Clara River and access to the Santa Clara River Trails.
Policy 4.4: Encourage the cohesive development of trails and open space as a unified system, contiguous throughout the City and planning area with linkages to County, state, federal, and other parklands and trail systems.	Consistent. The proposed project includes a system of various pathways and recreational and open space areas that connect to local and regional trails in the project vicinity, including the Santa Clara River Trails.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 4.5: Utilize the Santa Clara River as a focal point for development of an integrated system of bikeways, trails, parks, water features, and open space.	Consistent. The proposed project includes a system of various pathways and recreational and open space areas that connect to local and regional trails in the project vicinity, including the Santa Clara River Trails.
Policy 4.12: Protect adjacent neighborhood areas from noise, visual, and traffic impacts of new active recreational areas through such measures as the use of buffer zones, landscaping and walls as mitigation.	Consistent. The proposed project's limited active recreational areas would be shielded from view and noise generation by proposed structures and landscaping. The traffic generated by active recreational uses, if any, is not anticipated to affect the surrounding community, as traffic for the recreational uses would generally be contained on the project site. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to proposed recreational facilities.
Policy 4.14: Promote a coordinated public system of hiking, bicycle, pedestrian, and equestrian trails.	Consistent. The proposed project includes a linked system of pathways that would be accessible to the public. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to proposed trail facilities.
Policy 4.15: Ensure the provision of a multiple use regional trail system which links major recreational facilities and populated areas.	Consistent. The proposed project provides linkages to local and regional trails and transportation corridors, which would provide access to recreational facilities and other residential neighborhoods. Refer to Section 5.10, Parks and Recreation, for a discussion of impacts and mitigation measures related to proposed trail facilities.
Policy 4.16: Seek park sites and open space areas having areas of natural scenic beauty which can be conserved and enjoyed by the public, as well as areas having recreational opportunities.	Consistent. The project site does not contain any natural scenic areas or other valuable resources.
Policy 4.17: Promote the establishment of Homeowners Associations and/or Landscape Maintenance Districts within new developments as a means of preserving and maintaining on-site recreation and open space areas.	Consistent. Homeowners' associations or property managers, as applicable, would be responsible for landscape and recreational area maintenance.
Policy 4.18: Maintain public access to open space areas, where appropriate.	Consistent. The proposed project includes open space areas with connections to public trails, thereby allowing public access to the site.
Goal 7: To protect the quality and quantity of local water resources, including the natural productivity of all surface and groundwater, and important watershed and recharge areas.	Consistent. The proposed project does not include a sizable number of land uses that would produce potentially large quantities of pollutants that could compromise water quality. Pollutants would be treated, as required by applicable stormwater permits, by proposed stormwater facilities on-site. Refer to Section 5.7, Hydrology and Water Quality, for a discussion of impacts and mitigation measures related to surface and groundwater quality.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 7.1: Protect and preserve the supply and quality of water resources in cooperation with federal, state, and regional water resource planning programs and regulations.	Consistent. The proposed project would support water quality programs, as required by affected public agencies charged with water quality regulation.
Policy 7.3: Maintain the natural productivity of streams, rivers, and other water bodies by supporting regulatory practices which prevent erosion and minimize pollutant content in surface runoff from major development.	Consistent. The proposed project would include various stormwater facilities that minimize erosion and water quality impacts, particularly those that may compromise the quality of receiving waters such as the Santa Clara River. Refer to Section 5.7, Hydrology and Water Quality, for a discussion of impacts and mitigation measures related to erosion, sedimentation, and stormwater quality.
Policy 7.4: Prohibit the flow of polluting chemicals or sediments into groundwater recharge areas.	Consistent. Stormwater runoff would be treated, to the extent feasible, by local stormwater infrastructure, including on-site facilities. Refer to Section 5.7, Hydrology and Water Quality, for a discussion of impacts and mitigation measures related to stormwater quality.
Policy 7.6: Require storm control systems, where necessary, to conform to the natural drainage patterns of the area.	Consistent. The project site has been graded and cleared for development, and therefore the natural drainage pattern of the site has already been altered. The proposed project's drainage system incorporates existing off-site natural drainages for conveyance of stormwater flows. Refer to Section 5.7, Hydrology and Water Quality, for a discussion of impacts and mitigation measures related to stormwater flows and site drainage.
Policy 7.7: Utilize floodways for the purpose of recreation, scenic relief, groundwater recharge, wildlife protection, and other compatible uses.	Consistent. The project site is adjacent to a major existing natural drainage area, the Santa Clara River, which is used for recreation, scenic views, groundwater recharge and wildlife use. Refer to Section 5.7, Hydrology and Water Quality, for a discussion of impacts and mitigation measures related to stormwater flows and site drainage.
Policy 7.8: Protect watersheds that represent significant components of local and regional waterways and/or which contribute to the integrity of surrounding associated habitats.	Consistent. The project site's stormwater flows are conveyed directly to the Santa Clara River, which functions as a wetland habitat area, and would be preserved under the proposed project. Refer to Section 5.7, Hydrology and Water Quality, for a discussion of impacts and mitigation measures related to stormwater flows and site drainage.
Policy 7.12: Encourage the use of native and drought tolerant plant species for revegetation and landscaping.	Consistent. To the extent practicable, native plant species would be used for revegetation and landscaping on the project site.
Policy 7.13: Protect groundwater quality through the establishment of a sanitary sewer system hookup program to require the connection of all urban uses/densities.	Consistent. The entire project site and proposed uses would be connected to, and served by, the existing sanitary sewer system.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Goal 8: To reduce the community's reliance on nonrenewable energy resources through the initiation of energy conservation practices and the utilization of cost-effective renewable energy opportunities and available technologies.	Consistent. The proposed project would incorporate all applicable conservation measures and technologies into project design, and would meet all the State's standards for improving energy efficiency.
Policy 8.1: Promote the conservation of energy in the planning area.	Consistent. The proposed project would be designed to be energy-conservative, to the extent practicable.
Policy 8.2: Promote energy conservation measures and energy-efficient financing to homeowners and builders.	Consistent. The proposed project would be served by Southern California Edison, which provides incentives to homeowners and property managers to utilize energy conservation technologies and programs.
Policy 8.4: Consider incentives to builders, developers and architects to voluntarily exceed California Building Code energy efficiency standards (Title 24, part 6).	Consistent. The proposed development would meet or exceed the State's energy efficiency standards.
Policy 8.5: Encourage the incorporation of conservation features, such as solar panels, in the design of new development and the installation of conservation devices in existing developments.	Consistent. Subsequent development of proposed uses may include alternative energy technologies and other conservation measures, depending on the particular development proposed.
Policy 8.6: Encourage Green Building principles for new building and renovation projects.	Consistent. The proposed project would utilize "green" building principles, if and as deemed appropriate by the City of Santa Clarita.
Policy 8.7: Encourage new subdivision maps to provide for natural heating and cooling opportunities, such as placing buildings in an east-west orientation to optimize southern solar exposure.	Consistent. The proposed project proposes development oriented to maximize views and associated solar exposure. Proposed development would provide opportunities to incorporate passive solar applications, and would include landscaping and shade trees to reduce cooling needs during summer months.
Policy 8.11: Require developers to plant appropriate shade trees in all new developments, particularly in parking lots, to help reduce ambient temperatures.	Consistent. The proposed project would include the requisite amount of shade trees, placement of which would be subject to review and approval by the City of Santa Clarita.
Policy 8.12: Encourage developers and contractors to maximize use of recycled materials and maximize recycling of construction and demolition materials in project design and construction.	Consistent. The proposed project would be required to comply with the provisions of the City of Santa Clarita's Source Reduction Recycling Element (SRRE), which would include requirements for recycling of debris and use of recycled materials in construction. Refer to Section 5.11, Solid Waste, for a discussion of impacts and mitigation measures related to solid waste generation, recycling, and diversion.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Air Quality Element	
Goal 1: To minimize conflicts between City and other governmental agency air quality policies, plans, and programs.	Consistent. The proposed project would not result in any conflicts with City and other agencies' air quality policies, plans, and programs. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures related to air quality policies, plans, and programs.
Goal 2: To reduce emissions resulting from work and non-work vehicle trips by private and local government employees.	Consistent. The proposed project's air quality assessment determined that the proposed project's operational air emissions would exceed SCAQMD thresholds for operational vehicle emissions. However, the proposed project would reduce air pollutant emissions to the maximum extent feasible, as required by the SCAQMD, with implementation of applicable mitigation measures. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures related to air quality.
Policy 2.3: Develop in the City and promote in the planning area alternative transportation systems including, but not limited to, comprehensive bus service, bicycle and pedestrian trails, and associated support facilities.	Consistent. The proposed project includes a linked system of pathways, bike lanes, trails, and public transit facilities to encourage alternative transportation.
Goal 3: To reduce emissions from peak-period truck travel and number and severity of truck-involved accidents.	Consistent. Although the proposed project would not necessarily directly contribute to truck-related accidents, truck-related trips associated with construction activities would create peak hour emissions in excess of established SCAQMD thresholds. However, the proposed project would reduce air pollutant emissions to the maximum extent feasible, as required by the SCAQMD, with implementation of applicable mitigation measures. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures related to air quality and air pollutant emissions.
Policy 3.3: Reduce commercial truck access through residential neighborhoods.	Consistent. Although truck traffic would be required to serve the proposed project during project operation, such as incidental deliveries, garbage trucks, and moving trucks, truck traffic and access through the site would be limited, and would not create substantial air pollutant emissions within the proposed neighborhood.
Policy 3.4: Require on-street haul routes for earth movement to identify appropriate, safe travel routes to minimize impacts to other vehicular traffic, pedestrians, and sensitive land uses.	Consistent. The proposed project construction activities would be subject to haul route restrictions, subject to all applicable City requirements. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures related to air quality and air pollutant emissions.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Goal 4: To reduce transportation source emissions by promoting efficient and creative parking plans which reduce vehicle emissions.	Consistent. The proposed parking facilities would be subject to review and approval by the City of Santa Clarita, and would address vehicle-mile reduction and associated emissions reductions, as deemed necessary by City staff.
Policy 4.1: Promote local solutions to parking management, including such actions as parking facility design which reduces vehicle idling or programs which discourage the use of single-occupant vehicles in congested areas.	Consistent. The proposed parking facilities would implement the City's most recent programs and designs intended to reduce vehicle emissions.
Policy 4.2: Encourage parking areas that provide appropriate technology (such as electric vehicle charging stations) and parking preferences for alternative fuel/low emission vehicles.	Consistent. The proposed parking areas would incorporate the City of Santa Clarita's recommendations for facilities and equipment that support emissions reductions programs, as appropriate.
Goal 5: To reduce vehicle emissions through traffic flow improvements.	Consistent. The proposed project was determined to result in less than significant traffic impacts, with incorporation of transportation system improvements recommended in the project's traffic impact analysis. This includes paying a traffic mitigation fee to the Bouquet Bridge and Thoroughfare District, in order to provide the necessary traffic improvements to accommodate growth within the District boundaries. Furthermore, the proposed project would also result in less than significant air quality impacts related to mobile source vehicle emissions. Refer to Section 5.4, Traffic and Circulation, for a discussion of impacts and mitigation measures related to traffic and transportation facilities. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures associated with project-related air emissions.
Policy 5.3: Maintain adequate levels of service on roadways and at intersections to reduce emissions from delays.	Consistent. Project-related traffic improvements would ensure that adequate levels of service on roadways and intersections in the project area are maintained. This includes paying a traffic mitigation fee to the Bouquet Bridge and Thoroughfare District, in order to provide the necessary traffic improvements to accommodate growth within the District boundaries. Additionally, the proposed project would result in less than significant air quality impacts related to mobile source vehicle emissions. Refer to Section 5.4, Traffic and Circulation, and Section 5.5, Air Quality, for a discussion of impacts and mitigation measures related to traffic levels of service and air quality, respectively.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 5.4: Provide Class One bike trails to increase capacity of on-street travel lanes.	Consistent. The proposed project includes a linked network of pathways, bike lanes, and linkages to various trails, which would reduce bicycle traffic on local roadways.
Goal 6: To reduce vehicle emissions through promotion of appropriate building and site design criteria.	Consistent. The project's design and location of development are subject to review and approval by the City's Building and Safety Division, and to the extent feasible, are intended to reduce vehicle trips. The proposed project would result in less than significant air quality impacts related to mobile source vehicle emissions. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures associated with project-related air emissions.
Policy 6.1: Encourage new development, through the project review process, to incorporate appropriate building and site design criteria to minimize vehicular emissions, such as those resulting from on-site circulation patterns.	Consistent. The project's design, as depicted in the Tentative Tract Map, would be subject to review and approval by the City of Santa Clarita. The proposed project would result in less than significant air quality impacts related to mobile source vehicle emissions. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures associated with project-related air emissions.
Policy 6.2: Provide on-site employee passive recreation areas (such as bike parking, locker rooms, outdoor seating and lunch areas) in new commercial and industrial uses to reduce vehicle trips.	Consistent. As required by the City of Santa Clarita, the proposed retail component would include bike racks, and is located adjacent to public transit facilities. Additionally, the proposed project includes various active and passive recreation areas on-site, as well as connections to local and regional trails, which would serve to encourage alternative transportation and reduce vehicle trips.
Policy 6.4: Encourage appropriate lot orientation and building design that provide for passive and/or natural heating and cooling opportunities that reduce dependency on air polluting energy sources.	Consistent. The project's design would support energy-reducing programs, subject to review and approval by the City.
Policy 6.5: Promote building and landscaping design that incorporates the use of solar energy, particularly the use of solar water heating for structures and swimming pools.	Consistent. If determined appropriate by the City or the proposed project developer(s), solar energy applications would be included in proposed development. Proposed landscaping for the proposed project would reduce "heat island" effects in parking areas and around structures, which would serve to reduce energy consumption during periods of hot weather.
Policy 6.6: Encourage pedestrian oriented design and mixed-use development to reduce vehicle trips.	Consistent. The proposed project incorporates many pedestrian-friendly design aspects, including trails, sidewalks, pathways, bike lands, public transit facilities, and convenient access to the Santa Clarita Metrolink Commuter Rail station, all of which serve to reduce project-related vehicle trips.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Goal 7: To reduce reactive organic gas (ROG) and particulate emissions from building materials and methods.	Consistent. The proposed project would create particulate matter and ROG emissions (including VOCs from architectural coatings) in excess of established SCAQMD thresholds. However, the proposed project would reduce air pollutant emissions to the maximum extent feasible, as required by the SCAQMD, with implementation of applicable mitigation measures. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures associated with project-related air emissions.
Policy 7.1: Encourage the use of low-polluting building and construction methods and materials.	Consistent. As deemed appropriate or as required by the proposed project's development agreement, low-polluting building and construction methods and materials would be used. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures associated with project-related air emissions.
Policy 7.2: Encourage building designs, materials and equipment that reduce the potential for indoor air pollution.	Consistent. Indoor air pollution would be minimized, as required by the City of Santa Clarita. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures related to air quality.
Goal 8: To reduce emissions from energy consumption in residential, commercial, and governmental facilities.	Consistent. Energy consumption and associated emissions would be minimized through project design and applicable conservation programs.
Policy 8.2: Encourage the use of alternative energy sources.	Consistent. The proposed project would incorporate alternative energy sources, if determined necessary or more cost-effective.
Policy 8.3: Promote the use of landscaping, especially trees, to reduce heat buildup, save energy, and help cleanse the air.	Consistent. The proposed project includes a landscaping plan that provides for shade trees to reduce cooling needs during summer months.
Policy 8.4: Encourage proper solar orientation and design for new lots and buildings to reduce energy consumption.	Consistent. To the extent feasible, buildings would be oriented to maximize passive solar potential.
Policy 8.6: Encourage the use of appropriate, well-directed lighting to minimize light spillover and conserve energy.	Consistent. The proposed project's lighting plan would be subject to review and approval by the City of Santa Clarita, and would be intended to reduce light spillover and unnecessary lighting.
Goal 10: To reduce vehicle emissions by creating an urban form that efficiently utilizes urban infrastructure and services.	Consistent. The proposed project includes all necessary facilities and would be designed to reduce vehicle trips and associated vehicle emissions to the extent practicable given physical constraints.
Policy 10.1: Contribute to the reduction of vehicle miles traveled by achieving a more reasonable job/housing balance.	Consistent. The proposed project includes limited commercial retail uses that would provide local jobs, and would include residential uses close to major transportation thoroughfares. Refer to Section 5.2, Population, Employment, and Housing, for a discussion of impacts and mitigation measures related to the jobs/housing balance.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 10.4: Encourage land use patterns that integrate neighborhood commercial centers with surrounding residential uses.	Consistent. The proposed project includes commercial uses that would be supported, at least in part, by proposed residential uses at the site, and would be located for convenient access by residents and motorists traveling along Soledad Canyon Road.
Policy 10.5: Encourage opportunities for neo-traditional neighborhoods and mixed-use developments with the aim of reducing vehicle trips and vehicle miles traveled.	Consistent. The project design is intended to maximize efficiency and reduce vehicular traffic to the extent feasible, given physical site constraints.
Policy 10.7: Encourage transit-friendly and pedestrian-friendly improvements and design in commercial, industrial and residential development to provide convenient alternatives to single-occupancy vehicle travel.	Consistent. The proposed project includes various pedestrian, bicycle, and public transit improvements to encourage alternative modes of transportation.
Goal 11: To reduce vehicle emissions by promoting the use of cleaner alternative fuels for vehicles.	Consistent. As deemed appropriate by the City of Santa Clarita, development on-site may include facilities for alternative fueled vehicles.
Policy 11.3: Encourage parking for the alternative fuel vehicles in commercial and industrial developments.	Consistent. As deemed appropriate by the City of Santa Clarita, proposed development on-site may include facilities for alternative fueled vehicles.
Goal 13: To reduce particulate (dust) emissions.	Consistent. The proposed project's construction activities would comply with SCAQMD's Rule 403 – Fugitive Dust, and would reduce dust emissions, as required by the proposed project's mitigation monitoring program. Nonetheless, the proposed project would exceed established SCAQMD thresholds for fugitive dust PM_{10} emissions. However, the proposed project would reduce air pollutant emissions to the maximum extent feasible, as required by the SCAQMD, with implementation of applicable mitigation measures. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures associated with project-related air emissions.
Policy 13.1: Implement measures to reduce particulate emissions from paved and unpaved roads, parking lots, and road and building construction sites.	Consistent. The proposed project would comply with SCAQMD rules and requirements regulating dust and other particulate emissions. Furthermore, the proposed project would reduce air pollutant emissions to the maximum extent feasible, as required by the SCAQMD, with implementation of applicable mitigation measures. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures related to air pollutant emissions.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 13.5: Protect Santa Clarita Valley residents and other sensitive receptors from exposure to unsafe levels of criteria pollutants or precursors, such as reactive organic gases, particulates, oxides of nitrogen, oxides of sulfur, lead, and carbon monoxide, by requiring that developers and owners of proposed new facilities mitigate emissions expected to result from completed projects to levels where they will not have a significant impact on local receptors.	Consistent. The air quality assessment concluded that impacts related to air pollutant emissions from operational mobile sources would be less than significant with implementation of applicable mitigation measures. Refer to Section 5.5, Air Quality, for a discussion of impacts and mitigation measures related to air quality.
Noise Element	
Goal 1: To protect the health and welfare of the residents of the City Santa Clarita and the planning area by the elimination, mitigation, and prevention of significant existing and future noise levels.	Consistent. Per the acoustical analysis, impacts on residents of the City of Santa Clarita would be less than significant with implementation of applicable mitigation measures to reduce noise. Refer to Section 5.6, Noise, for a discussion of impacts and mitigation measures associated with project-related noise.
Policy 1.3: Control noise sources adjacent to residential, recreational, and community facilities, and those land uses classified as noise sensitive land uses.	Consistent. Noise sources would be reduced, where appropriate, to be protective of sensitive receptors. Impacts to residents in the project vicinity from Saugus Speedway events would be significant even with implementation of applicable mitigation measures. However, such measures would reduce noise to the maximum extent feasible, as required by the City's Noise Ordinance. Refer to Section 5.6, Noise, for a discussion of impacts and mitigation measures related to noise.
Goal 2: To prevent and mitigate adverse impacts of traffic generated noise on the residents of the City and the planning area.	Consistent. Impacts to residents in the project vicinity from traffic-related noise would be less than significant with implementation of applicable mitigation measures to reduce noise. Refer to Section 5.6, Noise, for a discussion of impacts and mitigation measures related to noise.
Policy 2.2: Encourage existing and future noise sensitive land uses to construct sound barriers to protect against significant noise levels, where appropriate and feasible. Noise absorbing barriers are encouraged.	Consistent. Per the acoustical analysis, barriers would be constructed, where appropriate, to reduce noise impacts to sensitive receptors, to the satisfaction of the City of Santa Clarita. Refer to Section 5.6, Noise, for a discussion of impacts and mitigation measures related to noise.
Policy 2.4: Reduce significant noise levels related to through-traffic in residential areas by promoting subdivision circulation designs to contain a hierarchy of streets, which efficiently direct traffic to highways.	Consistent. The proposed project's circulation system is designed to reduce through-traffic and restrict use of local streets to trips beginning or terminating at the project site. Refer to Section 5.4, Traffic and Circulation, for a discussion of impacts and mitigation measures related to project-related traffic and facilities.
Policy 2.8: Design parks, recreational facilities, and schools to minimize noise impacts to residential uses.	Consistent. The location of proposed recreational facilities would reduce noise impacts on surrounding residential uses through surrounding structural design, wall construction, and landscaping. Refer to Section 5.6, Noise, for a discussion of impacts and mitigation measures related to noise.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Goal 3: To prevent and mitigate significant noise levels in residential neighborhoods.	Consistent. Noise levels are not anticipated to be significant for the majority of the proposed project, per the acoustical analysis. Noise sources would be mitigated, as required by the City of Santa Clarita. Refer to Section 5.6, Noise, for a discussion of impacts and mitigation measures related to noise.
Policy 3.1: Require that developers of new single-family and multi-family residential neighborhoods in areas where the ambient noise level exceeds 55 dB(A) (night) and 65 dB(A) (day) provide mitigation measures for the new residences to reduce the interior noise levels.	Consistent. The proposed project would include mitigation measures to achieve applicable interior noise standards. Refer to Section 5.6, Noise, for a discussion of impacts and mitigation measures related to noise.
Policy 3.2: Ensure that special noise sources, such as construction activities, leaf blowers, motorized lawn mowers, garbage collection, truck deliveries, and other activities, which produce significant discernible noise do not create undue disturbances in residential neighborhoods.	Consistent. The proposed project would not result in significant noise to on- or off-site sensitive receptors during project operation. Special events at the Saugus Speedway facility may produce discernible noise, but such events would be temporary, and mitigation would reduce impacts to residents to the extent feasible. Refer to Section 5.6, Noise, for a discussion of impacts and mitigation measures related to noise.
Policy 3.3: Require that those responsible for construction activities develop techniques to mitigate or minimize the noise impacts on residences, and adopt standards which regulate noise from construction noise activities which may occur in or near residential neighborhoods.	Consistent. According to the acoustical analysis, construction activities would not result in significant noise impacts with implementation of applicable mitigation measures. Refer to Section 5.6, Noise, for a discussion of impacts and mitigation measures related to noise.
Goal 4: To prevent, mitigate, and minimize noise spillover from commercial/industrial uses into adjacent residential neighborhoods.	Consistent. The nature, intensity, and location of proposed retail uses would minimize the possibility of adverse noise effects on existing or proposed residential neighborhoods. Refer to Section 5.6, Noise, for a discussion of impacts and mitigation measures related to noise.
Safety Element	
Goal 1: Minimize risks to life and property associated with fault rupture and seismically-induced groundshaking.	Consistent. The proposed project would comply with all applicable building code requirements and any requirements of the City of Santa Clarita.
Policy 1.2: Require all structures to meet or exceed state required design standards pertaining to earthquake resistance.	Consistent. The proposed on-site developments would meet or exceed all applicable seismic safety design standards, subject to review and approval by the Building and Safety Division.
Policy 1.3: Provide setbacks, as determined to be necessary, for any proposed development located on or near an active or potentially active fault. Appropriate setback distances will be determined through an appropriate geologic investigation.	Consistent. No faults exist at the project site that could result in fault rupture hazards to proposed developments at the project site.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 1.4: Review the use of seismic design criteria and standards for linear system facilities, including transmission lines, water and sewage systems, and highways to ensure that they are adequate in protecting the public. Actual weaknesses or limitations within the system should also be determined and mitigated where feasible.	Consistent. All associated infrastructure improvements to serve the proposed project would be subject to review and approval by the affected agencies, and would be designed to address any potential weaknesses or hazards.
Policy 1.5: As necessary to avoid geologic hazards, require project modifications, including but not limited to hazard mitigation, project redesign, elimination of building sites and the delineation of building envelopes, building setbacks and foundation requirements.	Consistent. The proposed project would comply with all applicable requirements of the City's Building and Safety Division related to seismic safety.
Goal 2: Minimize risks to life and property associated with geologic hazards, including, but not limited to, landsliding, liquefaction, debris flow, mudslides, rockfalls, and expansive soils.	Consistent. The geotechnical report addresses all such geologic hazards and provides mitigation measures recommended to address any potential related impacts on proposed development. All applicable recommendations for grading and site preparation relative to geologic hazards have been completed during site grading.
Policy 2.1: Continue to require that all construction be in accordance with the most current version of the Uniform Building Code and California Building Code.	Consistent. The proposed project would comply with all applicable building codes, as deemed appropriate by the City of Santa Clarita.
Policy 2.2: Continue to require site-specific geotechnical studies for new development proposals in zones of required investigation as defined in the Seismic Hazards Mapping Act and elsewhere as appropriate.	Consistent. The geotechnical investigation performed for the project site was completed by a qualified geotechnical engineer. All recommendations have been implemented for grading and site preparation to allow for safe development of the project site.
Goal 5: To minimize potential damage and hazards resulting from fire.	Consistent. The proposed project has incorporated into its design all recommendations and requirements of the City of Santa Clarita and Los Angeles County Fire Department (LACFD).
Policy 5.2: All new development must be served by a water system that meets the fire flow requirements established by the Fire Department.	Consistent. The proposed project's water system has been designed to meet the fire flow requirements of the LACFD.
Policy 5.3: Require all public and private roadways to be constructed according to the minimum standards provided for in this General Plan to ensure that vehicular access for emergency vehicles can be maintained.	Consistent. The proposed project's circulation system was designed to meet the access requirements of the LACFD and Los Angeles County Sheriff's Department (LACSD), consistent with the City's General Plan.
Policy 5.5: Provide fire-resistant landscaped buffer zones between high-risk fire hazard areas and urban development, and restrict access from development into the wilderness areas during periods of high fire risk.	Consistent. The project site is not located in an area considered to be at high risk for wildfires. Although the project site is in the vicinity of hillside areas with high fire potential, the project's location minimizes the likelihood of risks related to wildfires.
Policy 5.6: All new development proposals near the designated wildfire hazard zones should identify evacuation/emergency routes.	Consistent. Emergency routes have been identified for the project site, subject to review and approval by affected public safety agencies.

Table 5.1-1 (continued)
Consistency With City of Santa Clarita General Plan Elements

City of Santa Clarita General Plan Implementing Goals and Policies	Consistency of Proposed Project
Policy 5.7: Development in or adjacent to wilderness/chaparral areas should have a fuel modification zone to minimize the risk of wildfire as appropriate. Fuel modification areas should be encouraged in the forest areas when adjacent to residential development.	Consistent. The project site is not located in an area considered to be at high risk for wildfires. Although the project site is in the vicinity of hillside areas with high fire potential, the project's location minimizes the likelihood of risks related to wildfires.
Policy 5.8: Encourage dual access, particularly in mountainous and high fire risk areas.	Consistent. To the extent feasible given physical site constraints, the proposed project's circulation system provides dual access for the proposed development.

As indicated in *Table 5.1-1*, the proposed project would not conflict with any applicable goals and policies of the *City of Santa Clarita General Plan*. Therefore, the proposed project would be consistent with the applicable goals and policies of all the *General Plan* Elements, and impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

Unified Development Code

- ***THE PROPOSED PROJECT WOULD NOT CONFLICT WITH THE STANDARDS AND REQUIREMENTS OF THE CITY OF SANTA CLARITA UNIFIED DEVELOPMENT CODE.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: If the proposed project is approved, the zoning districts for the project site would be Residential Medium High-Planned Development (RMH-PD) and Commercial Neighborhood-Planned Development (CN-PD) and the Valley Center Concept Overlay would also be maintained. The proposed residential and commercial components of the project have been planned, and would be implemented, in conformance with the applicable permitted uses and development standards contained in the UDC for these zoning districts. The proposed project includes structures up to 50 feet in height, which are permitted uses within the respective zoning districts. *Table 5.1-2, Development Standards for Proposed Project Uses*, summarizes the applicable development standards for the proposed project.

Table 5.1-2
Development Standards for Proposed Project Uses

Development Standard	Requirement
Residential Medium High (RMH)	
Maximum Density Per Gross Acre	20 dwelling units/acre
Minimum Net Lot Size	5,000 square feet
Minimum Lot Width	50 feet
Minimum Front Yard Setback	20 feet
Minimum Side Yard Setback (Each Side)	5 feet
Minimum Rear Yard Setback	15 feet
Maximum Height of Main Structure/Accessory Structure	35 feet/15 feet
Commercial Neighborhood (CN)	
Maximum Floor Area Ratio	0.375:1
Minimum Setback from Right-of-Way (local street/major secondary highway)	5 feet/10 feet
Maximum Building and Structure Height	35 feet
Minimum Structure Setback from Residential Zones or Uses	25 feet
Minimum Setback for Public and Semi-Public Uses from Residential Property Lines	25 feet
Source: Santa Clarita Unified Development Code Sections 17.15.010 (Residential) and 17.15.030 (Commercial)	

The proposed development would conform to all applicable development standards of the UDC with the exception of building heights for proposed structures, which would extend up to 50 feet in height. However, building heights in excess of the 35-foot limit are permitted with the issuance of a Conditional Use Permit (CUP). As such, with approval of the project, including the General Plan Amendment, Zone Change, Tentative Tract Map, and CUP for residential building heights, the proposed development would be consistent with all applicable zoning standards and other standards set forth by the UDC. No adverse impacts relative to the proposed project's consistency with the UDC are anticipated.

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

***Level of Significance After Mitigation**:* Not applicable.

CONSISTENCY WITH SCAG LAND USE PLANS, POLICIES, AND ORDINANCES

SCAG Regional Comprehensive Plan and Guide

- ***THE PROPOSED PROJECT WOULD NOT CONFLICT WITH APPLICABLE POLICIES OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS' REGIONAL COMPREHENSIVE PLAN AND GUIDE.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

***Impact Analysis**:* The Southern California Association of Governments (SCAG) *Regional Comprehensive Plan and Guide* (RCPG) contains goals and numerous policies to guide regional development and infrastructure improvements throughout Southern California. See

Table 5.1-3, Proposed Project Consistency with SCAG Regional Comprehensive Plan And Guide Policies, for a detailed analysis of the proposed project's consistency with the policies of the RCPG. The policies contained in *Table 5.1-3* were identified by SCAG as requiring analysis in this EIR. However, several of the identified policies are not applicable to the proposed project, as stated in the applicable consistency statements.

Table 5.1-3
Proposed Project Consistency with SCAG
Regional Comprehensive Plan and Guide Policies

SCAG RCPG Policies		Proposed Project Consistency Statement
Growth Management Chapter (GMC)		
3.01	The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.	Consistent. The proposed project would not affect the population, housing, and employment forecasts for the region utilized by SCAG or their application in implementation and review of development plans. Additionally, the anticipated population, housing, and employment growth in the Santa Clarita Valley resulting directly from the proposed project, although it is too small to be listed specifically, has been accounted for in SCAG subregional growth projections for the Santa Clarita Valley, and thus the proposed project would not exceed the growth already envisioned for the Valley. Therefore, the proposed project would be consistent with Policy 3.01.
3.03	The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.	Consistent. The proposed project would not obstruct implementation of SCAG's regional growth policies. The proposed project would, to some degree, include improvements to public facilities, utilities, and transportation systems, but it is not anticipated that such improvements or programs would adversely affect implementation of SCAG's regional growth policies. The proposed project would be consistent with Policy 3.03.
2004 Regional Transportation Plan (RTP)		
1	Transportation investments shall be based on SCAG's adopted Regional Performance Indicators.	Consistent. The proposed project is not expected to have any effect on SCAG's transportation investments as planned in the 2004 RTP. Policy 1 of the RTP is not applicable to the proposed project.
2	Ensuring safety, adequate maintenance, and efficiency of operations on the existing multi-modal transportation system will be RTP priorities and will be balanced against the need for system expansion investments.	Consistent. The proposed project would not hinder SCAG's ability to ensure safety, adequate maintenance, and efficiency of the existing transportation system while balancing them with the need for system expansion investments. RTP Policy 2 is not applicable to the proposed project.
3	RTP land use and growth strategies that differ from currently expected trends will require a collaborative implementation program that identifies required actions and policies by all affected agencies and subregions.	Consistent. Any collaborative implementation program for identifying actions and policies for RTP land use and growth strategies falls under the responsibilities of SCAG and any involved public agencies. Policy 3 of the RTP does not apply to the proposed project.

Table 5.1-3 (continued)
Proposed Project Consistency with SCAG
Regional Comprehensive Plan and Guide Policies

SCAG RCPG Policies		Proposed Project Consistency Statement
4	HOV gap closures that significantly increase transit and rideshare usage will be supported and encouraged, subject to Policy #1.	Consistent. Support for or encouragement of closing gaps in the high-occupancy-vehicle (HOV) lanes is the responsibility of SCAG. Policy 4 of the RTP is not applicable to the proposed project.
5	Progress monitoring on all aspects of the Plan, including timely implementation of projects, programs, and strategies, will be an important and integral component of the Plan.	Consistent. It is the responsibility of SCAG to ensure that progress monitoring on all aspects of the RTP occurs as planned. Policy 5 of the RTP does not apply to the proposed project.
GMC Policies Related to the RCPG Goal to Improve the Regional Standard of Living		
3.05	Encourage patterns of urban development and land use, which reduce costs on infrastructure construction and make better use of existing facilities.	Consistent. The project site has been graded and site preparation has been completed to allow for development of the site with urban uses. The site is also located adjacent to existing urban development, and all necessary infrastructure to serve the proposed project has either been constructed at the site, or would be constructed as part of the proposed development. As such, the proposed project would be consistent with Policy 3.05.
3.09	Support local jurisdictions' actions to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services.	Consistent. The proposed project would contribute a "fair share" payment for provision of public services and infrastructure, in accordance with the requirements of affected public service agencies and the City of Santa Clarita. The proposed project would be consistent with Policy 3.09.
3.10	Support local jurisdictions' actions to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness.	Consistent. The proposed project would not affect the ability of local jurisdictions to expedite the permitting process to maintain economic vitality and competitiveness. Policy 3.10 is not applicable to the proposed project.
GMC Policies Related to the RCPG Goal to Improve the Regional Quality of Life		
3.12	Encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.	Consistent. The proposed project would provide for public transit access, including the nearby Santa Clarita Metrolink commuter rail station, and would also include an integrated system of sidewalks, bike lanes and trail connections that would offer many opportunities for residents and visitors to utilize alternative forms of transportation. Therefore, the proposed project would be consistent with Policy 3.12.

Table 5.1-3 (continued)
Proposed Project Consistency with SCAG
Regional Comprehensive Plan and Guide Policies

SCAG RCPG Policies		Proposed Project Consistency Statement
3.14	Support local plans to increase density of future development located at strategic points along the regional commuter rail, transit systems, and activity centers.	Consistent. The proposed project is located along Soledad Canyon Road, which is a major thoroughfare in the City, is in close proximity to the Santa Clarita Metrolink commuter rail station, and includes development at relatively high densities at this location. As such, the proposed project would be consistent with Policy 3.14.
3.17	Support and encourage settlement patterns, which contain a range of urban densities.	Consistent. The proposed project includes residential development at a density of approximately 14.6 dwelling units per acre. The surrounding neighborhoods in the project vicinity represent a wide range of multi-family and single-family residential uses at a wide range of densities. As such, the proposed project contributes to a diverse mix of housing densities in the project area. The proposed project would be consistent with Policy 3.17.
3.18	Encourage planned development in locations least likely to cause environmental impact.	Consistent. The proposed project site does not contain any notable environmentally sensitive resources. As such, the proposed project would not result in substantial physical environmental effects on any such resources. Therefore, the proposed project would be consistent with Policy 3.18.
3.19	Support policies and actions that preserve open space areas identified in local, state, and federal plans.	Consistent. The project site has been graded and cleared in preparation for urban development. The project site has been designated for commercial uses in the City's *General Plan* and zoned for commercial development in the *Unified Development Code*. As such, Policy 3.19 is not applicable to the proposed project.
3.20	Support the protection of vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals.	Consistent. The project site does not contain any vital resources such as wetlands, groundwater recharge areas, woodlands, production lands, or unique and endangered plants and animals. The proposed project would therefore be consistent with Policy 3.20.
3.21	Encourage the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites.	Consistent. The project site has been graded and prepared for urban development. No evidence of cultural resources has been discovered on-site, and therefore the potential for the presence of undiscovered cultural resources is considered remote. The proposed project would be consistent with Policy 3.21.

Table 5.1-3 (continued)
Proposed Project Consistency with SCAG
Regional Comprehensive Plan and Guide Policies

SCAG RCPG Policies		Proposed Project Consistency Statement
3.22	Discourage development, or encourage the use of special design requirements, in areas with steep slopes, high fire, flood, and seismic hazards.	Consistent. The project site is not located in an area susceptible to impacts associated with steep slopes, wildland fires, or seismic hazards. Although the project site is located adjacent to the Santa Clara River, bank stabilization and stormwater infrastructure improvements, reviewed and approved by the City of Santa Clarita and Los Angeles County Flood Control District would preclude the possibility of adverse impacts related to flooding. Therefore, the proposed project would be consistent with Policy 3.22.
3.23	Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.	Consistent. The proposed project includes mitigation measures to address, among other issues, noise, and seismic safety, to the extent deemed appropriate by applicable regulatory agencies. The proposed project would not require the development of an emergency response and recovery plan, and would not conflict with any such State, local, or Federal plans. The proposed project would be consistent with Policy 3.23.
GMC Policies Related to the RCPG Goal to Provide Social, Political, and Cultural Equity		
3.24	Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.	Consistent. The proposed project would provide up to 437 residential units within the City of Santa Clarita, a minimum of 5 percent of which would be workforce housing initially priced at 10 percent below market value. The proposed project would therefore increase the supply of housing in the Santa Clarita Valley, and would be consistent with Policy 3.24.
3.27	Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.	Consistent. The proposed project integrates residential, commercial, and recreational facilities into the development. The proposed project also would not hinder local jurisdictions' efforts to develop sustainable communities or to provide such accessible and effective services. The proposed project would be consistent with Policy 3.27.

Table 5.1-3 (continued)
Proposed Project Consistency with SCAG
Regional Comprehensive Plan and Guide Policies

SCAG RCPG Policies		Proposed Project Consistency Statement
Air Quality Chapter		
5.07	Determine specific programs and associated actions needed (e.g., indirect source rules, enhanced use of telecommunications, provision of community based shuttle services, provision of demand management based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulations can be assessed.	Consistent. Determination and development of programs and actions intended to command and control regulations are the responsibility of affected public agencies. Policy 5.07 is not applicable to the proposed project.
5.11	Through the environmental review process, ensure that plans at all levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transportation and economic relationships to ensure consistency and minimize conflicts.	Consistent. The proposed project has prepared an Environmental Impact Report per the California Environmental Quality Act (CEQA), which analyzes air quality, noise, land use, transportation, and parks/recreation, among other issues. The proposed project would be consistent with Policy 5.11.
Water Quality Chapter		
11.07	Encourage water reclamation throughout the region where it is cost-effective, feasible, and appropriate to reduce reliance on imported water and wastewater discharges. Current administrative impediments to increased use of wastewater should be addressed.	Consistent. The provision of reclaimed water and associated programs is the responsibility of the Sanitation Districts of Los Angeles County. As available, the proposed project would incorporate reclaimed water distribution infrastructure for irrigation of on-site recreational areas and landscaping. The proposed project would be consistent with Policy 11.07.
Open Space Chapter		
9.01	Provide adequate land resources to meet the outdoor recreation needs of the present and future residents in the region and to promote tourism in the region.	Consistent. The proposed project includes recreational facilities to partially meet the dedication requirements of the City of Santa Clarita. Subject to the approval of the City of Santa Clarita, the proposed project would meet all applicable City park requirements. The proposed project would be consistent with Policy 9.01.
9.02	Increase the accessibility to open space lands for outdoor recreation.	Consistent. The proposed project includes connections to surrounding local and regional trails, which allow for convenient access to local parks and open space areas in the project vicinity. As such, the proposed project would be consistent with Policy 9.02.
9.03	Promote self-sustaining regional recreation resources and facilities.	Consistent. The recreational areas and recreation facilities included in the proposed project are supportive of, and complementary to, regional recreation resources and facilities. Therefore, the proposed project would be consistent with Policy 9.03.

Table 5.1-3 (continued)
Proposed Project Consistency with SCAG
Regional Comprehensive Plan and Guide Policies

SCAG RCPG Policies		Proposed Project Consistency Statement
9.04	Maintain open space for adequate protection of lives and properties against natural and man-made hazards.	Consistent. The project site does not contain extensive open space areas, and the potential for natural and man-made hazards is considered low. Policy 9.04 is not applicable to the proposed project.
9.05	Minimize potentially hazardous developments in hillsides, canyons, areas susceptible to flooding, earthquakes, wildfire and other known hazards, and areas with limited access for emergency equipment.	Consistent. The proposed project would not be susceptible to known hazards, given its location and site improvements designed to mitigate risks associated with flooding and seismic activity. The proposed development would provide for adequate emergency access, subject to review and approval by the City of Santa Clarita, LACFD, and LACSD. As such, the proposed project would be consistent with Policy 9.05.
9.07	Maintain adequate viable resource production land, particularly lands devoted to commercial agriculture and mining operations.	Consistent. No agricultural or mining activities currently occur on-site. As such, Policy 9.07 is not applicable to the proposed project.
9.08	Develop well-managed viable ecosystems or known habitats of rare, threatened and endangered species, including wetlands.	Consistent. The project site does not contain any notable biological resources. As such, Policy 9.08 is not applicable to the proposed project.

As summarized above in *Table 5.1-3*, the proposed project would be consistent with all applicable policies contained in the SCAG RCPG. As such, the proposed project would not conflict with the RCPG and no adverse impacts are anticipated in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

SCAG Southern California Compass Growth Visioning Program

- ***THE PROPOSED PROJECT WOULD BE CONSISTENT WITH THE PRINCIPLES AND STRATEGIES OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS' SOUTHERN CALIFORNIA COMPASS GROWTH VISIONING PROGRAM.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: The *SCAG Growth Vision Report* (GVR) contains principles and numerous strategies to guide regional development and transportation improvements throughout Southern California. See *Table 5.1-4*, *Proposed Project Consistency With SCAG Growth Visioning Strategies*, for a detailed analysis of the proposed project's consistency with the principles and strategies of the GVR.

Table 5.1-4
Proposed Project Consistency with SCAG Growth Visioning Strategies

SCAG Growth Visioning Principles and Strategies	Project Consistency With Strategies
Principle 1: Improve mobility for all residents.	
1) Encourage transportation investments and land use decisions that are mutually supportive.	Consistent. The proposed project includes transportation system improvements on-site and in the project vicinity that would ensure that the local traffic system is adequate to serve the traffic generated by the proposed project.
2) Locate new housing near existing jobs and new jobs near existing housing.	Consistent. The proposed project includes a commercial component that would provide jobs within the immediate area. Additionally, the location of the project site would provide convenient access to jobs in the Santa Clarita Valley at large.
3) Encourage transit-oriented development.	Consistent. The proposed project directly linked to various facilities that encourage alternative transportation, including public transit and pedestrian and bicycle trails and in close proximity to regional transportation facilities (e.g., Santa Clarita Metrolink commuter rail station, Interstate 5, State Route 14, and the Santa Clara River trail).
4) Promote a variety of travel choices.	Consistent. The proposed project provides transportation options that are conducive to pedestrian, bicycle, public transit, and automobile modes of transportation.
Principle 2: Foster livability in all communities.	
1) Promote infill development and redevelopment to revitalize existing communities.	Consistent. The proposed project proposes development within the City of Santa Clarita's central core. The project site is contiguous with existing urban development, and is optimally located to provide access to major transportation routes and facilities.
2) Promote developments which provide a mix of uses.	Consistent. The proposed project includes residential, commercial, recreational, and open space uses.
3) Promote "people scaled", walkable communities.	Consistent. The proposed project includes extensive pedestrian-oriented facilities that would establish a "walkable" community within the project site.
4) Support the preservation of stable, single-family neighborhoods.	Consistent. The project proposes the development of multi-family residential and commercial uses, which would not adversely affect any single-family neighborhoods in the project vicinity.
Principle 3: Enable prosperity for all people.	
1) Provide, in each community, a variety of housing types to meet the housing needs of all income levels.	Consistent. The proposed project provides multi-family residential uses, including workforce housing units initially priced at 10 percent below market value, thereby providing housing opportunities for a variety of income levels.
2) Support educational opportunities that promote balanced growth.	Consistent. The proposed project would not hinder efforts within the City of Santa Clarita to provide educational opportunities for its residents.
3) Ensure environmental justice regardless of race, ethnicity, or income class.	Consistent. The proposed project would provide housing opportunities for various income levels, as well as provide jobs within the local area irrespective of race, ethnicity, or income class.

Table 5.1-4 (continued)
Proposed Project Consistency with SCAG Growth Visioning Strategies

SCAG Growth Visioning Principles and Strategies	Project Consistency With Strategies
4) Support local and state fiscal policies that encourage balanced growth.	Consistent. The proposed project would support any local or State fiscal policies encouraging balanced growth, subject to evaluation by the City of Santa Clarita and any affected State agency(ies).
5) Encourage civic engagement.	Consistent. As deemed adequate by the City of Santa Clarita, the proposed project applicant would interact with and engage the City and its population, as appropriate, to foster input regarding the proposed development.
Principle 4: Promote sustainability for future generations.	
1) Preserve rural, agricultural, recreational and environmentally sensitive areas.	Consistent. The proposed project would provide new recreational opportunities, and would not degrade the quality or function of nearby environmentally sensitive areas within and along the Santa Clara River.
2) Focus development in urban centers and existing cities.	Consistent. The proposed project site is contiguous with the City's central core and located immediately adjacent to existing urban development and major transportation facilities, such as Soledad Canyon Road and the Santa Clarita Metrolink commuter rail station.
3) Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution and significantly reduce waste.	Consistent. On-site development would meet or exceed all applicable requirements for energy efficiency and for traffic reduction through encouragement of alternative transportation, and would comply with all City policies regarding waste reduction and recycling.
4) Utilize "green" development techniques.	Consistent. To the extent practicable, the proposed development would utilize "green" development techniques, which are intended to reduce waste and promote energy efficiency.

As summarized above in *Table 5.1-4*, the proposed project would be consistent with all applicable strategies of the SCAG Southern California Compass Growth Visioning Program. As such, the proposed project would not conflict with the SCAG Growth Visioning Program and no adverse impacts are anticipated in this regard.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

5.1.4 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS WOULD NOT RESULT IN CUMULATIVELY CONSIDERABLE LAND USE AND PLANNING IMPACTS.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: Development of the proposed project would not result in any cumulative significant land use impacts as other projects are implemented in the area. Each proposed project must undergo the same project review process as the proposed project in order to preclude potential land use compatibility issues and planning policy conflicts. It is assumed that cumulative development would progress in accordance with the criteria set forth within the jurisdiction in which each cumulative project is located. Each project would be analyzed independent of other land uses, as well as within the context of existing and planned developments to ensure that the goals, objectives and policies of the General Plan are consistently upheld.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

5.1.5 SIGNIFICANT UNAVOIDABLE IMPACTS

The proposed project would not conflict with the goals and policies of the *City of Santa Clarita General Plan*, *SCAG Regional Comprehensive Plan and Guide*, SCAG Southern California Compass Growth Visioning Program, and relevant standards of the City's *Unified Development Code*. As such, all impacts related to the proposed project's consistency with applicable plans, policies, and regulations would be less than significant. No significant unavoidable impacts would occur.

Section 5.2
POPULATION, EMPLOYMENT, AND HOUSING

5.2 POPULATION, EMPLOYMENT, AND HOUSING

Information in this section is based on the *2020 Regional Growth Forecasts*, published by the Southern California Association of Governments (SCAG), adopted April 2001, 2000 U.S. Census data; 2005 population/housing data published by the California Department of Finance; and data from the City of Santa Clarita. Existing planning documents, such as the *City of Santa Clarita General Plan*, adopted June 1991, *Los Angeles County Santa Clarita Valley Area Plan*, adopted December 1990, and the Los Angeles County Housing Element, adopted 2001, are also referenced.

5.2.1 ENVIRONMENTAL SETTING

SCAG is the responsible agency for developing and adopting regional growth forecasts for Los Angeles County. SCAG's *2020 Regional Growth Forecasts* is used as the basis of analysis for population, housing, and employment forecasts within the County. Population, housing and employment characteristics for the County of Los Angeles and the City of Santa Clarita are provided below.

REGIONAL CHARACTERISTICS

Los Angeles County

Los Angeles County encompasses approximately 4,082 square miles.[1] It is bordered by the Pacific Ocean to the south, Orange County to the southeast, San Bernardino County to the east, Ventura County to the northwest and Kern County to the north. Los Angeles County also includes the islands of San Clemente and Santa Catalina.

Population

The City of Santa Clarita is located in Los Angeles County, one of the six counties that comprise the Southern California Associations of Governments (SCAG) region. According to SCAG, from 1990 through 2000, population in the six-county region (Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial Counties) grew from 14.6 million to 16.5 million persons, an increase of 12.8 percent. All of the counties in the SCAG region experienced at least 12 percent growth in population, with the exception of Los Angeles County, which grew by 7.4 percent.[2] The population projection for the year 2010 for the SCAG region is an estimated 20.5 million persons, representing a population increase of approximately 25 percent (4.2 million persons) between 1998 and 2010. SCAG attributes the growth in population for the region to natural increases and net in-migration.[3]

[1] Los Angeles County website www.lacounty.info, December 6, 2002.

[2] SCAG forecasts are the 2001 RTP (April 2004) Population, Household and Employment forecasts for Los Angeles County.

[3] Natural increase is defined as the excess of births over deaths. Net in-migration is defined as the total number of people entering the region minus the people leaving the region.

The County of Los Angeles' 2000 population was an estimated 9,519,338 persons, representing a 7.4 percent increase over the 1990 population of 8,863,164 persons.[4] Los Angeles County has the largest population of any county in the nation with approximately 29 percent of California's residents living in the County. As of January 2005, the County's population was an estimated 10,226,506 persons.[5] SCAG projects the County's population to reach 11,714,038 by the year 2020.

Housing

According to 2000 U.S. Census data, the housing stock in Los Angeles County was an estimated 3,270,909 housing units. This represents an increase of approximately 3.4 percent over the estimated 3,163,343 housing units reported in the 1990 U.S. Census. As of January 2005, the County's housing stock was an estimated 3,341,548 housing units with a vacancy rate of 4.20 percent.[6] The average number of persons per household in the County was 3.139 (May 2005). Based on forecasts provided by the City, the number of households in the Santa Clarita Valley is expected to grow to 92,175 by the year 2010 and 121,578 by the year 2020.

Employment

In 2000, the civilian labor force in the County of Los Angeles totaled approximately 4,307,762 persons. An estimated 8.2 percent of the County's civilian labor force (354,347 persons) was unemployed at the time of the Census. The majority of the County's labor force (approximately 34.3 percent) was employed in management, professional and related occupations. The next highest concentration of the labor force (approximately 27.6 percent) was found in sales and office occupations.[7] Employment projections for Santa Clarita Valley estimate that there will be 125,901 jobs within the Valley by the year 2010 and 162,537 jobs by the year 2020.[8]

City of Santa Clarita

Population

The City of Santa Clarita's 2000 population was an estimated 151,088 persons, representing a 36.5 percent increase over the 1990 population of 110,642 persons. As of January 1, 2005, the City's population was an estimated of 167,954 persons.[9] From 1990 to 2000, the City of Santa Clarita's population grew at an annual growth rate of 3.65 percent a year. From 2000 to 2005, the City of Santa Clarita's population grew at an annual growth rate of 1.86 percent a year.

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[4] 1990 and 2000 Census Data.

[5] State of California, Department of Finance, *City/County Population and Housing Estimates, 2005, Revised 2001-2004, with 2000 DRU Benchmark.* Sacramento, California, May 2005.

[6] State of California, Department of Finance, *City/County Population and Housing Estimates, 2005, Revised 2001-2004, with 2000 DRU Benchmark.* Sacramento, California, May 2005.

[7] 2000 U.S. Census Data.

[8] North Los Angeles County Subregion 2020 Growth Projection Report, October 1995.

[9] State of California, Department of Finance, *City/County Population and Housing Estimates, 2005, Revised 2001-2004, with 2000 DRU Benchmark.* Sacramento, California, May 2005.

Population growth is expected to continue in Santa Clarita. SCAG estimates the population of Santa Clarita to reach 168,191 persons by 2010, 184,558 persons by 2015 and 207,677 persons by 2020.[10] This represents a population growth of approximately 23.6 percent between 2005 and 2020 under SCAG estimates. However, due to the low population projections provided by SCAG, the City's annual growth rate has been applied to project the City's future population size. Based upon an average 3.0 percent annual growth rate, the City's population is projected to reach 194,705 persons by the year 2010, 225,716 persons by the year 2015, and 261,667 persons by the year 2020. This represents a population growth of 55.8 percent between 2005 and 2020.[11]

The project site is currently vacant and therefore does not contribute to the existing population estimates.

Housing

According to 2000 U.S. Census data, the total housing stock in the City of Santa Clarita was an estimated 52,456 housing units. This represents an increase of approximately 22 percent over the estimated 41,133 housing units reported in the 1990 U.S. Census. From 1990 to 2000, the City of Santa Clarita's housing stock grew at an annual growth rate of 2.2 percent a year. In January 2005, the State estimated the City's housing stock was 55,439 housing units with a vacancy rate of 3.1 percent.[12] From 2000 to 2005, the City of Santa Clarita's housing stock grew at an annual growth rate of 1.1 percent a year. The average number of persons per household in the City was 3.103 (January 2005).

Based on forecasts provided by the City, the number of households in the City is expected to grow to 64,675 by 2010, and to 75,078 by 2020. City housing, therefore, would represent 70.2 and 61.8 percent of the projected housing for the Santa Clarita Valley for those years, respectively. According to SCAG projections, the number of housing units is expected to increase to 61,101 units by 2010, 67,939 units by 2015 and 75,479 units by 2020, representing an approximately 36 percent increase in housing units between 2005 and 2020.[13]

SCAG adopted its Regional Housing Development Program on November 2, 2000, which included housing needs by income for the City of Santa Clarita by the year 2005. The City of Santa Clarita has a need for 1,256 very low income, 941 low income, 1,439 moderate income, and 3,520 above moderate income housing units by the year 2005.

No housing units currently exist on the project site.

[10] Southern California Association of Governments *2001 RTP Growth Forecast, City Projections*, adopted April 2001.

[11] Average growth rate calculated from 1990 through 2005.

[12] State of California, Department of Finance, *City/County Population and Housing Estimates, 2005, Revised 2001-2004, with 2000 DRU Benchmark*. Sacramento, California, May 2005.

[13] *Ibid*.

Employment

In 2000, the City of Santa Clarita's civilian labor force consisted of approximately 79,149 persons.[14] At the time of the Census, an estimated 4.8 percent of the City's civilian labor force (3,799 persons) was unemployed. Similar to the County of Los Angeles, the majority of the City's labor force (approximately 40.9 percent) was employed in management, professional and related occupations.[15] Service occupations make up the second largest employment in the City, employing approximately 14.1 percent of the City's labor force.

SCAG underestimated the City's employment trends over the next 20 years projecting 54,626 employees by 2010, 56,978 employees by 2015 and 58,910 employees by 2020. The *City of Santa Clarita General Plan* also underestimated the City's employment trends with a projection of 63,255 employees by the year 2010 and 63,859 employees by the year 2020. As discussed above, the City's labor force was already over 79,000 employees in the year 2000. Based upon a historical employment growth of 2.49 percent (from 1990 through 2000), it could be projected that there would be approximately 91,761 employees by the year 2010, 103,792 employees by the year 2015 and 117,401 employees by the year 2020.[16]

The project site is currently vacant and does not generate any employment opportunities.

5.2.2 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix A of this EIR. The Initial Study includes questions relating to population, employment, and housing. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure);
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere (refer to Section 9.0, Effects Found Not To Be Significant); or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere (refer to Section 9.0, Effects Found Not To Be Significant).

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

[14] 2000 Census Data.
[15] *Ibid.*
[16] 1990 and 2000 Census Data.

5.2.3 IMPACTS AND MITIGATION MEASURES

HOUSING

◆ ***PROJECT IMPLEMENTATION INCLUDES THE DEVELOPMENT OF A MAXIMUM OF 437 RESIDENTIAL UNITS.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: The proposed project would add a maximum of 437 single-family residential units to the City's housing inventory. This increase represents approximately 0.7 percent of the 61,101 projected housing units within the City for the year 2010. The additional 437 units would increase the amount of housing supply in the City, which would assist the City in providing additional housing opportunities. In addition, the proposed project would provide a minimum of five percent of workforce housing units, offering units at a price approximately 10 percent below market rates, which would assist the City meeting its low/moderate income housing requirement. Thus, implementation of the proposed project is not anticipated to create any significant housing impacts, but instead provide a beneficial impact. Furthermore, the site is currently undeveloped and the proposed project would not displace existing housing. The proposed project would have a less than significant housing impact under the significance criteria.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

EMPLOYMENT

◆ ***PROJECT IMPLEMENTATION WOULD INCLUDE DEVELOPMENT OF A MAXIMUM OF 8,000 SQUARE FEET OF COMMERCIAL USES.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: The project proposes up to 8,000 square feet of commercial uses. Using the employment generation factor of 2.36 employees per 1,000 square feet, the commercial uses would generate 19 employees. In addition, development of the proposed project would also introduce additional employment opportunities associated with the landscapers, maintenance, and security personnel associated with the residential development. Given that the City is seeking to expand employment opportunities within the City, the additional employees are considered to be a beneficial impact of implementing the proposed project and a beneficial impact to the City.

The jobs/housing ratio for the City of Santa Clarita in 2000 was 0.99:1, while the projected jobs/housing ratio for the City in year 2010 would be 0.90:1,[17] indicating that the City will become increasingly housing rich. The original purpose of achieving jobs/housing balance within the region as outlined in SCAG's *Regional Comprehensive Plan and Guide* (1995) was to result in a balanced development and a reduction in vehicle miles traveled within a region and, thereby, a reduction in roadway congestion, fuel consumption, and air emissions. SCAG's population/housing goal for the North County Region is 1.30:1. The proposed project would contribute to the SCAG jobs/housing goal of 1.30:1 for the North County Region by providing an at least an additional 19 employment positions. Therefore, the proposed project would have a less than significant employment impact.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

POPULATION

- ***PROJECT IMPLEMENTATION COULD INDUCE POPULATION GROWTH IN THE CITY OF SANTA CLARITA.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: Implementation of the proposed project would involve the development of a total of 437 residential units. Based on an estimate of 3.103 persons per household, the development of 437 residential units would result in a population increase of approximately 1,356 persons, which represents a 0.81 percent population increase over the City's 2005 population (an estimated 167,954 persons).[18]

The proposed project would also include up to 8,000 square feet of commercial uses. Using the SCAG employment generation factor of 2.36 employees per 1,000 square feet, this use would generate 19 employees.[19] Employment generated by the proposed project may result in direct growth in the City's population since the potential exists that "future employees" (and their families) may choose to relocate to the City. Estimating the number of these future employees who would choose to relocate to the City would be highly speculative since many factors influence personal housing location decisions (i.e., family income levels and the cost and availability of suitable housing in the local area). Due to the uncertainty that exists with regard to the number of new employees that may choose to relocate to the City, a more conservative analysis of impacts associated with the City's permanent population is provided. For analysis purposes, it is assumed that five persons (25 percent) of the proposed project's new employees would choose to relocate to the City, creating a demand for five housing units,

[17] The jobs /housing ratio for year 2010 was determined by dividing 64,675 housing units by 58,345 employment positions, which equals 0.90 for the jobs/housing ratio.

[18] State of California, Department of Finance, *City/County Population and Housing Estimates, 2005, Revised 2001-2004, with 2000 DRU Benchmark.* Sacramento, California, May 2005.

[19] The Natelson Company, Inc., *Employment Density Study Summary Report Prepared for Southern California Association of Governments* (October 31, 2001).

and a resultant population increase of approximately 15 persons (based on an estimate of 3.103 persons per household).[20]

Overall, project implementation would result in a direct increase in the City's population of approximately 1,372 persons (1,356 persons from additional housing and 16 persons from potential employees relocating to the City). This increase in population is considered minimal (approximately 0.82 percent of the City's 2005 and projected 2010 population estimates) and does not represent a substantial portion of the projected population for the City and would not induce substantial growth or concentration of population.[21] The proposed project would also not cause Santa Clarita Valley to exceed population projections of 243,104 persons by 2010 and 313,290 persons by 2020.[22] The proposed project would have a less than significant population impact under the significance criteria.

Additionally, the project site is located in the City's General Plan Land Use Element – Valley Center Overlay Area, which encourages residential development at higher densities. Finally, the conversion of the project site to residential land uses was considered appropriate in the City's General Plan Housing Element (2004), where the site is identified as suitable for residential development.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

5.2.4 CUMULATIVE IMPACTS AND MITIGATION MEASURES

◆ ***IMPLEMENTATION OF THE PROPOSED PROJECT, IN CONJUNCTION WITH RELATED PROJECTS IN THE CITY OF SANTA CLARITIA, WOULD NOT RESULT IN SIGNIFICANT CUMULATIVE POPULATION, EMPLOYMENT, AND HOUSING IMPACTS.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: Implementation of cumulative projects, including the proposed project, would result in additional population, housing and employment opportunities. Cumulative population, employment, and housing growth from implementation of related projects and the proposed project would be 32,249 persons, 13,983 employees, and 10,393 dwelling units, respectively. The proposed project's anticipated growth of 1,372 persons, 19 employees, and 437 dwelling units would represent approximately 4.3 percent of cumulative population growth, 0.14 percent of cumulative employment growth, and 4.2 percent of cumulative

[20] This housing demand for 23 units is based on the assumption that approximately 90 positions would be created by the proposed project and that approximately 25 percent of these employees would choose to relocate to the City.

[21] Southern California Association of Governments *2001 RTP Growth Forecast, City Projections*, adopted April 2001.

[22] City of Santa Clarita website, http://www.santa-clarita.com/cityhall/ped/ed/community_profile/demographics.asp.

housing growth. Cumulative population, employment, and housing growth calculation tables are included in Appendix C.

According to the significance threshold criteria it is determined that:

- It is assumed that growth associated with the proposed project and related projects has been included in the growth projections contained in the *General Plan*.

- The buildout of the proposed project and related projects will create jobs and there will be no net loss of jobs. Cumulative development would not result in a significant impact relative to the net loss of jobs.

- In the course of citywide buildout, existing housing (including affordable housing) could possibly be displaced. This may occur to make way for new development that may be more compatible with local land use designations, to replace aging housing, or for other reasons. Overall, however, the housing stock in the City is expected to grow considerably and, given the housing needs of the City for housing affordable to very low and low income families, it can be reasonably assumed that any loss of affordable housing that may occur would be replaced. Cumulative development would not result in a significant impact relative to loss of existing affordable housing stock.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

5.2.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Implementation of the proposed Soledad Village project would not result in any significant and unavoidable population, employment, or housing impacts.

Section 5.3
AESTHETICS/VISUAL RESOURCES

5.3 AESTHETICS/VISUAL RESOURCES

Visual resources information for this section was compiled from photographs and site surveys conducted by RBF Consulting in March 2005. The purpose of this section is to describe the existing aesthetic environment and analyze potential project impacts to the aesthetic character upon project implementation. Consideration of public scenic vistas and views, impacts to scenic resources and the introduction of new sources of light and glare are also included in this section. Visual simulations were prepared in order to assist in determining aesthetic impacts. Mitigation measures are recommended to reduce the significance of impacts.

5.3.1 ENVIRONMENTAL SETTING

ON-SITE

The project site is currently vacant but has been rough graded; refer to *Exhibit 5.3-1, Photograph Site Locations* and *Exhibit 5.3-2, Existing On-Site Photographs*. Existing on-site improvements recently constructed with previous approvals include the following:

- A new street entrance (Gladding Way) with signal improvements;
- Grading to recompact unconsolidated soils and create site pads above high water flood levels;
- Construction of buried bank stabilization 40 feet wide and 2,600 feet long along the southern bank of the Santa Clara River; and
- A Class I trail has been constructed along the northern and southern boundary as part of the buried bank stabilization (Santa Clara River East Trail).

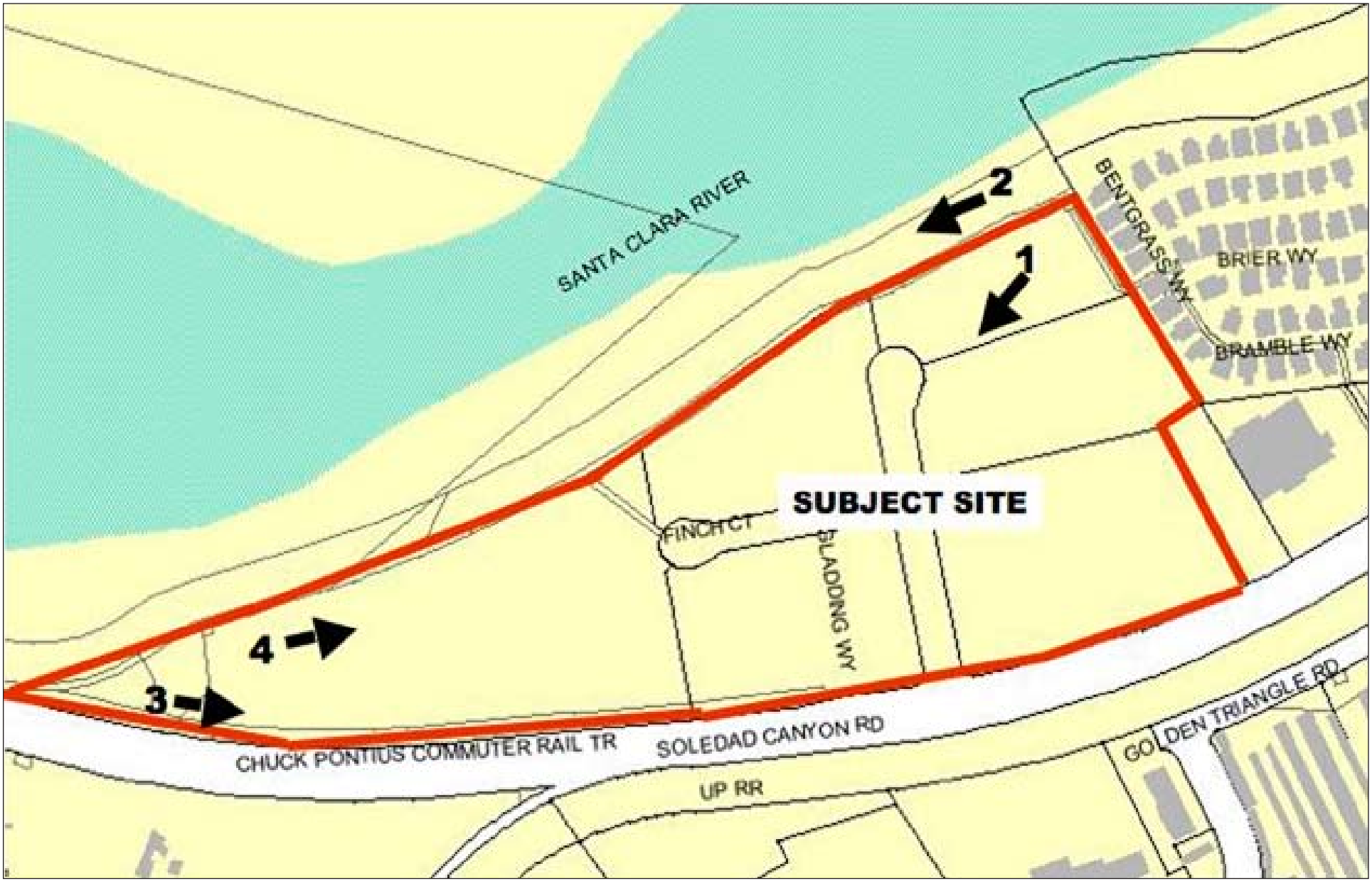
Since the project site has already been graded, the site is generally void of any vegetation and is relatively flat with little to no topographic relief.

OFF-SITE

Refer to *Exhibit 5.1-1*, *Surrounding Land Uses*, for an aerial photograph that shows the surrounding uses.

North

Views to the north are of upland areas above the Santa Clara River. Views of the Santa Clara River are obstructed by a slight increase in topography due to a bike trail that has been constructed along the river and the native vegetation that extends along the river's banks.



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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Photograph Site Locations

Exhibit 5.3-1

1

2

3

4

SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Existing On-Site Photographs

Exhibit 5.3-2

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East

Land uses to the east include a mobile home park, soccer field and a bowling alley. Views of the mobile home park are partially obstructed by a six-foot block wall that extends the length of the mobile home park. The soccer field and bowling alley are located south of the mobile home park. The Santa Clarita Soccer Center is immediately east of the project site and includes a one-story wood building with the fenced in soccer field north of the building. Further east is the one-story concrete bowling alley. Parking for both facilities is located immediately north of Soledad Canyon Road.

South

Soledad Canyon Road, a six-lane divided major highway and the Southern Pacific Railroad, is located immediately south of the project site. Various commercial and industrial businesses are located south of Soledad Canyon Road. The businesses range in height from one- to three-stories and are of typical industrial style buildings that are either concrete or tilt-up buildings.

West

Views to the west are of gently rolling topography extending to the Santa Clara River. Sparse vegetation is located throughout the vacant land partially obstructing views of Soledad Canyon Road and the commercial uses located further west. In the background hillsides obstruct views further west.

VIEWS ONTO THE PROJECT SITE FROM SURROUNDING USES

Currently, views north onto the project site from Soledad Canyon Road are completely obstructed by a chain link fence that is covered with green mesh, which extends the entire length of the southern project boundary. The lined chain link fence extends around the southeastern corner of the project site, obstructing views from the parking lot and soccer field located east of the site. A six-foot block wall obstructs views of the project site from the mobile home park located north of the soccer center.

Views southward onto the project site from the Santa Clara River are unobstructed, and extend all the way to the commercial and industrial buildings located south of the site and across Soledad Canyon Road. Views from the vacant land located west of the site are unobstructed and extend to the fencing and block wall that partially obstruct the views of the soccer field, bowling alley and mobile home park located east of the project site. Views southward from the northern bank of the Santa Clara River are slightly obstructed by the native vegetation that extends along the river's banks.

LIGHT AND GLARE

There are two primary sources of light: light emanating from building interiors passing through windows and light from exterior sources (i.e., street lighting, building illumination, security lighting, parking lot lighting, and landscape lighting). Light introduction can be a nuisance to adjacent residential areas, diminish the view of the clear night sky, and if uncontrolled, can disturb wildlife in natural habitat areas. Perceived glare is the unwanted and potentially objectionable sensation as observed by a person as they look directly into the light source of a luminaire. Light spill is typically defined as the presence of unwanted light on properties adjacent to the property being illuminated.

Currently, the project site does not contain any structures that would produce light and glare impacts. However, the project site is impacted by light and glare produced from surrounding uses. The project site is subjected to light and glare impacts associated with the car headlights, street lighting and glare impacts due to the traffic on Soledad Canyon Road, located immediately south and west of the project site. In addition, the parking lot lighting, interior and exterior building lighting, security lighting and the outdoor lighting associated with the soccer field impact the eastern portion of the project site.

SCENIC RESOURCES

The Circulation Element of the *City of Santa Clarita General Plan* does not designate any scenic highways or scenic roadways within the City's Planning Area. The only scenic resource in the project area is the Santa Clara River, located north and west of the project site.

5.3.2 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix A of this EIR. The Initial Study includes questions relating to aesthetics and visual resources. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

- Have a substantial adverse effect on a scenic vista? (Refer to Section 9.0, Effects Found Not To Be Significant)

- Substantially damage scenic resources, including, but not limited to, primary/secondary ridgelines, trees, rock outcroppings, and historic buildings within a state scenic highway? (Refer to Section 9.0, Effects Found Not To Be Significant)

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

- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.3.3 IMPACTS AND MITIGATION MEASURES

SHORT-TERM CONSTRUCTION AESTHETIC, LIGHT, AND GLARE IMPACTS

- ***DEVELOPMENT OF THE PROPOSED PROJECT WOULD RESULT IN GRADING AND CONSTRUCTION ACTIVITIES THAT WOULD TEMPORARILY ALTER THE EXISTING VISUAL CHARACTER OF THE PROJECT SITE AND THE SURROUNDING AREA AND INTRODUCE NEW SOURCES OF LIGHT AND GLARE.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: Project construction activities would alter views across portions of the project site from surrounding locations. Graded surfaces, construction materials, equipment and truck traffic would be visible. Soil would be stockpiled and equipment for grading activities would be staged at various locations throughout the project site. These visual impacts can be considered significant unless mitigated. With implementation of the recommended mitigation pertaining to equipment staging areas and the use of screening, impacts in this regard are concluded as less than significant. Further, construction-related activities are not considered significant as they are anticipated to be short-term.

Short-term light and glare impacts associated with construction activity would likely be limited to nighttime lighting necessary for security purposes. Relative to potential short-term construction impacts, lighting from construction activities may pose a nighttime lighting impact to the residences located north of the project site. Although this is considered a short-term impact, mitigation is identified to reduce the significance of impact to a less than significant level.

Mitigation Measures:

AES1 Construction equipment staging areas shall be located a minimum of 200 feet from existing residential uses and appropriate screening (i.e., temporary fencing with opaque material), shall be used to buffer views of construction equipment and material, when feasible. Staging location shall be indicated on project Final Development Plans and Grading Plans.

AES2 All construction-related lighting shall be located and aimed away from adjacent residential areas and consist of the minimal wattage necessary to provide safety at the construction site. A construction safety lighting plan shall be submitted to the City for review concurrent with Grading Permit application.

Level of Significance After Mitigation: Less Than Significant Impact.

LONG-TERM AESTHETIC IMPACTS

- ***DEVELOPMENT OF THE PROPOSED PROJECT WOULD ALTER THE EXISTING VISUAL CHARACTER AND VIEWSHED FROM SURROUNDING LOCATIONS.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: As noted in Section 3.4, Project Characteristics, the proposed project entails residential, commercial, and recreational uses (common and private open space areas) and on-site private roads on approximately 30 acres.

Residential

A maximum of 437 residential units would be developed including attached townhomes and triplexes. The architectural style would incorporate elements of the California ranch style homes and the Santa Fe and Mediterranean-style houses that are characteristic of the neighboring residential communities.

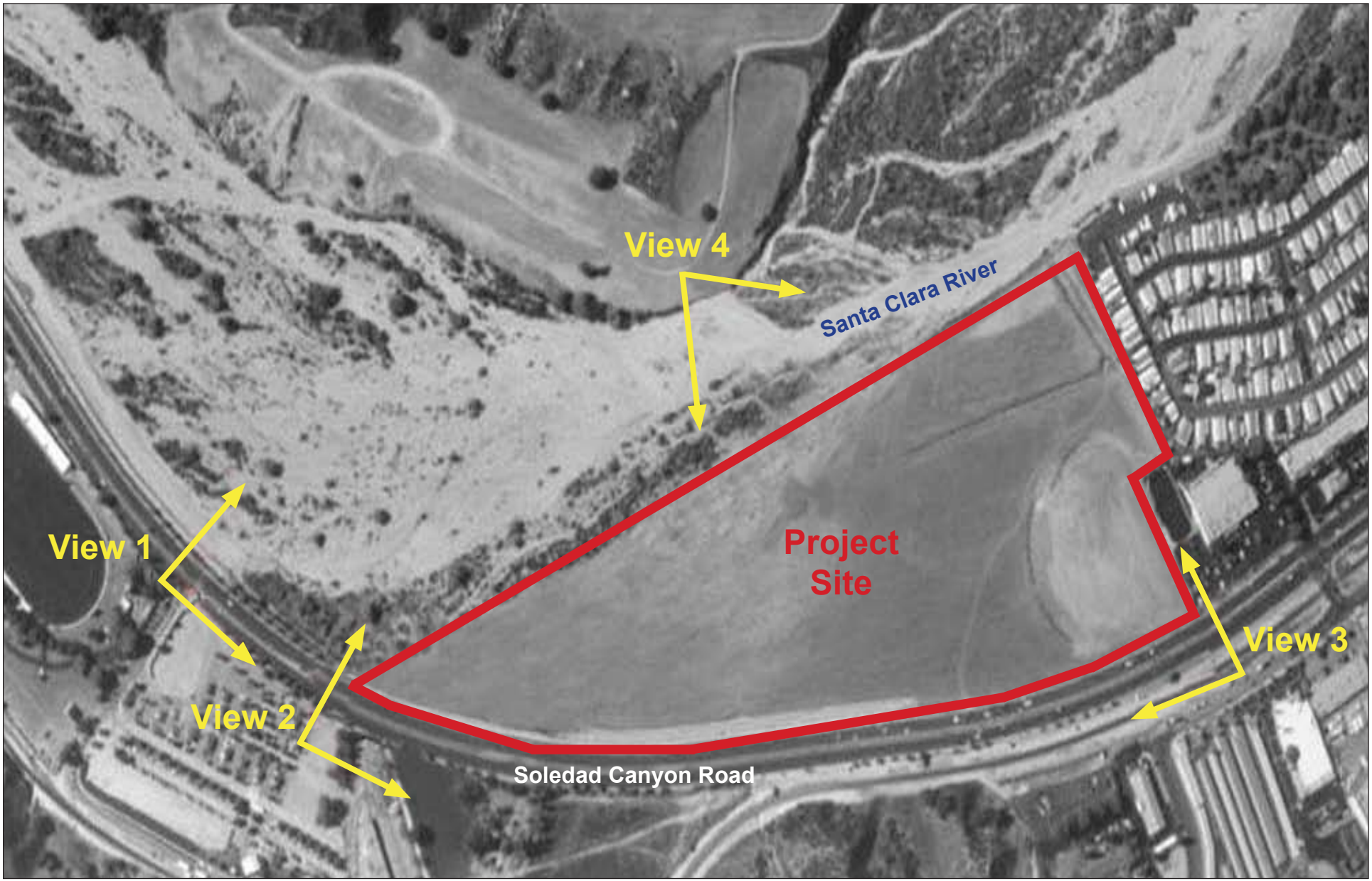
Commercial

An 8,000 square foot retail building would be located at the northeast corner of Gladding Way and Soledad Canyon Road. The architectural elements of the retail building would be consistent with the proposed design of the residential structures incorporating architectural elements such as tile roofing, decorative metal spires and wrought iron railings.

Visual simulations were prepared in order to assist in the assessment of the long-term visual impacts associated with buildout of the proposed project. Refer to *Exhibit 5.3-3*, *Visual Simulation Site Locations*.

VIEWS NORTH ONTO THE PROJECT SITE

Views looking northward from Soledad Canyon Road would include a five-foot landscape parkway, a ten-foot trail and lodge post and minimum ten-foot landscape and six-foot high perimeter wall setback. A 30-foot wide flood channel is located behind the trail along portions of the western half of the subject site. The second story of the residential units would be visible above the perimeter wall. In addition, the street setbacks slope upward, resulting in all the buildings being 10 to 15 feet higher than street level. Moving from east to west along Soledad Canyon Road, the first four residential building would be visible at the southeast corner of the project site; refer to *Exhibit 5.3-4*, *Site 3 Visual Simulation*. The residential buildings would be two-stories with a maximum height of 50 feet. Continuing west towards Gladding Way, the approximately 8,000 square foot retail building would also be visible. A monument sign and building mounted wall signs for individual tenants would be permitted along the southern elevation.



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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Visual Simulation Site Locations

Exhibit 5.3-3

Source: VisionScope Imagery.

SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Site 3 Visual Simulation

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Exhibit 5.3-4

Gladding Way, a two-lane divided roadway with landscaping provided on both sides of the roadway and within the median, would be located immediately west of the retail building. Residential buildings would front the remainder of the project site moving westward; refer to *Exhibit 5.3-5*, *Site 2 Visual Simulation*. An additional ingress/egress would be provided approximately 1,000 feet west of Gladding Way.

VIEWS EAST ONTO THE PROJECT SITE

Views eastward of the project site from the intersection of Soledad Canyon Road and Commuter Way would be partially obstructed by existing fencing and the landscaping that would be provided along the project boundary; refer to *Exhibit 5.3-6*, *Site 1 Visual Simulation*. However, some of the residential rooflines and buildings would be visible beyond the landscaping with views of the hillsides in the background. Views eastward from the Santa Clara River would also be partially obstructed by the six-foot fence and landscaping that would be provided along the site's western boundary. However, along the Santa Clara River, a pedestrian trail has been provided that will include a ranch rail fence along the riverside, and would also be utilized as a river trail and maintenance access road.

VIEWS SOUTH ONTO THE PROJECT SITE

Views from the Santa Clara River located north of the project site would be of the two-story residential buildings, fronted by mature landscaping trees and the six-foot fence with a pony wall; refer to *Exhibit 5.3-7*, *Site 4 Visual Simulation*. The two-story residential buildings would obstruct views of the commercial and industrial building located south of the project site and partially obstruct views of the hillsides in the background.

VIEWS WESTWARD ONTO THE PROJECT SITE

Views from the soccer center and mobile home park, located immediately east of the project site, would be partially obstructed by the existing block walls that border the eastern project boundary. A minimum of a ten-foot buffer along with large mature landscaping trees would be provided on-site near the block walls, which would further work to reduce the visual impact of the two-story residential buildings. However, three residential buildings would be located at the northeastern portion of the project site, of which the second stories would be visible above the block walls. Two open space areas would be provided in between the residential buildings and the far northeastern portion of the project site, which would be fully landscaped to provide further visual relief of the residential buildings.

IMPACT CONCLUSION

The proposed project would involve developing approximately 30 acres of vacant land with residential and commercial uses. While the proposed project would result in an increase in urban development within the project area, it is compatible with the existing and approved developments located to the north, east, and south. The residential uses would be compatible with the existing mobile home park located to the east and the proposed residential uses that would be developed as part of the Riverpark project that is located north of the project site. The retail uses proposed along Soledad Canyon Road would also be compatible with the recreational and commercial uses located to the east and south of the project site.

Source: VisionScope Imagery.

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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Site 2 Visual Simulation

Exhibit 5.3-5

Source: VisionScope Imagery.

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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Site 1 Visual Simulation

Exhibit 5.3-6

Source: VisionScope Imagery.

SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Site 4 Visual Simulation

Exhibit 5.3-7

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In addition, the proposed landscaping plan, pedestrian circulation plan, and open space plan would provide for an aesthetically pleasing development that would not result in a degradation of the visual character or quality of the project site. Therefore, long-term aesthetic impacts for the residential uses would be less than significant, and less than significant for the commercial uses following implementation of the recommended mitigation measure.

Mitigation Measures:

AES3 The site plan, building elevations, number of parking spaces, landscaping and other improvements for the commercial site shall be reviewed in accordance with the City's Development Review process.

Level of Significance After Mitigation: Less Than Significant Impact.

LONG-TERM LIGHT AND GLARE IMPACTS

◆ ***DEVELOPMENT OF THE PROPOSED PROJECT WOULD INTRODUCE NEW SOURCES OF LIGHT AND GLARE INTO THE PROJECT AREA.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: Development of the proposed project would result in increased utilization of the property. The proposed uses would require lighting of building interior and exterior spaces (i.e., entryways and signs). In addition, the proposed project would include lighting for activity areas involving nighttime uses, lighting around the structures (security lighting, walkways, and parking lots) and lighting for interior of buildings.

Light spill and glare are the major environmental concerns associated with outdoor lighting installations.

Off-Site

Residential uses to the east would experience a change in the amount of light spill or glare with the development of the two-story residential buildings in the northeastern portion of the project site. However, light and glare from the residential buildings located along the northern portion of the project site would not impact the proposed residential uses that would be developed as part of the Riverpark development located north of the project site since they would be located on a hill above the project site and buffered by a distance of at least 100 feet due to the Santa Clara River. In addition, traffic traversing Soledad Canyon Road may be impacted by the light and glare associated with residential and commercial development.

The proposed project includes a Lighting Plan that indicates the proposed locations of all of the outdoor lighting installations. The lighting must comply with Chapter 17.15, *Property Development Standards*, of the City's UDC, which requires all light sources to be directed downward and shielded from streets or adjoining properties and would prevent light spillage and adjacent residential uses. Regardless, mitigation measures have been included in order to ensure lighting impacts to off-site uses would remain below a level of significant. Therefore, implementation of the recommended mitigation measure and compliance with the City's UDC would reduce long-term light and glare impacts to off-site uses to less than significant.

On-Site

The existing development located to the east and south may also impact the proposed residential uses. The soccer center includes a large soccer field with extensive lighting for nighttime use. However, the nearest residential uses would be separated by a six-foot block wall, landscaping and one of the internal roadways, providing a buffer from the extensive outdoor lighting. The mobile home park includes one-story buildings, which would be shielded by the block wall and therefore would not result in lighting impacts to the proposed residential uses. Streetlights and car headlight along Soledad Canyon Road may impact the residential buildings fronting the roadway. However, the landscaping along the six-foot block wall would provide a buffer to the light and glare impacts associated with Soledad Canyon Road and the traffic traversing the roadway. In addition, units would be located 10 to 15 feet above Soledad Canyon Road.

In consideration of the existing urban environment, the existing buffers, and implementation of the recommended mitigation measure, project implementation would not result in significant light and glare impacts to on-site uses, resulting in less than significant on-site light and glare impacts.

Mitigation Measures:

AES4 Prior to plan approval, the City of Santa Clarita Planning Division shall ensure that the following elements are included in the project plans, as appropriate:

- A photometric study shall be completed indicating compliance with all lighting standards contained in the City's *Unified Development Code* (UDC), including, but not limited to Chapter 17.15, *Property Development Standards*, and Chapter 17.19, *Sign Regulations (Private Property);*

- All exterior lighting shall be designed and located as to avoid intrusive effects on adjacent residential properties and undeveloped areas adjacent to the project site. Low-intensity street lighting and low-intensity exterior lighting shall be used throughout the development to the extent feasible. Lighting fixtures shall use shielding, if necessary to prevent spill lighting on adjacent off-site uses;

- Design and placement of site lighting shall minimize glare affecting adjacent properties, buildings, and roadways;
- Fixtures and standards shall conform to state and local safety and illumination requirements;
- Development projects shall use minimally reflective glass and all other materials used on exterior building and structures shall be selected with attention to minimizing reflective glare; and
- Automatic timers on lighting shall be designed to maximize personal safety during nighttime use while saving energy.

Level of Significance After Mitigation: Less Than Significant Impact.

5.3.4 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- ***IMPLEMENTATION OF THE PROPOSED PROJECT, IN CONJUNCTION WITH RELATED CUMULATIVE PROJECTS IN THE CITY OF SANTA CLARITA, COULD RESULT IN SIGNIFICANT CUMULATIVE AESTHETIC, LIGHT, AND GLARE IMPACTS.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: The proposed project, in combination other development identified in Section 4.0, Basis of Cumulative Analysis, would contribute to the continued alteration of the aesthetic character of the Santa Clarita Valley to suburban in nature. The proposed project and other development in the City of Santa Clarita would transform the character of the area by intensifying land uses and adding urban uses in currently undeveloped areas. The aesthetic, light, and glare impacts of individual development projects can often be mitigated through careful site design, avoidance of significant visual features, compliance with the City's UDC for lighting impacts, and appropriate building and landscape standards. Through the implementation of mitigation measures and compliance with the City's UDC cumulative long-term aesthetic, light, and glare impacts would be reduced to a less than significant level.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

5.3.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Implementation of the proposed Soledad Village project would not result in any significant and unavoidable aesthetics, light, and glare impacts.

Section 5.4
TRAFFIC AND CIRCULATION

5.4 TRAFFIC AND CIRCULATION

This section of the EIR evaluates the impacts of the proposed project on the local traffic system in the project vicinity. This analysis summarizes the findings of a traffic report prepared for the proposed project by Austin-Foust Associates, Inc., dated June 2005. Because the traffic report is technical in its subject and language, this section presents a summary intended for the non-technical reader. For a detailed discussion of assumptions, calculations, and conclusions utilized in the traffic analysis, refer to the traffic report, included in its entirety in Appendix D of this EIR.

5.4.1 METHODOLOGY

STUDY AREA

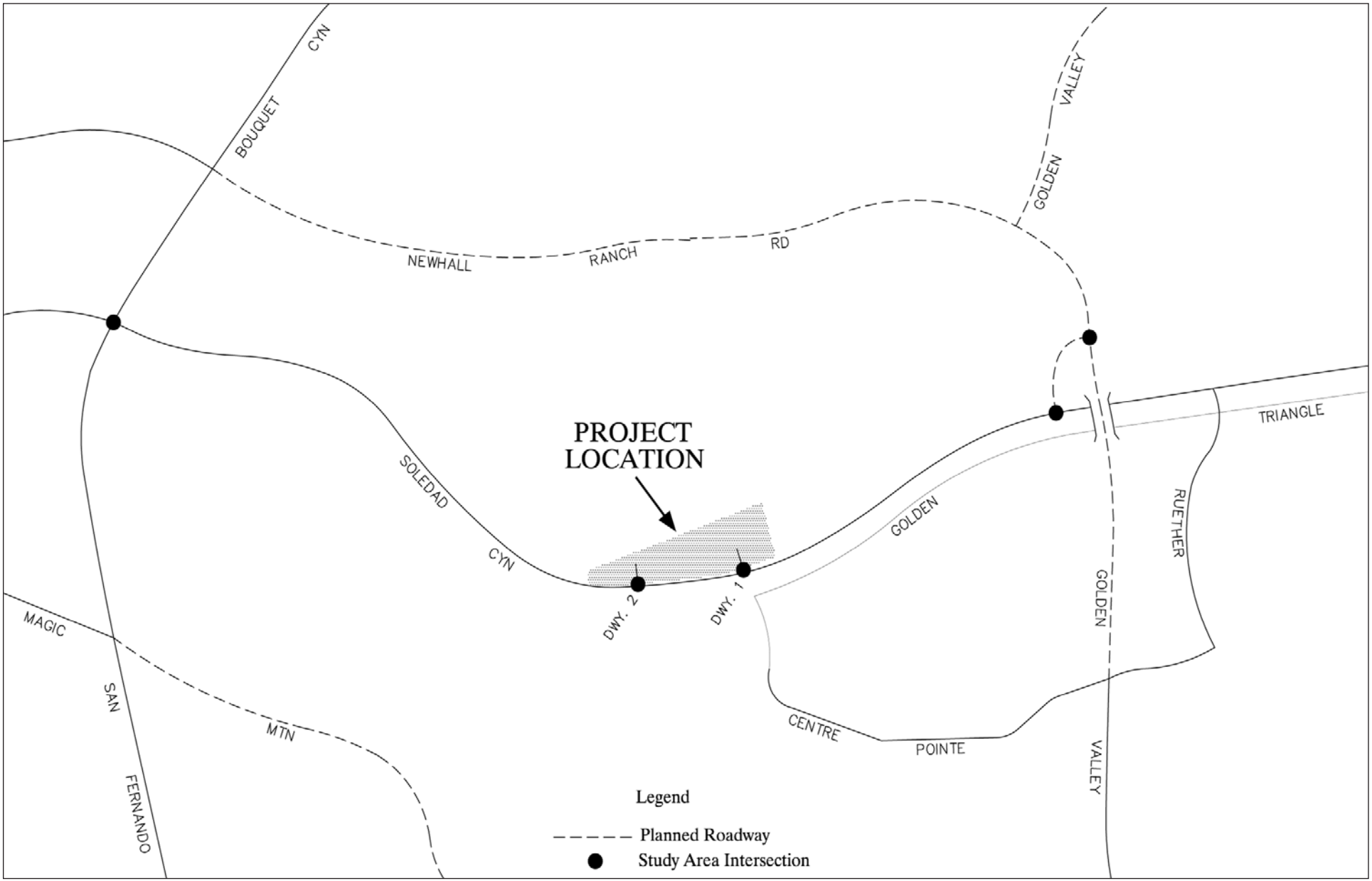
The study area includes the roadways and intersections in the vicinity of the project site and those locations where project-generated traffic could cause a significant impact, which is based on a criterion of 50 or more new trips added to the peak travel direction. *Exhibit 5.4-1, Study Area Intersections*, illustrates the intersections selected for study based on this criterion.

Methodology

The traffic analysis evaluates the proposed project for a short-range and an interim year time frame using the Santa Clarita Valley Consolidated Traffic Model (SCVCTM). The SCVCTM was developed jointly by the City of Santa Clarita and the County of Los Angeles and is the primary tool used for forecasting traffic volumes for the Santa Clarita Valley.

The SCVCTM has the ability to provide traffic volume forecasts for three future scenarios; Interim Year, which generally corresponds to a horizon of year 2015, Long-Range General Plan, which represents buildout of the City and County's General Plans, and Long-Range Cumulative, which represents buildout conditions and also includes pending projects not yet adopted by the respective agency.

Consistent with the EIR traffic studies done for other recent projects in the City, this analysis uses the SCVCTM Interim Year (2015) horizon, which is roughly halfway between existing conditions and buildout of the General Plan, as the basis for background traffic conditions. An update to the SCVCTM was recently undertaken that included incorporating current land use information for planned and pending cumulative projects. As part of the development of this traffic impact analysis, the SCVCTM land use database was reviewed and verified for use in the cumulative analysis. Although no specific development projects in the proposed project vicinity were identified as part of the cumulative analysis, the SCVCTM, as previously indicated, incorporates all current land use data for planned and pending projects. As such, the cumulative development anticipated within the project vicinity has been incorporated into the traffic projections calculated by the SCVCTM. Furthermore, the long-range traffic levels associated with the development of the project site are lower than those anticipated in the SCVCTM, since the General Plan currently assumes commercial



Source: Austin-Foust Associates, Inc., June 2005.

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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Study Area Intersections

Exhibit 5.4-1

development on-site, which results in higher traffic generation rates than residential uses. As such, because the proposed project would result in lower traffic generation than that assumed for the site in the SCVCTM, a typical with-project and without-project buildout analysis was not required to assess cumulative traffic impacts.

The impact analysis is based on specific performance criteria that are outlined below under *Performance Criteria*. Where appropriate, mitigation measures are identified for those scenarios in which significant impacts are determined based on the established impact thresholds.

Performance Criteria

For CEQA purposes, defined performance criteria are utilized to determine if a proposed project causes a significant impact. In most traffic studies, performance criteria are based on two primary measures. The first is "capacity", which establishes the vehicle carrying ability of a roadway and the second is "volume." The volume measure is either a traffic count (in the case of existing volumes) or a forecast for a future point in time. The ratio between the volume and the capacity gives a volume/capacity (V/C) ratio and based on that V/C ratio, a corresponding level of service (LOS) is defined. Traffic LOS is designated A through F with LOS A representing free flow conditions and LOS F representing severe traffic congestion. Traffic flow quality for each LOS is described in *Table 5.4-1*, *Level of Service Descriptions*.

Both the V/C ratio and the LOS are used in determining impact significance. Certain LOS values are deemed unacceptable by the City and increases in the V/C ratio that cause or contribute to the LOS being unacceptable are defined as a significant impact.

In establishing V/C based performance criteria, there are certain items that need to be addressed to obtain suitable V/C estimates and relate them to LOS. For instance, while average daily traffic (ADT) is a useful measure to show general levels of traffic on a facility and to provide data for other related aspects such as noise and air quality, highway congestion is largely a peak hour or peak period occurrence and ADT does not reflect peak period conditions very effectively. Because of this, ADT is not used here as the basis for capacity evaluation but instead this evaluation focuses on those parts of the day when such congestion can occur, specifically the AM and PM peak hours.

Arterial Roads

For the arterial system, the peak hour is the accepted time period used for impact evaluation and a number of techniques are available to establish suitable V/C ratios and define the corresponding LOS. These definitions and procedures are established by individual local jurisdictions or by regional programs such as the Congestion Management Program (CMP).

The analysis of the arterial road system is based on intersection capacity since this is the defining capacity limitation on an arterial highway system. There may be exceptions where certain facilities have long distances between signalized intersections, but within the traffic analysis study area, peak hour intersection performance is the most representative measure for evaluating the arterial road system. Levels of service for arterial roadway intersections

are determined based on operating conditions during the AM and PM peak hours. For intersections, the intersection capacity utilization (ICU) methodology is applied, providing a planning level basis for determining V/C and LOS. This methodology sums the V/C ratios for the critical movements of an intersection and is the preferred procedure for intersection analysis by the City of Santa Clarita and the County of Los Angeles. The ICU methodology is generally compatible with the intersection capacity analysis methodology outlined in the *Highway Capacity Manual 2000* (HCM 2000).[1]

Table 5.4-1
Level Of Service Descriptions

LOS	Arterial Roads	Freeway Segments
A	Describes primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the given street class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.	Describes free-flow operations. Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. The effects of incidents or point breakdowns are easily absorbed at this level.
B	Describes reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the street class. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.	Represents reasonably free flow, and free-flow speeds are maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high. The effects of minor incidents and point breakdowns are still easily absorbed.
C	Describes stable operations; however, ability to maneuver and change lanes in midblock locations may be more restricted than at LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the free-flow speed for the street class.	Provides for flow with speeds at or near the free-flow speed of the freeway. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver. Minor incidents may still be absorbed, but the local deterioration in service will be substantial. Queues may be expected to form behind any significant blockage.
D	Borders on a range in which small increases in flow may cause substantial increases in delay and decreases in travel speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors. Average travel speeds are about 40 percent of free-flow speed.	The level at which speeds begin to decline slightly with increasing flows and density begins to increase somewhat more quickly. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels. Even minor incidents can be expected to create queuing, because the traffic stream has little space to absorb disruptions.

[1] Transportation Research Board, National Research Council. *Highway Capacity Manual 2000*. 2000.

Table 5.4-1 (cont.)
Level Of Service Descriptions

LOS	Arterial Roads	Freeway Segments
E	Characterized by significant delays and average travel speeds of 33 percent or less of the free-flow speed. Such operations are caused by a combination of adverse signal progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.	At its highest density value, LOS E describes operation at capacity. Operations at this level are volatile, because there are virtually no usable gaps in the traffic stream. Vehicles are closely spaced, leaving little room to maneuver within the traffic stream at speeds that still exceed 49 miles per hour. Any disruption of the traffic stream, such as vehicles entering from a ramp or a vehicle changing lanes, can establish a disruption wave that propagates throughout the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate even the most minor disruption, and any incident can be expected to produce a serious breakdown with extensive queuing. Maneuverability within the traffic stream is extremely limited, and the level of physical and psychological comfort afforded the driver is poor.
F	Characterized by urban street flow at extremely low speeds, typically one-third to one-fourth of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high delays, high volumes, and extensive queuing.	Describes breakdowns in vehicular flow. Such conditions generally exist within queues forming behind breakdown points. LOS F operations within a queue are the result of a breakdown or bottleneck at a downstream point. LOS F is also used to describe conditions at the point of the breakdown or bottleneck and the queue discharge flow that occurs at speeds lower than the lowest speed for LOS E, as well as the operations within the queue that forms upstream. Whenever LOS F conditions exist, they have the potential to extend upstream for significant distances.

Source: *Highway Capacity Manual 2000 (HCM 2000)*, Transportation Research Board, National Research Council.

Impact Criteria for Arterial Roads

The ICU calculation methodology and associated impact criteria for the study area arterial system are summarized in *Table 5.4-2*, *Arterial Intersection Performance Criteria*.

Table 5.4-2
Arterial Intersection Performance Criteria

V/C Calculation Methodology	Level of service to be based on peak hour intersection capacity utilization (ICU) values calculated using the following assumptions: Saturation Flow Rate: 1,750 vehicles/hour/lane for all lanes Clearance Interval: .10
Performance Standards	LOS D or existing LOS, whichever is greater, for existing intersections
Abbreviations: LOS – Level of Service ICU – Intersection Capacity Utilization	

5.4.2 EXISTING CONDITIONS

The following describes the transportation setting for the traffic analysis. Existing traffic conditions are first discussed, followed by a description of the future circulation system as outlined in the City's General Plan Circulation Element. The description of traffic setting includes a description of the study area roadway system, existing traffic volumes, and corresponding levels of service, as defined by the performance criteria outlined previously.

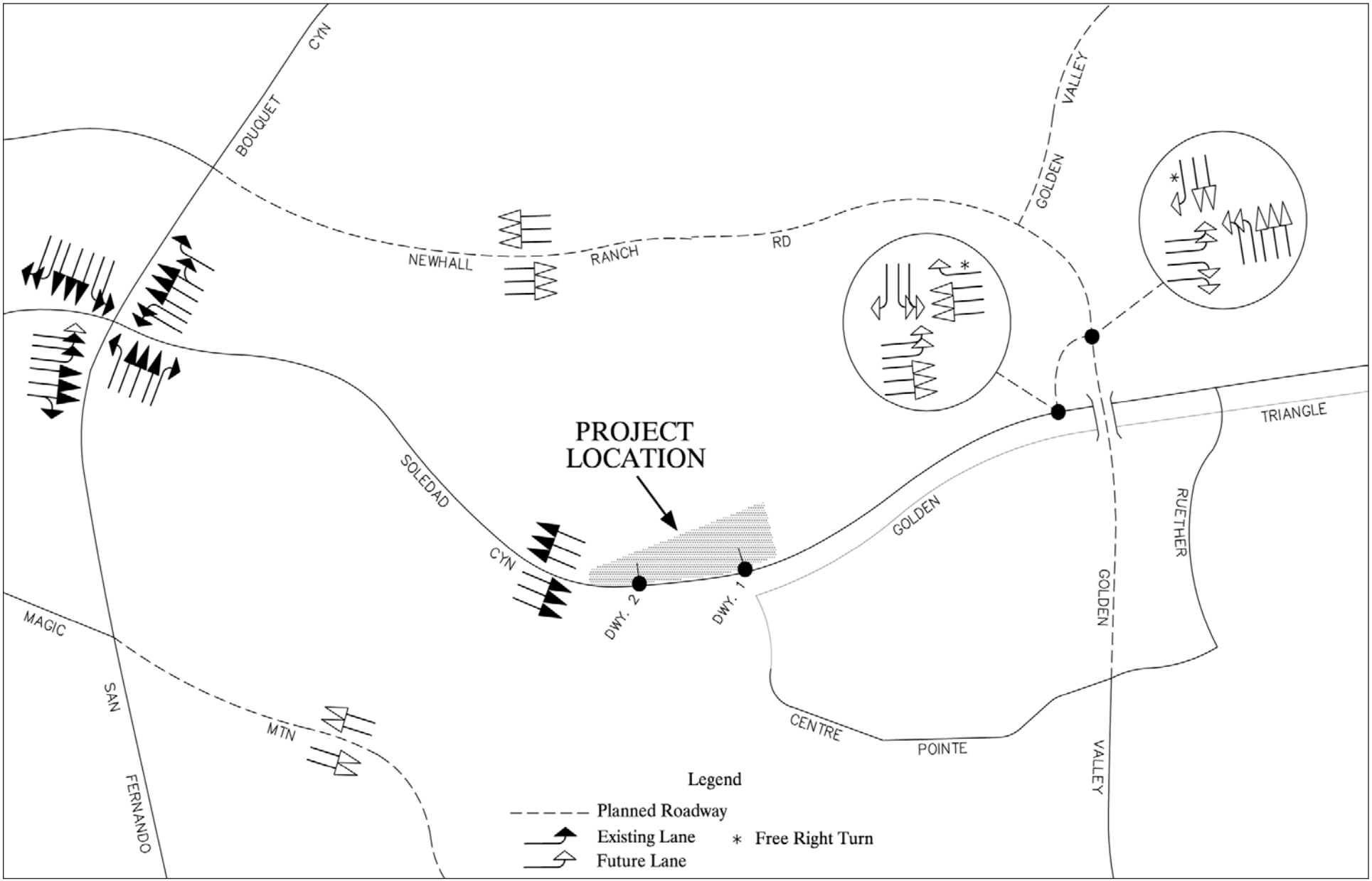
EXISTING ROADWAY SYSTEM

The existing roadway network in the study area is illustrated in *Exhibit 5.4-2*, *Existing and Future Roadway Network*, in the form of mid-block lanes and intersection lane configurations for the intersections being studied. Future roadways are also shown for comparison. Major arterial streets near the project site consist of Soledad Canyon Road and Bouquet Canyon Road.

The I-5 Freeway and State Route 14 (SR-14) provide regional access for residents of the site. The I-5 Freeway is located approximately three miles west of the project site and can be accessed from the project site via full interchanges at Magic Mountain Parkway and Valencia Boulevard. SR-14 is located approximately five miles south of the project site and in the future, when the Soledad Canyon Road/Golden Valley Road flyover is completed (this improvement is presently under construction), can be accessed from the Golden Valley Road interchange.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

The existing average daily traffic (ADT) volumes on the study area roadway system are illustrated in *Exhibit 5.4-3*, *Existing ADT Volumes*. Illustrations of peak hour turning movement volumes for the existing study area intersection can be found in *Exhibit 5.4-4*, *Existing AM and PM Peak Hour Volumes*, for the AM and PM peak hours, respectively. The peak hour count was collected in September 2003, and since the intersection is currently under construction, a new traffic count has not been collected. Instead, the 2003 count volumes have been factored up by four percent to approximate 2005 conditions.



Source: Austin-Foust Associates, Inc., June 2005.

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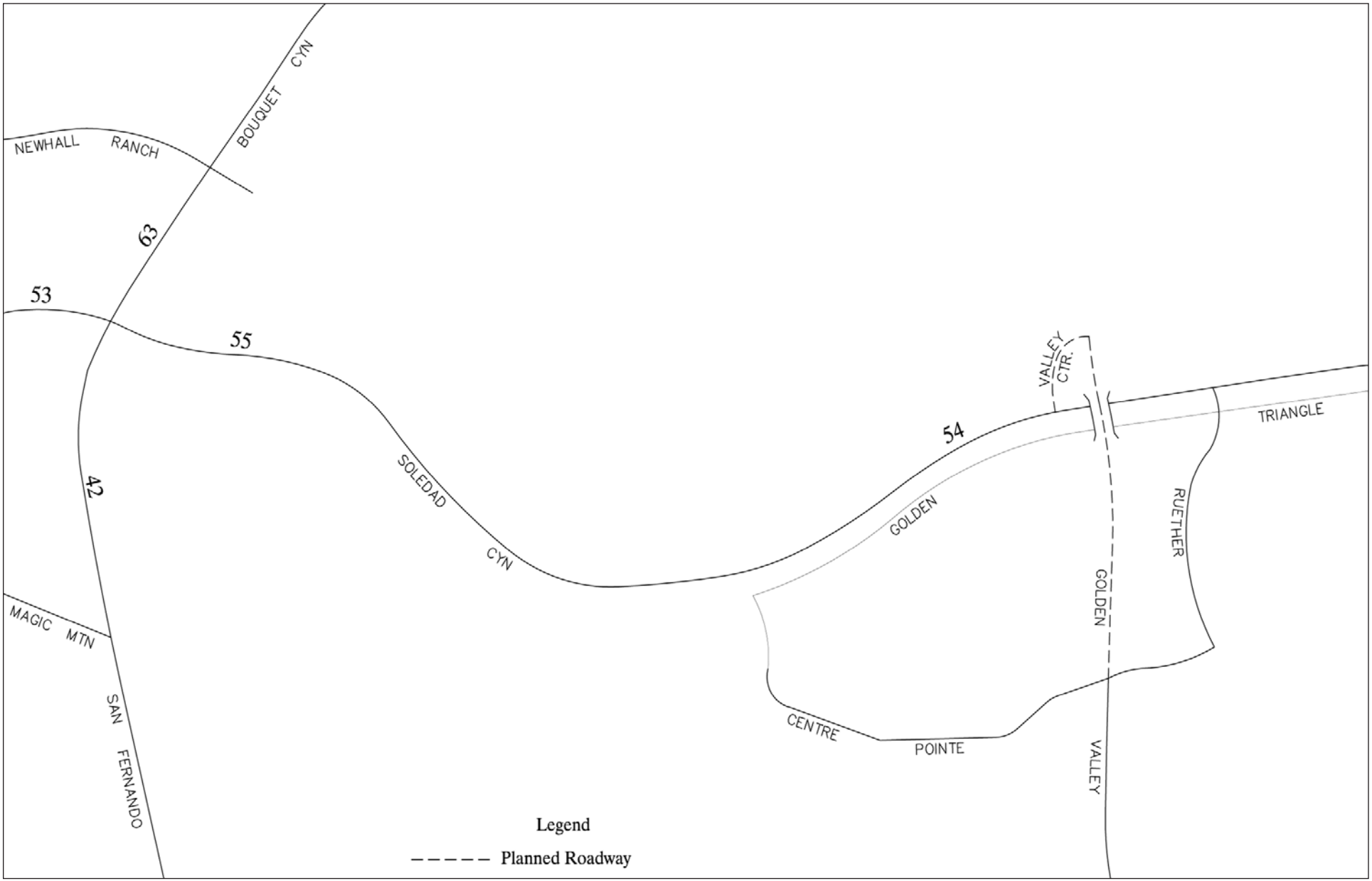
SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Existing and Future Roadway Network

Exhibit 5.4-2



Source: Austin-Foust Associates, Inc., June 2005.

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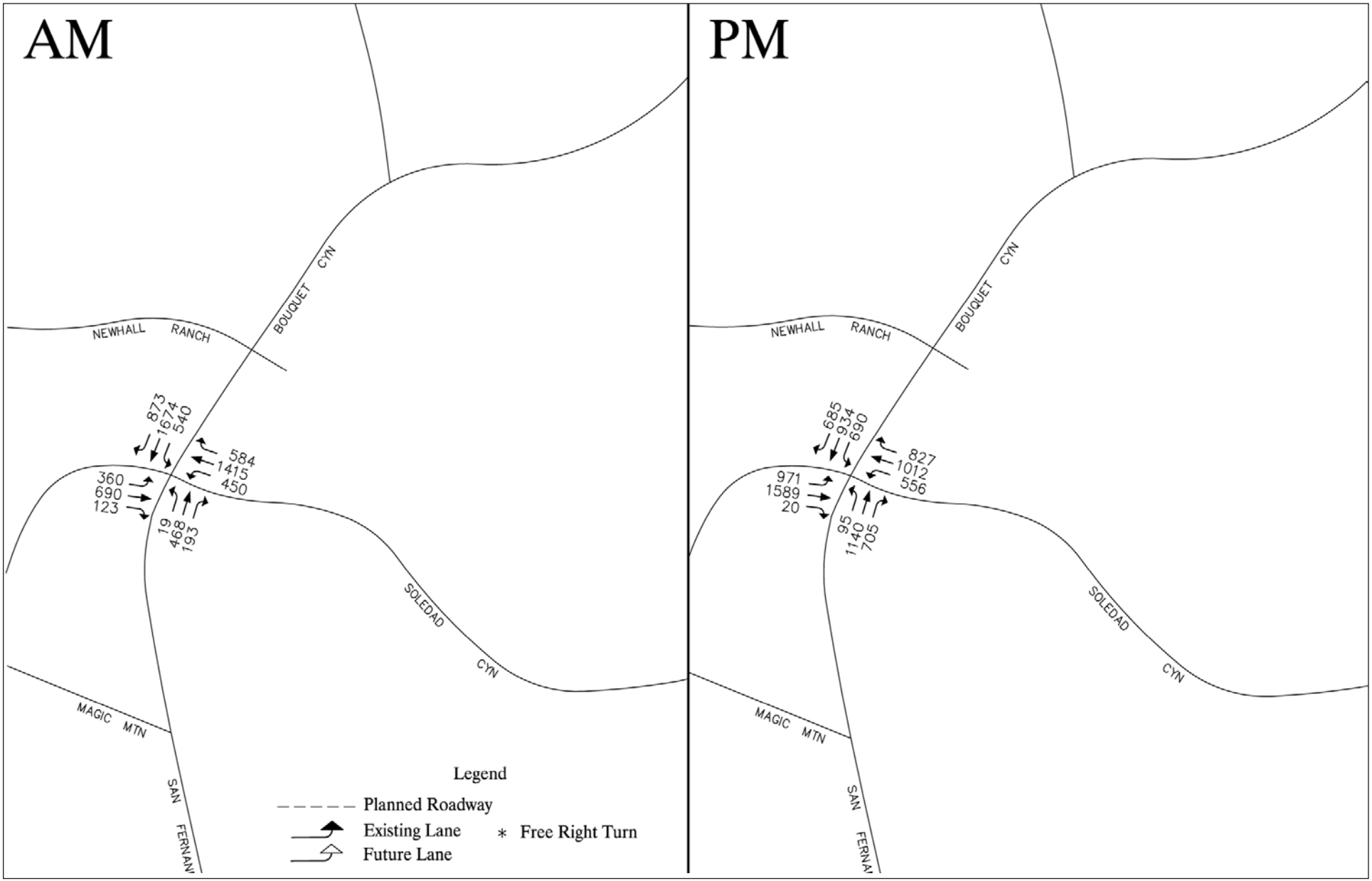
SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Existing ADT Volumes

Exhibit 5.4-3



Source: Austin-Foust Associates, Inc., June 2005.

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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Existing AM and PM Peak Hour Volumes

Exhibit 5.4-4

As previously discussed above under *Performance Criteria*, LOS is a concept developed to quantify the degree of comfort afforded to drivers as they travel on a given roadway. The degree of comfort includes such elements as travel time, number of stops, total amount of stopped delay, etc. As defined in the HCM 2000, six grades are used to denote the various LOS, which are described in detail in *Table 5.4-1*.

The result of the ICU LOS analysis for the one existing intersection in the study area is shown in *Table 5.4-3*, *ICU Summary – Existing Conditions (2005)*.

Table 5.4-3
ICU Summary – Existing Conditions (2005)

Location	AM Peak Hour		PM Peak Hour		Count Date
	ICU	LOS	ICU	LOS	
65. Bouquet Cyn Rd & Soledad Cyn Rd	.80	C	1.06	F	(1)

Notes:

(1) Intersection currently under construction. A 2003 count (pre-construction) has been increased by four percent to approximate 2005 conditions.

Level of service ranges: .00 - .60 A
.61 - .70 B
.71 - .80 C
.81 - .90 D
.91 – 1.00 E
Above 1.00 F

Table 5.4-3 shows that the intersection of Bouquet Canyon Road and Soledad Canyon Road currently operates at LOS C and LOS F in the AM and PM peak hours, respectively.

EXISTING PUBLIC TRANSPORTATION FACILITIES

Santa Clarita Transit provides fixed-route bus service immediately adjacent to the project site via Routes 5 and 6. Routes 5 and 6 provide eastbound service to Canyon Country and westbound service to the Valencia Town Center, Henry Mayo Hospital, Hart County Park and Downtown Newhall. Buses operate from 5:00 AM to 10:00 PM weekdays, 7:30 AM to 10:00 PM on Saturdays and 8:30 AM to 7:30 PM on Sundays. Currently, bus stops for both directions are located directly east of the subject site.

The nearest transit center is the Santa Clarita Metrolink commuter rail station, which is located just west of the project site, south of Soledad Canyon Road. Trains link Santa Clarita northbound to Palmdale and Lancaster and southbound to Burbank, Glendale and Downtown Los Angeles. A total of 12 northbound and 12 southbound trains operate from 5:00 AM to 10:00 PM weekdays and 4 northbound and 4 southbound trains operate from 7:30 AM to 6:30 PM on Saturdays. Metrolink does not provide service on Sundays.

SHORT-RANGE TRANSPORTATION SYSTEM

The short-range transportation improvements in this area consist primarily of two significant projects currently under construction.

At Bouquet Junction, 1.5 miles west of the subject property, the Bouquet Canyon Road bridge over the Santa Clara River is currently being widened to provide a fourth lane in each direction, with an anticipated completion date of July 2006. As part of that project, the Bouquet Canyon Road/Soledad Canyon Road intersection would be improved by adding an eastbound right-turn lane, an eastbound deceleration lane and a widening of other lanes to provide better truck and vehicular turning movements. Construction is expected to begin in the summer of 2006.

Golden Valley Road, a new four-lane highway completed one mile east of the subject site in July 2005, connects the area just south of Soledad Canyon Road to SR-14. A grade-separated interchange for Golden Valley Road at Soledad Canyon Road is also currently under construction with an anticipated completion date of December 2005. When completed, the interchange would provide a direct connection between Golden Valley Road and Soledad Canyon Road via Valley Center Drive. Once these improvements are completed, Golden Valley Road would connect Soledad Canyon Road and SR-14.

All the short-range transportation improvements are expected to be completed prior to the first occupancy of the proposed project.

INTERIM YEAR (2015) TRANSPORTATION SYSTEM

The Interim Year (2015) transportation system consists of roadway improvements and future infrastructure consistent with the related projects included within the horizon year. Generally, this horizon year corresponds to the year 2015 based on anticipated Santa Clarita Valley growth rates from sources such as the Southern California Association of Governments (SCAG). While this horizon does not coincide specifically with the buildout of the project site, it represents the best timeframe for planning purposes since it includes a comprehensive set of cumulative development projects that have been incorporated into the SCVCTM. With this, a conservative scenario is established for analyzing the impacts of the proposed project combined with projected and approved growth on a reasonably expanded circulation system.

Interim Year (2015) land use is based on data provided by the City and County and includes approved, pending and planned development projects. For this analysis, the recently updated Interim Year (2015) land use database was utilized since it includes the most recent data from the City and County regarding these future projects. *Table 5.4-4, Land Use and ADT Summary – Santa Clarita Valley Existing (2004), Interim Year (2015), and Long-Range (2030)*, summarizes the total land use and trip generation statistics for the entire Santa Clarita Valley area for existing, Interim Year (2015), and Long-Range General Plan conditions.

Table 5.4-4
Land Use and ADT Summary – Santa Clarita Valley
Existing (2004), Interim Year (2015), and Long-Range (2030)

Land Use Type	Units	Existing (2004)		Interim Year (2015)		Long-Range General Plan (2030)	
		Amount	ADT	Amount	ADT	Amount	ADT
Single Family Residential	DU	51,300	500,600	72,600	709,700	90,300	886,000
Multi-Family Residential	DU	25,600	202,700	39,200	305,200	49,400	385,800
Commercial Retail, Office & Industrial	MSF	31.8	695,600	67.1	1,208,300	82.6	1,581,400
Other	--	--	171,200	--	224,400	--	247,400
TOTAL	**--**	**--**	**1,570,100**	**--**	**2,447,600**	**--**	**3,100,600**

Notes:
DU = Dwelling Units
MSF = Million Square Feet

Cumulative projects included with the Interim Year (2015) scenario that are within the proximity (approximately two miles) of the project site include the Riverpark project, the Keystone project, buildout of the Centre Point Business Park, and approximately 50 percent of the planned Whitaker-Bermite site.

The City's General Plan Circulation Element includes significant future roadway projects throughout the valley that would affect traffic patterns of both existing and future trips. Many of these are anticipated to be in place by 2015. Near the project site, the construction of Newhall Ranch Road between Bouquet Canyon Road and Copper Hill Drive has already been completed. Construction on the segment between Interstate 5 and Copper Hill Road is expected to start in January 2006, with an anticipated completion date of January 2008. The final segment of Newhall Ranch Road would be constructed in conjuncted with the Riverpark development and would extend the roadway from Bouquet Canyon Road eastbound, then curve southward across a bridge over the Santa Clara River and connect to Golden Valley Road. The completed roadway would be four to six lanes wide. Once Newhall Ranch Road and Golden Valley Road (also known as the Cross Valley Connector) are completed, they would connect Interstate 5 to SR-14.

5.4.3 SIGNIFICANCE THRESHOLD CRITERIA

According to City of Santa Clarita performance criteria, a significant traffic and circulation impact would result if any of the following thresholds, as discussed previously in *Performance Criteria*, are exceeded:

A. The intersection is forecast to operate deficiently (i.e., worse than the performance standard), and

B. Compared to the ICU under without-project conditions, the ICU under with-project conditions increases the ICU by the following:

City Thresholds:	With-Project ICU	Project Increment
	.81 - 90 (LOS D)	greater than or equal to .02
	.91 or more (LOS E & F)	greater than or equal to .01

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.4.4 IMPACTS AND MITIGATION MEASURES

The following discussion describes the proposed project in terms of its transportation characteristics. Trip generation is summarized and the distribution of project trips on the study area roadway network is presented.

PROPOSED PROJECT OVERVIEW

The proposed project is located on an approximately 30-acre site generally bounded by the Santa Clara River to the north and west, commercial and residential uses to the east, and Soledad Canyon Road and a Metrolink rail line the to the south.

The proposed project is currently being planned as a development consisting of up to 437 residential condominium units and 8,000 square feet of commercial retail use. Approximately 200 residential units and the commercial component would be constructed as "Phase I" of the proposed project, and the remaining 237 residential units would be constructed as "Phase II" of the proposed project. Completion of both phases would constitute "buildout" of the proposed project.

Access for the project site is proposed from two project intersections with Soledad Canyon Road. The first intersection with Soledad Canyon Road (Project Driveway No. 1) would be located approximately 700 feet west of the eastern project boundary. Configured as a full access, signalized "T" intersection, this location would serve both the residential and retail components of the site. A second intersection (Project Driveway No. 2) would be located approximately 1,000 feet west of the first intersection, would be configured as a limited access left-in and right-in, right-out intersection, and is intended for residential traffic use only. Both entrances would include approximately 300-foot right turning pockets (deceleration lanes). It should be noted that the proposed project would not impede into the future Soledad Canyon Road right-of-way.

In support of alternative forms of transportation, the proposed project would also include development of a pedestrian bridge linking the Santa Clara River trail to the Metrolink Commuter Rail station. The pedestrian bridge would be located immediately west of the project site and would span across Soledad Canyon Road.[2]

Trip generation estimates for the proposed project are shown in *Table 5.4-5, Trip Generation and Trip Rate Summary*. The trip generation was calculated using published data from the Institute of Transportation Engineers (ITE) Seventh Edition Trip Generation Manual.

The proposed project at buildout is estimated to generate 3,926 total average daily trips (ADT) with approximately 240 occurring in the AM peak hour (200 outbound) and approximately 370 occurring in the PM peak hour (220 inbound). These values represent the net volume of new traffic added to the roadway system. The volume entering and exiting the project site (i.e., driveway volumes) is slightly higher due to the pass-by trips generated by the project's retail component. Pass-by trips are from existing vehicles on the roadway network that "pass by" the site with or without the proposed project in place.

The project site is located immediately across Soledad Canyon Road from the Santa Clarita Metrolink Commuter Rail Station. To estimate the number of Metrolink riders from the site, factors listed in the *Los Angeles County Congestion Management Plan* (CMP) were applied. The CMP uses these factors to determine the amount of transit ridership based on the proximity of a project site to a transit station such as the Santa Clarita Metrolink station. Since the project site is within one-quarter mile of the transit station, the CMP estimates that ten percent of the total number of person trips would utilize transit. In contrast, the CMP estimates that for a typical project site (one that is more than one-quarter mile from a transit station), just 3.5 percent of the total person trips would utilize transit. From this relationship it has been determined that the vehicle trips from the project site would be reduced by approximately 13 to 14 vehicles during the peak hour in the peak direction, which results in a beneficial effect on project-related traffic. The previously referenced trip generation table takes these transit trips into account to determine the net volume of vehicle traffic added to the arterial roadway system.

PROJECT TRIP DISTRIBUTION

The geographic distribution of project-generated trips was determined using the SCVCTM to prepare a project only select zone run. The Interim Year (2015) version of the SCVCTM provided the background conditions for this select zone run. The model takes into account the specific type of land use proposed for the site and how that land use would interact with the other land uses in the City.

Exhibit 5.4-5, Project Trip Distribution, illustrates the average daily trips (ADT) and distribution percentages for the proposed project (Phase 1 and project buildout). *Exhibit 5.4-6, Phase I Project Only – AM Peak Hour,* and *Exhibit 5.4-7, Phase I Project Only – PM Peak Hour*, illustrate the Phase 1 project-generated trips for the AM and PM peak hours within the study area, respectively. *Exhibit 5.4-8, Buildout Project Only – AM Peak Hour*, and *Exhibit 5.4-9, Buildout Project Only – PM Peak Hour*, illustrate the corresponding trips for

[2] The pedestrian bridge would not encroach into the future right-of-way of Santa Clarita Parkway.

project buildout. Since the SCVCTM performs separate assignments for the AM peak hour, the PM peak hour, and the off-peak period, the specific volumes for any individual time period would not precisely match the percentages noted in other exhibits.

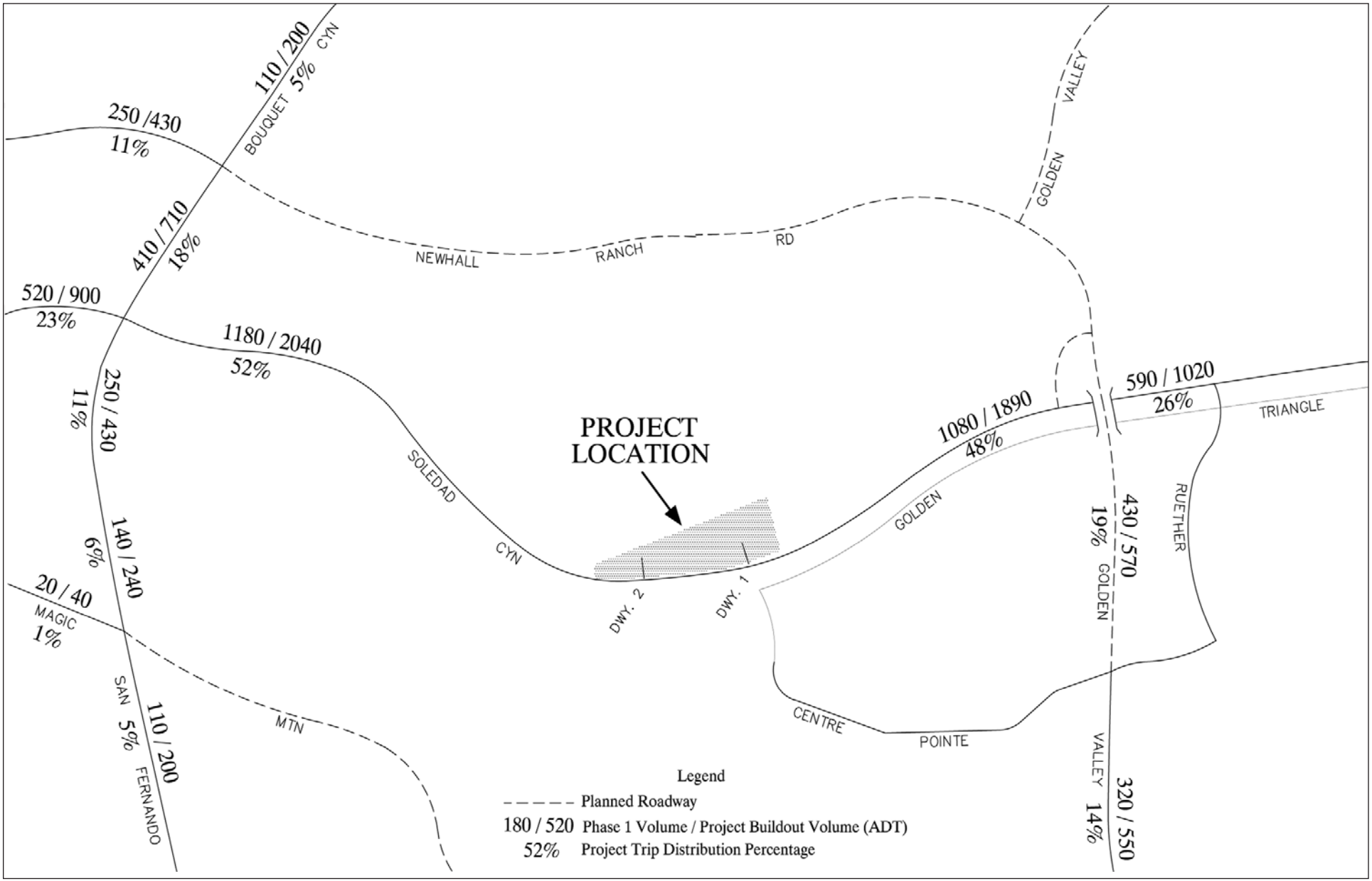
Table 5.4-5
Trip Generation and Trip Rate Summary

Land Use	Units	AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	ADT
Land Use – Phase 1								
Condominium	200 DU	12	96	108	94	52	146	1,600
Commercial / Retail	8 TSF	21	13	34	57	61	118	1,315
Driveway Total		33	109	142	151	113	264	2,915
Pass-by Reduction	-50%	-10	-7	-17	-29	-30	-59	-658
Net Total (New Trips)		23	102	125	122	83	205	2,257
Land Use – Phase 2								
Condominium	237 DU	14	114	128	111	62	173	1,896
Land Use – Project Buildout								
Condominium	437 DU	26	210	236	205	114	319	3,496
Commercial / Retail	8 TSF	21	13	34	57	61	118	1,315
Metrolink Riders	--	--	-14	-14	-13	--	-13	-227
Driveway Total		47	209	256	249	175	424	4,584
Pass-by Reduction for Retail	-50%	-10	-7	-17	-29	-30	-59	-658
Net Total (New Trips)		37	202	239	220	145	365	3,926
Trip Rates								
Condominium[1]	DU	.06	.48	.54	.47	.26	.73	8.00
Commercial / Retail[2]	TSF	ITE Shopping Center Equation (see note below)						

Trip Rate Sources:
1) SCVCTM Category 4 (Condominium/Townhome)
2) ITE Category 820 (Shopping Center Equation)
ADT Ln(T) = 0.65 Ln(X) + 5.83
AM Ln(T) = 0.60 Ln(X) + 2.29
PM Ln(T) = 0.66 Ln(X) + 3.40

Abbreviations:
DU = Dwelling Unit
TSF = Thousand Square Feet

Approximately 52 percent of the trips generated by the proposed project are assigned west of the site via Soledad Canyon Road. West of San Fernando Road/Bouquet Canyon Road, these trips are then assigned along Newhall Ranch Road (11 percent), Valencia Boulevard (23 percent), San Fernando Road (11 percent) and Bouquet Canyon Road (5 percent).



Source: Austin-Foust Associates, Inc., June 2005.

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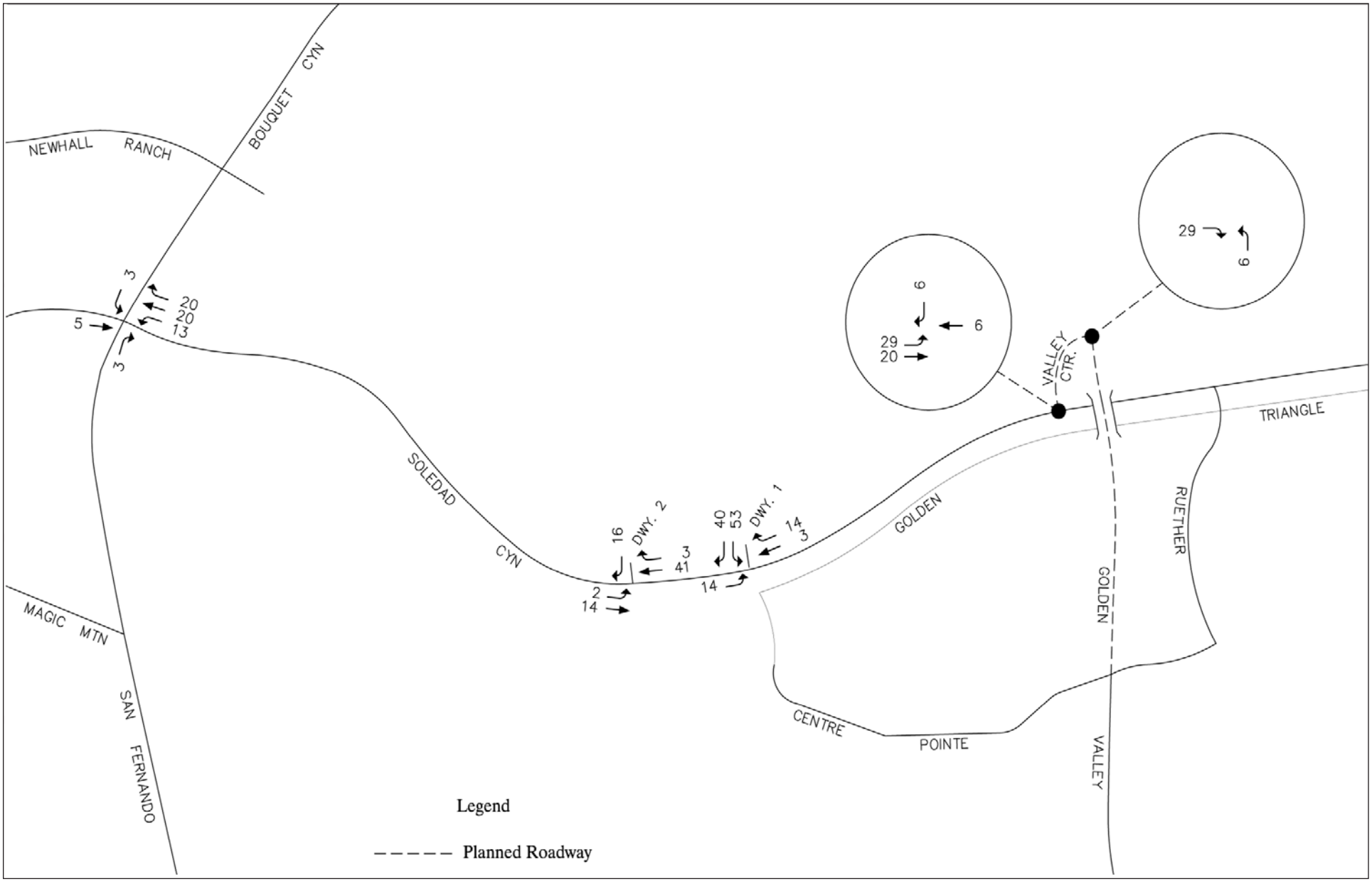
SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Project Trip Distribution

Exhibit 5.4-5



Source: Austin-Foust Associates, Inc., June 2005.

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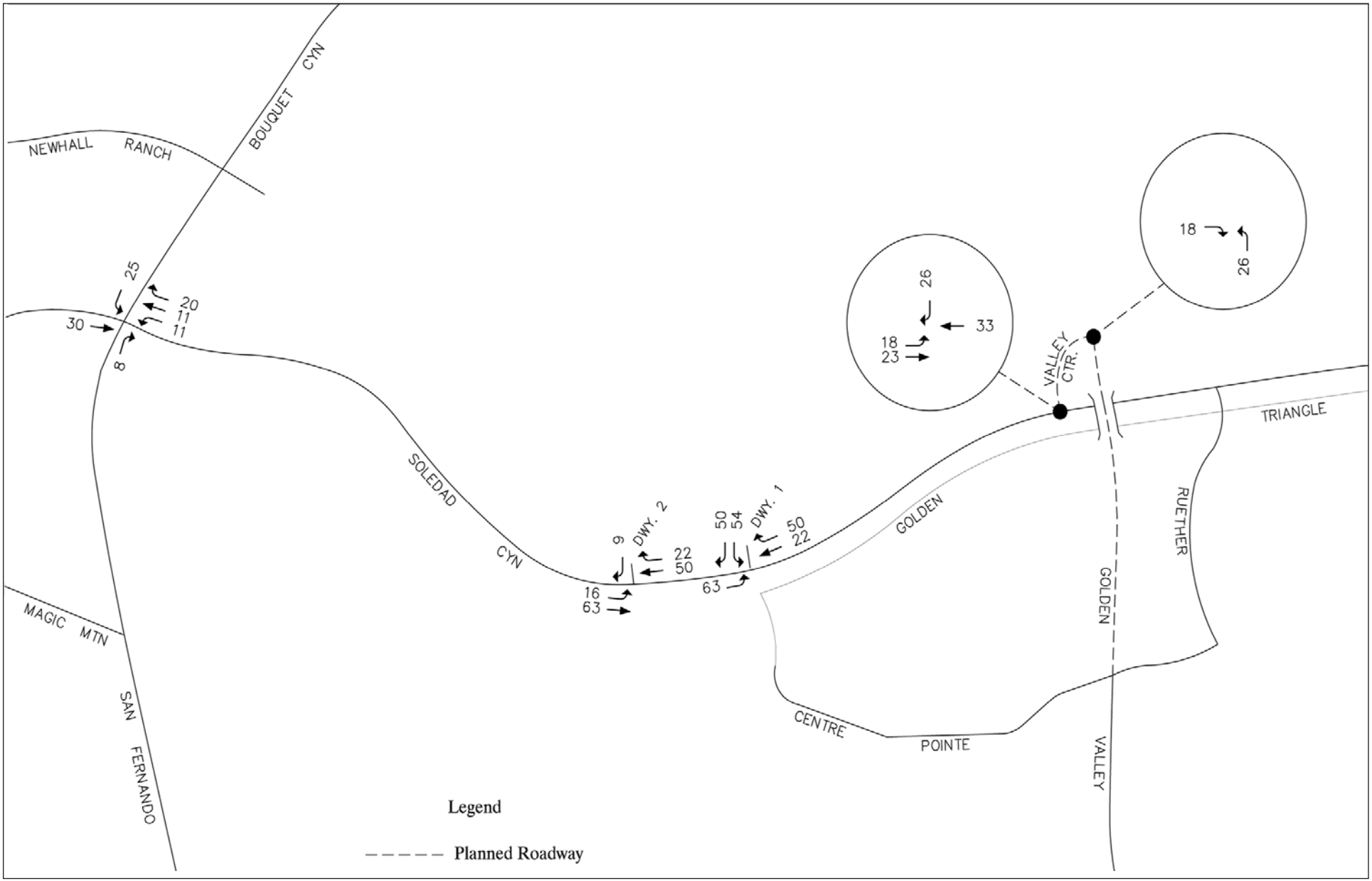
SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Phase I Project Only – AM Peak Hour

Exhibit 5.4-6



Source: Austin-Foust Associates, Inc., June 2005.

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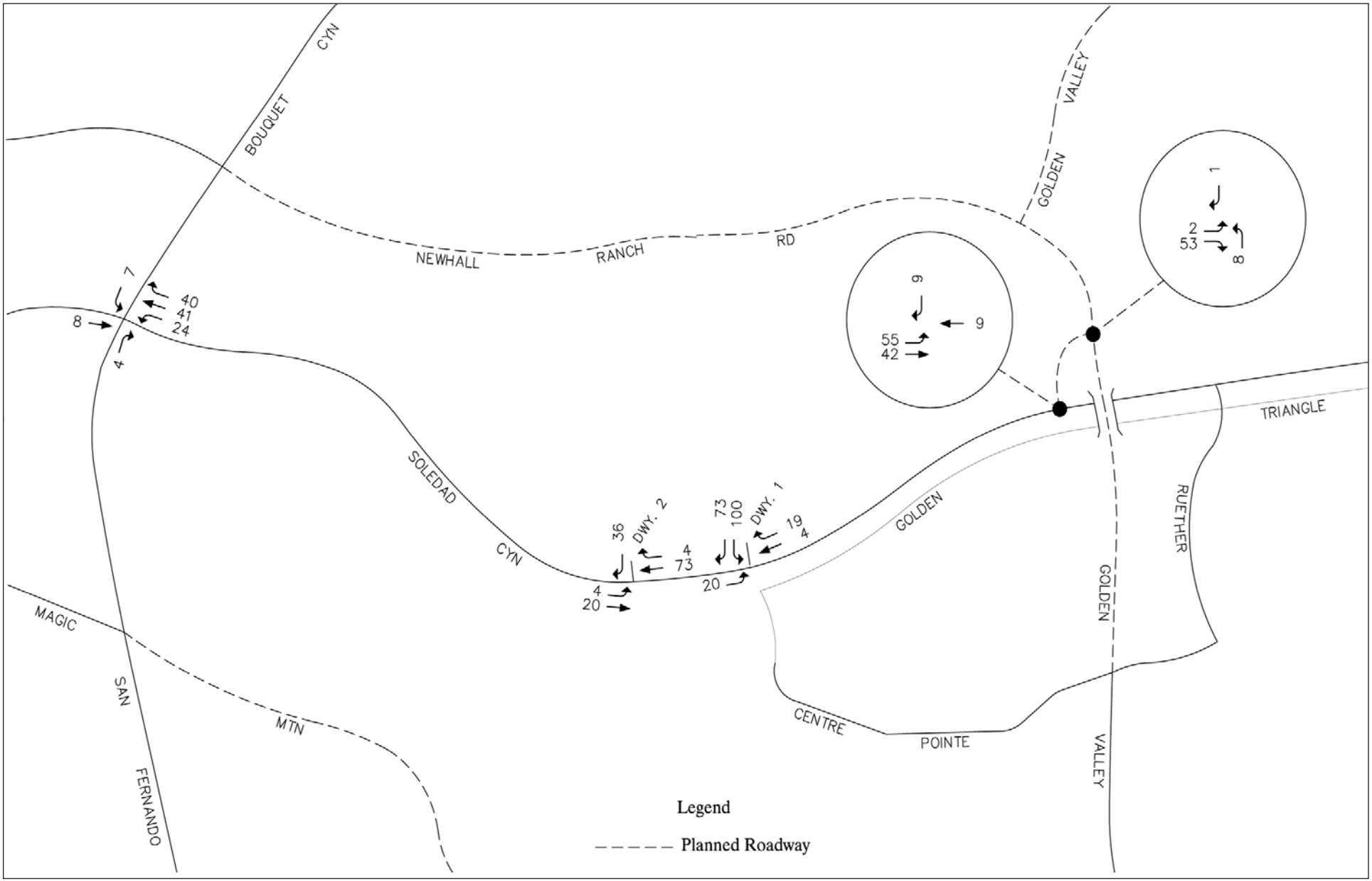
SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Phase I Project Only – PM Peak Hour

Exhibit 5.4-7



Source: Austin-Foust Associates, Inc., June 2005.

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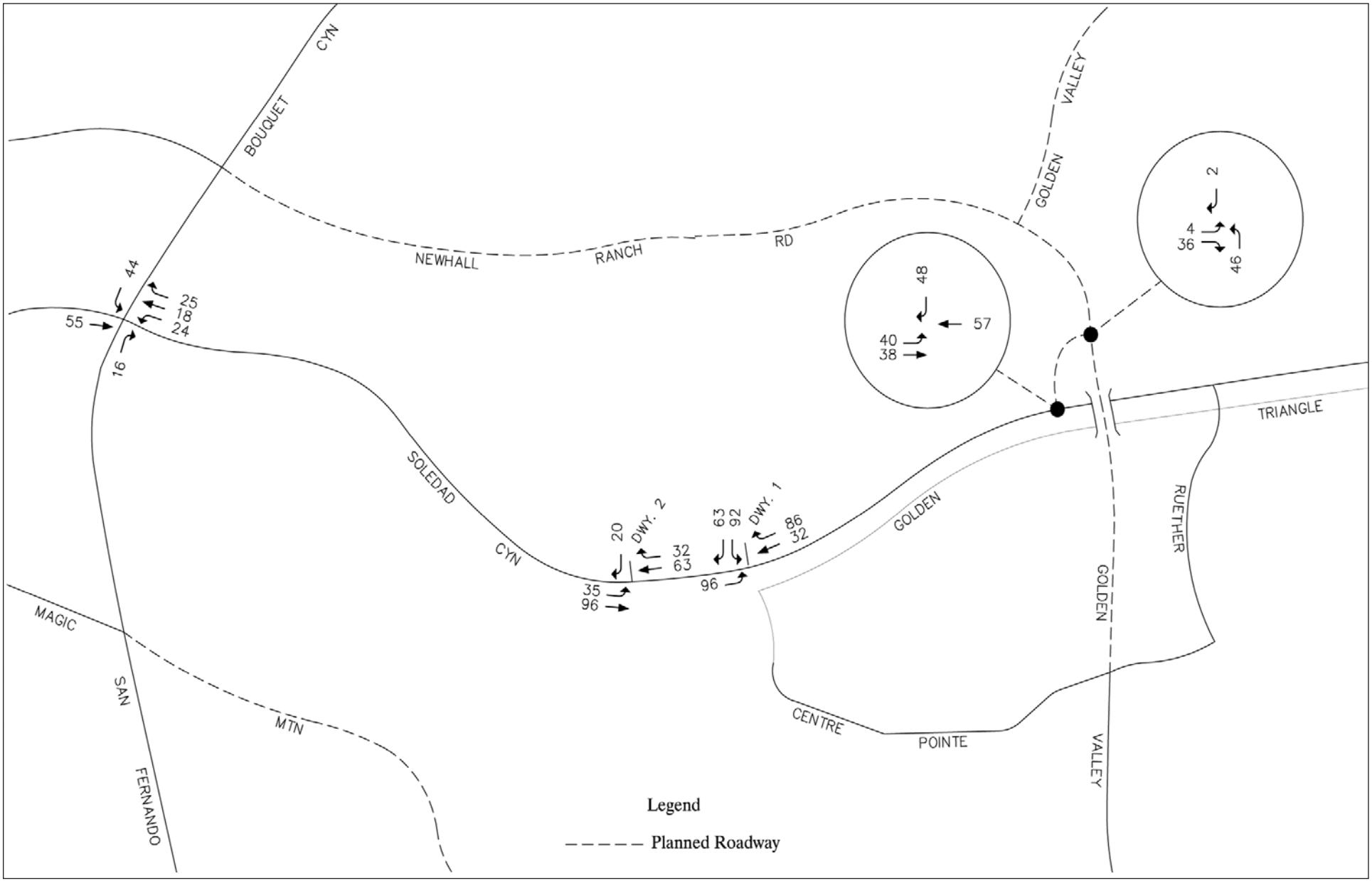
SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Buildout Project Only – AM Peak Hour

Exhibit 5.4-8



Source: Austin-Foust Associates, Inc., June 2005.

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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Buildout Project Only – PM Peak Hour

Exhibit 5.4-9

Approximately 48 percent of the trips generated by the proposed project are assigned east of the site via Soledad Canyon Road. Beyond the intersection with Golden Valley Road, 26 percent of the project trips are assigned to Soledad Canyon Road, and 19 percent to Golden Valley Road.

Traffic Signal Warrants

The existing study area intersection is currently signalized and the two planned future intersections at Soledad Canyon Road and Golden Valley Road have been identified in previous studies as warranting a traffic signal when constructed. The installation of a traffic signal at the main project driveway was recently completed and there is no plan for a traffic signal at the second project driveway (configured as a limited access left-in and right-in, right-out only intersection).

GENERAL PLAN BUILDOUT COMPARISON

When compared to the land use that has historically been used by the City and County for long-range planning in the SCVCTM, the proposed project represents a net reduction in traffic of approximately 16,000 ADT generated at the project site, as shown in *Table 5.4-6, Trip Generation Summary – General Plan Comparison*.

Table 5.4-6
Trip Generation Summary – General Plan Comparison

Land Use	Units	AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	ADT
Proposed Project Land Use								
Condominium	437 DU	26	210	236	205	114	319	3,496
Commercial / Retail	8 TSF	21	13	34	57	61	118	1,315
Metrolink Riders	--	--	-14	-14	-13	--	-13	-227
Driveway Total		47	209	256	249	175	424	4,584
Pass-by Reduction for Retail	-50%	-10	-7	-17	-29	-30	-59	-658
Net Total (New Trips)		37	202	239	220	145	365	3,926
General Plan Land Use (From SCVCTM)								
Commercial Center (>30ac)[3]	500 TSF	235	150	385	820	890	1,710	20,030
Difference								
--	--	-198	52	-146	-600	-745	-1,345	-16,104

Trip Rate Sources
[1] SCVCTM Category 4 (Condominium/Townhome)
[2] ITE Category 820 (Shopping Center Equation)
ADT Ln(T) = 0.65 Ln(X) + 5.83
AM Ln(T) = 0.60 Ln(X) + 2.29
PM Ln(T) = 0.66 Ln(X) + 3.40
[3] SCVCTM Category 10 (Commercial Center (>30ac))
Abbreviations
DU = Dwelling Unit
TSF = Thousand Square Feet

PROJECT IMPACTS – PHASE I

The following addresses the traffic impacts of the proposed project. Traffic conditions with and without the proposed project are described in the following analysis. Short-range impacts associated with Phase I of the proposed project are first evaluated, followed by the long-term (Interim Year 2015) cumulative impacts of development within the project area, which includes buildout of the proposed project. Project impacts are evaluated using the criteria previously outlined under *Performance Criteria*.

◆ ***DEVELOPMENT ASSOCIATED WITH PHASE I OF THE PROPOSED PROJECT COULD RESULT IN ADVERSE IMPACTS TO THE FUNCTION OF INTERSECTIONS IN THE PROJECT AREA FOR SHORT-RANGE TRAFFIC CONDITIONS.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis:

Short-Range No-Project Traffic Conditions

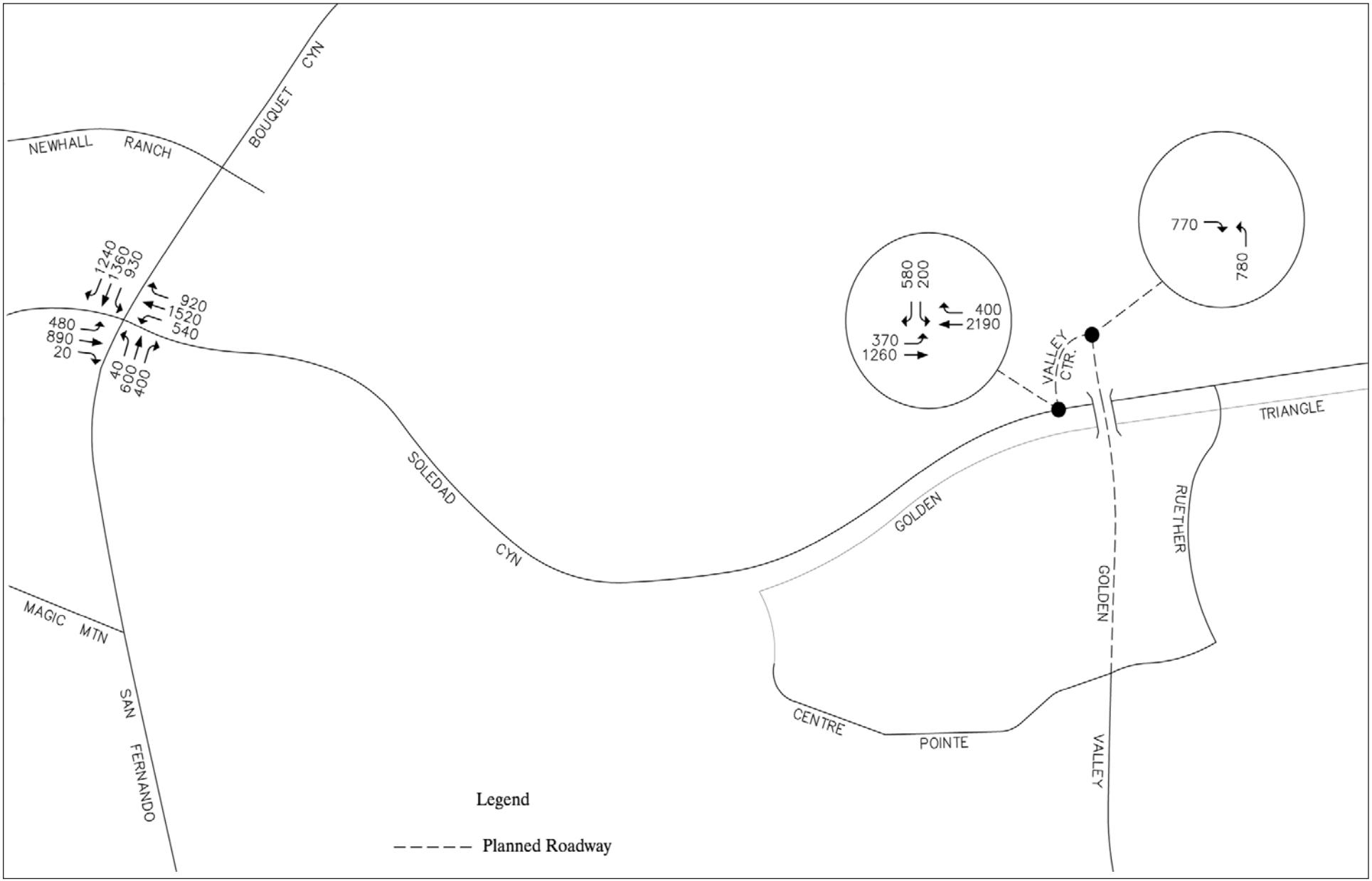
The short-range traffic conditions are based on the short-range setting previously discussed. This setting forms the basis for identifying the potential short-range traffic impacts of Phase 1 of the proposed project.

The short-range no-project peak hour turning movement volumes for the intersections in the study area are illustrated in *Exhibit 5.4-10*, *Short-Range Cumulative Conditions Without Project AM Peak Hour*, and *Exhibit 5.4-11*, *Short-Range Cumulative Conditions Without Project PM Peak Hour*, for the AM and PM peak hours, respectively.

Table 5.4-7, *ICU and LOS Summary – Existing and Short-Range Without Project*, provides the corresponding ICU values and also listed for comparison purposes are the ICUs for existing conditions. The ICU tabulations indicate that the intersection of Bouquet Canyon Road and Soledad Canyon Road (Intersection 65) is deficient in the PM peak hour under existing conditions and the short-range conditions without Phase 1 of the proposed project.

Table 5.4-7
ICU and LOS Summary – Existing and Short-Range Without Project

Intersection	Existing				Short-Range Without Project				Increase	
	AM		PM		AM		PM		AM	PM
Existing Intersections										
65. Bouquet Cyn Rd & Soledad Cyn Rd	.80	C	1.06	F	.87	D	1.16	F	.07	.10
Future Intersections										
165. Golden Valley Rd & Valley Center	--	--	--	--	.32	A	.38	A	--	--
198. Valley Center & Soledad Cyn Rd	--	--	--	--	.85	D	.75	C	--	--
Level of service ranges: .00 - .60 A; .61 - .70 B; .71 - .80 C; .81 - .90 D; .91 - 1.00 E; Above 1.00 F										



Source: Austin-Foust Associates, Inc., June 2005.

NOT TO SCALE

SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Short-Range Cumulative Conditions Without Project AM Peak Hour

Exhibit 5.4-10

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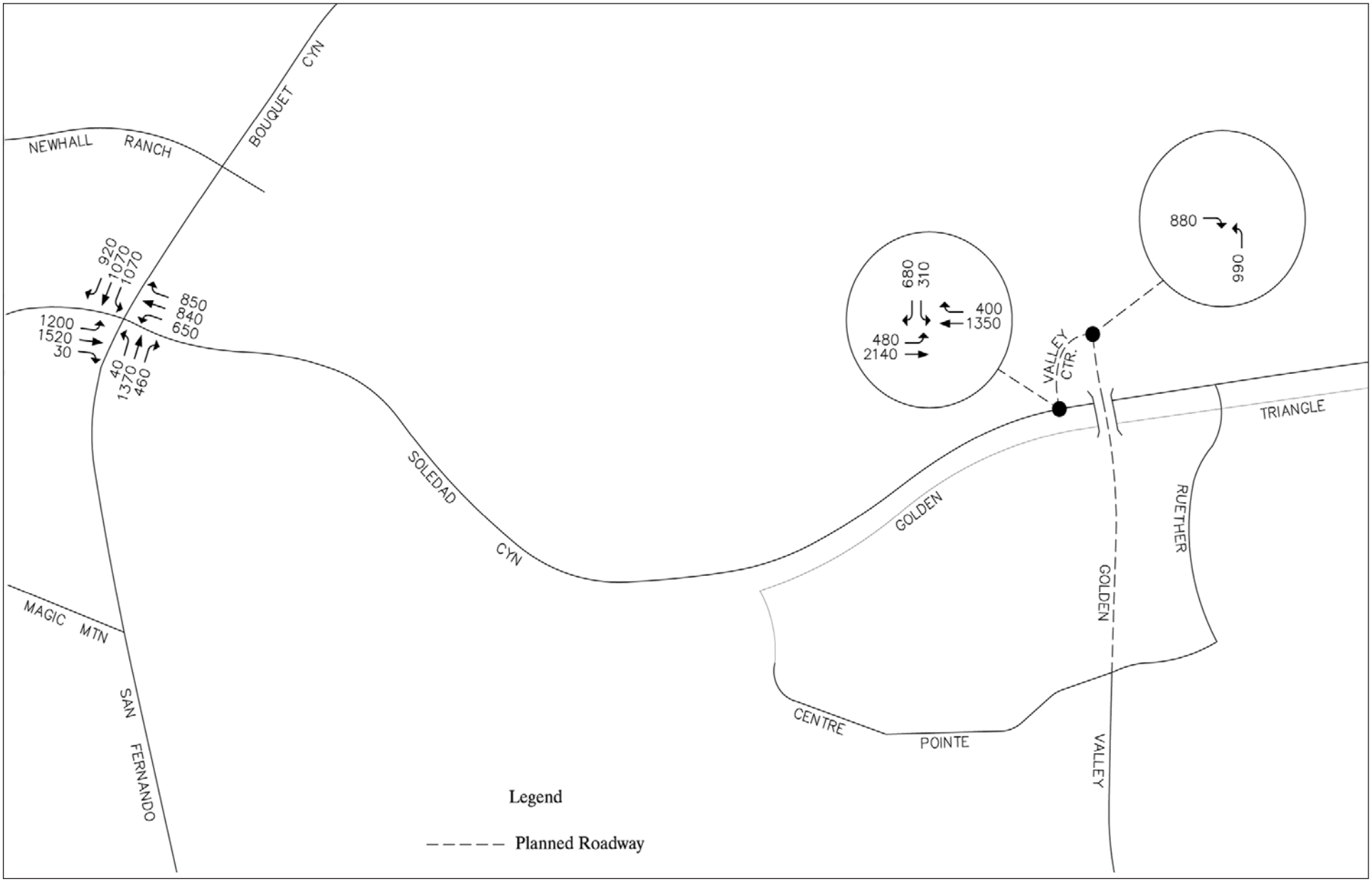

Source: Austin-Foust Associates, Inc., June 2005.

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ENVIRONMENTAL IMPACT REPORT

Short-Range Cumulative Conditions Without Project PM Peak Hour

Exhibit 5.4-11

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Short-Range With-Project Traffic Conditions

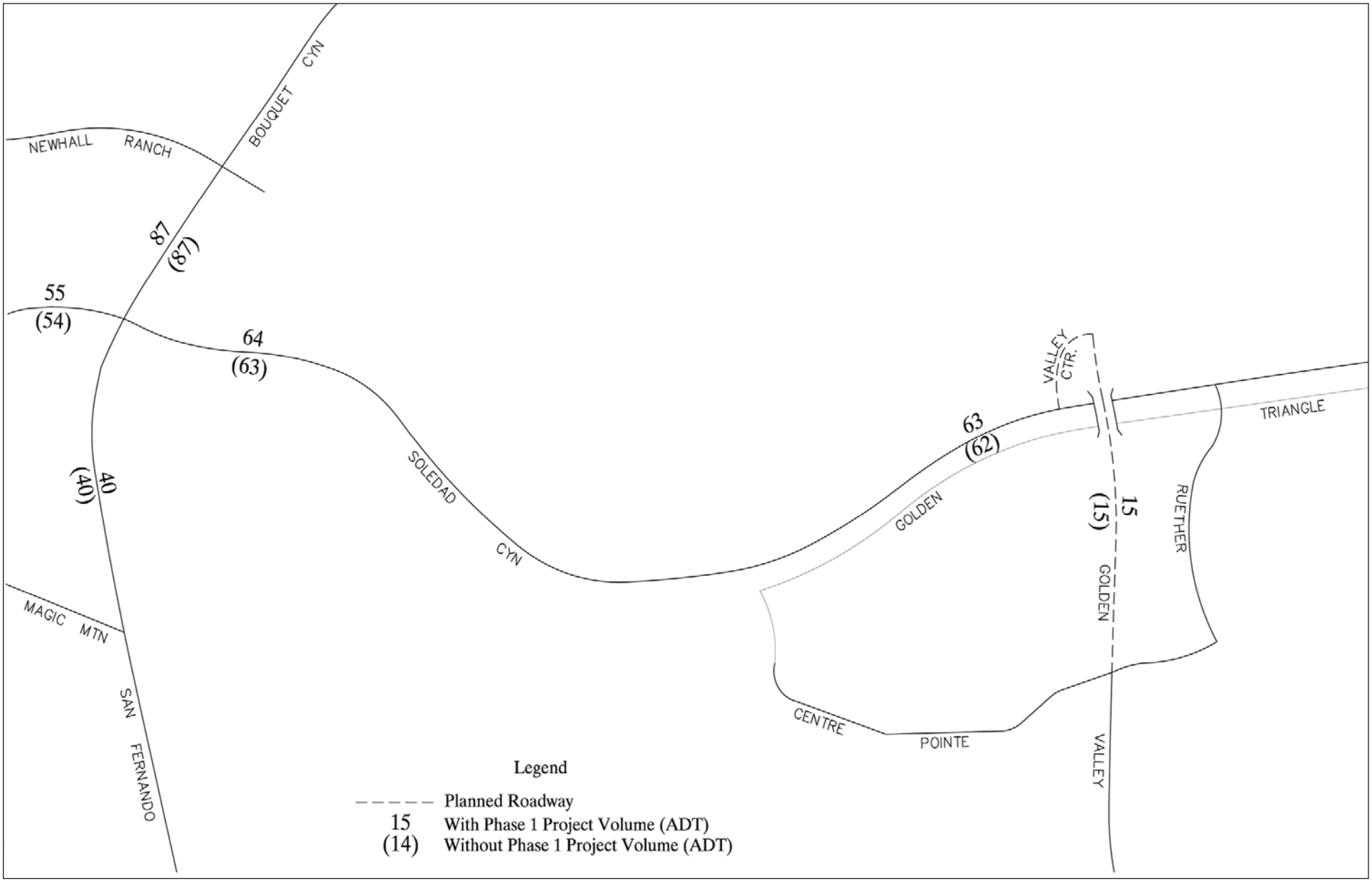
Phase 1 of the proposed project would generate approximately 2,260 vehicle trips per day, with approximately 130 in the AM peak hour and 210 in the PM peak hour. These estimates are used to represent the proposed project's impacts on the analysis area circulation system.

Short-range volumes that include Phase 1 project-generated traffic are provided in *Exhibit 5.4-12, Short-Range Cumulative Conditions With and Without Project ADT Volumes*, for the ADT volumes, and in *Exhibit 5.4-13, Short-Range Cumulative Conditions With Phase I AM Peak Hour*, and *Exhibit 5.4-14, Short-Range Cumulative Conditions With Phase I PM Peak Hour*, for the AM and PM peak hours, respectively. Peak hour ICU values can be found in *Table 5.4-8, ICU and LOS Summary – Short-Range With and Without Project (Phase I)*, which provides a comparison between short-range no-project and with-project conditions. *Table 5.4-8* shows that there is no significant impact at any intersection due to Phase I project-generated traffic.

Table 5.4-8
ICU and LOS Summary – Short-Range With and Without Project
(Phase I)

	Short-Range Without Project				Short-Range With Project Phase 1				Increase	
Intersection	**AM**		**PM**		**AM**		**PM**		**AM**	**PM**
Existing Intersections										
65. Bouquet Cyn Rd & Soledad Cyn Rd	.87	D	1.16	F	.87	D	1.16	F	.00	.00
Future Intersections										
1. Project Dwy. 1 & Soledad Cyn Rd	--	--	--	--	.69	B	.66	B	--	--
2. Project Dwy. 2 & Soledad Cyn Rd	--	--	--	--	.67	B	.65	B	--	--
165. Golden Valley Rd & Valley Center	.32	A	.38	A	.33	A	.39	A	.01	.01
198. Valley Center & Soledad Cyn Rd	.85	D	.75	C	.85	D	.76	C	.00	.01

Level of service ranges:
.00 - .60 A
.61 - .70 B
.71 - .80 C
81 - .90 D
.91 - 1.00 E
Above 1.00 F



Source: Austin-Foust Associates, Inc., June 2005.

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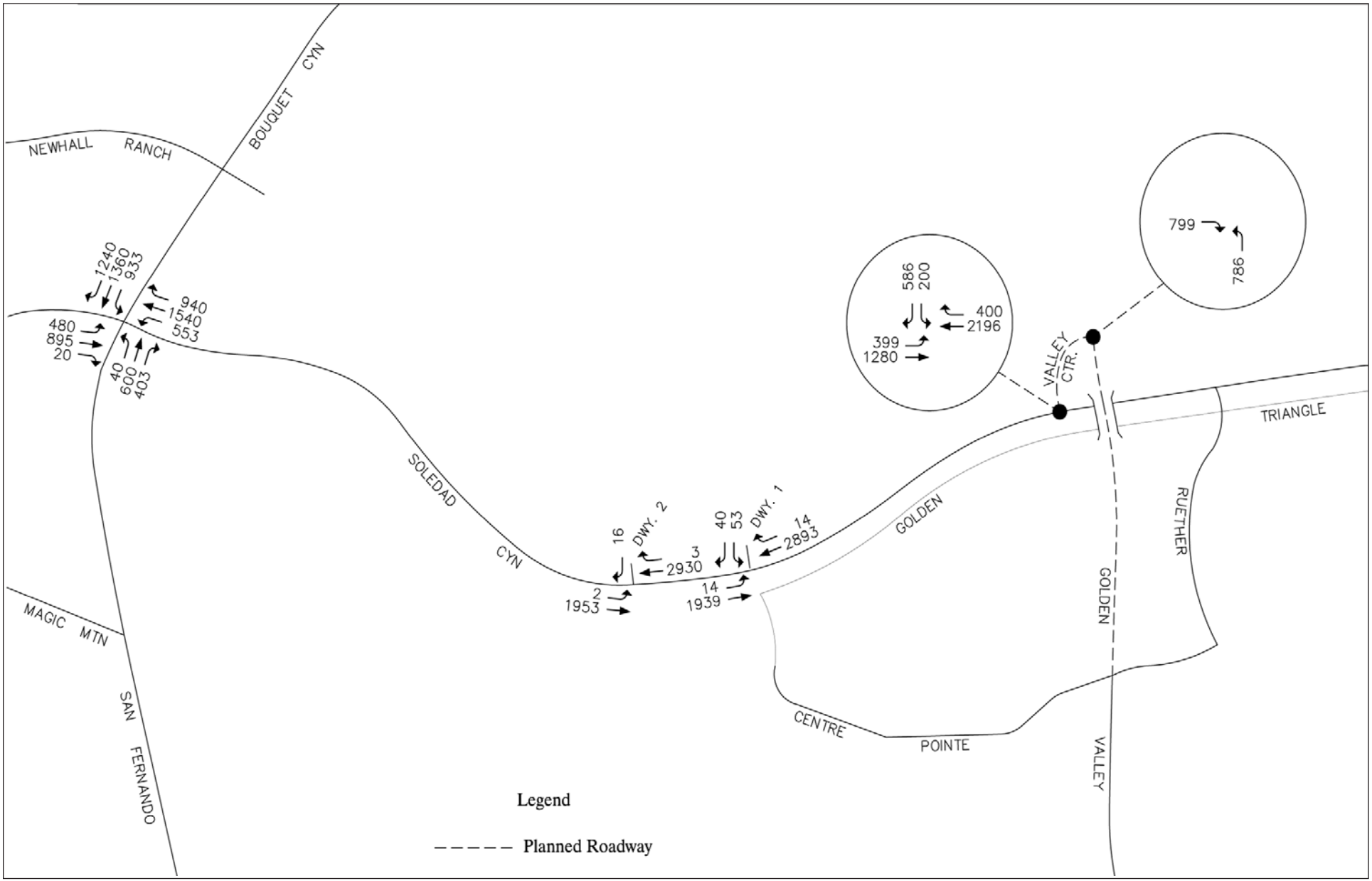
Short-Range Cumulative Conditions With and Without Project ADT Volumes

Exhibit 5.4-12



Source: Austin-Foust Associates, Inc., June 2005.

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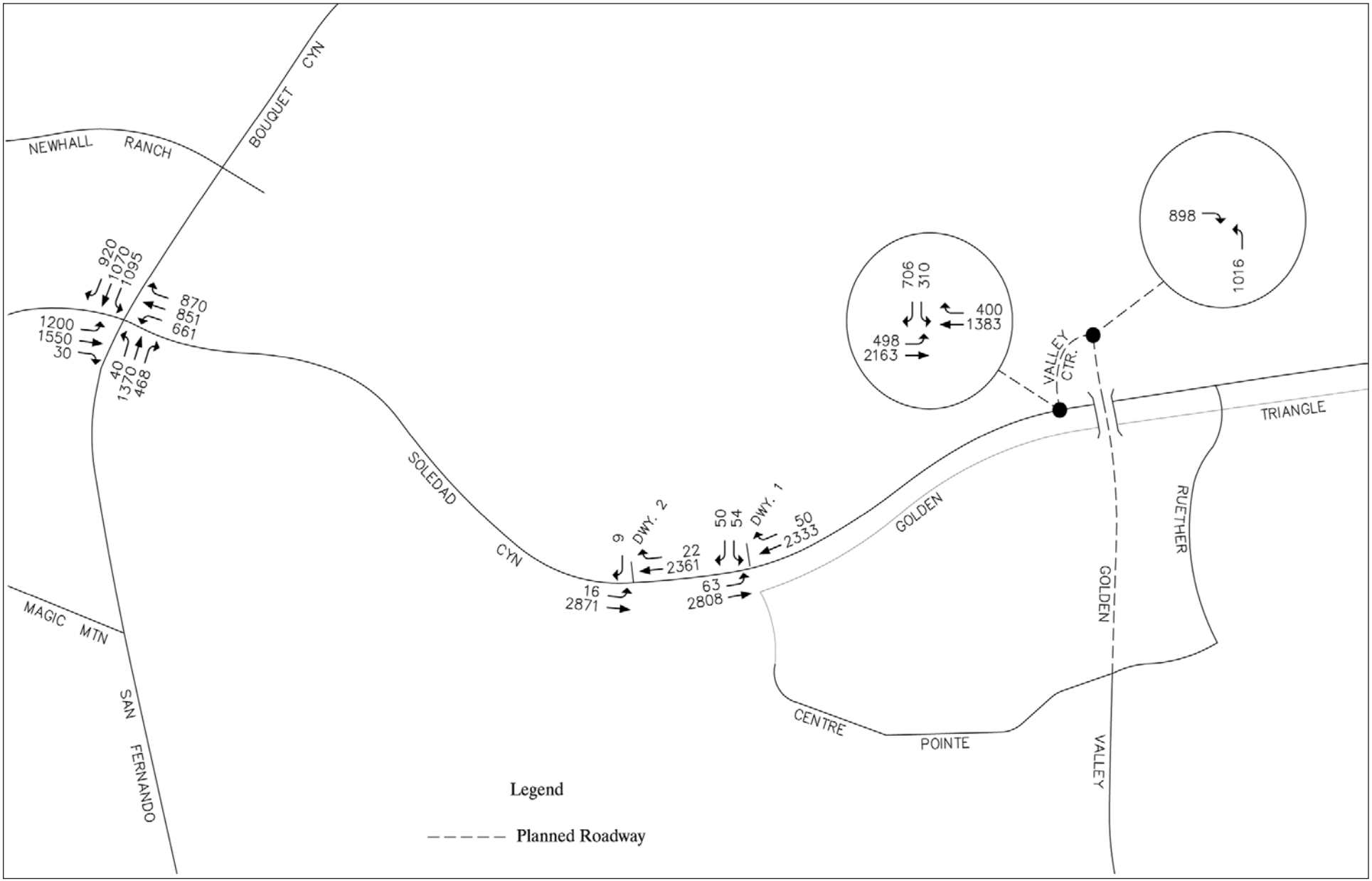
ENVIRONMENTAL IMPACT REPORT

Short-Range Cumulative Conditions With Phase I AM Peak Hour

Exhibit 5.4-13



Source: Austin-Foust Associates, Inc., June 2005.

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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Short-Range Cumulative Conditions With Phase I PM Peak Hour

Exhibit 5.4-14

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

PROJECT IMPACTS – BUILDOUT

- ***DEVELOPMENT ASSOCIATED WITH THE BUILDOUT OF THE PROPOSED PROJECT COULD RESULT IN ADVERSE IMPACTS TO THE FUNCTION OF INTERSECTIONS IN THE PROJECT AREA FOR THE INTERIM YEAR (2015) TRAFFIC CONDITIONS.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: The traffic conditions evaluated in the following discussion are based on the Interim Year (2015) setting previously discussed. This setting forms the basis for identifying the potential Interim Year (2015) traffic impacts of buildout of the proposed project.

Interim Year (2015) No-Project Scenario Traffic Conditions

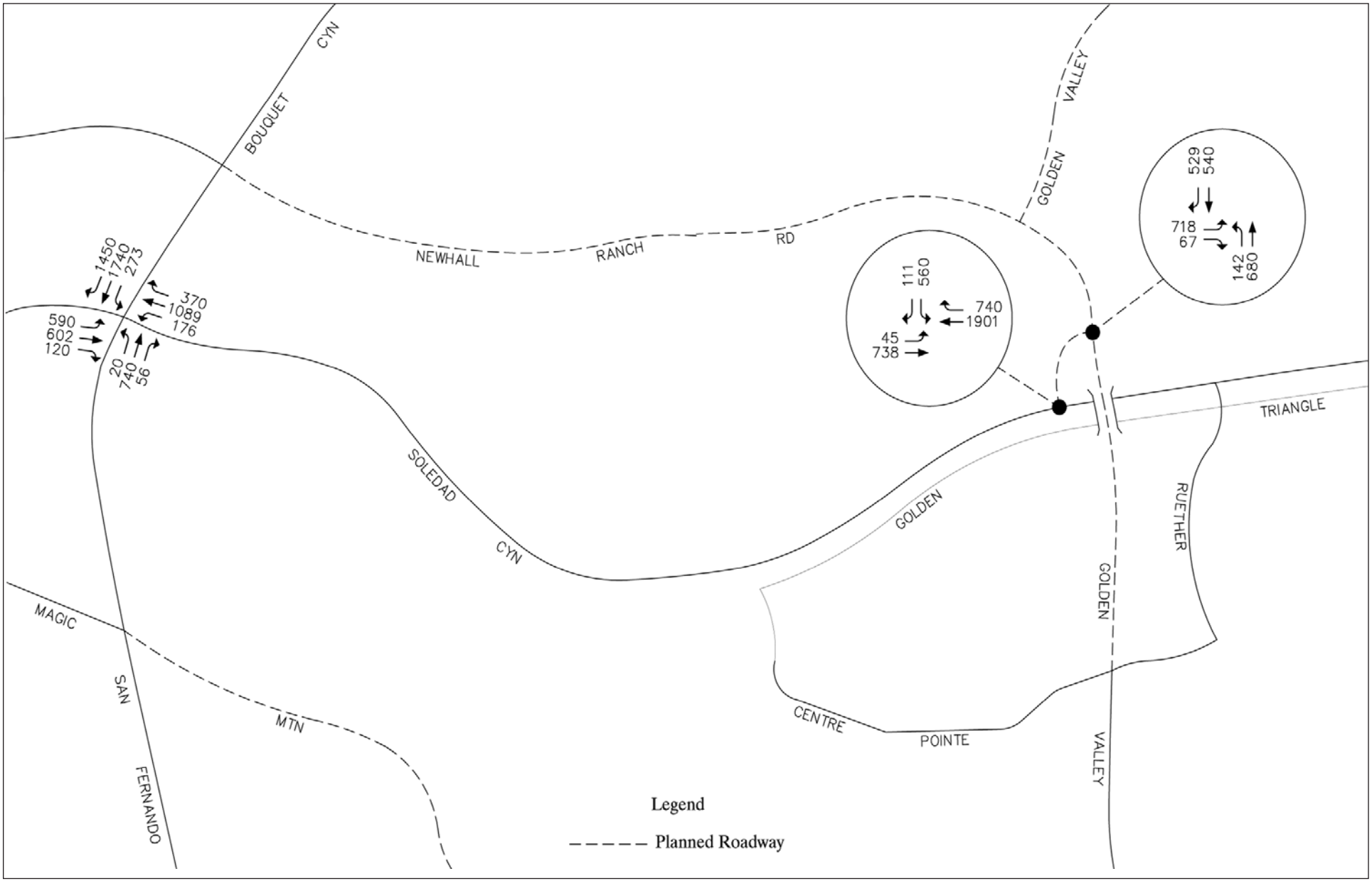
The Interim Year (2015) no-project peak hour turning movement volumes for the intersections in the study area are illustrated in *Exhibit 5.4-15*, *Interim Year (2015) Without Project AM Peak Hour Intersection Volumes*, and *Exhibit 5.4-16*, *Interim Year (2015) Without Project PM Peak Hour Intersection Volumes*, for the AM and PM peak hours, respectively. *Table 5.4-9*, *ICU and LOS Summary – Existing and Interim Year (2015) Without Project*, provides the corresponding ICU values and also listed for comparison purposes are the ICUs for existing conditions. The ICU tabulations indicate that the intersection of Bouquet Canyon Road and Soledad Canyon Road (Intersection 65) is deficient in the PM peak hour under existing conditions and the Interim Year (2015) conditions without the project.

Table 5.4-9
ICU and LOS Summary – Existing and Interim Year (2015) Without Project

Intersection	Existing				Interim Year (2015) Without Project				Increase	
	AM		PM		AM		PM		AM	PM
Existing Intersections										
65. Bouquet Cyn Rd & Soledad Cyn Rd	.80	C	1.06	F	.76	C	.93	E	-.04[1]	-.13[1]
Future Intersections										
165. Golden Valley Rd & Valley Center	--	--	--	--	.50	A	.69	B	--	--
198. Valley Center & Soledad Cyn Rd	--	--	--	--	.63	B	.71	C	--	--

[1]The Interim Year ICUs at this location are less than the existing ICUs because of the diversion of traffic to future roadways such as the extensions of Newhall Ranch Road and Golden Valley Road.

Level of service ranges:
.00 - .60 A
.61 - .70 B
.71 - .80 C
.81 - .90 D
.91 - 1.00 E
Above 1.00 F



Source: Austin-Foust Associates, Inc., June 2005.

NOT TO SCALE

SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Interim Year (2015) Without Project AM Peak Hour Intersection Volumes

Exhibit 5.4-15

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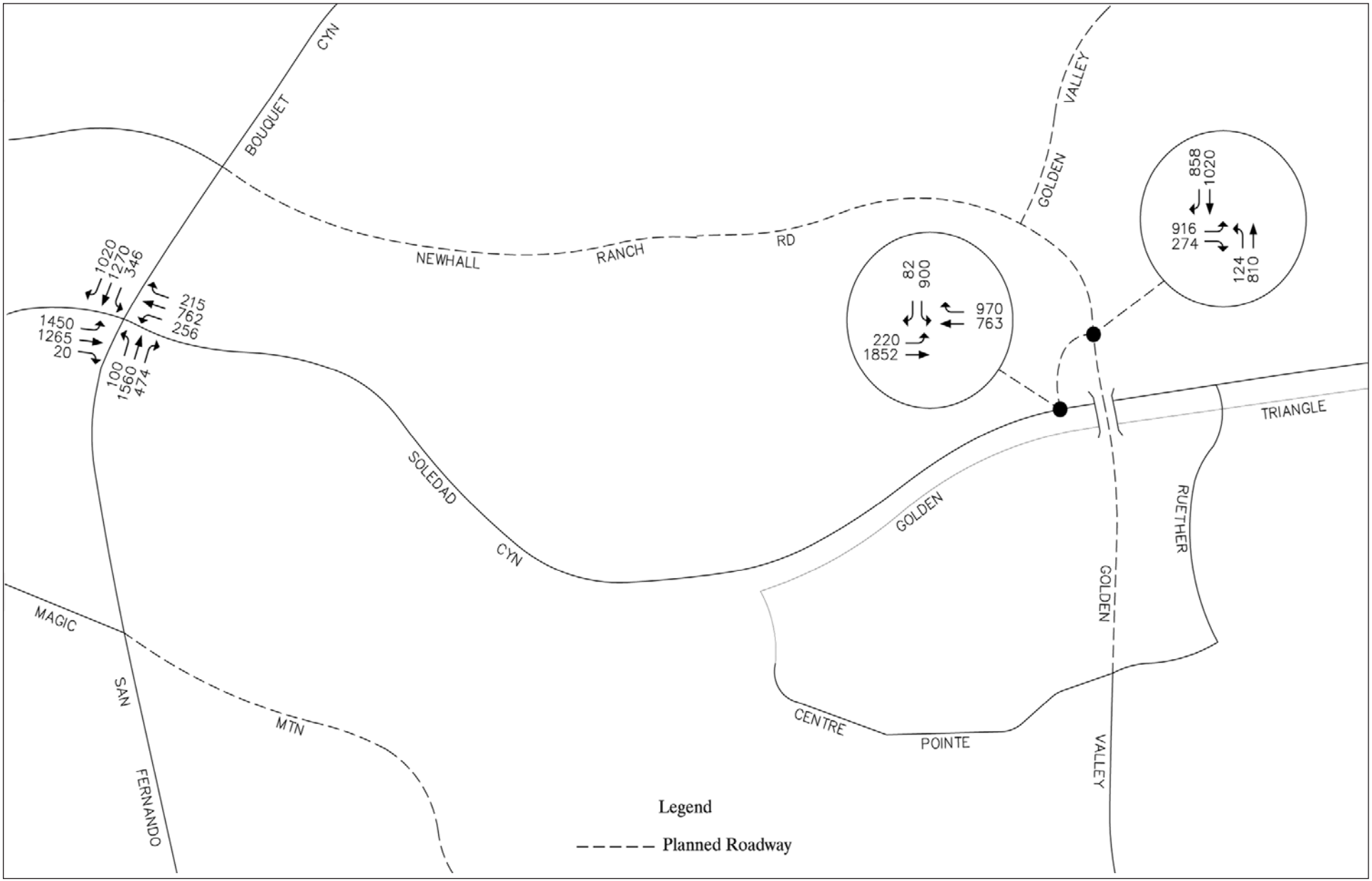

Source: Austin-Foust Associates, Inc., June 2005.

NOT TO SCALE

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ENVIRONMENTAL IMPACT REPORT

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Interim Year (2015) Without Project PM Peak Hour Intersection Volumes

Exhibit 5.4-16

Interim Year (2015) With Project Scenario Traffic Conditions

Buildout of the proposed project would generate approximately 3,930 new vehicle trips per day, with approximately 240 in the AM peak hour and 370 in the PM peak hour.

Interim Year (2015) volumes that include project-generated traffic are provided in *Exhibit 5.4-17*, *Interim Year (2015) With and Without Project ADT Volumes*, for the ADT volumes, and in *Exhibit 5.4-18*, *Interim Year (2015) With Project AM Peak Hour*, and *Exhibit 5.4-19*, *Interim Year (2015) With Project PM Peak Hour*, for the AM and PM peak hours, respectively. Peak hour ICU values can be found in *Table 5.4-10*, *ICU and LOS Summary – Interim Year (2015) With and Without Project (Project Buildout)*, which provides a comparison between Interim Year (2015) without-project and Interim Year (2015) with-project conditions. As previously discussed, the Interim Year scenario assumes that the Cross Valley Connector would be completed independent of the proposed project, which would serve to improve the overall function of the traffic system in the project area, irrespective of improvements required as mitigation for the proposed project. The table shows that in the PM peak hour, the intersection of Bouquet Canyon Road and Soledad Canyon Road experiences an ICU increase of .01, worsening an already deficient condition of LOS E. This impact is considered significant as outlined in the City's *Impact Study Guidelines*.

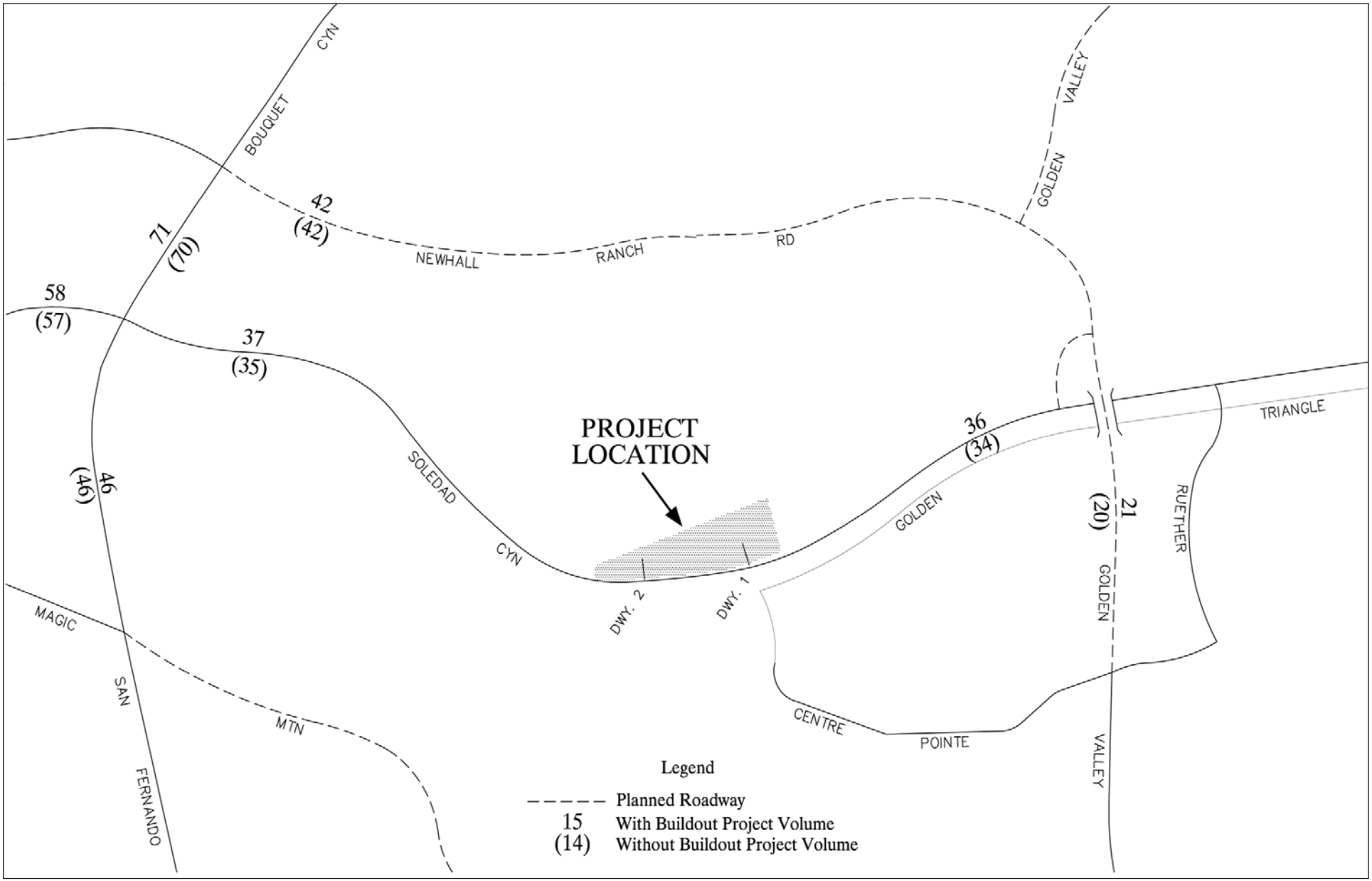
Table 5.4-10
ICU and LOS Summary – Interim Year (2015) With and Without Project (Project Buildout)

	Interim Year (2015) Without Project				Interim Year (2015) With Project Buildout				Increase	
Intersection	**AM**		**PM**		**AM**		**PM**		**AM**	**PM**
Existing Intersections										
65. Bouquet Cyn Rd & Soledad Cyn Rd	.76	C	.93	E	.77	C	.94	E	.01	.01*
Future Intersections										
1. Project Dwy. 1 & Soledad Cyn Rd	--	--	--	--	.53	A	.55	A	--	--
2. Project Dwy. 2 & Soledad Cyn Rd	--	--	--	--	.49	A	.52	A	--	--
165. Golden Valley Rd & Valley Center	.50	A	.69	B	.50	A	.70	B	.00	.01
198. Valley Center & Soledad Cyn Rd	.63	B	.71	C	.65	B	.72	C	.02	.01

*Significant Impact (See Significance Threshold Criteria)

Level of service ranges:

.00 - .60	A
.61 - .70	B
.71 - .80	C
.81 - .90	D
.91 - 1.00	E
Above 1.00	F



Source: Austin-Foust Associates, Inc., June 2005.

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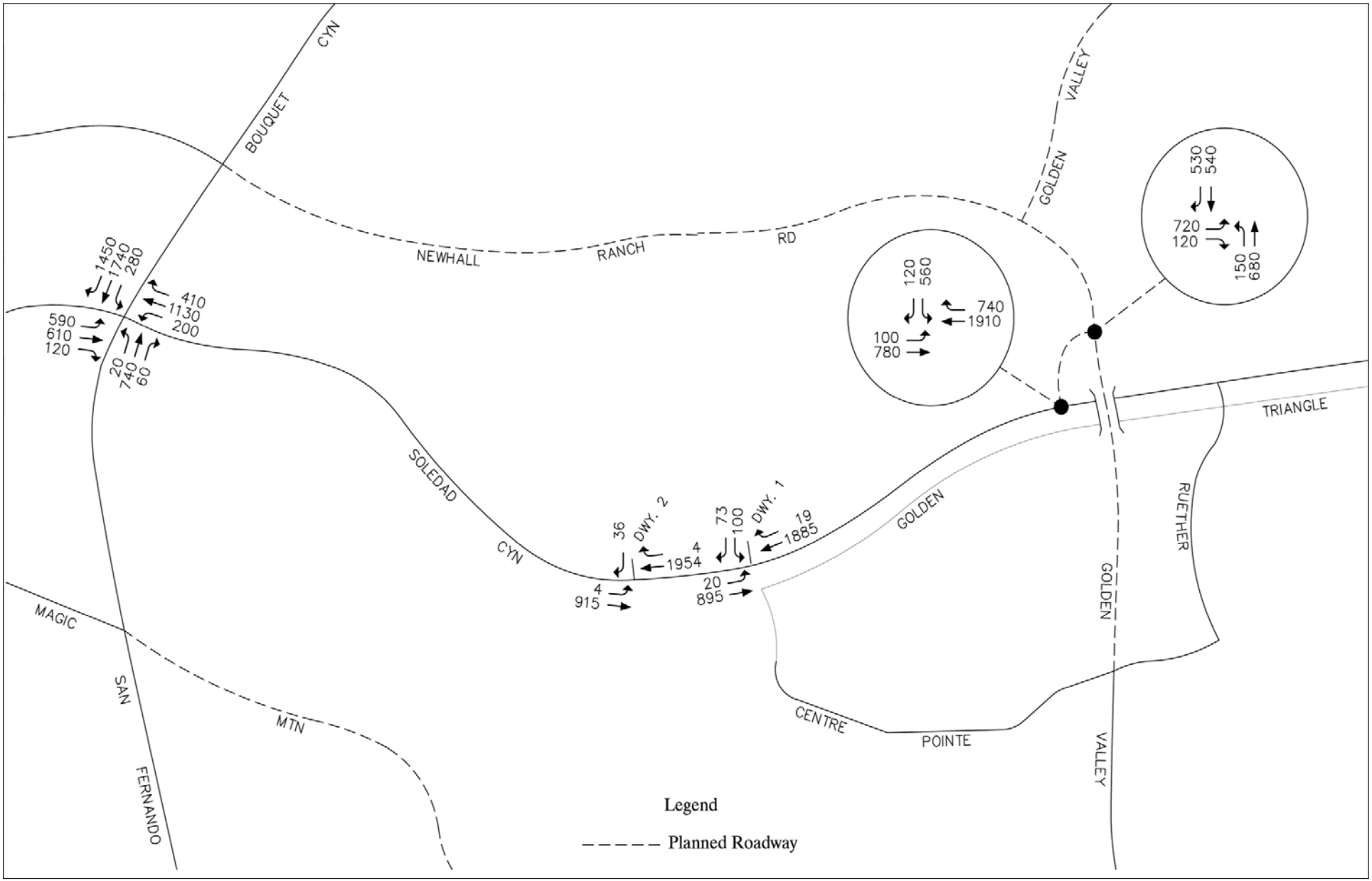
SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Interim Year (2015) With and Without Project ADT Volumes

Exhibit 5.4-17



Source: Austin-Foust Associates, Inc., June 2005.

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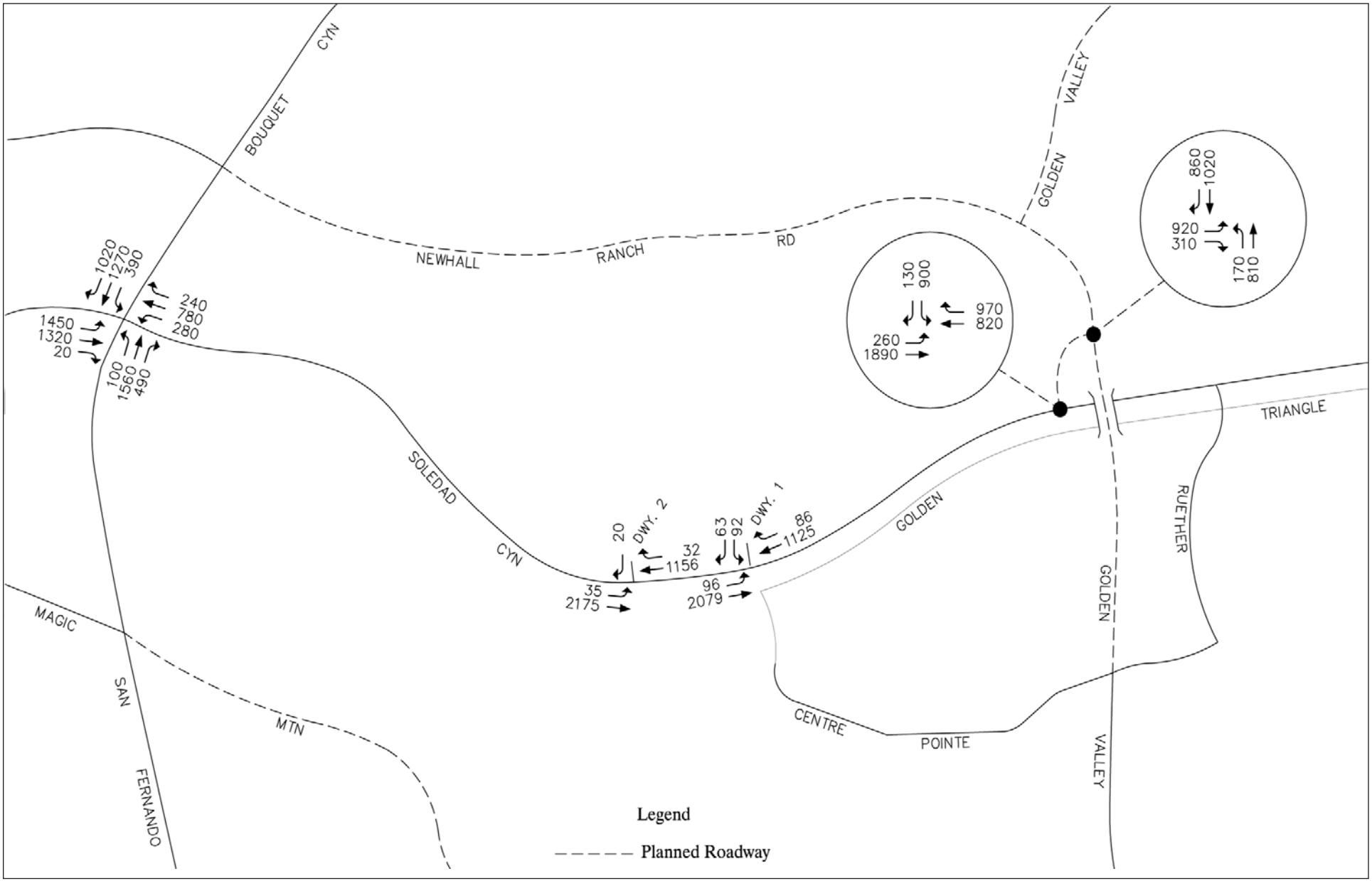
SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Interim Year (2015) With Project AM Peak Hour

Exhibit 5.4-18



Source: Austin-Foust Associates, Inc., June 2005.

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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Interim Year (2015) With Project PM Peak Hour

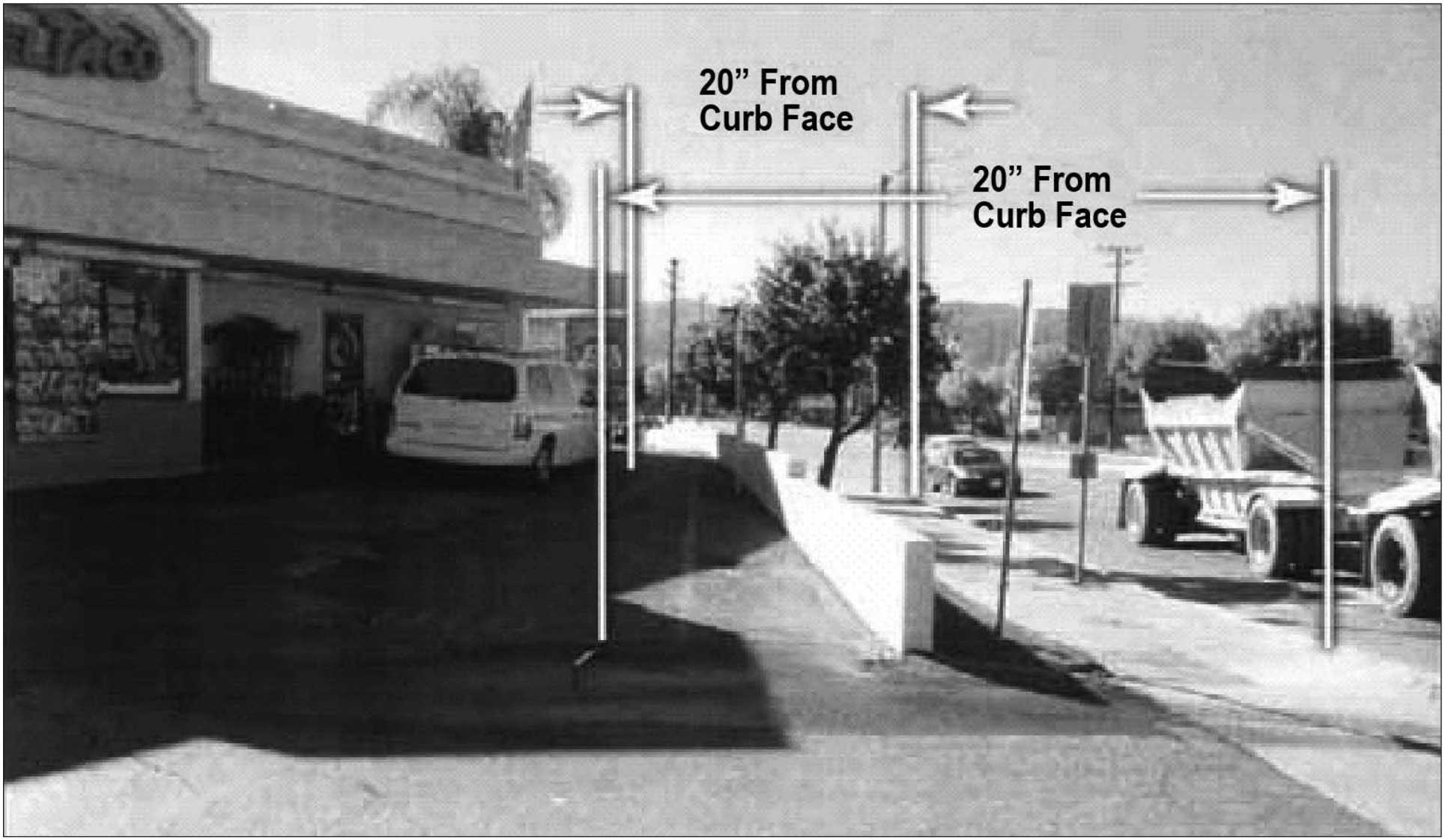
Exhibit 5.4-19

Although significant cumulative traffic system impacts are identified for intersections in the project area, implementation of traffic system improvements, listed below as mitigation, would reduce the impacts of the proposed project. Construction of a new intersection at the proposed secondary access point at the project site (i.e., "Project Driveway No. 2) would alleviate a significant impact at the main project access off Soledad Canyon Road. *Table 5.4-11, ICU and LOS Summary – Interim Year (2015) With Project and Mitigation*, shows the ICU and LOS for the off-site intersection of Bouquet Canyon Road and Soledad Canyon Road. As shown in *Table 5.4-11*, implementation of proposed improvements would actually improve the function of the intersection relative to without-project conditions. With implementation of proposed City improvements, impacts would be less than significant.

With respect to the Bouquet Canyon Road/Soledad Canyon Road intersection improvements, the bridge project currently under construction will add a fourth through lane to both the northbound and southbound sides of the bridge, as well as subsequently for the segment of Bouquet Canyon Road between Soledad Canyon Road and Newhall Ranch Road. However, the bridge project does not include adding the fourth northbound lane intersection improvement on Bouquet Canyon Road south of Soledad Canyon Road. This segment was deleted from the project by the City due to right-of-way constraints from existing uses adjacent to Bouquet Canyon Road. Based on this determination by the City, the addition of the fourth northbound through lane, which requires right-of-way on the southeast corner of the intersection along Bouquet Canyon Road, is infeasible. Physical constraints to the right-of-way are illustrated in *Exhibit 5.4-20, Bouquet Canyon Road/Soledad Canyon Road Right-of-Way Constraints*. As shown in *Exhibit 5.4-20*, existing structures currently preclude widening northbound Bouquet Canyon Road at this location. Thus, the proposed project, along with other projects in the Interim Year (2015) Scenario, would result in a significant, unavoidable impact on the northbound approach of the Bouquet Canyon Road/Soledad Canyon Road intersection.

The City of Santa Clarita General Plan Circulation Element states *"existing street improvements are, in some cases, not able to be modified to accommodate additional traffic or circulation movement due to right-of-way limitations and existing development."* This language in the General Plan acknowledges that the benefits of improvements at certain intersections are not outweighed by a combination of potential time and costs of action that may be necessary to acquire the property, the physical and economic costs to businesses at the affected intersection, and the social costs that could occur if businesses were forced to relocate.

Finally, future identified improvements within the Bouquet Bridge and Thoroughfare District may result in improved operation at this intersection. Various factors, including but not limited to, dedication of additional right-of-way at these affected intersections due to use alteration, expansion or change, acquisition of the affected right-of-way, continued expansion of the Valley's circulation system and increased public transit use may improve the operation of the affected intersection.



View facing south along the east side of Bouquet Canyon Road south of Soledad Canyon Road.

Source: Austin-Foust Associates, Inc., June 2005.

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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

Bouquet Canyon Road/Soledad Canyon Road Right-of-Way Constraints

Exhibit 5.4-20

Table 5.4-11
ICU and LOS Summary – Interim Year (2015) With Project and Mitigation

Intersection	Interim Year (2015) Without Project				Interim Year (2015) With Project and Mitigation				Net Change	
	AM		PM		AM		PM		AM	PM
Existing Intersections										
65. Bouquet Cyn Rd & Soledad Cyn Rd	.76	C	.93	E	.77	C	.86	D	.01	-.07

Level of service ranges:
.00 - .60 A
.61 - .70 B
.71 - .80 C
.81 - .90 D
.91 - 1.00 E
Above 1.00 F

Mitigation Measures:

Project Site Mitigation

TR1 At project driveway No. 2 and Soledad Canyon Road, construct a new project intersection with limited access (left-in and right-in, right-out only).

TR2 Minimum 300-foot deceleration lanes shall be constructed at both westbound entrances off of Soledad Canyon Road.

Level of Significance After Mitigation: Significant Unavoidable Impact.

5.4.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

◆ ***DEVELOPMENT ASSOCIATED WITH THE BUILDOUT OF THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD RESULT IN ADVERSE IMPACTS TO THE FUNCTION OF INTERSECTIONS IN THE PROJECT AREA FOR THE INTERIM YEAR (2015) TRAFFIC CONDITIONS.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: As previously indicated, the proposed project would result in a reduction in traffic generation when compared to the commercial office land uses currently allowed by the City's General Plan, which is the basis for the traffic generation included in the SCVCTM for the project site. The SCVCTM incorporates all current land use data for planned and pending projects. Therefore, the cumulative development anticipated within the project vicinity has been incorporated into the traffic projections calculated by the SCVCTM, which anticipates higher traffic generation rates for the project site than those associated with the proposed residential uses. Because the proposed project would result in lower traffic

generation than that assumed for the site in the SCVCTM, a typical with-project and without-project buildout analysis was not required to assess cumulative traffic impacts. The proposed project, in conjunction with other cumulative development (as included in the SCVCTM), would not result in significant cumulative traffic impacts.

Additionally, within the Santa Clarita Valley, the County and the City have established Bridge and Thoroughfare Districts to manage the many significant infrastructure improvements planned to occur within the Valley. The project site is located within the Bouquet Canyon District and the project would be required to pay applicable fees or construct eligible improvements.

The Bouquet Canyon Bridge and Thoroughfare District has recently been updated and is considered a full mitigation/improvement district. The implication of this is that the Bridge and Thoroughfare fees collected, combined with other funding sources, have been calculated to cover anticipated improvements necessary to build out the arterial roadway network as outlined in the City's *General Plan* Circulation Element.

The existing Bridge and Thoroughfare District fee per factored unit is $14,730, and the total fee obligation for the project for residential and commercial uses, is estimated at approximately $5,215,893, as summarized in Table 5.4-12, *Bridge and Thoroughfare District Fee Summary*. These are standard fees for development within the District, and although they are not included as specific mitigation for the proposed project, and the actual amount paid may vary from this figure, such fees paid to the District would be applied to ongoing system improvements to maintain traffic system function within the project area.

Table 5.4-12
Bridge and Thoroughfare District Fee Summary

Land Use	Units	Existing Base Fee	Factor	Fee
Condominium	437 DU	$14,730	0.8	$5,149,608
Commercial / Retail	0.9 Acres[1]	$14,730	5.0	$66,285
Total				**$5,215,893**
[1]Preliminary estimate – actual fees may vary.				

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

***Level of Significance After Mitigation*:** Not applicable.

5.4.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Implementation of the proposed Soledad Village Project, along with other cumulative projects, would result in significant and unavoidable impacts to the northbound approach at the Bouquet Canyon Road/Soledad Canyon Road intersection.

If the City of Santa Clarita approves the Soledad Village Project, the City shall be required to adopt findings in accordance with Section 15091 of the *CEQA Guidelines* and prepare a Statement of Overriding Considerations in accordance with Section 15093 of the *CEQA Guidelines*.

Section 5.5
AIR QUALITY

5.5 AIR QUALITY

This section of the EIR evaluates the potential air quality impacts associated with the development of the proposed project. This section provides a brief discussion of the physical setting of the project area, the regulatory framework for air quality, as well as provides data on existing air quality, evaluates potential air quality impacts associated with the proposed project, and identifies measures recommended to limit potential impacts.

The analysis presented in this section is based on the calculations, analysis, and conclusions contained in the project's *Air Quality Impact Analysis* report, performed by LSA Associates (June 2005), which is included in its entirety as Appendix E. The *Air Quality Impact Analysis* was prepared in conformance with appropriate standards, utilizing procedures and methodologies in the South Coast Air Quality Management District (SCAQMD) California Environmental Quality Act (CEQA) *CEQA Air Quality Handbook* (SCAQMD, April 1993). Modeled air quality levels discussed in the *Air Quality Impact Analysis* are based upon vehicle data and project trip generation included in a traffic study prepared for the proposed project (Austin-Foust Associates, Inc. [AFA] June 2005).

5.5.1 REGULATORY FRAMEWORK

FEDERAL REGULATIONS/STANDARDS

Pursuant to the Federal Clean Air Act (CAA) of 1970, the U.S. Environmental Protection Agency (EPA) established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

The NAAQS are two-tiered: primary, to protect public health, and secondary, to prevent degradation of the environment (e.g., impairment of visibility, damage to vegetation and property). The six criteria pollutants are ozone (O_3), carbon monoxide (CO), respirable particulate matter (PM_{10}), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead (Pb). The primary standards for these pollutants are shown in *Table 5.5-1*, *Ambient Air Quality Standards*, and the primary health effects from exposure to the criteria pollutants are summarized in *Table 5.5-2*, *Health Effects Summary of the Major Criteria Air Pollutants*. The concentration standards were set by the EPA at a level that protects public health with an adequate margin of safety; therefore, these health effects would not occur unless the standards are exceeded by a large margin. In July 1997, the EPA adopted new standards for eight-hour O_3 and fine particulate matter ($PM_{2.5}$), as shown in *Table 5.5-1*. The following describes the criteria pollutants in detail.

Table 5.5-1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[2,5]	Secondary[2,6]	Method[7]
Ozone (O_3)	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	0.12 ppm (235 µg/m^3)[8]	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	–		0.08 ppm (157 µg/m^3)		
Respirable Particulate Matter (PM_{10})	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation*	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetic Analysis
	Annual Arithmetic Mean	20 µg/m^3*		50 µg/m^3		
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	No Separate State Standard		65 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetic Analysis
	Annual Arithmetic Mean	12 µg/m^3*	Gravimetric or Beta Attenuation*	15 µg/m^3		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Nondispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Nondispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–		
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	–	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.25 ppm (470 µg/m^3)		–		
Lead	30-day average	1.5 µg/m^3	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m^3	Same as Primary Standard	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	–	Ultraviolet Fluorescence	0.030 ppm (80 µg/m^3)	–	Spectrophotometry (Pararosaniline Method)
	24-Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (365 µg/m^3)	–	
	3-Hour	–		–	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		–	–	
Visibility Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more (0.07–30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography*			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Cloride[9]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: CARB, July 2003

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

2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current Federal policies.

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

4 Any equivalent procedure that can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

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

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

7 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

8 New Federal eight-hour ozone and fine particulate matter standards were promulgated by U.S. EPA on July 18, 1997. Contact U.S. EPA for further clarification and current Federal policies.

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

Ozone (O3)

"Ozone is a colorless gas with a pungent odor. In general, it is not directly emitted, but is formed in the atmosphere as the result of sunlight acting on emissions of nitrogen oxides and organic gases such as hydrocarbons." [1]

Health Effects

"Individuals exercising outdoors, children and people with preexisting lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible sub-groups for ozone effects. Short-term exposures (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in high ozone communities.

"Ozone exposure under exercising conditions is known to increase the severity of the above mentioned observed responses. Animal studies suggest that exposures to a combination of pollutants which include ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes." [2]

Particulate Matter (PM_{10} and $PM_{2.5}$)

"Suspended particulate matter (PM) is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, and dust. 'Inhalable' PM consists of particles less than 10 microns in diameter, and is defined as 'suspended particulate matter' or 'PM_{10}.' Fine particles are less than 2.5 microns in diameter ($PM_{2.5}$)." [3]

[1] California Air Resources Board. *Ozone*. World Wide Web: http://www.arb.ca.gov/research/aaqs/caaqs/ozone -1/ozone-1.htm. Accessed January 8, 2004.

[2] South Coast Air Quality Management District. *2003 Air Quality Management Plan (AQMP)*. World Wide Web: *http://www.aqmd.gov/aqmp/AQMD03AQMP.htm*. Pages 2-8. Accessed December 22, 2003.

[3] California Air Resources Board. *Particulate Matter*. World Wide Web:*http://www.arb.ca.gov/research/aaqs/caaqs /pm/pm.htm*. Accessed January 8, 2004.

Table 5.5-2
Health Effects Summary of the Major Criteria Air Pollutants

Pollutants	Sources	Most Relevant Health Effects
O_3	Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	(a) Short-term exposures: (1) Pulmonary function decrements and localized lung edema in humans and animals (2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; (d) Property damage
NO_2	Motor vehicle exhaust. High-temperature stationary combustion. Atmospheric reactions.	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration
CO	Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust.Natural Events, such as decomposition of organic mater.	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses
PM_{10}	Stationary combustion of solid fuels. Construction activities. Industrial processes. Atmospheric chemical reactions.	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; (b) Excess seasonal declines in pulmonary function, especially in children
$PM_{2.5}$	Stationary combustion of solid fuels. Construction activities. Industrial processes. Atmospheric chemical reactions.	(a) Increased hospital admissions and emergency room visits for heart and lung disease; (b) Increased respiratory symptoms and disease; and (c) Decrease lung functions and premature death
SO_2	Combustion of sulfur-containing fossil fuels. Smelting of sulfur-bearing metal ores. Industrial processes.	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
SO_4	Formed from SO2 emissions from power plants and industrial facilities.	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardiopulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage
Lead (Pb)	Contaminated soil.	(a) Impairment of blood function and nerve construction; (b) Behavioral and hearing problems in children.
Visibility-Reducing Particles	Dust from roads or elemental carbon (soot) from wood combustion. Particles formed in the atmosphere from primary gaseous emissions such as SO2 emissions from power plants and other industrial facilities.	(a) Visibility impairment on days when relative humidity is less than 70 percent
H2S	Formed by the decomposition of organic materials, found in natural gas and oil, in mines, wells, fertilizers, and sewers. By-product of the manufacture of rayon, synthetic rubber, dyes and the tanning of leather.	Odor annoyance
VC	Manufacturing of plastics.	Known carcinogen
Source: CARB 2000		

Health Effects

"A consistent correlation between elevated ambient fine particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life span, and an increased mortality from lung cancer.

Daily fluctuations in fine particulate matter concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter.

The elderly, people with pre-existing respiratory and/or cardiovascular disease and children appear to be more susceptible to the effects of PM_{10} and $PM_{2.5}$." [4]

Carbon Monoxide (CO)

"CO is a colorless, odorless gas. It results from the incomplete combustion of carbon-containing fuels such as gasoline or wood, and is emitted by a wide variety of combustion sources." [5]

Health Effects

"Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of worsening oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes.

Reduction in birth weight and impaired neurobehavioral development has been observed in animals chronically exposed to CO resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels. These include pre-term births and heart abnormalities. Additional research is needed to confirm these results." [6]

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[4] South Coast Air Quality Management District. *2003 AQMP*. World Wide Web: *http://www.aqmd.gov/aqmp/ AQMD03AQMP.htm*. Pages 2-14. Accessed December 22, 2003.

[5] California Air Resources Board. *Carbon Monoxide*. World Wide Web: *http://www.arb.ca.gov/research/ aaqs/caaqs/ co/co.htm*. Accessed January 8, 2004.

[6] South Coast Air Quality Management District. *2003 AQMP*. World Wide Web: *http://www.aqmd.gov/aqmp/ AQMD03AQMP.htm*. Pages 2-12. Accessed December 22, 2003.

Nitrogen Dioxide (NO_2)

"Nitrogen dioxide (NO_2) is a pungent gas that is responsible for the reddish-brown tinge of smoggy air in [the Basin]. Sunlight causes NO_2 to react with organic gases to form ozone. NO_2 is one of the nitrogen oxides (NO_x) that are emitted from high-temperature combustion processes, such as those occurring in automobiles and power plants. Home water heaters and gas stoves also produce…NO_2." [7]

Health Effects

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma and/or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

"In animals, exposure to levels of NO_2 considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO_2." [8]

Lead (Pb)

Lead in the atmosphere is present as a mixture of a number of lead compounds. Leaded gasoline and lead smelters have been the main sources of lead emitted into the air. Due to the phasing out of leaded gasoline, there was a dramatic reduction in atmospheric lead in the Basin over the past two decades.

Health Effects

"Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

Lead poisoning can cause anemia, lethargy, seizures and death. It appears that there are no direct effects of lead on the respiratory system. Lead can be stored in the bone from early-age environmental exposure, and elevated blood lead levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the

[7] California Air Resources Board. *Nitrogen Dioxide*. World Wide Web: http://www.arb.ca.gov/research/aaqs/ caaqs/no2-1 /no2-1.htm. Accessed January 8, 2004.

[8] South Coast Air Quality Management District. *2003 AQMP*. World Wide Web: http://www.aqmd.gov/aqmp/ AQMD03AQMP.htm. Pages 2-18. Accessed December 22, 2003.

thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of lead because of previous environmental lead exposure of their mothers." [9]

Sulfur Dioxide (SO_2)

"Sulfur dioxide (SO_2) is a gaseous compound of sulfur and oxygen. SO2 is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing." [10]

Health Effects

"Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics. All asthmatics are sensitive to the effects of SO_2. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2.

Animal studies suggest that despite SO_2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. In these studies, efforts to separate the effects of SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor." [11]

Visibility Reducing Particles

"Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt." [12]

[9] South Coast Air Quality Management District. *2003 AQMP*. World Wide Web: *http://www.aqmd.gov/aqmp/ AQMD03AQMP.htm*. Pages 2-21. Accessed December 22, 2003.

[10] California Air Resources Board. *Sulfur Dioxide*. World Wide Web: *http://www.arb.ca.gov/research/aaqs/caaqs/so2-1/so2-1.htm*. Accessed January 8, 2004.

[11] South Coast Air Quality Management District. *2003 AQMP*. World Wide Web: *http://www.aqmd.gov/aqmp/ AQMD03AQMP.htm*. Pages 2-19. Accessed December 22, 2003.

[12] California Air Resources Board. Visibility Reducing Particles. World Wide Web: *http://www.arb.ca.gov/research/aaqs/caaqs/ vrp-1/vrp-1.htm*. Accessed December 22, 2003.

Health Effects

"The Statewide standard is intended to limit the frequency and severity of visibility impairment due to regional haze." [13]

Sulfates (SO_4)

"Sulfates (SO_4) are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to sulfur dioxide (SO_2) during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features." [14]

Health Effects

"Most of the health effects associated with fine particles and sulfur dioxide at ambient levels are also associated with sulfates. Thus, both mortality and morbidity effects have been observed with an increase in ambient sulfate concentrations. However, efforts to separate the effects of sulfates from the effects of other pollutants have generally not been successful.

Clinical studies of asthmatics exposed to sulfuric acid suggest that adolescent asthmatics are possibly a subgroup susceptible to acid aerosol exposure. Animal studies suggest that acidic particles such as sulfuric acid aerosol and ammonium bisulfate are more toxic than non-acidic particles like ammonium sulfate. Whether the effects are attributable to acidity or to particles remains unresolved." [15]

Hydrogen Sulfide (H_2S)

"Hydrogen sulfide is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation." [16]

Health Effects

"Breathing hydrogen sulfide at levels above the state standard will result in exposure to a very disagreeable odor. In 1984, an ARB committee concluded that the ambient standard for hydrogen sulfide is adequate to protect public health and to significantly reduce odor annoyance." [17]

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[13] California Air Resources Board. Visibility Reducing Particles. World Wide Web: http://www.arb.ca.gov/research/aaqs/caaqs/ vrp-1/vrp-1.htm. Accessed December 22, 2003.

[14] California Air Resources Board. *Sulfates*. World Wide Web: http://www.arb.ca.gov/research/aaqs/caaqs/sulf-1/sulf-1.htm. Accessed January 8, 2004.

[15] South Coast Air Quality Management District. *2003 AQMP*. World Wide Web: http://www.aqmd.gov/aqmp/ AQMD03AQMP.htm. Pages 2-20. Accessed December 22, 2003.

[16] California Air Resources Board. *Hydrogen Sulfide*. World Wide Web: http://www.arb.ca.gov/research/aaq s/caaqs/ h2s/h2s.htm. Accessed December 22, 2003.

[17] California Air Resources Board. *Hydrogen Sulfide*. World Wide Web: http://www.arb.ca.gov/research/aaqs/caaqs/ h2s/h2s.htm. Accessed December 22, 2003.

Vinyl Chloride (VC)

"Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents." [18]

Health Effects

"Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure to vinyl chloride through inhalation and oral exposure causes in liver damage. Cancer is a major concern from exposure to vinyl chloride via inhalation. Vinyl chloride exposure has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans." [19]

Data collected at permanent monitoring stations are used by the EPA to classify regions as "attainment" or "nonattainment," depending on whether the regions met the requirements stated in the primary NAAQS. Nonattainment areas are imposed with additional restrictions as required by the EPA.

The proposed project site is located within the South Coast Air Basin (SCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The CAA Amendments designated the SCAB as "extreme" for O_3, requiring attainment with the Federal O_3 standard by 2010; "serious" for CO, requiring attainment of Federal CO standards by 2000; and "serious" for PM_{10}, requiring attainment with Federal standards by 2001. *Table 5.5-3, South Coast Air Basin Attainment Status*, lists the air quality attainment status for the SCAB.

Table 5.5-3
South Coast Air Basin Attainment Status

	State	Federal
One-Hour O_3	Nonattainment	Extreme Nonattainment (attainment date 2010)
Eight-Hour O_3	No State Standard	Severe 17 Nonattainment (attainment date 2021)
$PM_{2.5}$	Not Established	Nonattainment
PM_{10}	Nonattainment	Serious Nonattainment
CO	Nonattainment (L.A. County only)	Attainment (data finding in 2003 AQMP)
NO_2	Attainment	Attainment/Maintenance
All Others	Attainment/Unclassified	Attainment/Unclassified
Source: *CARB and SCAQMD, April 2005*		

The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization (MPO) responsible for ensuring compliance with the requirements of the CAA.

[18] California Air Resources Board. *Vinyl Chloride*. World Wide Web: *http://www.arb.ca.gov/research/aaqs/caaqs /vc/vc.htm*. Accessed December 22, 2003.

[19] California Air Resources Board. *Vinyl Chloride*. World Wide Web: *http://www.arb.ca.gov/research/aaqs/caaqs /vc/vc.htm*. Accessed December 22, 2003.

The EPA established new national air quality standards for ground-level O_3 and $PM_{2.5}$ in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the Federal CAA, as applied in setting the new public health standards for O_3 and fine particulate matter, was unconstitutional as an improper delegation of legislative authority to the EPA. On February 27, 2001, the U.S. Supreme Court upheld the way the government sets air quality standards under the CAA. The Court unanimously rejected industry arguments that the EPA must consider financial cost as well as health benefits in writing standards. The justices also rejected arguments that the EPA took too much lawmaking power from Congress when it set tougher standards for O_3 and soot in 1997. Nevertheless, the Court threw out the EPA's policy for implementing new O_3 rules, saying the agency ignored a section of the law that restricts its authority. It ordered the agency to come up with a more "reasonable" interpretation of the law.

The EPA issued the final eight-hour ozone nonattainment designations/boundaries on April 15, 2004. States have been provided three years, until April 2007, to develop eight-hour ozone State Implementation Plans (SIPs) following the final designations. States will need to demonstrate conformity by April 15, 2005, in eight-hour ozone nonattainment areas, given the one-year grace period following the final designations. Various areas in the State of California have different attainment dates based on their corresponding classifications. The EPA made a final designation on the eight-hour ozone attainment status in December 2005.

The eight-hour ozone implementation rule revokes the one-hour standard issued in April 2005. This will change the attainment status in some areas; however, it does not change any commitment each area made for attaining the one-hour ozone standard.

The EPA took final action to designate the final $PM_{2.5}$ attainment and nonattainment areas on December 17, 2004. States with nonattainment areas must submit plans by early 2008 that outline how they plan to meet the $PM_{2.5}$ standards. They are expected to attain clean air as soon as possible and not later than 2010. EPA can grant one five-year extension for areas with more severe problems. The attainment date for those areas would be 2015.

STATE REGULATIONS/STANDARDS

The State of California began to set California ambient air quality standards (CAAQS) in 1969 under the mandate of the Mulford-Carrell Act. The CAAQS are generally more stringent than the NAAQS. In addition to the six criteria pollutants covered by the NAAQS, there are CAAQS for sulfates (SO_4), hydrogen sulfide (H_2S), vinyl chloride (VC), and visibility-reducing particles. These standards are also listed in *Table 5.5-1*.

Originally, there were no attainment deadlines for the CAAQS. However, the California Clean Air Act (CCAA) of 1988 provided a time frame and planning structure to promote their attainment.

The CCAA required nonattainment areas in the State to prepare attainment plans and proposed to classify each such area on the basis of the submitted plan, as follows: moderate, if CAAQS attainment could not occur before December 31, 1994; serious, if CAAQS attainment could not occur before December 31, 1997; and severe, if CAAQS attainment could not be conclusively demonstrated at all.

REGIONAL AIR QUALITY PLANNING FRAMEWORK

The 1976 Lewis Air Quality Management Act established the SCAQMD and other air districts throughout the State. The CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the Federal standards in nonattainment areas of the state.

The California Air Resources Board (CARB) coordinates and oversees both State and Federal air pollution control programs in California. The CARB oversees activities of local air quality management agencies and is responsible for incorporating air quality management plans for local air basins into a SIP for EPA approval. The CARB maintains air quality monitoring stations throughout the State in conjunction with local air districts. Data collected at these stations are used by the CARB to classify air basins as "attainment" or "nonattainment" with respect to each pollutant and to monitor progress in attaining air quality standards. The CARB has divided the State into 15 air basins. Significant authority for air quality control within the basins has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans. The CCAA provides the SCAQMD with the authority to manage transportation activities at indirect sources and regulate stationary source emissions. Indirect sources of pollution are generated when minor sources collectively emit a substantial amount of pollution. An example of this would be the motor vehicles at an intersection, at a mall, and on highways. As a State agency, the CARB regulates motor vehicles and fuels for their emissions.

Regional Air Quality Management Plan

The SCAQMD and SCAG are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the SCAB. Every three years, the SCAQMD prepares a new AQMP, updating the previous plan and having a twenty-year horizon. The SCAQMD adopted the 2003 AQMP in August 2003 and forwarded it to the CARB for review and approval. The CARB approved a modified version of the 2003 AQMP and forwarded it to the EPA in October 2003 for review and approval.

The 2003 AQMP updates the attainment demonstration for the Federal standards for O_3 and PM_{10}, replaces the 1997 attainment demonstration for the Federal CO standard, provides a basis for a maintenance plan for CO for the future, and updates the maintenance plan for the Federal NO_2 standard that the SCAB has met since 1992.

This revision to the AQMP also addresses several State and Federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2003 AQMP is consistent with and builds upon the approaches taken in the 1997 AQMP and the 1999 Amendments to the Ozone SIP for the SCAB for the

attainment of the Federal ozone air quality standard. However, this revision points to the urgent need for additional emission reductions (beyond those incorporated in the 1997/1999 Plan) from all sources, specifically those under the jurisdiction of the CARB and the U.S. EPA, which account for approximately 80 percent of the ozone precursor emissions in the SCAB.

The 1999 Amendment to the 1997 Ozone SIP Revision for the SCAB, adopted by the SCAQMD on December 10, 1999, and approved by the EPA in April 2000, is the most recent Federally approved AQMP.

The 1999 Amendment provides additional short-term stationary source control measures that implement portions of the 1997 Ozone SIP's long-term stationary source control measures. In addition, the Amendment revises the adoption and implementation schedule for the remaining 1997 Ozone SIP short-term stationary source control measures that the AQMD is responsible to implement.

The 1999 Amendment addresses the EPA's concerns relative to the adoption schedule for the 1997 Ozone SIP Revision short-term control measures and the increased reliance on long-term control measures. The EPA indicated, in a letter to the Governing Board, that it believes the 1999 Amendment would be approvable and would expedite the review and approval process.

The 1999 Amendment does not revise the PM_{10} portion of the 1997 AQMP, the emission inventories, the mobile source portions of the 1997 Ozone SIP Revision, or the ozone attainment demonstration. However, with the new short-term stationary source control measures, additional emission reductions are projected to occur in the near future.

5.5.2 ENVIRONMENTAL SETTING

EXISTING AIR QUALITY CONDITIONS

Regional Air Quality

As previously discussed, the project site is located within the SCAB, which includes Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Air quality regulation in the SCAB is administered by the SCAQMD, which is the regional agency created for the air basin.

The SCAB climate is determined by its terrain and geographical location. The SCAB is a coastal plain with connecting broad valleys and low hills. The Pacific Ocean forms the southwestern boundary, and high mountains surround the rest of the SCAB. The region lies in the semi-permanent high-pressure zone of the eastern Pacific. The resulting climate is mild and tempered by cool ocean breezes. This climatological pattern is rarely interrupted. However, periods of extremely hot weather, winter storms, and Santa Ana wind conditions do occur.

The annual average temperature varies little throughout the SCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit. With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than that of inland areas. The climatological station closest to the site is the San Fernando Station.[1] Although this station was closed after 1974, the monitored temperatures are still considered representative for the project area. The annual average maximum temperature recorded between 1927 and 1974 at this station is 78.2 degrees (Fahrenheit), and the annual average minimum is 49.3 degrees. January is typically the coldest month in this area of the SCAB.

The majority of annual rainfall in the SCAB occurs between November and April. Summer rainfall is minimal and generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the SCAB along the coastal side of the mountains. Average rainfall measured at the San Fernando Station varied from 3.53 inches in January to 0.41 inch or less between May and October, with an average annual total of 16.16 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

The SCAB experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the semi-permanent high-pressure cell over the Pacific Ocean (the Pacific high). This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in mid- to late afternoon on hot summer days, when the smog appears to clear up suddenly. Winter inversions frequently break by mid-morning.

Winds in the vicinity of the project area blow predominantly from the east-southeast, with relatively low velocities. Wind speeds in the project area average about four miles per hour (mph). Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds, together with a persistent temperature inversion, limit the vertical dispersion of air pollutants throughout the SCAB. Strong, dry, north or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months, dispersing air contaminants. The Santa Ana conditions tend to last for several days at a time.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly inland into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are carbon monoxide (CO) and oxides of nitrogen (NO_X) because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.

[1] Western Regional Climatic Center, at Web site http://www.wrcc.dri.edu, 2005.

Local Air Quality

As previously indicated, the project site is located within the SCAQMD's jurisdiction. The SCAQMD maintains ambient air quality monitoring stations throughout the SCAB. The air quality monitoring station closest to the site with more complete air quality data is the Santa Clarita Station. The criteria pollutants monitored at this station are shown in *Table 5.5-4*, *Ambient Air Quality at Santa Clarita Air Monitoring Station*, and *Table 5.5-5*, *Ambient Air Quality at Santa Clarita Air Monitoring Station*. CO and NO_2 levels monitored at this station have not exceeded State and Federal standards in the past three years. Ozone concentrations monitored at this station exceeded the State one-hour O_3 standard from 69 to 89 days per year in the past three years. The Federal one-hour O_3 standard was exceeded at this station from 13 to 35 days per year over the three-year period. The Federal eight-hour O_3 standard was exceeded from 52 to 69 days per year. Particulate matter less than 10 microns in diameter (PM_{10}) monitored at this station exceeded the State 24-hour standard from 2 to 10 days per year, but did not exceed the Federal standard in the past three years. The Burbank-West Palm Avenue Station is the closest station that monitors $PM_{2.5}$ and SO_2. Data for $PM_{2.5}$ and SO_2 taken from the Burbank-West Palm Avenue Station are included in *Tables 5.5-4* and *5.5-5*. The Federal $PM_{2.5}$ standard was exceeded just once in the past three years, in 2003. There is no State $PM_{2.5}$ standard. The Federal and State standards for SO_2 were not exceeded in the past ten years.

As shown in *Table 5.5-4*, in 2003, SCAQMD's Santa Clarita Valley monitoring station recorded the highest official 1-hour ozone reading in Los Angeles county (a maximum concentration of 0.194 parts per million [ppm]). Ozone concentrations in Santa Clarita exceeded the Federal 1- and 8- hour standards of 0.12 and 0.08 ppm on 35 and 69 days respectively.

In the spring of 2004, the SCAQMD Governing Board directed that the District provide an expanded analysis of subregional air quality, beyond that presented in the AQMP, to examine and assess several air quality issues confronting the Santa Clarita Valley. In response to this direction, an analysis was conducted to discuss the observed air quality, the contributing factors to recent trends and to assess the roles of local emissions and pollution transport in relationship to the observations, all of which were included in the SCAQMD's *Santa Clarita Subregional Analysis* (November 2004), which is included in its entirety as Appendix K.[20] In addition, the analysis attempted to characterize the potential impacts of development in both the residential sector and in the industrial sector, as represented by the development of the Soledad Canyon Sand and Gravel Mining Project (Cemex/Transit Mixed Concrete, Inc. [Cemex/TMC]). The results of the analysis were grouped into three categories: observed ambient air quality (ozone and PM10/PM2.5), simulated ozone and PM10 impacts from future development of available land parcels in the valley, and potential toxic risk from diesel soot emissions associated with the in-situ mining and gravel hauling operations from the Cemex/TMC project. The results of the analysis concluded that most of the air pollutant concentrations in the Santa Clarita Valley are not attributable to pollutant sources within the Valley, but result from off-site pollutant sources. Such off-site pollutants enter the Santa Clarita Valley due to existing topography and prevailing wind patterns.

[20] South Coast Air Quality Management District. *Santa Clarita Subregional Analysis*. November 2004. Located on the World Wide Web: http://www.aqmd.gov/ej/pdf/santaclaritasubregionalanalysis.pdf.

Table 5.5-4
Ambient Air Quality at Santa Clarita Air Monitoring Station

	One-Hour Carbon Monoxide		One-Hour Ozone		Coarse Suspended Particulate (PM_{10})		Nitrogen Dioxide	
	Max. 1-Hour Conc. (ppm)[1]	Number of Days Exceeded	Max. 1-Hour Conc. (ppm)	Number of Days Exceeded	Max. 24-Hour Conc. ($\mu g/m^3$)	Number of Days Exceeded	Max. Conc. (ppm)	Number of Days Exceeded)
State Stds.	> 20 ppm/ 1 hr		> .09 ppm/1 hr		> 50 $\mu g/m^3$,24 hrs		> .25 ppm/1 hr	
2004	5.2	0	0.16	69	54	2	0.09	0
2003	3.3	0	0.19	89	72	10	0.12	0
2002	3.3	0	0.17	81	61	7	0.09	0
Maximum	**5.2**		**0.19**		**72**		**0.12**	
Federal Stds.	> 35 ppm/ 1 hr		> .12 ppm/ 1hr		> 150 $\mu g/m^3$,24 hrs		0.053 ppm, annual average	
2004	5.2	0	0.16	13	54	0	0.021	0
2003	3.3	0	0.19	35	72	0	0.021	0
2002	3.3	0	0.17	32	61	0	0.019	0
Maximum	**5.2**		**0.19**		**72**		**0.021**	

Source: *CARB and EPA 2002-2004*.
1) Data taken from the EPA Website; others taken from California Air Resources Board (CARB) Website.

Currently, the project site is in a "super pad" condition, which means that the site has been rough-graded and prepared for development. Subsequent development of the site would therefore only require fine grading, utility installation, paving, and building construction.

Table 5.5-5
Ambient Air Quality at Santa Clarita Air Monitoring Station

	Eight-Hour Carbon Monoxide		Eight-Hour Ozone		Fine Suspended Particulate ($PM_{2.5}$)[1]		Sulfur Dioxide[1]	
	Max. 8-Hour Conc. (ppm)[1]	Number of Days Exceeded	Max. 8-Hour Conc. (ppm)	Number of Days Exceeded	Max. 24-Hour Conc. ($\mu g/m^3$)	Number of Days Exceeded	Max. 24-Hour Conc. (ppm)	Number of Days Exceeded)
State Stds.	≥ 9.0 ppm/8 hrs		No State Standard		No State Standard		> .04 ppm/24 hrs	
2004	3.7	0	0.13	NA[2]	60	NA	0.007	0
2003	1.7	0	0.15	NA	121	NA	0.005	0
2002	1.7	0	0.14	NA	63	NA	0.007	0
Maximum	**3.7**		**0.15**		**121**		**0.007**	
Federal Stds.	≥ 9.0 ppm/8 hrs		> .08 ppm/8 hrs		> 65 $\mu g/m^3$, 24 hrs		0.14 ppm/24 hrs	
2004	3.7	0	0.13	52	60	0	0.002	0
2003	1.7	0	0.15	69	121	1	0.001	0
2002	1.7	0	0.14	52	63	0	0.002	0
Maximum	**3.7**		**0.15**		**121**		**0.002**	

5.5.3 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix A of this EIR. The Initial Study includes questions relating to air quality. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

- Conflict with or obstruct implementation of the applicable air quality plan;
- 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 that exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

METHODOLOGY FOR IMPACT EVALUATION

A number of modeling tools are available to assess air quality impacts of projects. In addition, certain air districts, such as the SCAQMD, have created guidelines and requirements to conduct air quality analysis. The SCAQMD's current guidelines, *CEQA Air Quality Handbook* (April 1993), were adhered to in the assessment of air quality impacts for the proposed project.

The air quality assessment includes estimating emissions associated with short-term construction and long-term operation of the proposed project. Criteria pollutants with regional impacts would be emitted by project-related vehicular trips. In addition, localized air quality impacts (i.e., slight increase in CO concentrations (CO hot spots)) near intersections or roadway segments in the project vicinity, would come from project-related vehicle trips.

CO concentrations were predicted for the short range and interim year without and with the project conditions based on traffic data provided in the project's *Traffic Impact Analysis* report. CALINE4, the fourth generation California Line Source Dispersion Model developed by the California Department of Transportation (Caltrans), was used to calculate the CO concentrations. Input data for this model include meteorology, street network geometrics,

traffic information, and emission generation rates. Meteorological data required include temperature, sigma theta (standard deviation of wind direction change), wind direction, and wind speed. Street network geometrics require use of an "x, y" coordinate system onto which the modeled roadway can be overlaid in order to identify the relative locations of the traffic lane(s) and nearby receptor(s). Required traffic information included peak-hour traffic volumes, speed limit, level of service (LOS), and signal cycle times. Emission factors were calculated using the ARB EMFAC 2002 emission factors.

Output from the model includes one-hour CO concentrations in parts per million (ppm) at selected receptor locations. To reflect total concentrations, the ambient CO concentration of the vicinity must be added to the CO concentration predicted by CALINE4. Based on the methodology suggested by the EPA and included in Caltrans CO Protocol, the existing ambient concentration was determined as the higher of the second highest annual one-hour and annual eight-hour observation at the nearest representative monitoring station over the past two years. Ambient concentrations for the interim year scenarios are assumed to be the same as the existing levels, which were determined to be the higher of the second highest CO concentrations monitored in the past two years at the nearest monitoring station, for the worst-case scenario. The predicted CALINE4 concentration is calculated for the one-hour averaging time. The one-hour CO concentrations predicted by CALINE4 were multiplied by a persistence factor of 0.7 to determine the predicted eight-hour CO concentrations.

Regional emissions were calculated from motor vehicles. Predictions for air pollutant emissions generated by the project traffic were calculated with the URBEMIS 2002 model, based on the trip generations projected for the project from the traffic study (AFA, June 2005). Emissions from stationary sources such as natural gas usage were also calculated with URBEMIS 2002.

SCAQMD Significance Thresholds

As previously indicated, specific criteria for determining whether the potential air quality impacts of a project are significant are set forth in the SCAQMD's *CEQA Air Quality Handbook*. The criteria include emissions thresholds, compliance with State and national air quality standards, and consistency with the current AQMP.

Thresholds for Construction Emissions

The following significance thresholds for construction emissions have been established by the SCAQMD:

- 75 pounds per day of reactive organic compounds (ROC);
- 100 pounds per day of NO_X;
- 550 pounds per day of CO;
- 150 pounds per day of PM_{10}; and
- 150 pounds per day of SO_X.

Projects in the SCAB with construction-related emissions that exceed any of the emission thresholds above are considered significant per CEQA.

Thresholds for Pollutants with Regional Effects from Project Operations

The SCAQMD daily operational emissions significance thresholds are as follows:

- 55 pounds per day of ROC;
- 55 pounds per day of NO_X;
- 550 pounds per day of CO;
- 150 pounds per day of PM_{10}; and
- 150 pounds per day of SO_X.

Projects in the SCAB with operation-related emissions that exceed any of the emission thresholds are considered significant per CEQA.

Standards for Pollutants with Localized "Hot Spot" Effects

Air pollutant standards for CO are as follows:

- California State one-hour CO standard of 20.0 ppm; and
- California State eight-hour CO standard of 9.0 ppm.

The significance of localized project impacts depends on whether ambient CO levels in the vicinity of the project are above or below State and Federal CO standards. When ambient levels are below the standards without the project emissions, a project is considered to have significant impacts if project-related emissions result in an exceedance of one or more of these standards. According to Section 9.4 of the SCAQMD *CEQA Air Quality Handbook*, if ambient levels already exceed a State or Federal standard, project emissions are considered significant if they increase one-hour CO concentrations by 1.0 ppm or more or eight-hour CO concentrations by 0.45 ppm or more.

5.5.4 IMPACTS AND MITIGATION MEASURES

CONSTRUCTION IMPACTS

- ***CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROPOSED PROJECT COULD RESULT IN SIGNIFICANT AIR POLLUTANT EMISSIONS IMPACTS.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: Construction activities produce combustion emissions from various sources such as utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities envisioned on-site would vary daily as construction activity levels change. The use of construction equipment on-site would result in localized exhaust emissions.

Construction activities associated with new development occurring on the project site would temporarily increase localized PM_{10}, ROC, NO_X, and CO concentrations in the project vicinity. The primary sources of construction-related ROC and NO_X emissions are gasoline- and diesel-powered, heavy-duty mobile construction equipment such as scrapers and motor graders. Primary sources of PM_{10} emissions would be clearing activities, excavation and grading operations, construction vehicle traffic on unpaved ground, and wind blowing over exposed earth surfaces.

Emissions generated from construction activities are anticipated to cause temporary increases in pollutant concentrations that could contribute to the continuing violations of the Federal and State maximum concentration standards. The frequency and concentrations of such violations would depend on several factors, including the soil composition on the site, the amount of soil disturbed, wind speed, the number and type of machinery used, the construction schedule, and the proximity of other construction and demolition projects.

Grading Activities

Phase I of the proposed project would include the construction of the first 200 residential units, as well as 8,000 square feet of commercial uses, and grading activities for which is anticipated to occur during April 2006. Phase II of the proposed project includes the construction of the remaining 237 residential units, and is expected to occur during February 2007. Subsurface utilities would also be installed during and immediately following on-site grading activities, and would occur from April to July 2006 for Phase I, and from February to May 2007 for Phase II.

Equipment exhaust, material transport, and construction crew commutes would generate gaseous emissions during grading. It is assumed that on a peak day during the grading phase, the following equipment could be used: two rubber-tired dozers (8 hours/day), three scrapers (8 hours/day), one rubber-tired loader (8 hours/day), two motor graders (8 hours/day), one water truck (15 miles/day), 25 haul truck trips (30 miles/day each), and 40 workers (40 miles/day each).

Based on emission factors in the EPA AP-42 documents and the SCAQMD *CEQA Air Quality Handbook*, *Table 5.5-6*, *Peak-Day Construction Equipment Exhaust Emissi*ons, lists the construction equipment exhaust emissions during a peak grading day. *Table 5.5-6* also lists the vehicle exhaust emissions associated with the workers' commute on a peak grading day, assuming a crew of 40 and an average round-trip commute of 40 miles. *Table 5.5-6* shows that on a peak grading day, emissions from the construction activities would exceed the SCAQMD- established daily NO_X emissions thresholds for construction. On a typical grading day, it is estimated that only 60 percent of the workload or, proportionally, the air pollutant emissions would be emitted.

Table 5.5-6
Peak-Day Construction Equipment Exhaust Emissions

Number and Equipment Type[1]	No. of Hours in Operation	Pollutants[2] (pounds/day)				
		CO	ROC	NO_X	SO_X	PM_{10}
2 Rubber-Tired Dozers	8	17.7	3.5	46.7	7.2	1.9
3 Scrapers	8	21.8	5.5	73.2	11.9	1.9
1 Rubber-Tired Loader	8	3.5	0.9	9.5	1.8	0.5
2 Motor Graders	8	8.8	2.2	24.6	4.4	1.3
1 Water Truck	40 miles	0.6	0.0	0.2	0.0	0.0
25 Haul Truck Trips	30 miles each	10.7	1.1	17.5	0.2	0.5
Workers' Commute[3]	40 miles each	14.1	0.5	1.9	0.0	0.1
TOTAL		**77.2**	**13.7**	**173.6**	**25.5**	**7.2**
SCAQMD Threshold		**550**	**75**	**100**	**150**	**150**
Exceeds Threshold?		**No**	**No**	**Yes**	**No**	**No**

Source: LSA 2005; SCAQMD *CEQA Air Quality Handbook,* 1993; and EPA, *AP-42, Fifth Edition,* 1995.

1) Number of equipment, equipment type, and number of workers are based on estimates provided to LSA on grading.
2) Emissions factors are from the SCAQMD *CEQA Air Quality Handbook*, Table A9-8-A, Table A9-8-B, and Table A9-8-C.
3) Assumption based on 40 workers traveling 40 miles (round trip) per worker.

Fugitive dust emissions are generally associated with grading, land clearing, exposure, vehicle and equipment travel on unpaved roads, and dirt/debris pushing. Dust generated during construction activities would vary substantially depending on the level of activity, the specific operations, and weather conditions. Sensitive receptors in the project vicinity and on-site construction workers may be exposed to blowing dust, depending upon prevailing wind conditions.

Regional rules exist that would help reduce fugitive dust emissions during construction periods, which would reduce short-term air quality impacts. Fugitive dust from a construction site must be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Dust suppression techniques would be implemented to prevent fugitive dust from creating a nuisance off site. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component) by 50 percent or more. Compliance with these rules would reduce impacts on nearby sensitive receptors.

PM_{10} emissions from site clearance and grading operations during a peak construction day for the project site are based on assumptions and past experience on similarly sized projects. The SCAQMD estimates that each acre of graded surface creates about 26.4 pounds of PM_{10} per workday during the construction phase of the project and 21.8 pounds of PM_{10} per hour from dirt/debris pushing per dozer.

Based on the construction estimates, fugitive dust emissions from excavation, hauling/transport, dumping/reclamation, wind erosion, and miscellaneous activities during grading days, the uncontrolled PM_{10} emissions would be 465.5 pounds per day (lbs/day). However, with the implementation of the standard air pollution control measures, included as mitigation measures below, fugitive dust emissions from construction activities are expected to be reduced by approximately 50 percent. The PM_{10} emissions under the

controlled condition would be reduced to 232.7 lbs/day. *Table 5.5-7*, *Peak Grading Day Total Emissions*, lists fugitive dust emissions and construction equipment exhausts.

Table 5.5-7 shows that, during peak grading days, daily total construction emissions with compliance with the Standard Air Pollution Control Measures would exceed the SCAQMD thresholds for NO_X and PM_{10}. This is considered a significant impact.

Table 5.5-7
Peak Grading Day Total Emissions (lbs/day)

Category	CO	ROC	NO_X	SO_X	PM_{10}
Vehicle/Equipment Exhaust (Table G)	77.2	13.7	173.6	25.5	7.2
Fugitive Dust from Soil Disturbance, No Controls	—	—	—	—	465.5
Fugitive Dust from Soil Disturbance, with 50 Percent Control Efficiency	—	—	—	—	232.7
Total Grading, No Controls	77.2	13.7	173.6	25.5	472.7
Total Grading, with Controls	77.2	13.7	173.6	25.5	239.9
SCAQMD Threshold	**550**	**75**	**100**	**150**	**150**
Significant? (With Controls)	**No**	**No**	**Yes**	**No**	**Yes[1]**

Source: LSA 2005; EPA, *AP-42, Fifth Edition,* 1995.
1) With control measures for fugitive dust implemented.

Building Activities

Building construction would be conducted in phases. Phase I of the proposed project is anticipated to begin by August 2006 and be completed by November 2007. Near the completion date for Phase I, the Phase II development and buildout is expected to begin by February 2007 and be completed by November 2008. Building construction uses different types of equipment on the project site than during the grading period. It is anticipated that one crane (8 hours/day), one forklift (8 hours/day), one backhoe (8 hours/day), one excavator (8 hours/day), and two generators (8 hours/day) would be used. In addition, 20 haul truck trips (30 miles/day each) and 50 workers (40 miles/day each) would be needed on a peak day. Similarities do exist in terms of equipment exhaust emissions and fugitive dust emissions. However, it is anticipated that emissions during building construction would be below peak grading day emissions. Therefore, air pollution control measures implemented for the peak grading day emissions would be adequate to reduce emissions during other construction periods.

Architectural Coatings

Architectural coatings contain volatile organic compounds (VOC) that are similar to ROC and are part of the O_3 precursors. At this time, there is no project-specific information available for the types and volumes of architectural coatings needed for the proposed on-site buildings. Based on the number of proposed on-site buildings and the square footage of these buildings, the proposed project is expected to result in architectural coatings-related ROC emissions exceeding the SCAQMD daily threshold of 75 lbs/day. The proposed project would comply with the SCAQMD Rule 1113 on the use of architectural coatings. After

implementation of the SCAQMD Rule 1113, emissions associated with architectural coatings could be further reduced by using precoated/natural colored building materials, water-based or low-VOC coating, and coating transfer or spray equipment with high transfer efficiency. For example, a high-volume, low-pressure (HVLP) spray method is a coating application system operated at air pressure between 0.1 and 10 pounds per square inch gauge (psig), with 65 percent transfer efficiency. Manual coating applications such as a paintbrush, hand roller, trowel, spatula, dauber, rag, or sponge have 100 percent transfer efficiency.

Summary of Construction Emissions

With implementation of feasible measures during construction of the proposed project, emissions from construction equipment exhaust and soil disturbance would be minimized. However, construction emissions from the proposed project would exceed the daily emissions thresholds for ROC, NO_X, and PM_{10} established by the SCAQMD. Construction of the proposed project would result in potentially significant air quality impacts.

Mitigation Measures: Although construction-related air quality impacts cannot be reduced to less than significant, the following standard air pollution control mitigation measures would serve to reduce impacts to the maximum extent feasible:

AQ1 During construction, the construction contractor shall be responsible for ensuring that all measures listed below in *Table 5.5-8, Standard Measures for Construction-Related Emissions*, are implemented. To achieve the particulate control efficiencies shown, it is assumed that finished surfaces would be stabilized with water and/or dust palliatives and isolated from traffic flows to prevent emissions of fugitive dust from these areas. In addition, the following water application rates are assumed:

- Roads traveled by autos, rock trucks, water trucks, fuel trucks, and maintenance trucks: up to twice per hour;
- Roads traveled by scrapers and loaders in active excavation areas: up to three times per hour;
- Finish grading areas: up to once every two hours.

AQ2 All construction equipment shall be maintained in good operating condition so as to reduce operational emissions. The construction contractor shall ensure that all construction equipment is properly serviced and maintained.

AQ3 The construction contractor shall utilize, as much as possible, precoated/natural colored building materials, water-based or low-VOC coating, and coating transfer or spray equipment with high transfer efficiency, such as HVLP spray method, or manual coatings application such as a paintbrush, hand roller, trowel, spatula, dauber, rag, or sponge.

Table 5.5-8
Standard Measures for Construction-Related Emissions

Construction Vehicle/Equipment Operation
◆ Configure construction parking to minimize traffic interference. ◆ Provide temporary traffic control during all phases of construction activities to improve traffic flow (e.g., flagperson). ◆ Provide on-site food service for construction workers. ◆ Prohibit truck idling in excess of 10 minutes. ◆ Apply four to six degree injection timing retard to diesel IC engines, whenever feasible. ◆ Use reformulated low-sulfur diesel fuel in all equipment, whenever feasible. ◆ Use catalytic converters on all gasoline-powered equipment. ◆ Minimize concurrent use of equipment through equipment phasing. ◆ Use low NOX engines, alternative fuels, and electrification, whenever feasible. ◆ Substitute electric and gasoline-powered equipment for diesel-powered equipment, whenever feasible. ◆ Turn off engines when not in use. ◆ Wash truck wheels before the trucks leave the construction site. ◆ When operating on-site, do not leave trucks idling for periods in excess of 10 minutes. ◆ Operate clean fuel van(s), preferably vans that run on compressed natural gas or propane, to transport construction workers to and from the construction site. ◆ Provide documentation to the City prior to beginning construction, demonstrating that the project proponents would comply with all SCAQMD regulations including 402, 403, 1113, and 1403. ◆ Suspend use of all construction equipment operations during second stage smog alerts.
Grading
◆ Apply nontoxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more). ◆ Enclose, cover, water twice daily, or apply nontoxic soil binders, according to manufacturers' specifications, to exposed piles (i.e., gravel, sand, dirt) with 5 percent or greater silt content. ◆ Water active sites at least twice daily. ◆ Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph. ◆ Cover all trucks hauling dirt, sand, soil, or other loose materials on-site or maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the top of the trailer) in accordance with the requirements of CDC Section 23114. ◆ Cover all trucks hauling these materials off site.
Paved Roads
◆ Sweep streets at the end of the day if visible soil material is carried onto adjacent public paved road (water sweepers with reclaimed water are recommended). ◆ Sweep public streets at the conclusion of construction work. ◆ Install adequate storm water control systems to prevent mud deposition onto paved areas.
Unpaved Roads
◆ Apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces.
Source: *SCAQMD Rules 402 and 403; LSA, 2005.*

Level of Significance After Mitigation: Significant and Unavoidable Impact.

LONG-TERM OPERATIONAL IMPACTS

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT COULD RESULT IN SIGNIFICANT AIR POLLUTANT EMISSIONS IMPACTS.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis:

Area Source Emissions

The proposed project would result in stationary source emissions from natural gas usage and consumer products, as well as potential odor emissions from on-site restaurant uses.

Impacts associated with odor emissions, which could possibly result from operation of restaurant uses within the commercial component of the proposed project, are subjective and are not quantifiable. Odor emissions vary depending on the type of restaurant or other commercial use, and are typically evaluated based on their potential to cause nuisance effects on nearby sensitive receptors. Nonetheless, all on-site commercial uses would be required to comply with SCAQMD Rule 402, *Nuisance*, which would preclude the possibility of impacts to surrounding uses resulting from nuisance odor. Furthermore, given the location of the proposed commercial area relative to existing and proposed sensitive uses, as well as the limited amount of commercial development proposed, surrounding uses are not expected to be significantly affected by project-related odors.

The emissions associated with area sources from natural gas usage and consumer products would be small when compared to mobile source emissions. Emissions associated with area sources were calculated with URBEMIS 2002 and are included in the corresponding tables below for land uses under the Phase I and completion of the Phase II project development.

Mobile Source Emissions

The proposed Phase I development is estimated to generate 2,257 net total new vehicular trips per day (AFA, June 2005). After completion of both Phase I and Phase II development, the proposed project is estimated to generate 3,926 vehicular trips per day (AFA, June 2005). Using the default emissions factors included in URBEMIS 2002, emissions associated with vehicular trips for Phase I (2006 emissions factors) and Phase II buildout (2008 emissions factors) conditions are shown in *Table 5.5-9*, *Proposed Phase I Development (2006) Land Use Emissions*, and *Table 5.5-10*, *Proposed Total Project (2008) Land Use Emissions*, respectively.

Table 5.5-9 shows that total on-site emissions for CO, ROC, NO_X, SO_2, and PM_{10} would be below the SCAQMD daily emissions thresholds after implementation of Phase I development, and *Table 5.5-10* shows that all total on-site emissions would be substantially higher for all criteria pollutants, but only emissions for ROC would exceed SCAQMD daily emissions thresholds after implementation of both Phase I and Phase II of the proposed project. This is due to the increase in residential uses associated with Phase II of the proposed project. Therefore, a significant regional air quality impact would occur with the implementation of the proposed project from operational ROC emissions.

Table 5.5-9
Proposed Phase 1 Development (2006) Land Use Emissions

Source	Pollutants, lbs/day				
	CO	ROC	NO_X	SO_2	PM_{10}
Stationary Sources: Summer	2.27	13.48	1.59	0.00	0.01
Vehicular Traffic: Summer	255.33	21.45	23.38	0.23	21.23
Subtotal Summer	257.60	34.94	24.97	0.23	21.24
Stationary Sources: Winter	0.85	13.25	1.92	0.00	0.03
Vehicular Traffic: Winter	244.48	20.35	34.00	0.21	21.23
Subtotal Winter	245.33	33.60	35.92	0.21	21.26
SCAQMD Threshold	**550**	**55**	**55**	**150**	**150**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**
Source: LSA, June 2005.					

Table 5.5-10
Proposed Total Project (2008) Land Use Emissions

Source	Pollutants (lbs/day)				
	CO	ROC	NO_X	SO_2	PM_{10}
Stationary Sources: Summer	3.03	29.03	3.38	0.00	0.01
Vehicular Traffic: Summer	345.11	32.70	31.67	0.21	32.28
Subtotal Summer	348.14	61.73	35.05	0.21	32.29
Stationary Sources: Winter	1.78	28.82	4.10	0.00	0.07
Vehicular Traffic: Winter	334.00	29.48	45.62	0.18	32.28
Subtotal Winter	335.77	58.30	49.72	0.18	32.35
SCAQMD Threshold	**550**	**55**	**55**	**150**	**150**
Exceeds Threshold?	**No**	**Yes**	**No**	**No**	**No**
Source: LSA, June 2005.					

Despite great progress in air quality improvement, approximately 146 million people nationwide lived in counties with pollution levels above the NAAQS in 2002. Out of the 230 nonattainment areas identified during the 1990 Clean Air Act Amendment designation process, 124 areas remain as nonattainment today. In these nonattainment areas, however, the severity of air pollution episodes has decreased. Air quality in the South Coast Air Basin in the past 20 years has generally improved, even with the tremendous increase in population, vehicles, and other sources.

Long-term exposure to elevated levels of criteria pollutants could result in potential health effects. However, as previously stated, emissions thresholds established by the SCAQMD are used to manage total regional emissions within an air basin based on the air basin attainment status for criteria pollutants. These emissions thresholds were established for individual projects that would contribute to regional emissions and pollutant concentrations that may affect or delay the projected attainment target year for certain criteria pollutants. Due to the conservative nature of the thresholds and the basin-wide context of an individual project's emissions, there is no direct correlation of a single project to localized health effects. One individual project having emissions exceeding a threshold does not necessarily result in

adverse health effects for residents in the project vicinity. This is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as ozone precursors like NO_X and ROC.

Based on the above discussion, the potential for an individual project to significantly deteriorate regional air quality or contribute to significant health risk is small, even if the emissions thresholds are exceeded by the project. Due to the overall improvement trend on air quality in the air basin, it is unlikely that the regional air quality or health risk would worsen from the current condition due to emissions from an individual project.

Long-Term Microscale (CO Hot Spot) Analysis

The intersection vehicle turn volumes included in the traffic study report (AFA, June 2005) were used in the Caltrans CALINE4 model to evaluate the local CO concentrations at intersections most affected by project traffic. The intersections that either have the highest turn volumes or worst LOS in the project vicinity most affected by the project traffic were selected for the CO hot spot analysis. *Table 5.5-11*, *Existing CO Concentrations*, lists the CO concentrations for one intersection (Bouquet Canyon Road and Soledad Canyon Road, the only intersection provided with existing traffic turn volumes) in the project vicinity under the existing (2005) conditions. *Table 5.5-12, 2008 CO Concentrations Without and With the Proposed Project*, lists the CO level in the project completion (2008) year under the with- and without-project scenarios. *Table 5.5-13*, *2015 CO Concentrations Without and With the Project*, lists the CO level in the Interim Year (2015) under the with- and without-project scenarios. It should be pointed out that, due to technological improvements, emissions factors (for vehicle exhaust) for future years would decrease. In addition, background concentrations in future years are anticipated to continue to decrease as the concerted effort to improve regional air quality progresses. Therefore, CO concentrations in the future years would generally be lower than existing conditions or more recent years in the future. The following analysis evaluates CO concentrations in 2008 (after the entire project is completed) and in 2015 (Interim Year). It is anticipated that in the future years beyond the Interim Year (2015), CO concentrations at similar locations would be lower, even with higher projected traffic volumes.

Table 5.5-11
Existing CO Concentrations[1]

Intersection	Receptor Distance to Road Centerline (Meters)	Existing One-Hour CO Concentration (ppm)	Existing Eight-Hour CO Concentration (ppm)	Exceeds State Standards	
				1-Hr	8-Hr
Bouquet Cyn & Soledad Cyn.	21	15.1	10.6	No	Yes
	21	13.1	9.2	No	Yes
	17	13.0	9.2	No	Yes
	7	12.0	8.5	No	No

Source: LSA Associates, Inc. June 2005
1) Includes ambient one-hour concentration of 4.8 ppm and ambient eight-hour concentration of 2.0 ppm. Measured at the 22224 Placerita Canyon Rd, Santa Clarita, CA, AQ Station (Los Angeles County).

Table 5.5-11 shows that under the existing condition, the 8-hour CO concentrations at the intersection of Bouquet Canyon Road and Soledad Canyon Road would exceed the Federal and State standards of 9 ppm due to heavy traffic volumes and a level of service (LOS) F condition. In the future years, vehicle exhaust and therefore CO emission factors would decrease. The proposed project would contribute to increased CO concentrations at intersections in the project vicinity. As shown in *Tables 5.5-12* and *5.5-13*, none of the five intersections analyzed would have a one-hour CO concentration exceeding State standards of 20 ppm under 2008 and 2015 with- and without-project conditions. The eight-hour CO concentration at these intersections would also be below the State standard of 9.0 ppm.

The project-related increase in CO concentrations at all eight intersections would be 0.2 ppm or less for both the one-hour period and the eight-hour period. Since no Federal or State standards would be exceeded, no CO hot spot would occur. Therefore, no air pollution control measures are necessary or recommended for CO emissions.

Table 5.5-12
2008 CO Concentrations Without and With the Proposed Project[1]

Intersection	Receptor Distance to Road Centerline (Meters)	Project-Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceeds State Standards	
					1-Hr	8-Hr
Bouquet Cyn & Soledad Cyn.	21 / 21	0.1 / 0.1	13.5 / 13.6	8.1 / 8.2	No	No
	21 / 17	0.1 / 0.1	12.0 / 12.1	7.0 / 7.1	No	No
	17 / 15	0.0 / 0.0	11.9 / 11.9	7.0 / 7.0	No	No
	7 / 7	0.1 / 0.1	11.1 / 11.2	6.4 / 6.5	No	No
Project Driveway 1 & Soledad Cyn.	21 / 21	-0.2 / -0.1	10.5 / 10.3	6.0 / 5.9	No	No
	17 / 17	-0.3 / -0.2	10.2 / 9.9	5.8 / 5.6	No	No
	17 / 17	-0.1 / -0.1	9.6 / 9.5	5.4 / 5.3	No	No
	7 / 7	-0.1 / -0.1	9.5 / 9.4	5.3 / 5.2	No	No
Project Driveway 2 & Soledad Cyn.	7 / 7	-0.2 / -0.1	11.7 / 11.5	6.8 / 6.7	No	No
	7 / 7	-0.3 / -0.2	11.7 / 11.4	6.8 / 6.6	No	No
	7 / 7	-0.1 / -0.1	11.5 / 11.4	6.7 / 6.6	No	No
	7 / 7	-0.1 / -0.1	11.5 / 11.4	6.7 / 6.6	No	No
Valley Center & Soledad Cyn.	7 / 7	0.1 / 0.1	11.4 / 11.5	6.6 / 6.7	No	No
	7 / 7	0.1 / 0.0	10.9 / 11.0	6.3 / 6.3	No	No
	7 / 7	0.0 / 0.0	10.6 / 10.6	6.1 / 6.1	No	No
	7 / 7	0.1 / 0.0	10.3 / 10.4	5.9 / 5.9	No	No
Golden Valley Rd. & Valley Center	7 / 7	0.2 / 0.1	8.2 / 8.4	4.4 / 4.5	No	No
	7 / 7	0.1 / 0.1	8.0 / 8.1	4.2 / 4.3	No	No
	7 / 7	0.2 / 0.1	7.5 / 7.7	3.9 / 4.0	No	No
	7 / 7	0.2 / 0.2	7.4 / 7.6	3.8 / 4.0	No	No

Source: LSA Associates, Inc. June 2005
1) Includes ambient one-hour concentration of 4.8 ppm and ambient eight-hour concentration of 2.0 ppm. Measured at the 22224 Placerita Canyon Rd, Santa Clarita, CA, AQ Station (Los Angeles County).

Mitigation Measures: Although no mitigation measures are required to reduce stationary source impacts to less than significant, the following standard measures are recommended for project design to minimize air quality impacts:

AQ4 Project design shall incorporate energy-saving features throughout the project, including low-emission water heaters, central water heating systems, and built-in energy efficient appliances.

AQ5 Parking areas shall be planted with trees to insure shading and prevent heat buildup.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

AIR QUALITY MANAGEMENT PLAN CONSISTENCY

- ***DEVELOPMENT ASSOCIATED THE PROPOSED PROJECT WOULD RESULT IN CONFLICTS WITH THE SCAQMD'S ADOPTED AIR QUALITY MANAGEMENT PLAN.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: In order to accurately assess the environmental impacts as a result of new or renovated developments, environmental pollution and population growth are projected for future scenarios in the general plans of local jurisdictions and incorporated into the regional AQMPs. The proposed project's pollutant emissions would not contribute to new exceedances of the SCAQMD's established daily emission thresholds. Furthermore,

Table 5.5-13
2015 CO Concentrations Without and With the Project[1]

Intersection	Receptor Distance to Road Centerline (Meters)	Project-Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceeds State Standards	
					1-Hr	8-Hr
Bouquet Cyn & Soledad Cyn.	21 / 21	0.1 / 0.1	8.4 / 8.5	4.5 / 4.6	No	No
	21 / 21	0.0 / 0.0	8.3 / 8.3	4.5 / 4.5	No	No
	17 / 17	0.0 / 0.0	8.1 / 8.1	4.3 / 4.3	No	No
	7 / 7	0.0 / 0.0	7.9 / 7.9	4.2 / 4.2	No	No
Project Drwy 1 & Soledad Cyn.	21 / 21	0.2 / 0.1	6.5 / 6.7	3.2 / 3.3	No	No
	17 / 17	0.2 / 0.2	6.4 / 6.6	3.1 / 3.3	No	No
	17 / 17	0.1 / 0.0	6.3 / 6.4	3.1 / 3.1	No	No
	17 / 17	0.1 / 0.1	6.1 / 6.2	2.9 / 3.0	No	No
Project Drwy 2 & Soledad Cyn.	7 / 7	0.0 / 0.0	6.9 / 6.9	3.5 / 3.5	No	No
	7 / 7	0.0 / 0.0	6.9 / 6.9	3.5 / 3.5	No	No
	7 / 7	0.1 / 0.1	6.8 / 6.9	3.4 / 3.5	No	No
	7 / 7	0.0 / 0.0	6.8 / 6.8	3.4 / 3.4	No	No
Valley Center & Soledad Cyn.	7 / 7	0.0 / 0.0	8.1 / 8.1	4.3 / 4.3	No	No
	7 / 7	0.1 / 0.0	7.6 / 7.7	4.0 / 4.0	No	No
	7 / 7	0.2 / 0.1	7.5 / 7.7	3.9 / 4.0	No	No
	7 / 7	0.1 / 0.1	7.5 / 7.6	3.9 / 4.0	No	No
Golden Valley Rd. & Valley Center	7 / 7	0.0 / 0.0	7.6 / 7.6	4.0 / 4.0	No	No
	7 / 7	0.1 / 0.1	7.2 / 7.3	3.7 / 3.8	No	No
	7 / 7	0.1 / 0.1	7.2 / 7.3	3.7 / 3.8	No	No
	7 / 7	0.0 / 0.0	7.2 / 7.2	3.7 / 3.7	No	No

Source: LSA Associates, Inc. June 2005
1) Includes ambient one-hour concentration of 4.8 ppm and ambient eight-hour concentration of 2.0 ppm. Measured at the 22224 Placerita Canyon Rd, Santa Clarita, CA, AQ Station (Los Angeles County).

although the proposed project would require amendments to the projections of the City's General Plan and the SCAQMD's 1997 AQMP, since the proposed project would include a change in land use and zoning designations for the project site from commercial to residential uses, the resultant air quality impacts would be incrementally reduced. As indicated in the project's *Traffic Impact Analysis*, the vehicle trip rates and resultant air pollutant emissions associated with residential uses are substantially lower than those associated with commercial uses, which are currently anticipated at the project site in the City's *General Plan* and the 1997 AQMP. Although the *General Plan* amendment required for the proposed project would need to be reflected in the next revision of the AQMP, the project would be considered consistent with the existing AQMP, as the emissions associated with the proposed project would be less than those projected in the AQMP. The proposed project is therefore considered consistent with the most recently adopted AQMP.

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

***Level of Significance After Mitigation**:* Not applicable.

5.5.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED PROJECTS COULD RESULT IN CUMULATIVELY CONSIDERABLE AIR QUALITY IMPACTS.***

***Level of Significance Prior to Mitigation**:* Potentially Significant Impact.

***Impact Analysis**:* The traffic study included vehicular trips from all present and future projects in the project vicinity. Therefore, CO hot spot concentrations calculated at these intersections include the cumulative traffic effect. Based on *Tables 5.5-12* and *5.5-13*, no significant cumulative CO impacts would occur.

The proposed project would result in criteria pollutants exceeding the SCAQMD daily emissions thresholds for ROC, NO_x, and PM_{10} during construction, and the emissions threshold for ROC during project operation, which would remain a significant unavoidable impact relative to air quality. Therefore, emissions associated with the proposed project would contribute to long-term regional air pollutants. Even though the project is consistent with 2003 A Q MP, as a conservative and "worst-case" approach, the project is considered to result in a significant adverse cumulative air quality impact due to SCAB's nonattainment status for O_3, and PM_{10}.

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

***Level of Significance After Mitigation**:* Significant and Unavoidable Impact.

5.5.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Implementation of the proposed project would not result in exceedances of daily emissions thresholds established by the SCAQMD for criteria pollutants from project-related net change in vehicular and stationary sources emissions. CO concentrations would remain below both State and Federal CO standards, and the proposed project would not conflict with the applicable air quality management plan. In addition, significant cumulative air quality impacts would not occur as a result of the proposed project.

The proposed project would, however, result in criteria pollutants exceeding the SCAQMD daily emissions thresholds for ROC, NO_x, and PM_{10} during construction, and the emissions threshold for ROC during project operation, which would remain a significant unavoidable impact, resulting in significant cumulative air quality impacts. If the City of Santa Clarita approves the Soledad Village project, the City shall be required to adopt findings in accordance with Section 15091 of the *CEQA Guidelines* and prepare a Statement of Overriding Considerations in accordance with Section 15093 of the *CEQA Guidelines*.

Section 5.6
NOISE

5.6 NOISE

This section of the EIR evaluates the noise impacts associated with the proposed project. The analysis presented in this section is based on the calculations, analysis, and conclusions contained in the project's Noise Impact Analysis, performed by LSA Associates (August 2005), included in its entirety in Appendix F. This section determines the noise impacts associated with short-term construction of the proposed project on adjacent noise-sensitive uses, the long-term traffic and commercial use noise impacts on noise-sensitive uses on-site, and the required mitigation measures to reduce short-term and long-term noise impacts. The following analysis utilizes the City's noise standards, including the City's Noise Element and Noise Control Ordinance, as thresholds against which potential noise impacts are evaluated.

5.6.1 ENVIRONMENTAL SETTING

CHARACTERISTICS OF SOUND

Sound is increasing in our general environment and can affect our quality of life. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations (cycles per second) of a sound wave, and corresponds with the tone's range from high to low. Loudness is the strength of a sound and describes a noisy or quiet environment; it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves, combined with the reception characteristics of the human ear. Sound intensity relates to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

Measurement of Sound

Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level (in dBAs) de-emphasizes low and very high frequencies of sound, similar to how the human ear de-emphasizes these frequencies. Unlike linear units, such as inches or pounds, decibels are measured on a logarithmic scale representing points on a sharply rising curve.

For example, a loudness of 10 decibels (dB) is 10 times more intense than 1 decibel; 20 decibels is 100 times more intense; and 30 decibels is 1,000 times more intense. Thirty decibels represent 1,000 times more acoustic energy than one decibel. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 decibels. The decibel system of

measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10-decibel increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately six decibels for each doubling of distance from the source. This drop-off rate is applicable to noise generated by stationary equipment. If noise is produced by a line source, such as highway traffic or railroad operations, the sound decreases three decibels for each doubling of distance in a hard site environment. Line source noise, when produced within a relatively flat environment with absorptive vegetation, decreases four and one-half decibels for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans must take into account the annoyance effects of sound. The equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. The predominant rating scales for human communities in California are the L_{eq}, the community noise equivalent level (CNEL), and the day-night average level (L_{dn}), measured in dBA. CNEL is the time-varying noise over a 24-hour period, with a 5-dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 PM to 10:00 PM (defined as relaxation hours) and 10-dBA weighting factor applied to noise occurring from 10:00 PM to 7:00 AM (defined as sleeping hours). The noise adjustments are added to the noise events occurring during the more sensitive hours. L_{dn} is similar to the CNEL scale, but without the adjustment for the evening relaxation hours. CNEL and L_{dn} values are within 1 dBA of each other and are normally exchangeable.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels denoted by L_{max} for short-term noise impacts. L_{max} reflects peak operating conditions and addresses the annoyance aspects of intermittent noise.

Another noise scale often used together with the L_{max} in noise ordinances for enforcement purposes is noise standards in terms of percentile noise levels. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period; the L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first is an audible impact, which is an increase in noise level that is noticeable to humans. An audible increase in noise level generally is a change of 3.0 dB or greater, because this level has been found to be barely perceptible in exterior environments. The second category is a potentially audible impact, which is a change in the noise level between 1.0 and 3.0 dB. This range of noise levels has

been found to be noticeable only in laboratory environments. The last category is an inaudible change in noise level—less than 1.0 dB, which is inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant impacts.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions and thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear, even with short-term exposure; this level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by pain in the ear; this is called the threshold of pain. A sound level of 160 to 165 dBA will result in dizziness or loss of equilibrium.

The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed areas.

Commonly used noise-related terms and their meanings, typical noise sources and associated sound levels, and land use noise compatibility criteria recommended by the California Department of Health Office of Noise Control are summarized in *Table 5.6-1, Definitions of Acoustical Terms*, *Table 5.6-2, Common Sound Levels and Their Noise Sources*, and *Table 5.6-3, Land Use Compatibility for Exterior Community Noise*, respectively.

EXISTING NOISE SETTING

Existing Sensitive Land Uses in the Project Area

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to noise. There are existing residences to the east of the project site. These sensitive land uses may be potentially affected by the noise generated during construction on the project site.

Overview of the Existing Noise Environment

Traffic Noise

The primary existing noise sources in the project area are transportation facilities. Traffic on Soledad Canyon Road and other streets in the project vicinity is the main source of ambient noise in the project vicinity. Metrolink commuter trains and freight trains also contribute to the ambient noise in the project vicinity. Saugus Speedway is located approximately 0.25 mile (1,320 feet) west of the project site, and may contribute noise to the surrounding area during special events at the facility.

Table 5.6-1
Definitions of Acoustical Terms

Term	Definition
Decibel (dB)	A unit of level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency (Hz)	Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second).
A-Weighted Sound Level (dBA)[1]	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L_{02}, L_{08}, L_{50}, L_{90}	The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level that is 2 percent, 8 percent, 50 percent, and 90 percent of a stated time period, respectively.
Equivalent Continuous Noise Level (L_{eq})	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level (CNEL)	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 decibels to sound levels occurring in the evening from 7:00 PM to 10:00 PM and after the addition of 10 decibels to sound levels occurring in the night between 10:00 PM and 7:00 AM.
Day/Night Noise Level (L_{dn})	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 PM and 7:00 AM
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time-averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive Noise Level	Noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence, tonal or informational content, and the prevailing ambient noise level.

Source: Acoustical Society of America. *Handbook of Acoustical Measurement and Noise Control*, 1991.
1. All sound levels in this report are A-weighted, unless reported otherwise.

The existing average daily traffic volumes (ADT) for roadway segments in the project vicinity (Bouquet Canyon Road and Soledad Canyon Road) are provided by Austin-Foust Associates, Inc. (June 2005). The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate highway traffic-related noise conditions in the vicinity of the project site. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values.

Table 5.6-2
Common Sound Levels and Their Noise Sources

Noise Source	A-Weighted Sound Level (dBA)	Noise Environment	Subjective Evaluation
Near jet engine	140	Deafening	128 times as loud
Civil defense siren	130	Threshold of pain	64 times as loud
Hard rock band	120	Threshold of feeling	32 times as loud
Accelerating motorcycle at a few feet away	110	Very loud	16 times as loud
Pile driver; noisy urban street with heavy city traffic	100	Very loud	8 times as loud
Ambulance siren; food blender	95	Very loud	
Garbage disposal	90	Very loud	4 times as loud
Freight cars; living room music	85	Loud	
Pneumatic drill; vacuum cleaner	80	Loud	2 times as loud
Busy restaurant	75	Moderately loud	
Near freeway auto traffic	70	Moderately loud	Reference Level
Average office	60	Quiet	½ as loud
Suburban street	55	Quiet	
Light traffic; soft radio music in apartment	50	Quiet	¼ as loud
Large transformer	45	Quiet	
Average residence without stereo playing	40	Faint	⅛ as loud
Soft whisper	30	Faint	
Rustling leaves	20	Very faint	
Human breathing	10	Very faint	Threshold of hearing
	0	Very faint	

Source: Compiled by LSA Associates, Inc., 2004.

Table 5.6-4, Existing Traffic Noise Levels provides the existing traffic noise levels adjacent to roadway segments in the project vicinity. These noise levels represent worst-case scenarios, which assume that no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used in developing these noise levels and the model printouts are provided in Appendix A of the project's Noise Impact Analysis.

Traffic noise is generally moderate to high along Bouquet Canyon Road under existing conditions in the project vicinity. The 70, 65, and 60 dBA CNEL contours extend up to 143, 303, and 651 feet, respectively, from the roadway centerline.

Metrolink and Freight Train Noise

Based on the most recent Metrolink weekday schedule, 12 trains from Lancaster to Los Angeles and 12 commuter trains from Los Angeles to Lancaster pass through the Santa Clarita area to the south of the project site from 5:00 a.m. to 10:00 p.m. on weekdays. In addition, four northbound and 4 southbound trains operate from 7:30 a.m. and 6:30 p.m. on Saturdays. Metrolink does not provide service on Sundays. Union Pacific operates freight trains on the same tracks used by the Metrolink commuter trains, but not on a set schedule.

Using the Metrolink schedule and methodologies outlined in Transit Noise and Vibration Impact Assessment (Federal Transit Administration, April 1995), it was estimated that the commuter trains would result in a noise level of 63.4 dBA CNEL at 50 feet from the railroad track. The proposed project site is approximately 200 feet from the nearest Metrolink railroad track and is projected to be exposed to 54.4 dBA CNEL noise level from Metrolink trains. It is anticipated that Union Pacific freight train operations would result in noise levels at the project site comparable or slightly higher than those associated with operation of Metrolink commuter trains.

Saugus Speedway Facility Noise

The Saugus Speedway facility, located approximately 1,320 feet to the west of the project site, is a special event facility used for exhibitions, swap meets, and special events. Special events could include car races, demolition derbies, concerts, circuses, baseball and football games, fireworks, rodeos, fairs, or carnivals. When they do occur at the speedway, many of these events occur at night. The speedway is also often used for filming purposes, with and without explosions, car crashes, or racing sequences. It is estimated that a racing event at the speedway would produce a noise level of 95 dBA at a distance of 50 feet.[1]

[1] Impact Sciences, Inc. *Riverpark Draft Environmental Impact Report (DEIR) – Section 4.5, Noise*. Page 4.5-31. February 2004.

Table 5.6-3
Land Use Compatibility for Exterior Community Noise

Land Use Category	Noise Range (Ldn or CNEL dB)			
	I	II	III	IV
Passively used open spaces	50	50–55	55–70	70+
Auditoriums, concert halls, amphitheaters	45–50	50–65	65–70	70+
Residential—low-density, single-family, duplex, mobile homes	50–55	55–70	70–75	75+
Residential—multifamily	50–60	60–70	70–75	75+
Transient lodging—motels, hotels	50–60	60–70	70–80	80+
Schools, libraries, churches, hospitals, nursing homes	50–60	60–70	70–80	80+
Actively used open spaces—playgrounds, neighborhood parks	50–67	—	67–73	73+
Golf courses, riding stables, water recreation, cemeteries	50–70	—	70–80	80+
Office buildings—business, commercial, and professional	50–67	67–75	75+	—
Industrial, manufacturing, utilities, agriculture	50–70	70–75	75+	—

Noise Range I—Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Noise Range II—Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made, and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Noise Range III—Normally Unacceptable: 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 needed noise insulation features included in the design.

Noise Range IV—Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: Office of Noise Control, California Department of Health, 1976.

5.6.2 NOISE STANDARDS

CITY OF SANTA CLARITA NOISE STANDARDS

The City has set land use standards for noise in its General Plan Noise Element (June 25, 1991; First Amendment, May 23, 2000). One of the City's goals in the Noise Element is to prevent and mitigate significant noise levels in residential neighborhoods. It requires that developers of new single-family and multifamily residential neighborhoods in areas where the ambient noise level exceeds 55 dBA (night) and 65 dBA (day) (or the equivalent of 65 dBA CNEL) provide mitigation measures for the new residences to reduce interior noise levels.

Table 5.6-4
Existing Traffic Noise Levels

Roadway Segment	Average Daily Trips	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) @ 50 feet from Centerline of Outermost Lane
Bouquet Canyon north of Soledad Canyon	63,000	143	303	651	74.1
Bouquet Canyon south of Soledad Canyon	42,000	111	232	497	72.4
Soledad Canyon west of Bouquet Canyon	53,000	128	271	580	73.4
Soledad Canyon east of Bouquet Canyon	55,000	131	277	594	73.6
Soledad Canyon west of proposed project	54,000	130	274	587	73.5

Source: LSA Associates. Inc., June 2005.

In addition, the City will develop, adopt, and enforce a standard for all commercial uses of 70 dBA (night) and 80 dBA (day) (or the equivalent of 80 dBA CNEL) that cause adverse levels of significant discernible noise on adjacent residential neighborhoods.

The City's Municipal Code, Chapter 11.44, Noise Limits, establishes noise standards in various land use zones during daytime (7:00 AM–10:00 PM) and nighttime (10:00 PM–7:00 AM) periods. For residential zones, the base noise levels are 65 dBA during the daytime and 55 dBA during the nighttime. For commercial and manufacturing zones, the base noise levels are 80 dBA during the daytime and 70 dBA during the nighttime.

For repetitive impulsive noise or steady, whine, screech, or hum noise, the base noise levels noted above are reduced by 5 dBA. If the noise occurs more than 5 but less than 15 minutes per hour during the daytime, the above base noise levels are raised by 5 dBA. If the noise occurs more than 1 but less than 5 minutes per hour during the daytime, the above base noise levels are raised by 10 dBA. If the noise occurs less than 1 minute per hour during the daytime, the above base noise levels are raised by 20 dBA.

No person shall engage in any construction work that requires a building permit from the City on sites within 300 feet of a residentially zoned property except between the hours of 7:00 AM and 7:00 PM, Monday through Friday, and between 8:00 AM and 6:00 PM on Saturday. Further, no work shall be performed on the following public holidays: New Year's Day, Independence Day, Thanksgiving, Christmas Day, Memorial Day, and Labor Day. The City Planning and Building Services Department may issue a permit for work to be done "after hours," provided that construction noise is contained.

5.6.3 SIGNIFICANCE THRESHOLD CRITERIA

CEQA REQUIREMENTS

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix A of this EIR. The Initial Study includes questions relating to noise. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it would:

- Expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Expose persons to or generation of excessive groundborne vibration or groundborne noise levels;
- Cause a substantial permanently increase ambient noise levels in the project vicinity above levels existing without the project; or
- Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

City of Santa Clarita Requirements

A project would normally have a significant noise-related effect on the environment if it substantially increases the ambient noise levels for adjoining areas or conflicts with adopted environmental plans and goals of the community in which it is located. Because the applicable noise standards governing the project site are the criteria in the *City's Noise Element and Noise Control Ordinance*, as discussed previously, a significant noise impact would result if the proposed project would conflict with the applicable noise standards of the City.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.6.4 IMPACTS AND MITIGATION MEASURES

CONSTRUCTION-RELATED NOISE

- ***PROJECT-RELATED GRADING AND CONSTRUCTION ACTIVITIES COULD RESULT IN TEMPORARY NOISE IMPACTS ON NEARBY NOISE-SENSITIVE RECEPTORS.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: Short-term noise impacts would be associated with excavation, grading, and erecting of buildings on-site during construction of the proposed project. Construction-related short-term noise levels would be higher than existing ambient noise levels in the project area today, but would no longer occur once construction of the project is completed. Two types of short-term noise impacts could occur during the construction of the proposed project.

Moving Vehicles. First, construction crew members commuting to and from work and the transport of construction equipment and materials to the site for the proposed project would incrementally increase noise levels on access roads leading to the site. There would be a relatively high single-event noise exposure potential at a maximum level of 87 dBA L_{max} with trucks passing at 50 feet. However, the projected construction traffic would be small when compared to the existing traffic volumes on Soledad Canyon Road and its associated long-term noise level change would not be perceptible. Therefore, short-term construction-related worker commutes and equipment transport noise impacts would not be substantial.

Equipment Operation. The second type of short-term noise impact is related to noise generated during excavation, grading, and construction on the project site. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site. Therefore, the noise levels vary as construction progresses.

Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

Maximum Noise Levels. *Table 5.6-5, Typical Maximum Construction Equipment Noise Levels (L_{max})*, lists maximum noise levels recommended for noise impact assessments for typical construction equipment, based on a distance of 50 feet between the equipment and a noise receptor. Typical maximum noise levels range up to 91 dBA at 50 feet during the noisiest construction phases.

The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels, because the noisiest construction equipment is earth-moving equipment. Earth-moving and compacting equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders, as well as compacting equipment such as compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may be one or two minutes of full-power operation followed by three or four minutes at lower power settings.

Construction of the proposed project is expected to require the use of earthmovers, bulldozers, and water and pickup trucks. This equipment would be used on the project site. Based on *Table 5.6-5*, the maximum noise level generated by each earthmover on the proposed project site is assumed to be 88 dBA L_{max} at 50 feet from the earthmover. Each bulldozer would also generate 88 dBA L_{max} at 50 feet. The maximum noise level generated by water and pickup trucks is approximately 86 dBA L_{max} at 50 feet from these vehicles. Each doubling of a sound source with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, the worst-case combined noise level at each individual residence during this phase of construction would be 91 dBA L_{max} at a distance of 50 feet from the active construction area.

Table 5.6-5
Typical Maximum Construction Equipment Noise Levels (L_{max})

Type of Equipment	Range of Maximum Sound Level Measured at 50 feet (dBA)	Suggested Maximum Sound Level for Analysis at 50 feet (dBA)
Pile drivers, 12,000 to 18,000 ft-lb/blow	81–96	93
Rock drills	83–99	96
Jackhammers	75–85	82
Pneumatic tools	78–88	85
Pumps	74–84	80
Scrapers	83–91	87
Haul trucks	83–94	88
Cranes	79–86	82
Portable generators	71–87	80

Table 5.6-5 (continued)
Typical Maximum Construction Equipment Noise Levels (L_{max})

Type of Equipment	Range of Maximum Sound Level Measured at 50 feet (dBA)	Suggested Maximum Sound Level for Analysis at 50 feet (dBA)
Rollers	75–82	80
Dozers	77–90	85
Tractors	77–82	80
Front-end loaders	77–90	86
Hydraulic backhoes	81–90	86
Hydraulic excavators	81–90	86
Graders	79–89	86
Air compressors	76–89	86
Trucks	81–87	86
Source: Bolt, Beranek, & Newman. *Noise Control for Buildings and Manufacturing Plants.* 1987.		

The closest existing residences in the vicinity of the project area are located more than 200 feet from the project construction areas. There are no intervening structures between these homes and the project site. These closest residences may be subject to short-term noise reaching 79 dBA L_{max}, generated by construction activities near the project boundary. Compliance with the construction hours specified in the City's Noise Control Ordinance would be required.

Mitigation Measures:

N1 Construction shall be limited to the hours of 7:00 AM to 7:00 PM, Monday through Friday, and 8:00 AM to 6:00 PM on Saturday, in accordance with the City of Santa Clarita's Noise Control Ordinance. No construction activities shall be permitted outside of these hours or on Sundays and Federal holidays.

N2 During all site excavation and grading, the project contractor(s) shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.

N3 The project contractor(s) shall place all stationary construction equipment a minimum of 200 feet from any residential unit, so that emitted noise is directed away from sensitive receptors nearest the project site.

N4 The project contractor(s) shall locate equipment staging a minimum of 200 feet from any residential unit during all project construction.

***Level of Significance After Mitigation*:** Less Than Significant Impact**.**

SHORT-RANGE OPERATIONAL TRAFFIC NOISE

- ***DEVELOPMENT ASSOCIATED WITH PHASE I OF THE PROPOSED PROJECT COULD PERMANENTLY INCREASE TRAFFIC-RELATED NOISE IN THE PROJECT AREA.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: Exterior land uses on the project site that would be potentially exposed to high noise levels are the home lots fronting Soledad Canyon Road. The projected future traffic volumes (Austin-Foust Associates, Inc., June and August 2005) for roadway segments in the project vicinity are used in the traffic noise impact analysis.

The FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate future highway traffic-related noise conditions in the vicinity of the project site. *Table 5.6-6*, *Short-Range No Project Traffic Noise Levels*, provides the short-range baseline traffic noise levels. *Table 5.6-7*, *Short-Range Traffic Noise Levels with Project*, lists the short-range plus project traffic noise levels. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used in developing these noise levels and the model printouts are provided in the project's Noise Impact Analysis.

Table 5.6-7 shows that project-related traffic noise increases along roadway segments in the project vicinity would be mostly minimal and negligible (0.2 dBA or less), and these increases are less than the 3-dBA threshold normally perceptible by the human ear. No significant project-related traffic noise impacts on off-site land uses would occur. No mitigation measures would be required.

Based on the project's traffic study report, all internal roadways on-site, including the two driveways, would carry maximum daily trips of 3,926. Vehicle speeds on these internal roads are usually under 35 miles per hour (mph) or slower. However, even with the assumption of a vehicle speed at 45 mph, the 65-dBA CNEL would be within 24 feet of the roadway centerline. This range of distance is within the roadway right-of-way. No significant traffic noise impacts would occur from traffic on on-site roadways.

Based on the proposed project's Tract Map, all units located directly adjacent to and facing Soledad Canyon Road, as well as the project's commercial component, would be potentially exposed to high traffic noise from Soledad Canyon Road.

Table 5.6-6
Short-Range No Project Traffic Noise Levels

Roadway Segment	Average Daily Trips	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) @ 50 feet from Centerline of Outermost Lane
Bouquet Canyon north of Soledad Canyon	87,000	176	375	807	75.5
Bouquet Canyon south of Soledad Canyon	40,000	108	225	481	72.2
Valley Center between Soledad Canyon and Golden Valley Rd.	18,700	< 50[1]	75	161	66.9
Golden Valley Rd. south of Valley Center	15,000	< 50	99	210	67.6
Soledad Canyon west of Bouquet Canyon	54,000	130	274	587	73.5
Soledad Canyon east of Bouquet Canyon	63,000	143	303	651	74.1
Soledad Canyon west of proposed project	62,000	142	300	644	74.1

1. Traffic noise within 50 feet of roadway centerline requires site-specific analysis.

Source: LSA Associates. Inc., June 2005.

It is estimated that the property line of these frontline dwelling units would be 60 to 70 feet from the centerline of Soledad Canyon Road and would potentially be exposed to noise reaching 74 dBA CNEL. However, based on the project's site plan, no outdoor recreational use areas such as barbeques or swimming pools would be located between these buildings and the road. Therefore, noise mitigation for the open space between these buildings and Soledad Canyon Road is not required. However, if patios or balconies are proposed for the dwelling units fronting Soledad Canyon Road and are directly exposed to traffic on Soledad Canyon Road, they would be exposed to noise exceeding the City's 65-dBA CNEL noise standard for residential uses.

Outdoor Active Use Areas

Based on the above discussion, if outdoor active use areas such as patios or balconies are proposed for dwelling units along the southern project boundary, they would be exposed to traffic noise from 69 to 72 dBA CNEL. Such outdoor active use areas would be potentially exposed to exterior noise levels exceeding the City's exterior noise standard of 65 dBA CNEL. Therefore, noise barriers would be required along the perimeter of the patios or balconies of these dwelling units along and directly exposed to traffic on Soledad Canyon Road.

Table 5.6-7
Short-Range Traffic Noise Levels with Project

Roadway Segment	Average Daily Trips	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) @ 50 feet from Centerline of Outermost Lane	Increase from Baseline Conditions
Bouquet Canyon north of Soledad Canyon	87,000	176	375	807	75.5	0
Bouquet Canyon south of Soledad Canyon	40,000	108	225	481	72.2	0
Project Driveway #1 north of Soledad Canyon	500	< 50[1]	< 50	< 50	51.2	NA
Project Driveway #2 north of Soledad Canyon	2,200	< 50	< 50	< 50	57.6	NA
Valley Center between Soledad Canyon and Golden Valley Rd.	19,200	< 50	76	164	67	0.1
Golden Valley Rd. south of Valley Center	15,000	< 50	99	210	67.6	0
Soledad Canyon west of Bouquet Canyon	55,000	131	277	594	73.6	0.1
Soledad Canyon between Bouquet Canyon and Project Driveway #1	64,000	145	306	657	74.2	0.1
Soledad Canyon between Project Driveway #1 and Project Driveway #2	64,000	145	306	657	74.2	0.1
Soledad Canyon between Project Driveway #2 and Valley Center	63,000	143	303	651	74.1	0
Soledad Canyon east of Valley Center	63,000	143	303	651	74.1	0

NA = Not Applicable

1. Traffic noise within 50 feet of roadway centerline requires site-specific analysis.

Source: LSA Associates. Inc., June 2005.

For the ground floor front-line outdoor active use areas (patios), a sound barrier with a minimum wall height of six feet would be required to reduce the traffic noise level to 65 dBA CNEL or lower in the outdoor areas. In addition, if balconies or decks are proposed for these front-line dwelling units that are directly exposed to traffic noise from Soledad Canyon Road, a noise barrier with a minimum height of five feet would be required along the perimeter of balconies or decks. Balconies or decks on the side of the building facing away from the street or outside of the 65-dBA CNEL impact zone would not require sound wall protection. These modifications would also need to go through the City's architectural review process, to ensure they are visually compatible with the design of the buildings.

All other home lots that have on-site intervening structures blocking their direct line of sight to Soledad Canyon Road traffic would be outside the 65-dBA CNEL impact zone. No mitigation measures would be required for their outdoor active use areas.

Interior Noise Levels

Based on the data provided by the Environmental Protection Agency's (EPA) Protective Noise Levels (EPA 550/9-79-100, November 1979), standard homes in southern California provide at least 12 dBA of exterior to interior noise attenuation with windows open and 24 dBA with windows closed. Therefore, homes exposed to exterior traffic noise levels lower than 69 dBA CNEL (45 + 24 = 69 dBA) would not have their interior noise level exceed the 45-dBA CNEL standard with the windows closed. With the windows open, homes exposed to exterior traffic noise levels exceeding 57 dBA CNEL (45 + 12 = 57 dBA) would exceed the 45-dBA CNEL interior noise standard.

Based on the above discussion and the projected traffic noise levels on the southern Project boundary along Soledad Canyon Road, all front-line residential structures would be exposed to traffic noise below 69 dBA CNEL from roads adjacent to the Project site, except for dwelling units west of the western project driveway (70 dBA CNEL), the two units immediately west of Gladding Way (70 dBA CNEL), the unit immediately east of the proposed commercial component (71 dBA CNEL), and the three easternmost units (72 dBA CNEL). Building facade upgrades, such as windows with sound transmission class (STC) ratings higher than provided by standard building construction, would be required for homes proposed within these buildings. In addition, mechanical ventilation, such as an air-conditioning system, would be required for dwelling units along the Project's southern boundary to ensure that windows can remain closed for prolonged periods of time.

Standard windows provide up to STC-28 in noise attenuation. Depending on the distance to the centerline of Soledad Canyon Road, the required window STC ratings would vary among these dwelling units. The following lists the minimum STC rating recommended for the frontline dwelling units located adjacent to Soledad Canyon Road that would be exposed to traffic noise exceeding 69 dBA CNEL:

- STC-30 for all units west of the western project driveway and the two units immediately west of Gladding Way; and
- STC-32 for the four easternmost units east of Gladding Way.

With implementation of applicable mitigation measures, impacts to residential uses from mobile-source noise would be less than significant.

Commercial uses are not as noise-sensitive as residential uses. Therefore, the proposed retail use along Soledad Canyon Road would not be significantly affected by traffic noise and would not require any mitigation except for an air-conditioning system. With implementation of applicable mitigation measures for proposed commercial uses, impacts would be less than significant.

Mitigation Measures:

Outdoor Active Use Areas

The following mitigation measures would be required for outdoor active use areas associated with residential uses:

N5 A sound barrier with a minimum wall height of six feet shall be required for ground-floor front-line outdoor active use areas associated with the all dwelling units located directly adjacent to Soledad Canyon Road.

N6 Balconies or decks, if proposed for front-line dwelling units located directly adjacent to Soledad Canyon Road, shall require a noise barrier with a minimum height of five feet along the perimeter of balconies or decks (balconies or decks on the side of the building facing away from the street or outside of the 65-dBA CNEL impact zone shall not require sound wall protection).

Interior Noise Sound Wall

To meet the City's 45-dBA CNEL interior noise standard, the following mitigation measures would be required:

N7 Mechanical ventilation, such as an air-conditioning system, shall be required for all dwelling units along the project's southern boundary adjacent to Soledad Canyon Road to ensure that windows can remain closed for prolonged periods of time.

N8 Windows with STC-30 or higher shall be required for bedrooms of the dwelling units located adjacent to Soledad Canyon Road west of Gladding Way where no retaining walls are proposed between residential structures and the Soledad Canyon Road right-of-way.

N9 Windows with STC-32 or higher shall be required for bedrooms of dwelling units adjacent to Soledad Canyon Road east of Gladding Way.

N10 Mechanical ventilation, such as an air-conditioning system, shall be required for the commercial uses proposed on the project site.

Level of Significance After Mitigation: Less Than Significant Impact.

INTERIM YEAR (2015) OPERATIONAL TRAFFIC NOISE

- ***DEVELOPMENT ASSOCIATED WITH BUILDOUT OF THE PROPOSED PROJECT COULD PERMANENTLY INCREASE TRAFFIC-RELATED NOISE IN THE PROJECT AREA.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: The FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate future highway traffic-related noise conditions in the vicinity of the project site. *Table 5.6-8, Interim Year (2015) Traffic Noise Levels Without Project*, lists the future Interim Year (2015) no-project traffic noise levels adjacent to roadway segments in the project vicinity. *Table 5.6-9, Interim Year (2015) Traffic Noise Levels with Project*, provides the future Interim Year (2015) with-project traffic noise levels adjacent to roadway segments in the project vicinity. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used in developing these noise levels and the model printouts are provided in the project's Noise Impact Analysis.

Table 5.6-8
Interim Year (2015) Traffic Noise Levels Without Project

Roadway Segment	Average Daily Trips	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) @ 50 feet from Centerline of Outermost Lane
Bouquet Canyon north of Soledad Canyon	70,000	153	325	698	74.6
Bouquet Canyon south of Soledad Canyon	46,000	117	246	528	72.8
Valley Center between Soledad Canyon and Golden Valley Road	21,800	< 50[1]	83	178	67.6
Golden Valley Rd. north of Valley Center	42,000	91	194	417	72
Golden Valley Rd. south of Valley Center	20,000	58	119	254	68.8
Soledad Canyon west of Bouquet Canyon	57,000	134	284	609	73.7
Soledad Canyon east of Bouquet Canyon	35,000	99	206	440	71.6
Soledad Canyon west of proposed project	34,000	98	202	432	71.5
1. Traffic noise within 50 feet of roadway centerline requires site-specific analysis.					
Source: LSA Associates. Inc., June 2005.					

Table 5.6-9 shows that project-related traffic noise increases along roadway segments in the project vicinity would be mostly minimal and negligible (0.2 dBA or less), and these increases are less than the 3-dBA threshold normally perceptible by the human ear. No significant project-related traffic noise impacts on off-site land uses would occur. No mitigation measures would be required.

For a worst-case scenario, traffic noise under the Interim Year (2015) With Project condition is used to determine whether the project site would be exposed to any significant traffic noise impacts. *Table 5.6-9* shows that the 65 dBA CNEL would extend up to 214 feet from the centerline of Soledad Canyon Road.

It is estimated that the property line of these front-line dwelling units would be 60 to 70 feet from the centerline of Soledad Canyon Road and would potentially be exposed to noise reaching 74 dBA CNEL. However, based on the project's site plan, no outdoor recreational use areas such as barbeques or swimming pools would be located between these buildings

Table 5.6-9
Interim Year (2015) Traffic Noise Levels With Project

Roadway Segment	Average Daily Trips	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) @ 50 feet from Centerline of Outermost Lane	Increase from Baseline Conditions
Bouquet Canyon north of Soledad Canyon	71,000	155	328	704	74.7	0.1
Bouquet Canyon south of Soledad Canyon	46,000	117	246	528	72.8	0
Project Driveway #1 north of Soledad Canyon	900	< 50[1]	< 50	< 50	53.7	NA
Project Driveway #2 north of Soledad Canyon	3,400	< 50	< 50	52	59.5	NA
Valley Center between Soledad Canyon and Golden Valley Rd.	22,600	< 50	85	183	67.7	0.1
Golden Valley Rd. north of Valley Center	42,000	91	194	417	72	0
Golden Valley Rd. south of Soledad Canyon	21,000	59	123	263	69	0.2
Soledad Canyon west of Bouquet Canyon	58,000	136	287	616	73.8	0.1
Soledad Canyon between Bouquet Canyon & Proj. Drwy #1	37,000	103	214	457	71.8	0.2
Soledad Canyon between Project Driveways #1 and #2	37,000	103	214	457	71.8	0.2
Soledad Canyon between Proj. Driveway #2 and Valley Center	36,000	101	210	449	71.7	0.2
Soledad Canyon east of Valley Center	36,000	101	210	449	71.7	0.2

1. Traffic noise within 50 feet of roadway centerline requires site-specific analysis.

Source: LSA Associates. Inc., June 2005.

and the road. Therefore, no noise mitigation for the open space between these buildings and Soledad Canyon Road is required. However, if patios or balconies are proposed for the dwelling units fronting Soledad Canyon Road and are directly exposed to traffic on Soledad Canyon Road, they would be exposed to noise exceeding the City's 65-dBA CNEL noise standard for residential uses.

For a discussion of impacts related to outdoor active use areas and interior noise levels and interior noise levels, refer to the discussion under Short-Range Operational Traffic Noise Impacts.

Mitigation Measures: Refer to Mitigation Measures N1 through N10. No additional mitigation would be required.

Level of Significance After Mitigation: Less Than Significant Impact.

STATIONARY SOURCE NOISE

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT COULD PERMANENTLY INCREASE STATIONARY-SOURCE NOISE IN THE PROJECT AREA.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: Potential long-term stationary noise impacts would primarily be associated with operations at the future commercial uses on-site and special events at the nearby Saugus Speedway.

The proposed commercial uses would generate noise from truck deliveries, loading/unloading activities, and other activities at the parking lot. These activities are potential point sources of noise that could affect noise-sensitive receptors adjacent to the loading areas, such as the proposed residential uses on-site.

As previously discussed, the Saugus Speedway facility is a special event facility used for exhibitions, swap meets, and special events, including car races, demolition derbies, concerts, circuses, baseball and football games, fireworks, rodeos, fairs, or carnivals. Although there is no way to predict noise levels from any one event at the speedway, operators of the speedway attempt to keep noise levels at the speedway at or below 95 dBA.

As noise spreads from a source, it loses energy, so the farther away the noise receiver is from the noise source, the lower the perceived noise level is. Geometric spreading causes the sound level to be attenuate (reduced), resulting in a 6-dBA reduction in the noise level for each doubling of distance from a single-point source of noise (such as an idling truck) to the noise-sensitive receptor of concern. Although individual activity may generate relatively high and intermittent noise, when added to the typically lower ambient noise and averaged over a longer period of time, the cumulative noise level would be much lower and would be considered a less than significant impact.

The commercial uses would not have major loading/unloading areas on the east side adjacent to homes; the closest loading/unloading area would be more than 200 feet from the nearest homes. The 200-foot distance would result in a 12-dBA noise reduction (compared to the levels at 50 feet).

Truck Delivery and Loading/Unloading

Delivery trucks for the proposed on-site uses would result in a maximum noise similar to noise readings from loading and unloading activities for other commercial uses, which generate a noise level of 75 dBA L_{max} at 50 feet and are used in this analysis. Based on the above discussion, loading/unloading noise from the commercial uses would be reduced to below 63 dBA L_{max} at ground level at the nearest residences on-site. This range of maximum noise levels is lower than the typical exterior noise standards of 75 dBA L_{max} during the day (7:00 AM to 10:00 PM) and the 65 dBA L_{max} standard during the night (10:00 PM to 7:00 AM). Although a typical truck unloading process takes an average of 15 to 20 minutes, this

maximum noise level lasts a much shorter period of time—a few minutes. Therefore, the maximum noise level associated with loading and unloading activities at the loading areas would not exceed the typical standards at the nearest residences.

Parking Lot Activity

The shortest distance from on-site residences to the parking areas of commercial uses is approximately 50 feet. Representative parking activities, such as customers conversing and doors slamming, would generate approximately 60 dBA L_{max} at 50 feet. This level of noise is much lower than that of the truck delivery and loading/unloading activities and is not anticipated to be a significant noise issue with respect to residences adjacent to the commercial use area.

Saugus Speedway Events

Assuming a racing event at the Saugus speedway with a noise level of 95 dBA at 50 feet, given that noise attenuates at 6 dBA for every doubling of distance, noise levels at the closest proposed residences (at a distance of approximately 1,320 feet) would be between 65 and 70 dBA. Therefore, future residents of the proposed residential uses would experience exterior noise levels ranging from approximately 65 to 70 dBA for the duration of the event. However, noise from these permitted activities would be partly "drowned out" by traffic noise on Soledad Canyon Road. Nonetheless, there is a potential for a significant noise impacts on future project residents from activities at the speedway when they do occur, particularly during nighttime events when noise sensitivities are at their greatest. Residents experiencing the greatest amount of noise at the speedway would be those with residences along the western project boundary. Residents living further away and shielded by intervening structures would experience less noise. Noise from these activities may intermittently exceed noise standards and could result in temporary significant noise impacts on project residents. No mitigation exists that would reduce these potentially significant temporary, intermittent noise impacts to less than significant and, thus, they would be unavoidable. Mitigation is included below to inform future residents of the activities that can potentially occur at the Saugus Speedway facility, and that these activities may be audible on a temporary and intermittent basis.

***Mitigation Measures*:**

N11 Prior to sale of any residential units, future homeowners shall be informed via language in the disclosure documents of the presence of the Saugus Speedway facility, the types of events that can potentially occur at the speedway, the expected frequency of their occurrence, and that noise from events at the speedway may be intermittently audible at their properties during daytime, evening, and late night hours.

***Level of Significance After Mitigation*:** Significant and Unavoidable Impact.

METROLINK AND FREIGHT TRAIN-RELATED NOISE

- ***RAILROAD-RELATED NOISE COULD RESULT IN ADVERSE NOISE IMPACTS ON SENSITIVE RECEPTORS IN THE PROJECT AREA.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: As discussed in the Environmental Setting subsection, the current weekday Metrolink commuter operations of 12 trains from Lancaster to Los Angeles and 12 trains from Los Angeles to Lancaster that pass through the Santa Clarita area would result in a noise level of 63.4 dBA CNEL at 50 feet from the railroad track. The Union Pacific freight trains utilize the same railroad tracks as the Metrolink commuter trains, and are assumed to produce similar noise levels when passing the project site, although these trains do not operate on a set schedule. The project site is located approximately 200 feet from the nearest railroad tracks and is projected to be exposed to a 54.4-dBA CNEL noise level from Metrolink commuter trains and Union Pacific freight trains. This noise level is 15 to 18 dBA lower than traffic noise on Soledad Canyon Road, noise from which would serve to "mask" train-related noise. The additional commuter and freight train noise would not be measurable (less than 0.2 dBA) at the project site. No mitigation measures are required for train-related noise impacts on proposed residential uses at the project site.

Mitigation Measures: No mitigation would be required.

Level of Significance After Mitigation: Not applicable.

5.6.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS COULD RESULT IN CUMULATIVELY CONSIDERABLE NOISE IMPACTS.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: *Table 5.6-10*, *Cumulative (2030) Traffic Noise Levels Without Project*, lists the long-term cumulative (2030) no-project traffic noise levels adjacent to roadway segments in the project vicinity. *Table 5.6-11*, *Cumulative (2030) Traffic Noise Levels With Project*, provides the long-term cumulative (2030) with-project traffic noise levels adjacent to roadway segments in the project vicinity. Cumulative traffic-related noise levels are based on the cumulative 2030 traffic projections contained in the *Traffic Impact Analysis*, consistent with the Santa Clarita Valley Consolidated Traffic Model, which includes all foreseeable development potential within the Santa Clarita Valley. As is the case with the short-term and Interim Year scenarios, these noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn.

Table 5.6-10
Cumulative (2030) Traffic Noise Levels Without Project

Roadway Segment	ADT	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) 50 Feet from Centerline of Outermost Lane
Bouquet Canyon north of Soledad Canyon	80,000	167	355	763	75.2
Bouquet Canyon south of Soledad Canyon	43,000	113	236	505	72.5
Newhall Ranch Rd. east of Bouquet Canyon Rd.	42,000	91	194	417	72
Golden Valley Rd. south of Soledad Canyon	24,000	64	134	287	69.6
Soledad Canyon west of Bouquet Canyon	48,000	121	253	543	73
Soledad Canyon east of Bouquet Canyon	34,000	98	202	432	71.5
Soledad Canyon west of Golden Valley Rd.	36,000	101	210	449	71.7
Santa Clarita Parkway north of Soledad Canyon	29,000	89	182	389	70.8
Santa Clarita Parkway south of Soledad Canyon	38,000	104	217	465	71.9
Source: LSA Associates. Inc., August 2005.					

Table 5.6-11 illustrates that project-related traffic noise increases along roadway segments in the project vicinity from cumulative traffic would be mostly minimal and negligible (0.2 dBA or less), and these increases are less than the 3-dBA threshold normally perceptible by the human ear. As such, no significant cumulative traffic noise impacts on off-site land uses would occur, and no mitigation is required.

For a worst-case scenario, traffic noise under the long-term cumulative (2030) with-project condition is used to determine whether proposed uses on the project site would be exposed to any significant cumulative traffic noise impacts. *Table 5.6-11* shows that the 65-dBA CNEL contour would extend up to 210 feet from the centerline of Soledad Canyon Road east of Bouquet Canyon Road and up to 217 feet from the centerline of Soledad Canyon Road west of Golden Valley Road, respectively. Nonetheless, implementation of applicable mitigation measures related to outdoor active use areas and interior noise would reduce noise levels to an acceptable level. Therefore, impacts to proposed on-site uses from cumulative traffic noise would be less than significant.

Cumulative impacts related to construction activities, stationary source noise, and Metrolink-related noise would be limited to the specific area within which related cumulative projects are located. Because noise attenuates with distance, the construction, stationary source, and Metrolink-related noise effects associated with these related projects would not be cumulatively considerable.

Table 5.6-11
Cumulative (2030) Traffic Noise Levels With Project

Roadway Segment	ADT	Center-line to 70 CNEL (feet)	Center-line to 65 CNEL (feet)	Center-line to 60 CNEL (feet)	CNEL (dBA) 50 Feet from Centerline of Outermost Lane	Increase from Baseline Conditions
Bouquet Canyon north of Soledad Canyon	81,000	168	358	769	75.2	0
Bouquet Canyon south of Soledad Canyon	43,000	113	236	505	72.5	0
Newhall Ranch Rd. east of Bouquet Canyon Rd.	42,000	91	194	417	72	0
Golden Valley Rd. south of Soledad Canyon	25,000	66	138	295	69.8	0.2
Soledad Canyon west of Bouquet Canyon	49,000	122	257	550	73.1	0.1
Soledad Canyon east of Bouquet Canyon	36,000	101	210	449	71.7	0.2
Soledad Canyon west of Golden Valley Rd.	38,000	104	217	465	71.9	0.2
Santa Clarita Parkway north of Soledad Canyon	29,000	89	182	389	70.8	0
Santa Clarita Parkway south of Soledad Canyon	38,000	104	217	465	71.9	0
Source: LSA Associates. Inc., August 2005.						

Mitigation Measures: Refer to Mitigation Measures N5 through N11. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.6.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Even with implementation of all recommended mitigation measures, the proposed project would result in unavoidable significant impacts with regard to exposure of persons to noise levels in excess of standards established in the local General Plan or noise ordinance from stationary noise sources in the project area (i.e., the Saugus Speedway facility).

If the City of Santa Clarita approves the Soledad Village project, the City shall be required to adopt findings in accordance with Section 15091 of the *CEQA Guidelines* and prepare a Statement of Overriding Considerations in accordance with Section 15093 of the *CEQA Guidelines*.

With implementation of the applicable mitigation measures, all other potential short- and long-term noise impacts would be reduced to less than significant.

Section 5.7
HYDROLOGY AND WATER QUALITY

5.7 HYDROLOGY AND WATER QUALITY

This section of the EIR evaluates the impacts of the proposed project on hydrology and water quality. The discussion of hydrology and water quality impacts presented in this section is based on the assumptions, calculations, and analysis contained in the project's *Water Quality Technical Report*, performed by GeoSyntec Consultants (June 2005). The *Water Quality Technical Report* is included in its entirety as Appendix G.

5.7.1 REGULATORY FRAMEWORK

CLEAN WATER ACT

In 1972, the Federal Water Pollution Control Act [later referred to as the Clean Water Act (CWA)] was amended to require National Pollutant Discharge Elimination System (NPDES) permits for the discharge of pollutants to waters of the United States from any point source. In 1987, the CWA was amended to require that the United States Environmental Protection Agency (EPA) establish regulations for permitting of municipal and industrial stormwater discharges under the NPDES permit program. The EPA published final regulations regarding stormwater discharges on November 16, 1990. The regulations require that municipal separate storm sewer system (MS4) discharges to surface waters be regulated by a NPDES permit.

In addition, the CWA requires the States to adopt water quality standards for receiving water bodies and to have those standards approved by the EPA. Water quality standards consist of designated beneficial uses for a particular receiving water body (e.g. wildlife habitat, agricultural supply, fishing etc.), along with water quality criteria necessary to support those uses. Water quality criteria are prescribed concentrations or levels of constituents – such as lead, suspended sediment, and fecal coliform bacteria – or narrative statements which represent the quality of water that support a particular use. Because California had not established a complete list of acceptable water quality criteria, EPA established numeric water quality criteria for certain toxic constituents in receiving waters with human health or aquatic life designated uses in the form of the California Toxics Rule ("CTR") (40 CFR 131.38).

CWA Section 303(d) - TMDLs

When designated beneficial uses of a particular receiving water body are being compromised by water quality, Section 303(d) of the CWA requires identifying and listing that water body as "impaired". Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards (with a "factor of safety" included). Once established, the TMDL allocates the loads among current and future pollutant sources to the water body.

The project site discharges stormwater and runoff to Santa Clara River Reach 9_E. *Table 5.7-1, 2002 CWA Section 303(d) Listings for the Santa Clara River Mainstem*, lists the water quality impairments for the Santa Clara River mainstem as reported on the 2002 CWA Section 303(d) List of Water Quality Limited Segments. Reach 9_E of the Santa Clara River is listed for coliform. The Regional Board has not yet adopted a TMDL for coliform in Reach 9_E. Downstream segments of the river are listed for historical pesticides, chloride, coliform, Total Dissolved Solids (TDS), and for nitrogen compounds, including nitrate-nitrogen (nitrate-N), nitrite-nitrogen (nitrite-N), and ammonia (NH_3).

California Toxics Rule

The California Toxics Rule (CTR) is a federal regulation issued by the USEPA providing water quality criteria for potentially toxic constituents in receiving waters with human health or aquatic life designated uses in the State of California. CTR criteria are applicable to the receiving water body and therefore must be calculated based upon the probable hardness values of the receiving waters for evaluation of acute (and chronic) toxicity criteria. At higher hardness values for the receiving water, copper, lead, and zinc are more likely to be complexed (bound with) components in the water column. This in turn reduces the bioavailability and resulting potential toxicity of these metals.

Due to the intermittent nature of stormwater runoff (especially in Southern California), the acute criteria are considered to be more applicable to stormwater conditions than chronic criteria and therefore are used in assessing impacts. For example, the average storm duration in the 34-year Newhall gage rainfall record is 12 hours. Acute criteria represent the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects; chronic criteria equal the highest concentration to which aquatic life can be exposed for an extended period of time (four days) without deleterious effects.

Monitoring data in the Santa Clara River at Bouquet Junction (see discussion below) were evaluated for hardness, as this is the closest and most representative monitoring station to the project site. The minimum hardness value of 280 milligrams per liter (mg/L) as calcium carbonate ($CaCO_3$) was used to approximate CTR criteria for metals. The CTR criteria are used as one type of benchmark to evaluate the potential ecological impacts of runoff on the receiving waters.

CALIFORNIA PORTER-COLOGNE ACT

The federal CWA places the primary responsibly for the control of surface water pollution and for planning the development and use of water resources with the states, although it does establish certain guidelines for the states to follow in developing their programs and allows EPA to withdraw control from states with inadequate implementation mechanisms.

Table 5.7-1
2002 CWA Section 303(d) Listings for the Santa Clara River Mainstem

SCR Reach or Tributary	Geographic Description & Distance from project site to Upstream End of Reach	Pollutants	TMDL Priority	303(d) List Proposed TMDL Completion	Potential Sources	TMDL Status and Notes
9_E	Bouquet Cyn Road to Lang Gaging Station (project location)	High coliform count	Medium	None listed	Nonpoint and point sources	None.
8_E	West Pier Hwy 99 to Bouquet Cyn Rd (1 mile)	1) Chloride 2) High coliform count	1) High 2) Medium	1) 2002 2) None listed	Nonpoint and point sources	The Regional Board has adopted a Chloride TMDL into the Basin Plan. Note: Reach 8_E is on the 2002 State Monitoring List for impairment from organic enrichment/low dissolved oxygen. Inclusion on the Monitoring List suggests that standards are not being met, but available data are inconclusive.
7_E	Blue cut Gaging Station to West Pier Hwy 99 (6.2 miles)	1) Chloride 2) Ammonia 3) Nitrate and nitrite	1) High 2) High 3) Low	1) 2002 2) 2003 3) None listed	Nonpoint and point sources	The Regional Board has adopted a Nitrogen compound TMDL (including Ammonia) into the Basin Plan. The Regional Board has adopted a Chloride TMDL into the Basin Plan.
3_R	Freeman diversion dam to "A" street (34 miles)	1) Ammonia 2) Chloride 3) Total Dissolved Solids	1) High 2) High 3) Low	1) 2003 2) 2002 3) None listed	Nonpoint and point sources	The Regional Board has adopted a Nitrogen compound TMDL (including Ammonia) into the Basin Plan The EPA promulgated Chloride TMDLs for Reach 3_R. The EPA recommended that the State defer implementation of the TMDL until after adoption of a proposed Basin Plan amendment of the chloride objective for Reach 3_R. The Regional Board has developed a tentative Basin Plan amendment to revise the Reach 3_R chloride objective from 80 to 100 mg/L. The EPA supports this increase in the water quality objective. The status of TMDL development for TDS is unknown.
--	Estuary (49 miles)	1) ChemA[1] 2) Coliform 3) Toxaphene	1) Medium 2) Medium 3) Medium	None listed	1) Unknown Source 2) Nonpoint source 3) Nonpoint source	Draft documents are available for the Total Maximum Daily Loads for Santa Clara River Estuary Beach/Surfers' Knoll, McGrath State Beach, and Mandalay Beach Coliform and Beach Closures (07/18/2003).

[1]ChemA suite of chlorinated legacy pesticides include: aldrin, chlordane, dieldrin, endosulfan I/II, endrin, gamma-BHC, heptachlor, heptachlor epoxide, and toxaphene.

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resource Control Board (SWRCB) and each of the Regional Water Quality Control Boards (RWQCBs) power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the federal CWA. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its state water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

BASIN PLAN

The Los Angeles RWQCB's Basin Plan provides quantitative and narrative criteria for a range of water quality constituents applicable to certain receiving water bodies and groundwater basins within the Los Angeles Region. Specific criteria are provided for the larger, designated water bodies within the region, as well as general criteria or guidelines for ocean waters, bays and estuaries, inland surface waters, and groundwater basins. In general, the narrative criteria require that degradation of water quality does not occur due to increases in pollutant loads that would adversely impact the designated beneficial uses of a water body. For example, the Los Angeles Basin Plan (Basin Plan) requires that *"Inland surface waters shall not contain suspended or settleable solids in amounts which cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors."* Water quality criteria apply within receiving waters as opposed to applying directly to runoff; therefore, water quality criteria from the Basin Plan are utilized as benchmarks as one method to evaluate the potential ecological impacts of runoff on receiving waters.

The Basin Plan also contains water quality criteria for groundwater basins. For example, the Basin Plan requires that *"Ground waters shall not contain taste or odor producing substances in concentrations that cause nuisance or adversely affect beneficial uses."*

MS4 Permit

In 2001, the Los Angeles Regional Water Quality Control Board issued an NPDES Permit and Waste Discharge Requirements (Order No. 01-182) under the CWA and the Porter-Cologne Act for discharges of urban runoff from public storm drains in Los Angeles County. The Permittees are Los Angeles County and incorporated cities within the County (collectively "the Co-permittees"). This permit regulates stormwater discharges from MS4s in the project area. The NPDES permit details requirements for new development and

significant redevelopment, including specific sizing criteria for treatment Best Management Practices (BMPs) and flow control requirements.

To implement the requirements of the NPDES permit, the Co-permittees have developed development planning guidance and control measures that control and mitigate stormwater quality and quantity impacts to receiving waters as a result of new development and redevelopment. They are also required to implement other municipal source detection and elimination programs, as well as maintenance measures.

STORMWATER QUALITY MANAGEMENT PROGRAM

The MS4 Permit contains the following provisions for implementation of the Stormwater Quality Management Program (SQMP) by the Co-permittees:

- *General Requirements* – Each permittee is required to implement the SQMP to comply with applicable storm water program requirements and implement additional controls where necessary to reduce the discharge of pollutants in stormwater to the maximum extent practicable (MEP).
- *BMP Implementation* – Permittees are required to implement the most effective combination of BMPs for stormwater/urban runoff pollution control.
- *SQMP Revision* – Permittees are required to revise the SQMP to comply with regional, watershed-specific requirements, and/or waste load allocations for implementation of TMDLs for impaired water bodies.
- *Responsibilities of the Principal Permittee* – The responsibilities of the Los Angeles County Department of Public Works (as the Principal Permittee) include, but are not limited to, coordinating activities necessary to comply with the NPDES permit, providing personnel and fiscal resources for SQMP updates and annual reports and summaries of reports required under the SQMP, and implementing a County-wide Monitoring Program and evaluating results of the monitoring program.
- *Responsibilities of Permittees* – Each permittee is required to comply with the requirements of the SQMP applicable to the discharges within its boundaries.
- *Watershed Management Committees (WMCs)* – WMCs are comprised of a voting representative from each Permittee within the Watershed Management Areas (WMAs). WMCs are required to facilitate efforts and exchange of information between Permittees, establish additional goals for WMAs, prioritize pollution control efforts, monitor implementation of tasks designated for the WMA, and assess the effectiveness of and recommend revisions to the SQMP.
- *Legal Authority* – Permittees are granted the necessary legal authority to prohibit non-storm water discharges to the storm drain system.

The objective of the SQMP is to reduce pollutants in urban stormwater discharges to the "maximum extent practicable" in order to attain water quality objectives and to protect the beneficial uses of receiving waters in Los Angeles County. Special provisions are provided in the MS4 permit to facilitate implementation of the SQMP. These provisions include:

- *BMP Substitution* – Substitution of site-specific BMPs is allowed provided the alternative BMP would meet or exceed pollutant reduction of the original BMP, the fiscal burden of the original BMP is substantially greater than the proposed alternative, and the alternative BMP would be implemented within a similar time period.
- *Public Information and Participation Program (PIPP)* – This requires the permittee to identify how public education needs were determined, who is responsible for developing and implementing the program, and the method used to determine its effectiveness.
- *Industrial/Commercial Facilities Control Program* – This requires the permittee to develop a plan for managing stormwater runoff from industrial and commercial facilities. This program would track, inspect, and ensure compliance at industrial and commercial facilities that are sources of pollutants in storm water.
- *Development Planning Program* – This requires the permittee to implement a development-planning program that requires new development and redevelopment projects to minimize impacts from stormwater and urban runoff.
- *Development Construction Program* – This requires the permittee to implement a program to control runoff from construction activity to minimize erosion and transportation of sediment and prevent non-stormwater discharges from equipment and vehicle washing.
- *Public Agency Activities Program* – This requires municipalities to evaluate existing public agency activities that have an impact on stormwater quality (such as vehicle maintenance, landscape maintenance and weed control, and construction and maintenance of streets, roads, and flood control systems) and to develop a program to reduce stormwater impacts with a schedule for implementation.
- *Illicit Connections and Illicit Discharges Elimination Program* – This requires each permittee to have a plan for finding and preventing illegal connections and discharges and a mechanism for enforcing against illegal connections and discharges.

STANDARD URBAN STORMWATER MITIGATION PLAN

On March 8, 2000, the development planning program requirements, including the Standard Urban Stormwater Mitigation Plan requirements (collectively, development planning program requirements, including Standard Urban Stormwater Mitigation Pan requirements, are referred to in this report as SUSMP requirements) were approved by the RWQCB as part of the MS4 program to address stormwater pollution from new construction and redevelopment. The SUSMP contains a list of minimum BMPs that must be employed to infiltrate or treat stormwater runoff, control peak flow discharge, and reduce the post-project discharge of pollutants from stormwater conveyance systems. The SUSMP defines, based upon land use type, the types of practices that must be included and issues that must be addressed, as appropriate, relative to the development type and size. Compliance with SUSMP requirements is used as one method to evaluate significance of development impacts on surface water runoff.

Finalized in May 2000, the County of Los Angeles' *Manual for the Standard Urban Stormwater Mitigation Plan* details the requirements for new development and significant redevelopment BMPs (the "Manual"). The Manual is a model guidance document for use by Permittees and individual project owners to select post-construction BMPs and otherwise comply with the SUSMP requirements. It addresses water quality and drainage issues by specifying design standards for structural or treatment control BMPs that infiltrate or treat stormwater runoff and control peak flow discharge. BMPs are defined in the Manual and SUSMP requirements as any program, technology, process, sizing criteria, operational methods or measures, or engineered systems, which, when implemented, prevent, control, remove, or reduce pollution. Treatment BMP design criteria and guidance are also contained in the MS4 Permit, the Manual, and in the *Technical Manual for Stormwater Best Management Practices in the County of Los Angeles*, issued by the Department of Public Works in February 2004.

One of the most important requirements within the SUSMP is the specific sizing criteria for stormwater treatment BMPs for new development and significant redevelopment projects. The SUSMP includes sizing criteria for both volume-based and flow-based BMPs.

Also, the SUSMP includes general design specifications for individual priority project categories. These include:

- Single-Family Hillside Home;
- 100,000 square foot commercial developments;
- Restaurants;
- Retail gasoline outlets;
- Automotive repair shops; and
- Parking lots.

For example, commercial developments must have properly designed loading and unloading dock areas, repair and maintenance bays, and vehicle equipment wash areas. Restaurants need to have properly designed equipment and accessory wash areas. Parking lots have to be properly designed to limit oil contamination and have regular maintenance of parking lot stormwater treatment systems (e.g., storm drain filters and biofilters).

Hydromodification and Peak Flow Control

Part 4. Section D.1. of the MS4 Permit notes that increased volume, velocity, and discharge duration of stormwater runoff from developed areas may potentially accelerate downstream erosion and impair habitat-related beneficial uses in Natural Drainage Systems. As a result, Section D.1. of the Permit stipulates that Permittees shall control post-development peak storm water runoff discharge rates, velocities and durations in Natural Drainage Systems to prevent accelerated stream erosion and to protect stream habitat. Natural Drainage Systems are defined by the Permit to include the Santa Clara River.

Further, under Part 4, § D.1 of the MS4 Permit, the County and its co-permittees, including the City of Santa Clarita, were required to develop and implement by February 1, 2005, numeric criteria for peak flow control in accordance with the findings of the *Peak Discharge*

Impact Study analyzing the potential impacts on natural streams due to impervious development. The County of Los Angeles Department of Public Works and the Southern California Storm Water Monitoring Coalition have been conducting the study, but the study was not completed in time to meet the February 1st deadline. Therefore, on January 31, 2005, the County adopted and submitted to the LARWQCB an Interim Peak Flow Standard to be in effect until such time as a final standard can be adopted based on a completed study.

The adopted Los Angeles County Interim Peak Flow Standard was derived from a similar Interim Peak Flow Standard for Ventura County approved by the LARWQCB under the SUSMP requirements provisions of the MS4 Permit. The intent of the Interim Standard is to provide protection for natural streams to the extent supported by findings from the ongoing study, consistent with practical construction practices.

Construction Permits

Pursuant to the CWA Section 402(p) requiring regulations for permitting of certain stormwater discharges, the SWRCB has issued a statewide general NPDES Permit and Waste Discharge Requirements for stormwater discharges from construction sites ((NPDES No. CAS000002) California Water Resources Control Board Resolution No. 2001-046; Modification of Water Quality Order 99-08-DWQ SWRCB NPDES General Permit for Stormwater Discharges Associated with Construction Activity (adopted by the SWRCB on April 26, 2001)).

Under this Construction General Permit, discharges of stormwater from construction sites with a disturbed area of one or more acres (effective March 2003) are required to either obtain individual NPDES permits for stormwater discharges or be covered by the Construction General Permit. Coverage under the Construction General Permit is accomplished by completing and filing a Notice of Intent with the SWRCB. Each applicant under the Construction General Permit must ensure that a Stormwater Pollution Prevention Plan (SWPPP) is prepared prior to grading and implemented during construction. The primary objective of the SWPPP is to identify, construct, implement, and maintain BMPs to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the construction site during construction. Compliance with the requirements of the Construction General Permit is used as one method to evaluate project construction-related impacts on surface water quality.

General Waste Discharge Requirements for Dischargers of Groundwater From Construction and Project Dewatering

The Los Angeles Regional Water Quality Control Board has issued a General NPDES Permit and General Waste Discharge Requirements (WDRs) (Order No. R4-2003-0111, NPDES No. CAG994004) governing construction-related dewatering discharges within the project development areas (the "General Dewatering Permit.") This permit addresses discharges from temporary dewatering operations associated with construction and permanent dewatering operations associated with development. The discharge requirements include provisions mandating notification, sampling and analysis, and reporting of dewatering and testing-related discharges. The General Dewatering Permit authorizes such construction-

related activities so long as all conditions of the permit are fulfilled. Compliance with the requirements of the General Dewatering Permit is used as one method to evaluate project construction-related impacts on surface water quality.

Discharge of Fill or Dredge Materials

Hydrologic conditions of concern include in-stream changes in sediment transport, erosion, and sedimentation, and ultimately channel stability. There is a nexus between these concerns and the stream, habitat, and species protection programs administered by the United States Army Corps of Engineers (ACOE), California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service.

Section 404 of the Federal CWA is a program that regulates the discharge of dredged and fill material into waters of the United States, including wetlands. Activities in waters of the United States that are regulated under this program include fills for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and conversion of wetlands to uplands for farming and forestry. EPA and the ACOE have issued Section 404(b)(1) Guidelines (40 CFR 230) that regulate dredge and fill activities, including water quality aspects of such activities. Subpart C at Sections 230.20 thru 230.25 contains water quality regulations applicable to dredge and fill activities. Among other topics, these guidelines address discharges that alter substrate elevation or contours, suspended particulates, water clarity, nutrients and chemical content, current patterns and water circulation, water fluctuations (including those that alter erosion or sediment rates), and salinity gradients.

Section 401 of the CWA requires that any person applying for a federal permit or license which may result in a discharge of pollutants into waters of the United States must obtain a state water quality certification that the activity complies with all applicable water quality standards, limitations, and restrictions. Subject to certain limitations, license or permit may be issued by a federal agency until certification required by Section 401 has been granted. Further, no license or permit may be issued if certification has been denied. CWA Section 404 permits and authorizations are subject to section 401 certification by the RWQCBs.

The banks of the Santa Clara River adjacent to the project site were previously stabilized in accordance with the Natural River Management Plan (NRMP).

LAKE OR STREAMBED ALTERATION AGREEMENT (LSAA)

The CDFG is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the law requires the proponent of a project that may impact a river, stream, or lake to notify the CDFG before beginning the project. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation.

Section 1602 of the Fish and Game Code requires any person who proposes a project that would substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or use materials from a streambed to notify the CDFG before beginning the project. Similarly, under section 1602 of the Fish and Game Code, before any State or local governmental agency or public utility begins a construction project that would: 1) divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake; 2) use materials from a streambed; or 3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake, it must first notify the CDFG of the project. If the CDFG determines that the project may adversely affect existing fish and wildlife resources, a Lake or Streambed Alteration Agreement is required.

Natural River Management Plan (NRMP)

On November 30, 1998, the ACOE, CDFG and the RWQCB approved the Natural River Management Plan (NRMP) for the Santa Clara River. The NRMP is a long-term, master plan that provides for the construction of various infrastructure improvements on lands adjacent to the Santa Clara River and portions of two of its tributaries. More specifically, the NRMP governs a portion of the main-stem of the Santa Clara River from Castaic Creek to one-half mile east of the Los Angeles Department of Water and Power Aqueduct, portions of San Francisquito Creek, and the Santa Clara River South Fork. The project site is located within the portion of the river now governed by the NRMP.

In connection with this approval, the following permits were issued by the following agencies:

- ACOE – Permit No. 94-00504-BAH under Section 404 of the Federal Clean Water Act. Section 404 of the Federal Clean Water Act allows for certain activities that result in the discharge of fill or dredged materials into "Waters of the U.S." or in this case the Santa Clara River. Prior to issuing this permit, the ACOE had completed an Endangered species consultation (pursuant to Section 7 of the Federal Endangered Species Act) with the United States Fish and Wildlife Service.

- CDFG – 1603 Streambed Alteration Agreement No. 5-502-97 and Incidental Take Permit No. 2081-1998-49-5. In summary, the Streambed Alteration Agreement allows for activities that alter the *"…natural flow or change the bed, channel or bank of the river…."* The Incidental Take Permit applies to all state listed species pursuant to Fish and Game Code Section 2081(b).

- California Regional Water Quality Control Board (Los Angeles Region) (RWQCB) – Order No. 99-104 related to waste discharge associated with the improvements included in the NRMP.

The permits issued by the affected agencies (ACOE, CDFG, RWQCB) allow project developers to engage in construction and maintenance activities for the various infrastructure improvements included within the NRMP. Those improvements may include the bank stabilization, toe or erosion protection, various outlet structures, and bridge structures. The NRMP, through its permits and EIR/EIS, includes certain requirements/conditions and mitigation measures associated with the implementation of the improvements.

Prior to initiating an individual project under the NRMP, project applicants must submit to the ACOE and CDFG a Verification Request Letter (VRL), VRL Variance or Request for Amendment and accessory documentation (maps, exhibits, photographs, etc.) showing that the particular planned improvement is consistent with the NRMP and the accessory agency permits. Upon submittal of the VRL, the ACOE and CDFG have 45 days in which to make their determination on the individual project's consistency with the NRMP and accessory agency permits. The ACOE and CDFG approvals of the request constitute the final approvals from ACOE, CDFG and RWQCB to initiate construction of the project.

The banks of the Santa Clara River adjacent to the project site were previously stabilized in accordance with the NRMP, as indicated above.

5.7.2 ENVIRONMENTAL SETTING

The project site lies in the center of the City of Santa Clarita, adjacent to the Santa Clara River, and is located north of Soledad Canyon Road, south of the Santa Clara River, east of Bouquet Canyon Road, and west of the Greenbrier Mobile Home Park.

The project site lies upstream from two water reclamation plants: the Saugus Water Reclamation Plant is located downstream from the project site, across Bouquet Canyon Road at Soledad Canyon Road, and the Valencia Water Reclamation Plant is located farther downstream. Both treatment plants discharge treated wastewater into reaches of the river lying downstream from the project site, which has implications relative to water quality in the watershed.

SURFACE RECEIVING WATER BODIES AND BENEFICIAL USES

Santa Clara River

The project site discharges surface runoff directly to Santa Clara River Reach 9_E. The project site consists of a 33.2-gross-acre drainage area within the 1,618-square-mile Santa Clara River Basin Watershed. The project site drains to that portion of the Santa Clara River designated as Reach 7 by the Los Angeles Regional Water Quality Control Board (LARWQCB) and as Reach 9 by the U.S. Environmental Protection Agency (EPA) (for convenience, this reach of the river would generally be referred to as Reach 9_E); this reach extends from the Lang Gauging Station (to the east and upstream of the project site, downstream of Agua Dulce Canyon Creek) to Bouquet Canyon Road Bridge (located approximately one mile west and downstream of the project site). Reach 9_E has intermittent low surface flows created by larger storm events. Its intermittent flows occur generally only during the "rainy" season during and immediately after storm events of sufficient size to cause flows. Completely natural flows in the river only occur in the winter due to storm runoff. Reach 9_E contains relatively little water when compared to other reaches of the river during non-flood conditions. Non-storm flows within Reach 9_E are localized, and primarily result from man-made sources. Therefore, under dry-weather (i.e., non-storm flow, excluding storm events) conditions, Reach 9_E flows do not impact downstream reaches of the river. When water is present in this reach, it is almost always during the rainy winter months and typically lasts only for a few days after a storm event large enough to create flow.

The Water Quality Control Plan for the Los Angeles Region (Basin Plan) (LARWQCB, 1994, as amended) lists beneficial uses of major water bodies within this region, as shown in *Table 5.7-2*, *Beneficial Uses of Surface Receiving Waters*. Santa Clara River Reach 9_E is listed and has specific beneficial uses assigned to it.

Table 5.7-2
Beneficial Uses of Surface Receiving Waters

Water Body	Beneficial Uses[1]														
	MUN	IND	PROC	AGR	GWR	FRSH	REC1	REC2	WARM	COLD	WILD	RARE	MIGR	SPWN	WET[1]
Santa Clara River (Hydrologic Unit 403.51)	P*	E	E	E	E	E	E	E	E		E	E			E

[1]Waterbodies designated as WET may have wetlands habitat associated with only a portion of the water body. Any regulatory action would require a detailed analysis of the area.
E – Existing beneficial use; P – Potential beneficial use; *Asterixed MUN designations are designated under SB 88-63 and RB 89-03. Some designations may be considered for exemptions at a later date.
Source: Water Quality Control Plan for the Los Angeles Region (Basin Plan) (LARWQCB, 1994 as amended)

As identified in *Table 5.7-2*, the existing and potential beneficial uses of Santa Clara River Reach 9_E include the following:

- MUN: Community, military, or individual water supply systems including, but not limited to, drinking water supply (a potential beneficial use);
- IND: Industrial activities that do not depend primarily on water quality;
- PROC: Industrial activities that depend primarily on water quality;
- AGR: Agricultural supply waters used for farming, horticulture, or ranching;
- GWR: Groundwater recharge for natural or artificial recharge of groundwater;
- REC1: Water contact recreation involving body contact with water and ingestion is reasonably possible;
- REC2: Non-contact water recreation for activities in proximity to water, but not involving body contact;
- WARM: Warm freshwater habitat to support warm water ecosystems;
- WILD: Wildlife habitat waters that support wildlife habitats;
- RARE: Waters that support rare, threatened, or endangered species and associated habitats; and
- WET: Wetland ecosystems.

EXISTING SURFACE RECEIVING WATER QUALITY

The existing wet weather surface water quality in the project region was characterized from available water quality monitoring data obtained from the following three sources:

1. *USGS Monitoring-Bouquet Junction*. The United States Geologic Survey (USGS) collected water quality data in Santa Clara River (SCR) at Bouquet Junction from 1974 to 1976, which is about one mile downstream of the western edge of the project site. While these data are limited and may not be fully representative of current conditions, they are the most relevant in terms of characterizing the existing stormwater runoff within the project vicinity.

2. *LA County Monitoring*. The County of Los Angeles recently initiated in-stream monitoring on the mainstem of the SCR at this mass emission station downstream of the project site. Both dry-weather and wet-weather monitoring data are available. The LA County monitoring data are the most current and are the only source of wet-weather monitoring in the SCR immediately downstream of the project area.

3. *USGS Monitoring-County Line*. The USGS collected a large number of water quality data in the SCR near the county line, from 1951 through 1995. These data provide a historical perspective of wet weather water quality in the SCR downstream from the project vicinity.

USGS Monitoring Data - Bouquet Junction

The United States Geologic Survey (USGS) collected water quality data in Santa Clara River (SCR) at Bouquet Junction from 1974 to 1976, which is about one mile downstream of the western edge of the project site. Although these data are dated and may not be fully representative of current conditions within the Santa Clara River at Bouquet Junction, they are the only data available within Santa Clara River Reach 9_E, and therefore are summarized below for later comparison to stormwater modeling results.

Hardness. Average hardness concentrations for storm flow conditions ranged from 280 to 340 mg/L as $CaCO_3$, which represents a relatively hard water typical of wet weather stream flows in Southern California.

TSS. TSS concentrations were not measured at this USGS monitoring station. High TSS loads in storm flows can be expected and are observed in other stations due to highly erodible, sandy alluvial soils found in the Santa Clara River watershed.

Chloride. Average chloride concentrations at the Bouquet Junction Station were between 100 to 120 mg/L in storm flows. For all storm events, chloride concentration averaged 110 mg/L, which is greater than the Basin Plan water quality objective of 100 mg/L.

Los Angeles County Department of Public Works Monitoring Data

The Los Angeles County Department of Public Works (LACDPW) initiated dry- and wet-weather monitoring in the Santa Clara River in the 2002/2003 season. The monitoring station (S29) is located in Santa Clara River Reach 8_E at The Old Road. It is more than two miles downstream from the western boundary of the project site. The monitoring station is downstream of the Saugus Water Reclamation Plant and upstream of the Valencia Water Reclamation Plant. The monitoring station is intended to provide long-term information about water quality trends in areas with heterogeneous land uses and has a tributary area of 411 square miles. Land use in the tributary area is 87 percent open space, 4.3 percent urban development, and 8.7 percent other land uses.

Monitoring at the mass emission station in 2002-2003 included four storm events. The depth of each of the storms was greater than the median storm depth for the Newhall rain gage (0.70 inches). Due to large storm sizes, pollutant concentrations of samples may be highly diluted and not representative of concentrations in more frequent storm events. During large storm events, samples taken after the initial wash off of pollutants would generally have much lower pollutant concentrations. Also, groundwater effects, which increase hardness, are highly diluted. For these reasons, the SCR Mass Emission station was used as the most stringent benchmark for comparison of post-development pollutant concentrations.

Comparison of in-stream, wet-weather monitoring data with the USGS monitoring data at the Los Angeles/Ventura County line indicates the following:

TSS. The average instream TSS concentration at Station S29 was considerably lower than the average TSS concentrations measured downstream at the USGS station.

Hardness and Chloride. The average instream concentrations of hardness and chloride at Station 29 were much less than the average concentrations measured at the USGS station.

Nutrients. Instream nutrient concentrations were generally low. Ammonia data was not collected at the USGS monitoring station. The average instream nitrate concentration at Station 29 was lower, but generally comparable with the average concentration at the USGS monitoring station.

Indicator Bacteria. The average instream bacteria concentrations at Station S29 were very high.

USGS Monitoring Data – County Line

The US Geological Survey (USGS) has collected stream flow and water quality data at a number of locations in the SCR watershed. Among the largest data sets are flow and water quality data collected at USGS station 11108500, located on the Santa Clara River just downstream of the Los Angeles/Ventura County Line. This station is located approximately 12 miles downstream of the project site.

The USGS collected water quality data at the Los Angeles/Ventura County Line station between April 1951 and October 1995. These data thus provide an historical perspective of water quality in the SCR within the watershed subregion. Comparison of the historical water quality data at the USGS County Line station with the wet weather monitoring data from the other two stations discussed above indicates the following:

Hardness. Average hardness concentrations for storm flow conditions ranged from 250 to 1,500 mg/L as $CaCO_3$, with lower concentrations corresponding with larger antecedent rainfall depths. Lower values occur in larger rain events due to the extended dilution of the harder groundwater. Hardness values from the SCR Mass emission station are much lower than the USGS County Line station. This may be caused by the increased tributary flow that enters the SCR downstream of the mass emission station, and it also may be caused by dilution effects caused by Water Reclamation Plants upstream from the mass emission station. Hardness values from Bouquet Junction, upstream to the SCR mass emission station and closest to the project area show much higher values than the mass emission station and low-end values of the USGS County Line station, and are more representative of site conditions.

TSS. TSS concentrations at the USGS monitoring station increased substantially in storm flows and were generally in the range of 2,000 to 10,000 mg/L. This concentration is much higher than the concentration at the SCR mass emission station, for similar reasons as above.

TDS. The average TDS concentrations at the USGS station ranged from about 800 mg/L to 1,400 mg/L for storm flows. Again, this number is higher than the mass emission station and is most likely related to inflow of groundwater from the tributaries to the SCR.

Chloride. Average chloride concentrations at the USGS station were about 60 mg/L to 122 mg/L for storm flows. Chloride levels were higher, on average, for smaller storm events, again due to dilution effects. For all storm events, chloride concentration averaged 89 mg/L.

Phosphorus. Average total phosphorus (TP) concentrations at the USGS station were about 1.0 to 1.3 mg/L and appear to be somewhat independent of storm event size, and represent slightly higher values than at the SCR mass emission station.

Nitrogen. The average nitrate-N + nitrite-N concentration at the USGS station varied from 2.1 mg/L for lower storm flows to 1.7 mg/L for higher storm flows, and was similar to monitoring data at the SCR mass emission station.

Metals. Available data for trace metals at the USGS station are limited. For copper and lead, there were a considerable number of non-detects with very high detection limits.

Fecal Indicator Bacteria (FIB). There were only four measurements of fecal coliform concentration corresponding to storm flows at the USGS station, and the single measurement corresponding to large storm flows showed an elevation in fecal coliform levels.

Pesticides. Diazinon was detected in one wet weather sample in the historical data.

GROUNDWATER

The geology within and adjacent to the project area consists of relatively thin alluvial deposits (Alluvium) overlying a deeper, relatively thick Saugus Formation. Both the Alluvium and Saugus Formation contain water-bearing sediments capable of becoming saturated so as to provide water to wells. These water-bearing sediments constitute the local "groundwater reservoir" for the Santa Clarita Valley. The upper basin, called the Alluvium or Alluvial Aquifer, generally underlies the Santa Clarita Valley and side canyons. The main river valley consists of medium-grained sand on the west to cobbly sand in the east. Due to the unconsolidated to poorly consolidated condition of the Alluvium, and its lack of cementation, the Alluvium has relatively high permeability and porosity.

The project area is within the Santa Clarita Valley Groundwater Basin, East Subbasin and is located in the Bouquet and San Francisquito Canyon division of that subbasin. Beneficial uses for groundwaters for this subbasin are shown in *Table 5.7-3*, *Beneficial Uses of Groundwater*.

Table 5.7-3
Beneficial Uses of Groundwater

Groundwater Basin	MUN	IND	PROC	AGR	AQUA*
DWR 4.07 - Eastern Santa Clara Sub-basin: Santa Clara-Bouquet and San Francisquito Canyons	E	E	E	E	

E-Existing Beneficial Use
*Beneficial Use Definitions are provided above with the exception of AQUA – Uses of water for aquaculture or mariculture operations including, but not limited to, propagation, cultivation, maintenance, or harvesting of aquatic plants and animals for human consumption or bait purposes.
Source: Water Quality Control Plan for the Los Angeles Region (Basin Plan) (LARWQCB, 1994 as amended)

POLLUTANTS OF CONCERN

Surface Water Pollutants of Concern

Primary Pollutants of Concern

Pollutants of concern consist of any pollutants that exhibit one or more of the following characteristics: current loadings or historic deposits of the pollutant are impacting the beneficial uses of a receiving water, elevated levels of the pollutant are found in sediments of a receiving water and/or have the potential to bioaccumulate in organisms therein, or the detectable inputs of the pollutant are at concentrations or loads considered potentially toxic to humans and/or flora and fauna. Bioaccumulation is the net accumulation of a contaminant in an organism from all sources, including air, water and food. The pollutants of concern for the water quality analysis are those that are anticipated or potentially could be generated by the project at concentrations, based on water quality data collected in Los Angeles County from land uses that are the same as those proposed by the project, that exhibit these characteristics. Identification of the pollutants of concern for the project considered proposed land uses, current 303(d) listings and TMDLs in the Santa Clara River, as well as pollutants that have the potential to cause toxicity or bioaccumulate in the project's receiving waters.

The following pollutants were chosen as pollutants of concern for purposes of evaluating water quality impacts based upon the above considerations:

Sediments (TSS and Turbidity): Excessive erosion, transport, and deposition of sediment in surface waters are a significant form of pollution resulting in major water quality problems. Sediment imbalances impair waters' designated uses. Excessive sediment can impair aquatic life by filling interstitial spaces of spawning gravels, impairing fish food sources, filling rearing pools, and reducing beneficial habitat structure in stream channels. In addition, excessive sediment can cause taste and odor problems in drinking water supplies and block water intake structures.

Nutrients (Phosphorus and Nitrogen [Nitrate+Nitrite-N and Ammonia-N]): Nutrients are inorganic forms of nitrogen (nitrate, nitrite and ammonia) and phosphorus. Organic forms of nitrogen are associated with vegetative matter such as particulates from sticks and leaves. Inorganic forms of nitrogen include nitrate, nitrite and ammonia. Total Nitrogen (TN) is a measure of all nitrogen present, including inorganic and particulate forms. There are several sources of nutrients in urban areas, mainly fertilizers in runoff from lawns, pet wastes, failing septic systems, and atmospheric deposition from industry and automobile emissions. Nutrient over-enrichment is especially prevalent in agricultural areas where manure and fertilizer inputs to crops significantly contribute to nitrogen and phosphorus levels in streams and other receiving waters. Eutrophication due to excessive nutrient input can lead to changes in algae, benthic, and fish communities; extreme eutrophication can cause hypoxia or anoxia, resulting in fish kills. Surface algal scum, water discoloration, and the release of toxins from sediment can also occur.

Various downstream reaches of the Santa Clara River are identified as impaired by ammonia and nitrate- plus nitrite-nitrogen. Evidence of impairment includes low diversity of benthic macroinvertebrates and observations of excessive algae growth. A source analysis found that the majority of ammonia and nitrate/nitrite loads are from point sources; primarily water reclamation plants (WRPs). Sources from municipal storm sewers are considered a minor source, but have a potential to cause significant local effects on water quality. TMDLs have been developed and adopted into the Basin Plan for ammonia and nitrate/nitrite compounds.

Trace Metals (Copper, Lead, and Zinc): The primary sources of trace metals in stormwater are typically commercially available metals used in transportation (e.g. automobiles), buildings, and infrastructure. Metals are also found in fuels, adhesives, paints, and other coatings. Copper, lead, and zinc are the most prevalent metals typically found in urban runoff. Other trace metals, such as cadmium, chromium, and mercury, are typically not detected in urban runoff or are detected at very low levels. Metals are of concern because of the potential for toxic effects on aquatic life and the potential for ground water contamination. High metal concentrations can lead to bioaccumulation in fish and shellfish and affect beneficial uses of receiving waters.

Pathogens (Bacteria, Viruses, and Protozoa): Elevated pathogens are typically caused by the transport of domestic animal, wildlife, or human fecal wastes from the watershed. Runoff that flows over land such as urban runoff can mobilize pathogens, including bacteria and viruses. Even runoff from natural areas can contain pathogens (e.g., from wildlife). Other

sources of pathogens in urban areas include pets and leaky sanitary sewer pipes. The presence of pathogens in runoff can impair receiving waters and contaminate drinking water sources. Elevated pathogens are typically caused by the transport of animal or human fecal wastes from the watershed. Historically an indicator organism such as fecal coliform has been used for pathogens due to the difficulty of monitoring for pathogens directly. More recently, the scientific community has questioned the use of indicator organisms, as scientific studies have shown no correlation between indictor and pathogen levels and therefore total and fecal coliform may not indicate a significant potential for causing human illness. Santa Clara River Reach 9_E is identified as impaired by high fecal coliform counts from point and non-point sources. Coliform TMDLs have not yet been developed for this river reach.

Petroleum Hydrocarbons (Oil and Grease and PAHs): The sources of oil, grease, and other petroleum hydrocarbons in urban areas include spillage fuels and lubricants, discharge of domestic and industrial wastes, atmospheric deposition, and runoff. Runoff can be contaminated by leachate from asphalt roads, wearing of tires, and deposition from automobile exhaust. Also, do-it-yourself auto mechanics may dump used oil and other automobile-related fluids directly into storm drains. Petroleum hydrocarbons, such as polycyclic aromatic hydrocarbons (PAHs), can bioaccumulate in aquatic organisms from contaminated water, sediments, and food and are toxic to aquatic life at low concentrations. Hydrocarbons can persist in sediments for long periods of time and result in adverse impacts on the diversity and abundance of benthic communities. Hydrocarbons can be measured as total petroleum hydrocarbons (TPH), oil and grease, or as individual groups of hydrocarbons, such as PAHs.

Pesticides: Pesticides (including herbicides, insecticides and fungicides) are chemical compounds commonly used to control insects, rodents, plant diseases, and weeds. Excessive application of a pesticide may result in runoff containing toxic levels of its active component. Pesticides may be classified as organochlorine pesticides or organophosphorus pesticides, the former being associated with persistent bioaccumulative pesticides (e.g., DDT and other legacy pesticides), which have been banned. The Santa Clara River estuary is listed as impaired for legacy pesticides. Organophosphorus pesticides include diazinon and chlorpyrifos whose uses also are being restricted by EPA.

Trash and Debris: Trash (such as paper, plastic, polystyrene packing foam, and aluminum materials) and biodegradable organic debris (such as leaves, grass cuttings, and food waste) are general waste products on the landscape that can be entrained in urban runoff. The presence of trash and debris may have a significant impact on the recreational value of a water body and aquatic habitat. Excess organic matter can create a high biochemical oxygen demand in a water body and thereby lower its water quality. Also, in areas where stagnant water exists, the presence of excess organic matter can promote septic conditions resulting in the growth of undesirable organisms and the release of odorous and hazardous compounds such as hydrogen sulfide.

Bioaccumulation: Certain pollutants, such as pesticides, selenium and mercury, have a tendency to bioaccumulate. The Basin Plan and the CTR criteria set forth toxicity objectives for receiving water levels of substances that bioaccumulate in aquatic resources to prohibit concentrations of toxic substances that are harmful to human health and adversely affect beneficial uses.

Chloride: High levels of chloride in Santa Clara River Reaches 3_E, 7_E, and 8_E downstream of the project site are causing impairment of listed beneficial uses for agricultural irrigation. Irrigation of salt-sensitive crops such as avocados and strawberries with water containing elevated levels of chloride potentially results in reduced crop yields. Chloride levels in some areas exceed water quality standards associated with groundwater recharge. Chloride TMDLs for downstream reaches have been developed and adopted into the Basin Plan. The major sources of elevated chloride are dry-weather discharges from WRPs, contributing about 70 percent of the chloride load. Minor point sources are dewatering operations, as well as swimming pool and water ride discharges.

Methylene Blue Activated Substances (MBAS): MBAS are related to the presence of detergents in water. Positive results may indicate the presence of wastewater or be associated with urban runoff due to commercial and/or residential vehicle washing or other outdoor washing activities. Surfactants disturb the surface tension that affects insects and can affect gills in aquatic life.

Other Constituents

This section discusses other constituents that are listed in the Basin Plan, but for reasons explained below, are not pollutants of concern for the project site.

BOD (Biochemical Oxygen Demand) and Dissolved Oxygen: Adequate levels of dissolved oxygen are necessary to support aquatic life. High levels of oxygen-demanding substances discharged to receiving waters can depress oxygen levels to levels of concern. Oxygen demanding substances are compounds that can be biologically degraded through aerobic processes. The presence of oxygen-demanding substances can deplete oxygen supplies in waters and can contribute to algae growth. Nutrients in fertilizers and food wastes in trash are examples of likely oxygen-demanding compounds to be present on the project site. Other biodegradable organic materials include human and animal waste and vegetative matter. Biodegradable pollutants are largely subsumed by the nutrients and trash and debris categories above, and therefore are not to be discussed as a separate category.

Chemical Constituents: Chemical constituents in excessive amounts in drinking water are harmful to human health. The Basin Plan objectives for chemical constituents states: "Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use." The chemical constituents referenced under this water quality objective, such as trace metals and nitrate are either subsumed by the categories above, or are not found in urban runoff (e.g., fluoride).

Temperature: Increase in temperature can result in lower dissolved oxygen levels, impairing habitat and other beneficial uses of receiving waters. Discharges of wastewater can also cause unnatural and/or rapid changes in temperature of receiving waters, which can adversely affect aquatic life. Elevated temperatures are typically associated with discharges of process wastewaters or non-contact cooling waters. As the beneficial uses in the receiving waters for the project include warm freshwater habitat to support warm water ecosystems, temperatures of stormwater runoff generally are not of concern.

Total Residual Chlorine: Total residual chlorine can be present in wastewater treatment plant discharges, or may be present in dry weather urban runoff from the emptying of swimming pools that have not been de-chlorinated. Chlorine is a strong oxidant and is therefore very toxic to aquatic life. Municipal pools and private pools in areas served by a municipal sanitary system, such as the project site, are required to be discharged into the sanitary system, and therefore, total residual chlorine would not be present in runoff from these sources.

Color, Taste, and Odor: The Basin Plan contains narrative objectives for color, taste, or odor that cause a nuisance or adversely affects beneficial uses. Undesirable tastes and odors in water may be a nuisance and may indicate the presence of a pollutant(s). Odor associated with water can result from decomposition of organic matter or the reduction of inorganic compounds, such as sulfate. Potential sources of odor-causing substances include industrial processes. Color in water may arise naturally, such as from minerals, plant matter, or algae, or may be caused by industrial pollutants.

Exotic Vegetation: Non-native (exotic) vegetation typically provides little habitat value and can out compete native vegetation that is more suitable habitat for aquatic and terrestrial organisms. The Basin Plan objective for exotic vegetation states: *"Exotic vegetation shall not be introduced around stream courses to the extent that such growth causes nuisance or adversely affects designated beneficial uses."*

Mineral Quality: TDS, Sulfate, Boron, and SAR: Mineral quality in natural waters is largely determined by the mineral assemblage of soils and rocks near the land surface. Elevated mineral concentrations could impact beneficial uses; however, the minerals listed in the Basin Plan, except chloride and nitrogen, are not believed to be constituents of concern due to the absence of river impairments and/or anticipated runoff concentrations well below the Basin Plan objectives.

Ph: The hydrogen ion activity of water, or percent hydrogen (pH) is measured on a logarithmic scale, ranging from 0 to 14. While the pH of "pure" water at 25 degrees Celsius is 7.0, the pH of natural waters is usually slightly basic due to the solubility of carbon dioxide from the atmosphere. Aquatic organisms can be highly sensitive to pH. The Basin Plan objective for pH is:

> *"the pH of inland waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of waste discharge."*

Mean runoff concentrations in the Los Angeles County stormwater monitoring data ranged from 6.5 for mixed- and single-family residential land uses to 7.0 for commercial land use. Therefore, pH in the Santa Clara River is not expected to be affected by runoff discharges from the project area.

PCBs: PCBs are highly toxic persistent chemicals that have been historically released into the environment from industrial uses, such as transformers. Due to their persistence, PCBs can still be detected in urban runoff due to historic industrial sources of these chemicals. The project area did not historically include PCB-producing land uses and industrial land uses using transformers have not been previously located on-site.

Radioactive Substances: Radioactive substances typically occur at very low concentrations in natural waters. Some activities such as mining or certain industrial activities (e.g., energy production, fuel reprocessing) can increase the amount of radioactive substances impairing beneficial uses. The project would not have industrial or other activities that would be a source of any radioactive substances, and development would stabilize any naturally radioactive soils, though unlikely to be present in the project area.

Toxicity: Certain pollutants in stormwater runoff have the potential to be highly toxic to aquatic organisms resulting in effects such as impaired reproduction or mortality. The Basin Plan water quality objective for toxicity is:

> *"All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life."*

Toxicity in urban runoff could be caused by ammonia, trace metals, PAHs, or pesticides. These constituents are subsumed by the pollutant of concern categories above.

Groundwater Pollutants of Concern

Research conducted on the effects on groundwater from stormwater infiltration indicates that the potential for contamination is dependent on a number of factors including the local hydrogeology and the chemical characteristics of the pollutants of concern.

Chemical characteristics that influence the potential for groundwater impacts include high mobility (low absorption potential), high solubility fractions, and abundance in stormwater. As a class of constituents, trace metals tend to adsorb onto soil particles and are filtered out by the soils. This has been confirmed by extensive data collected beneath stormwater detention/retention ponds in Fresno that showed that trace metals tended to be adsorbed in the upper few feet in the bottom sediments. Bacteria are also filtered out by soils. More mobile constituents such as chloride and nitrate would have a greater potential for infiltration.

Primary Pollutants of Concern

The pollutants of concern used for groundwater quality analysis are those that are anticipated or potentially could be generated at the project site at concentrations, based on water quality data collected in Los Angeles County. Identification of the pollutants of concern for the project site considered land uses as well as pollutants that have the potential to impair beneficial uses of the groundwater in the project area. The Los Angeles Basin Plan contains numerical objectives for bacteria, mineral quality, nitrogen, and various toxic chemical compounds, and contains qualitative objectives for taste and odor.

Nitrate+Nitrite-N was chosen as the pollutant of concern for purposes of evaluating groundwater quality impacts based upon the above considerations. High nitrate levels in drinking water can cause health problems in humans. Infants can develop methemoglobinemia (blue-baby syndrome). Human activities and land use practices can influence nitrogen concentrations in groundwater. For example, irrigation water containing fertilizers can increase levels of nitrogen in groundwater.

Other Constituents

Bacteria: The Basin Plan contains numeric criteria for bacteria in drinking water sources. As bacteria are removed through straining in soils (for example, as with septic tank discharges), incidental infiltration of runoff is not expected to affect bacteria levels in groundwater.

Chemical Constituents and Radioactivity: Drinking water limits for inorganic and organic chemicals that can be toxic to human health in excessive amounts and radionuclides are contained in Title 22 of the California Code of Regulations. These chemicals and radionuclides are not expected to occur in the runoff from the project area.

Taste and Odor: The Basin Plan contains a narrative objective for taste and odor that cause a nuisance or adversely affect beneficial uses. Undesirable tastes and odors in groundwater may be a nuisance and may indicate the presence of a pollutant(s). Odor associated with water can result from natural processes, such as the decomposition of organic matter or the reduction of inorganic compounds, such as sulfate.

Mineral Quality: TDS, Sulfate, Chloride, and Boron: Mineral quality in groundwater is largely influenced by the mineral assemblage of soils and rocks that it comes into contact with. Elevated mineral concentrations could impact beneficial uses; however, the minerals listed in the Basin Plan are not believed to be pollutants of concern due to the anticipated runoff concentrations and the typical mineral concentrations in irrigation water (Castaic Lake Water Agency), which are well below the Basin Plan objectives.

Hydrologic Conditions of Concern (Hydromodification)

Urbanization modifies natural watershed and stream hydrologic and geomorphic processes by introducing impervious surfaces and drainage infrastructure into a watershed. Potential changes to the hydrologic regime may include increased runoff volumes, frequency of runoff events, long-term cumulative duration, as well as increased peak flows. Urbanization may also introduce dry weather flows where only wet weather flows existed prior to development. These changes are referred to as "hydromodification."

Hydromodification intensifies sediment transport and often leads to stream channel enlargement and loss of habitat and associated riparian species. Under certain circumstances, development can also cause a reduction in the amount of sediment supplied to the stream system, which can lead to stream channel incision and widening. These changes also have the potential to impact downstream channels and habitat integrity. A project that increases runoff due to impervious surfaces and traps sediment from upland watershed sources creates compounding effects.

5.7.3 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix A of this EIR. The Initial Study includes questions relating to hydrology, drainage, flooding, and water quality. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this Section. Accordingly, a project may create a significant environmental impact if the project results in one or more of the following:

- Violate any water quality standards or waste discharge requirements;
- 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, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. Refer to *Section 9.0*, *Effects Found Not To Be Significant*;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows. Refer to *Section 9.0*, *Effects Found Not To Be Significant*;
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. Refer to *Section 9.0*, *Effects Found Not To Be Significant*;
- Inundation by seiche, tsunami, or mudflow. Refer to *Section 9.0*, *Effects Found Not To Be Significant*;
- Changes in the rate of flow, currents, or the course and direction of surface water and/or groundwater;

- Other modification of a wash, channel creek or river. Refer to *Section 9.0*, *Effects Found Not To Be Significant*; and

- Impact Stormwater Management in any of the following ways:

  - Potential impact of project construction and project post-construction activity on storm water runoff;

  - Potential discharges from areas for materials storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas;

  - Significant environmentally harmful increase in the flow velocity or volume of storm water runoff;

  - Significant and environmentally harmful increases in erosion of the project site or surrounding areas;

  - Storm water discharges that would significantly impair or contribute to the impairment of the beneficial uses of receiving waters or areas that provide water quality benefits (e.g. riparian corridors, wetlands, etc.);

  - Cause harm to the biological integrity of drainage systems, watersheds, and/or water bodies; or

  - The proposed project does not include provisions for the separation, recycling, and reuse of materials both during construction and after project occupancy.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

HYDROLOGY IMPACT EVALUATION

Thresholds of significance for evaluating hydrologic impacts and conditions of concern have been developed based on a review of the MS4 Permit and the thresholds from the *CEQA Guidelines*, discussed above.

Water Quality Impact Evaluation

The project's *Water Quality Technical Report* provides the criteria for evaluating the significance of a potential impact for each pollutant of concern. These criteria and the threshold for significance can be summarized as follows. The application of the criteria to a

decision regarding significance requires an integrated or "weight of evidence" approach, rather than a decision based on any one of the individual criteria.

The following impacts discussion analyzes whether sizeable additional sources of polluted runoff may result from the project based on the results of water quality modeling and qualitative assessments that take into account water quality controls or BMPs that are considered Project Design Features (PDFs). Any increases in pollutant concentrations or loads resulting from the development of the project site are considered an indication of a potentially significant adverse water quality impact. If loads and concentrations resulting from development are predicted to stay the same or to be reduced when compared with existing conditions, it is concluded that the project would not cause a significant adverse impact to the ambient water quality of the receiving waters for that pollutant.

If pollutant loads or concentrations are expected to increase, then for both the construction and post-development phases, potential impacts are assessed by evaluating compliance of the project (including PDFs) with requirements of the MS4 Permit (including SQMP and SUSMP requirements), the General Construction Permit, and the General Dewatering Permit. Further, post-development increases in pollutant loads and concentrations are evaluated by comparing the magnitude of the increase to relevant benchmarks, including receiving water TMDLs and receiving water quality objectives and criteria from the Basin Plan and CTR, as described below.

Receiving Water Benchmarks. Comparison of post-development water quality concentrations in the runoff discharge with benchmark TMDL waste load or load allocations for MS4 discharges establishes the likelihood that runoff would result in TMDL exceedances in receiving waters or would otherwise degrade receiving water quality.

Comparison of post-development water quality concentrations in the runoff discharge with benchmark numeric and narrative receiving water quality criteria, as provided in the Basin Plan and the CTR, facilitates analysis of the potential for runoff to result in exceedances of receiving water quality standards, adversely affect beneficial uses, or otherwise degrade receiving waters.

Water quality criteria are considered benchmarks for comparison purposes only, as such criteria apply within receiving waters, as opposed to applying directly to runoff discharges. Narrative and numeric water quality objectives contained in the Basin Plan apply to the project's receiving waters. Water quality criteria contained in the CTR provide concentrations that are not to be exceeded in receiving waters more than once in a three-year period for those waters designated with aquatic life or human health-related uses. Projections of runoff water quality are compared to the acute form of the CTR criteria (as discussed above), as stormwater runoff is associated with episodic events of limited duration, whereas chronic criteria apply to 4-day exposures which do not describe typical storm events in the project area that last approximately seven hours on average. If pollutant levels in stormwater runoff do not exceed receiving water benchmarks, it is one indication that no significant impacts would result from project development.

MS4 Permit Requirements for New Development (SUSMP)**.** Satisfaction of MS4 Permit requirements for new development, including SUSMP requirements and SQMP requirements, and satisfaction of construction-related requirements of the General Construction Permit and General Dewatering Permit, establish compliance with water quality regulatory requirements applicable to stormwater runoff.

The MS4 Permit requires that the SQMP specify BMPs that would be implemented to reduce the discharge of pollutants in stormwater to the Maximum Extent Practicable. MS4 requirements are met when new development complies with the SUSMP requirements set forth in the MS4 Permit. Under the SUSMP requirements, the effectiveness of stormwater treatment controls are primarily based on two factors - the amount of runoff that is captured by the controls and the selection of BMPs to address identified pollutants of concern. Selection and numerical sizing criteria for new development treatment controls are included in the MS4 Permit and the County SUSMP Manuals. If the project PDFs meet these criteria, and other source control and site design BMPs consistent with the SUSMP requirements are implemented, it indicates that no significant impacts would occur as the result of insufficient capacity for stormwater treatment.

Construction General Permit and General Dewatering Permit. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that describes erosion and sediment control BMPs as well as material management / non-stormwater BMPs that would be used during the construction phase of development. The General Dewatering Permit addresses discharges from permanent or temporary dewatering operations associated with construction and development and includes provisions mandating notification, sampling and analysis, and reporting of dewatering and testing-related discharges. To assess significance of construction phase project water quality impacts, it is necessary to evaluate whether water quality control is achieved by implementation of BMPs consistent with Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology (BAT/BCT), as required by the Construction General Permit and the General Dewatering Permit.

Groundwater Quality Impacts

Thresholds of significance for evaluating the hydrologic and water quality impacts of the project on groundwater have been developed based on the *CEQA Guidelines* Appendix G thresholds listed above.

Groundwater quality benchmarks are compared with post-development runoff water quality to establish the likelihood that runoff would result in a degradation of groundwater quality. The hydrologic effects of the proposed project on groundwater are also examined, by comparison of historical and present levels of the underlying aquifer to determine the impact of development on aquifer volume.

CUMULATIVE IMPACTS

CEQA requires the analysis of cumulative impacts of a project when the project's incremental effects may be significant when assessed along with the effects of past projects and the effects of other current projects, and the reasonably foreseeable effects of probable future projects. The discussion of cumulative impacts must reflect the potential severity of the impacts and their likelihood of occurrence, but the discussion and analysis need not provide as great a detail as is provided for the direct effects attributable to the project alone. The following impacts discussion therefore analyzes the potential for cumulative water quality impacts, cumulative groundwater quality impacts and cumulative hydrologic impacts generally in accordance with the thresholds for direct impacts previously discussed.

The cumulative analysis of all surface water quality and hydrologic impacts discussed below is based primarily on "adopted projections" found in the Los Angeles County Department of Public Works adopted and approved Hydrology Manual, which have been verified by reference to approved plans, including the City of Santa Clarita and County of Los Angeles adopted General Plans, as well as available empirical data for the Santa Clara River. As required by CEQA, the focus of the cumulative impacts analysis for the proposed project would be on the project's incremental contribution to significant adverse water quality and hydrologic impacts to the SCR, taking into account the reasonably foreseeable water quality and hydrologic impacts of other projects that may develop impervious surfaces and urban land uses within the watershed, in accordance with adopted general plans and related projections. The cumulative impacts analysis considers the project's incremental contribution to significant cumulative water quality and hydrologic impacts to the SCR in light of the water quality and hydrology impact mitigation achieved by the PDFs. The analysis would also consider whether the proposed project, including PDFs, and future projects would comply with specific requirements in a previously approved ordinance, plan, or mitigation program (such as the Basin Plan, the CTR, the MS4 Permit, the General Construction Permit and the General Dewatering Permit) that have been adopted for the purpose of avoiding or substantially lessening the cumulative water quality and hydrologic impacts within the geographic area in which the project is located.

5.7.4 WATER QUALITY MODELING APPROACH

MODEL DESCRIPTION

A water quality model was used to estimate pollutant loads and concentrations for certain pollutants of concern for pre-development conditions, post-development conditions, and post-development conditions with PDFs for the proposed project. The model is one of the few models that take into account the observed variability in stormwater hydrology and water quality. This is accomplished by characterizing the probability distribution of observed rainfall event depths, the probability distribution of event mean concentrations, and the probability distribution of the number of storm events per year. These distributions are then sampled randomly using a Monte Carlo Approach to develop estimates of mean annual loads and concentrations.

The following summarizes major features of the water quality model:

- *Rainfall Data*: The water quality model estimates the volume of runoff from storm events. The storm events were determined from 32 years (1969 - 2002) of hourly rainfall data measured at the National Climatic Data Center (NCDC) Newhall rain gage that incorporates a wide range of storm events. The rainfall analysis that is incorporated in the water quality model requires rainfall measurements at 1-hour intervals and a long period of record that is at least 20 to 30 years in length.

- *Land Use Runoff Water Quality*: The water quality model estimates the concentration of pollutants in runoff from storm events based on existing and proposed land uses. The pollutant concentrations for various land uses, in the form of Event Mean Concentrations (EMCs), were estimated from data collected in Los Angeles County. The Los Angeles County database was chosen for use in the model because: (1) it is an extensive database that is quite comprehensive, (2) it contains monitoring data from land use specific drainage areas, and (3) the data is representative of the semi-arid conditions in southern California.

- *Pollutant Load*: The pollutant load associated with each storm is estimated as the product of the storm event runoff times the event mean concentration. For each year in the simulation, the individual storm event loads are summed to estimate the annual load. The mean annual load is then the average of all the annual loads.

- *PDFs Modeled*: The modeling only considers certain structural treatment PDFs and does not take into account the source control PDFs (e.g., street sweeping) or certain treatment BMPs (e.g., CDS units or catch basin inserts), which also would improve water quality. In this respect, the modeling results are conservative, i.e., tend to overestimate pollutant loads and concentrations.

- *Treatment Effectiveness*: The water quality model estimates mean pollutant concentrations and loads in stormwater following treatment. The amount of stormwater runoff that is captured by the treatment BMPs was calculated for each storm event, taking into consideration the intensity of rainfall, duration of the storm, and duration between storm events. The mean effluent water quality for treatment BMPs was based on the International Stormwater BMP Database. The International Stormwater BMP Database was used because it is a robust, peer-reviewed database that contains a wide range of BMP effectiveness studies that are reflective of diverse land uses. An analysis of the monitored inflow and outflow data contained in the International Stormwater BMP Database showed a volume reduction on the order of 38 percent for biofilters. Based on this analysis, a conservative estimate of 25 percent of the project's inflow to the vegetated swales was assumed to infiltrate and/or evapotranspire. The bioretention areas would be designed to infiltrate 100 percent of inflow captured, but were conservatively modeled as infiltrating 90 percent of inflows. Peak flow controls do not account for volume reductions by project PDFs.

- *Bypass Flows*: The water quality model takes into account conditions when the treatment facility is full and flows are bypassed.

- *Representativeness to Local Conditions*: The water quality model utilizes runoff water quality data obtained from tributary areas that have a predominant land use, and as measured prior to discharge into a receiving water body. Currently such data are available from stormwater programs in Los Angeles County, San Diego County, and Ventura County, although the amount of data available from San Diego County and Ventura County is small in comparison with the LA County database. Such data is often referred to as "end-of-pipe" data to distinguish it from data obtained in urban streams, for example.

Pollutants Modeled

The appropriate form of data used to address water quality are flow composite storm event samples, which are measures of the average water quality during the event. To obtain such data usually requires automatic samplers that collect data at a frequency that is proportionate to flow rate. The pollutants for which there are sufficient flow composite sampling data in the Los Angeles County database are:

- Total Suspended Solids (sediment);
- Total Phosphorus (TP);
- Nitrate-Nitrogen, Nitrite-Nitrogen, Ammonia, and Total Nitrogen (TN);
- Dissolved Copper;
- Total Lead;
- Dissolved Zinc; and
- Chloride.

The other pollutants of concern, such as pathogens, hydrocarbons, pesticides, and trash and debris, are not amenable to this type of sampling either because of short holding times (e.g., pathogens), difficulties in obtaining a representative sample (e.g., hydrocarbons), or low detection levels (e.g., pesticides). These pollutants are addressed qualitatively using literature information and best professional judgment due to the lack of statistically reliable monitoring data for these pollutants.

Pollutants Addressed Without Modeling

The following pollutants of concern are addressed based on literature information and professional judgment because available data were not deemed sufficient for modeling:

- Turbidity;
- Pathogens (Bacteria, Viruses, and Protozoa);
- Hydrocarbons (Oil and Grease, Polycyclic Aromatic Hydrocarbons);
- Pesticides;
- Trash and Debris; and
- Methylene Blue Activated Substances (MBAS).

Human pathogens are usually not directly measured in stormwater monitoring programs because of the difficulty and expense involved; rather, indicator bacteria such as fecal coliform or certain strains of *E. Coli* are measured. Unfortunately, these indicators are not very reliable measures of the presence of pathogens in stormwater, in part because stormwater tends to mobilize pollutants from many sources, some of which contain non-

pathogenic bacteria. For this reason, and because holding times for bacterial samples are necessarily short, most stormwater programs do not collect flow-weighted composite samples that potentially could produce more reliable statistical estimates of concentrations. Fecal coliform or *E. Coli* are typically measured with grab samples, making it difficult to develop reliable EMCs. Total coliform and fecal bacteria (fecal coliforms, fecal streptococcus, and fecal enterococcus) were detected in stormwater samples tested in Los Angeles County at highly variable densities (or most probable number, MPN) ranging between several hundred to several million cells per 100 milliliters (ml).

Hydrocarbons are difficult to measure because of laboratory interference effects and sample collection issues (hydrocarbons tend to coat sample bottles). Hydrocarbons are typically measured with single grab samples, making it difficult to develop reliable EMCs.

Pesticides in urban runoff are often at concentrations that are below detection limits for most commercial laboratories and therefore there are limited statistically reliable data available on pesticides in urban runoff. Pesticides were not detected in Los Angeles County monitoring data for land use-based samples, except for diazinon and glyphosate, which were detected in less than 15 percent and seven percent of samples, respectively.

Trash and debris and MBAS sampling is not typically included in routine stormwater monitoring programs. Several studies conducted in the Los Angeles River basin have attempted to quantify trash generated from discrete areas, but the data represent relatively small areas or relatively short periods, or both. MBAS was included in the land use-based monitoring data, but not enough data is available for modeling purposes.

5.7.5 IMPACTS AND MITIGATION MEASURES

To evaluate impacts of the proposed project on water quality, pollutants of concern must be identified based on regulatory and other considerations, as previously discussed. Potential changes in water quality are then addressed for pollutants of concern based on runoff water quality modeling, literature information, and professional judgment. Impacts take into account selected Project Design Features (PDFs) consistent with the Los Angeles County MS4 NPDES Permit, including SUSMP requirements. As previously noted, the level of significance of impacts is evaluated using a weight of evidence approach considering significance criteria that include predicted runoff quality for proposed versus existing conditions, MS4 Permit and General Construction Permit requirements, and reference to receiving water quality benchmarks, including Total Maximum Daily Load (TMDL) waste load allocations and water quality standards from the Basin Plan and CTR.

The analysis below also assesses the potential for post-development peak stormwater runoff discharge rates, velocities, and durations to cause accelerated stream erosion and to impact stream habitat, and includes project design features to address these impacts and to comply with the Interim Peak Flow Runoff Criteria for New Development, adopted by the County of Los Angeles in January, 2005 pursuant to the MS4 Permit.

In the following discussion, model results for each pollutant are evaluated in relation to the following: (1) comparison of post-development versus pre-development stormwater quality concentrations and loads; (2) comparison with MS4 Permit, General Construction Permit, and General Dewatering Permit requirements for new development; and (3) evaluation in light of receiving water benchmarks. Pursuant to the third criterion, predicted runoff pollutant concentrations in the "post-development with PDFs" condition are compared with benchmark receiving water quality criteria as provided in the Basin Plan and the CTR and TMDL waste load allocations. The water quality criteria and waste load allocations are considered benchmarks for comparison purposes only, since they do not apply directly to runoff from the project, but the comparison provides useful information to evaluate potential impacts. A weight of evidence approach is employed in this analysis considering the various significance criteria.

PROPOSED DRAINAGE IMPROVEMENTS – PROPOSED PROJECT AND SANTA CLARA RIVER

The proposed improvements on the project site that would occur or have occurred in and adjacent to the River, include bank stabilization, storm drain outfalls and associated energy dissipators.

Project-Related Drainage Improvements

Runoff from the developed portions of the proposed project would be discharged to the Santa Clara River through two new outfalls after passing through the water quality treatment BMPs.

Energy Dissipaters

To reduce storm flow velocities and prevent erosion at stormwater discharge points into the SCR, energy dissipaters consisting of either riprap or other larger reinforced concrete standard impact-type energy dissipaters have been constructed at the two storm drain outlets leading into the river. These energy dissipaters would slow the rate of flow of runoff into the river to prevent erosion of the stream channel.

Bank Stabilization

Buried soil cement (a highly compacted mixture of soil/aggregate, portland cement, and water) along the SCR adjacent to and upstream of the project site has already been installed per the requirements of the Natural River Management Plan. The proposed project does not require any new bank stabilization.

The existing bank protection consists of buried soil cement to provide scour and freeboard flood control protection. Soil cement bank protection provides a stable riverbank protection material, in terms of both surface erosion and structural stability. The exposed top portion of the soil cement is aesthetically compatible with the native earth revegetated resource area.

PROJECT DESIGN FEATURES

Project Design Features (PDFs) for water quality and hydrologic impacts include site design, source control, treatment control, and hydromodification control BMPs that would be incorporated into the proposed project and are considered a part of the project for impact analysis. Effective management of wet and dry weather runoff water quality begins with limiting increases in runoff pollutants and flows at the source. Site design and source control BMPs are practices designed to minimize runoff and the introduction of pollutants in stormwater runoff. Treatment control BMPs are designed to remove pollutants once they have been mobilized by rainfall and runoff. Hydromodification control BMPs are designed to control increases in post-development runoff flows. This section describes the site design, source control, treatment control, and hydromodification control PDFs for the project.

SUSMP Requirements and Project Design Features

Table 5.7-4, *SUSMP Requirements and Corresponding Project Design Features*, summarizes the SUSMP requirements and the corresponding proposed PDFs.

Treatment BMPs

The SUSMP requirements mandate that treatment controls address the pollutants of concern, which are defined in the *SUSMP Manual* as consisting of any pollutants that exhibit one or more of the following characteristics: current loadings or historic deposits of the pollutant are impacting the beneficial uses of a receiving water, elevated levels of the pollutant are found in sediments of a receiving water and/or have the potential to bioaccumulate in organisms therein, or the detectable inputs of the pollutant are at concentrations or loads considered potentially toxic to humans and/or flora and fauna. These parameters were considered in defining pollutants of concern for analysis. See *Section 4.1* of Appendix G. Pollutants of concern for the proposed project include:

- Sediments (TSS and Turbidity);
- Nutrients (Phosphorus, Nitrate-N + Nitrite-N, and Ammonia-N);
- Trace Metals (Copper, Lead, and Zinc);
- Pathogens (Bacteria, Viruses, and Protozoa);
- Petroleum Hydrocarbons (Oil and Grease and PAHs);
- Pesticides;
- Trash & Debris;
- Chloride; and
- Methylene Blue Activated Substances (MBAS).

Treatment BMPs to be used for the project are listed in *Table 5.7-5*, *Treatment Control BMP Selection Matrix*, along with the pollutants of concern addressed by each.

Table 5.7-4
SUSMP Requirements and Corresponding Project Design Features

SUSMP Requirement	Criteria/ Description	Corresponding Soledad Village PDFs
1. Peak Flow Controls	◆ Control post-development peak discharge rates, velocities and duration in Natural Drainage Systems to prevent accelerated downstream erosion and to protect habitat related beneficial uses. [a] ◆ All post development runoff from a 2-year, 24-hour storm shall not exceed the predevelopment peak flow rate, burned, from a 2-year, 24-hour storm when the predevelopment peak flow rate equals or exceeds five cfs. Discharge flow rates shall be calculated using the County of Los Angeles Modified Rational Method. ◆ Post development runoff from the 50-year capital storm shall not exceed the predevelopment peak flow rate, burned and bulked, from the 50-year capital storm. ◆ Control peak flow discharge to provide stream channel and over bank flood protection, based on flow design criteria selected by the local agency.	◆ Hydromodification source control BMPs would include bioretention and vegetated swales. ◆ Underground detention pipes would be provided to match the peak flow from the 2-year, 24-hour storm event. ◆ 50-year capital storm peak flow rate analysis is contained in the "Soledad Village Drainage Concept Report," prepared by Pacific Coast Civil, Inc. (PCC, 2005)
2. Conserve Natural Areas	◆ Concentrate or cluster development on portions of a site while leaving the remaining land in a natural undisturbed condition ◆ Limit clearing and grading of native vegetation at a site to the minimum amount needed to build lots, allow access, and provide fire protection ◆ Maximize trees and other vegetation at each site, planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought tolerant plants ◆ Promote natural vegetation by using parking lot islands and other landscaped areas ◆ Preserve riparian areas and wetlands	◆ The site was previously graded under an earlier approval of a Parcel Map. This parcel map approval clustered the development on portions of the site outside of riparian areas. ◆ The final project stormwater system would include the use of the vegetated treatment BMPs, including bioretention (placed in median strips and parking lot islands where applicable) and vegetated swales. ◆ Native and/or climate-appropriate vegetation would be utilized within the development. ◆ The project would incorporate nearly 12 acres of landscaped/open space area into the project.

Table 5.7-4 (continued)
SUSMP Requirements and Corresponding Project Design Features

SUSMP Requirement	Criteria/ Description	Corresponding Soledad Village PDFs
3. Minimize Stormwater Pollutants of Concern	◆ Minimize to the maximum extent practicable, the introduction of pollutants of concern that may result in significant impacts, generated from site runoff of directly connected impervious areas (DCIA), to the stormwater conveyance system as approved by the building official. Pollutants of concern consist of any pollutants that exhibit one or more of the following characteristics: current loadings or historic deposits of the pollutant are impacting the beneficial uses of a receiving water, elevated levels of the pollutant are found in sediments of a receiving water and/or have the potential to bioaccumulate in organisms therein, or the detectable inputs of the pollutant are at concentrations or loads considered potentially toxic to humans and/or flora and fauna.	◆ Treatment control BMPs would be selected to address the pollutants of concern for the project (see *Section 5.2* below). These BMPs are designed to minimize introduction of pollutants to the Maximum Extent Practicable (MEP). ◆ The project would include numerous source controls, including education programs, animal waste bag stations, street sweeping and catch basin cleaning, an Integrated Pest Management (IPM) Program per the Los Angeles Unified School District (LAUSD) standards for common area landscaping in commercial and multi-family residential areas, use of native and/or non-invasive vegetation, and directing runoff to vegetated areas. ◆ An education program would be implemented that includes both the education of residents and commercial businesses regarding water quality issues. Topics would include services that could affect water quality, such as carpet cleaners and others that may not properly dispose of cleaning wastes; community car washes; and residential car washing. The education program would emphasize animal waste management, such as the importance of cleaning up after pets and not feeding pigeons, seagulls, ducks, and geese. Vegetated treatment control BMPs would allow for stormwater infiltration as well as pollutant removal.

Table 5.7-4 (continued)
SUSMP Requirements and Corresponding Project Design Features

SUSMP Requirement	Criteria/ Description	Corresponding Soledad Village PDFs
4. Protect Slopes and Channels Project plans must include BMPs consistent with local codes and ordinances and the SUSMP requirements to decrease the potential of slopes and/or channels from eroding and impacting stormwater runoff:	◆ Convey runoff safely from the tops of slopes and stabilize disturbed slopes ◆ Utilize natural drainage systems to the maximum extent practicable ◆ Control or reduce or eliminate flow to natural drainage systems to the maximum extent practicable ◆ Stabilize permanent channel crossings ◆ Vegetate slopes with native or drought tolerant vegetation ◆ Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion with the approval of all agencies with jurisdiction, e.g., the U.S. Army Corps of Engineers and the California Department of Fish and Game.	◆ There are no significant slopes or natural drainage channels on the project site. ◆ Natural slopes and native vegetation on slopes to the River are preserved and/or restored and enhanced. ◆ project PDFs, including swales and bioretention areas (hydrologic source controls), would reduce flows to natural channels through infiltration and evapotranspiration. ◆ The banks of the Santa Clara River at this site have previously been stabilized in accordance with the Natural River Management Plan. They would be capable of handling the expected flow regime with little or no erosion. ◆ Native vegetation would be used in all plant palettes placed on restored slopes. ◆ All outlet points to the Santa Clara River would include energy dissipaters consisting of ungrouted riprap per the Natural River Management Plan at erosion prone areas.
4. Provide Storm Drain System Stenciling and Signage	◆ All storm drain inlets and catch basins within the project area must be stenciled with prohibitive language and/or graphical icons to discourage illegal dumping. ◆ Signs and prohibitive language and/or graphical icons, which prohibit illegal dumping, must be posted at public access points along channels and creeks within the project area. ◆ Legibility of stencils and signs must be maintained.	◆ All storm drain inlets and water quality inlets would be stenciled or labeled. ◆ Signs would be posted in areas where dumping could occur. ◆ The HOA would maintain stencils and signs.
5. Properly Design Outdoor Material Storage Areas	◆ Where proposed project plans include outdoor areas for storage of materials that may contribute pollutants to the storm water conveyance system measures to mitigate impacts must be included.	◆ Pesticides, fertilizers, paints, and other hazardous materials used for maintenance of common areas, parks, commercial areas, and multifamily residential common areas would be kept in enclosed storage areas.

Table 5.7-4 (continued)
SUSMP Requirements and Corresponding Project Design Features

SUSMP Requirement	Criteria/ Description	Corresponding Soledad Village PDFs
6. Properly Design Trash Storage Areas	All trash containers must meet the following structural or treatment control BMP requirements: ◆ Trash container areas must have drainage from adjoining roofs and pavement diverter around the areas. ◆ Trash container areas must be screened or walled to prevent offsite transport of trash.	◆ All trash facilities would be covered and isolated from stormwater runoff.
7. Provide Proof of Ongoing BMP Maintenance	◆ Applicant required to provide verification of maintenance provisions through such means as may be appropriate, including, but not limited to legal agreements, covenants, and/or Conditional Use Permits.	◆ The Home Owners Association or a Landscape Maintenance District would be responsible for operations and maintenance of swale and bioretention BMPs.
8. Design Standards for Structural or Treatment Control BMPs	Post-construction Structural or Treatment Control BMPs shall be designed to mitigate (infiltrate or treat) stormwater runoff using either volumetric treatment control BMPs or flow-based treatment control BMPs sized per listed criteria (see section 3.6.2 above).	◆ Stormwater treatment facilities would be designed to meet or exceed the sizing standards outlined in the LA County SUSMP manual. ◆ Volume-based treatment control BMPs for the project would be designed to capture 80 percent or more of the annual runoff volume per criteria 2 of the MS4 Permit. Flow-based BMPs would be sized using criteria 3, which would provide 80 percent capture of annual runoff volume per criteria of the MS4 Permit. ◆ The size of the facilities would be finalized during the design stage by the project engineer with the final hydrology study, which would be prepared and approved to ensure consistency with this analysis prior to issuance of a final grading permit. ◆ The structural BMPs in the stormwater treatment system would be configured to achieve treatment in multiple BMP facilities for the majority of the developed areas. This "treatment train" approach affects greater pollutant removal. ◆ Types of treatment control BMPs that would be employed include vegetated swales and bioretention and a combination thereof.

Table 5.7-4 (continued)
SUSMP Requirements and Corresponding Project Design Features

SUSMP Requirement	Criteria/ Description	Corresponding Soledad Village PDFs
10.F.1. Properly Design Parking Area (Parking Lots)	◆ Reduce impervious land coverage of parking areas ◆ Infiltrate runoff before it reaches the storm drain system ◆ Treat runoff before it reaches storm drain system	◆ Commercial and multi-family parking lots would incorporate bioretention facilities located in islands to promote filtration and infiltration of runoff. ◆ Stormwater runoff from parking lots would be directed to treatment control BMPs, including swales, water quality basins and/or bioretention areas in compliance with SUSMP requirements.
10.F.2 Properly Design to Limit Oil Contamination and Perform Maintenance (Parking Lots)	◆ Treat to remove oil and petroleum hydrocarbons at parking lots that are heavily used. ◆ Ensure adequate operation and maintenance of treatment systems particularly sludge and oil removal	◆ See above. ◆ Treatment of runoff in bioretention (or vegetated swales) and catch basin inserts would be used to address oil and petroleum hydrocarbons from high-use parking lots. ◆ Maintenance would be performed by either the HOA or as set forth in the BMP maintenance responsibilities program.
13. Limitation of Use of Infiltration BMPs	◆ Infiltration is limited based on design of BMP, pollutant characteristics, land use, soil conditions, and traffic. ◆ Appropriate conditions (groundwater >10 ft from grade) must exist to utilize infiltration to treat and reduce stormwater runoff for the project.	◆ Bioretention and vegetated swales are not considered infiltration BMPs; they allow for infiltration of fully treated runoff only.
Notes: a) This requirement is from Part 4, § D.1 of the MS4 Permit.		

As currently planned, stormwater runoff from all urbanized portions of the proposed project would be routed to bioretention areas and/or vegetated swale treatment control BMPs. Catch basin inserts would also be used in high use parking lots. Collectively, the water quality treatment control PDFs would treat the pollutants of concern in runoff from the approximately 30-acre project area. These treatment BMPs, when combined with the site design and source control BMPs described above, would address all of the pollutants of concern. The effectiveness of treatment BMPs is evaluated without taking site design and source control BMPs into account. Therefore, the analysis is conservative in that it understates water quality controls.

Bioretention: Bioretention areas are vegetated (i.e., landscaped) shallow depressions that provide storage, infiltration, and evapotranspiration, and also provide for pollutant removal (e.g. filtration, adsorption, nutrient uptake) by filtering stormwater through the vegetation and soils. In bioretention areas, as well as in vegetated swales, pore spaces and organic material in the soils help to retain water in the form of soil moisture and to promote the

Table 5.7-5
Treatment Control BMP Selection Matrix

Pollutant of Concern[1]	Treatment Control BMP Categories	
	Vegetated Swale	Bioretention
Sediment	M	H
Nutrients	L	M
Trash	L	H
Trace Metals	M	H
Bacteria	L	H
Organics[2]	M	H

Source: California Stormwater Best Management Practices Handbook for New Development and Redevelopment (CASQA, 2003)
Note: H, M, L, indicates high, medium, and low removal efficiency.
[1]Chloride and MBAS are addressed with source control BMPs, as they are not treatable in typical stormwater treatment BMPs, aside through incidental infiltration.
[2]Includes pesticides and petroleum hydrocarbons.

absorption of pollutants into the soil matrix. Plants utilize soil moisture and promote the drying of the soil through transpiration. Due to the highly infiltrative soils on the project site, no underdrain would be required for the biofiltration areas. Treated flows would be fully infiltrated.

Vegetated Swales: Vegetated swales are engineered, vegetation-lined channels that provide water quality treatment in addition to conveying stormwater runoff. Swales provide pollutant removal through settling and filtration in the vegetation (often grasses) lining the channels and also provide the opportunity for volume reduction through infiltration and evapotranspiration. Swales are most effective where longitudinal slopes are small (two percent to six percent), thereby increasing the residence time for treatment, and where water depths are less than the vegetation height.

Catch basin inserts would be also be used to address trash and petroleum hydrocarbons in runoff from the commercial area parking lot.

Hydromodification Control BMPs

Several hydrologic source controls are included as hydromodification control PDFs:

- *Treatment Controls*. The proposed project's treatment control BMPs would also serve as hydromodification control BMPs. Vegetated swales can provide volume reduction on the order of 20 to 30 percent through infiltration and evaporation. The proposed project also includes use of bioretention areas sized to capture and treat 80 percent of the average annual stormwater runoff from its tributary catchment and would not utilize underdrains. Thus, all water captured in these facilities would be effectively removed from the proposed project's stormwater discharges. Collectively these vegetated treatment facilities are expected to provide significant reduction in wet weather runoff. In addition, these facilities would also receive and eliminate dry weather flows.

- *Site Design Practices.* Site design PDFs that help to reduce the increase in runoff volume include routing of roof runoff to vegetated areas, use of native and drought tolerate plants in landscaped areas, and the use of efficient irrigation systems in common area landscaped areas.

- *Peak Flow Control.* The current Los Angeles County Interim Peak Flow Standard requires that all post development runoff from a 2-year, 24-hour storm not exceed the predevelopment burned peak flow rate from a 2-year, 24-hour storm when the predevelopment peak flow rate equals or exceeds five cubic feet per second (cfs). Peak flow control of 2-year, 24-hour storm event would be achieved through runoff volume reduction occurring in the vegetated swales and bioretention areas. Additional storage would be provided via detention in oversized pipes if required. The design and size of the detention pond and pipes and bioretention areas would be finalized during the design stage by the project engineer as part of the final hydrology study, which would be reviewed and approved by the City of Santa Clarita to ensure consistency with the EIR analysis prior to issuance of a final grading permit.

- *Energy Dissipation*. Erosion protection in areas where discharges have the potential to cause stream erosion. Erosion protection would be provided at all storm drain outlets to the Santa Clara River.

- *Bank Stabilization*. The banks of the Santa Clara River adjacent to the project area have pre-existing bank stabilization via buried soil cement. Soil cement is a modern flood control technique used to protect against erosion while maintaining natural vegetation and soft banks. Soil cement would be buried below the existing banks of the Santa Clara River. Disturbed areas would then re-vegetated with native plant species, maintaining the natural habitat presently found along the River.

- *Project Conditions*. To assure that it complies with any new peak or other design flow standards that may be adopted in the future, the proposed project would be conditioned to require, as a design feature, sizing and design of the hydraulic features (i.e., oversized pipes) to control the post-development runoff rates as necessary to meet numeric flow criteria that may be adopted from time to time by the Los Angeles County Department of Public Works and co-permittees (including the City of Santa Clarita) under Part 4, § D.1 of the MS4 Permit.

HYDROMODIFICATION IMPACTS

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT COULD RESULT IN ADVERSE HYDROLOGY AND DRAINAGE IMPACTS.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: Development typically increases impervious surfaces on formerly undeveloped (or less developed) landscapes, reducing the capture and infiltration of rainfall. The result is that, as a watershed develops, a larger percentage of rainfall becomes runoff during any given storm. In addition, runoff reaches the stream channel more efficiently due to the development of storm drain systems, so that the peak discharge rates for rainfall events and floods are higher for an equivalent event than they were prior to development. These changes, in turn, affect the stability of natural drainages, including the physical and biological character of these drainages. This process, termed "hydromodification," is addressed in the following discussion.

The only natural drainage channel that would receive flows from the project site is the Santa Clara River. Therefore, this analysis addresses the potential for hydromodification impacts to the Santa Clara River as a result of the proposed project.

Wet Weather Flows

The project proposes development that would create impervious surface over approximately 70 percent, or 21 acres, of the approximately 30-acre total site area. It is estimated, based on the land use data provided by LADPW, that the proposed project would comprise 0.05 percent of the total impervious area in the watershed above the project location at ultimate planned buildout for the watershed.

The proposed project includes several hydrologic source controls as hydromodification control PDFs that would substantially lessen any potential hydromodification impacts, as described below. The increase in impervious surface within the project area is expected to increase average annual stormwater runoff volume from the project area by approximately 14.3 acre-feet per year, taking into account volume reductions expected in the proposed treatment control swales and bioretention areas. Based on these volume increases, increases in stormwater runoff flow rates and duration of flows is expected as a result of the project.

Treatment Controls. The proposed project's treatment control BMPs would also serve as hydromodification control BMPs. Vegetated swales can provide volume reduction on the order of 20 to 30 percent through infiltration and evaporation. The proposed project also includes use of bioretention areas sized to capture and treat 80 percent of the average annual stormwater runoff from their tributary catchment and would not utilize underdrains. Thus, all water captured in these facilities would be effectively removed from the project's stormwater discharges. Using conservative values for volume reduction, the treatment PDFs included in the proposed project are estimated to reduce the increase in average annual stormwater runoff volume by approximately 15 acre-feet per year, which is a 53 percent

reduction of the predicted average post-development stormwater runoff volume. In addition these facilities would also receive and eliminate dry weather flows.

Site Design Practices. Site design PDFs that help to reduce the increase in runoff volume include routing of roof runoff to vegetated areas, use of native and drought tolerate plants in landscaped areas, and the use of efficient irrigation systems in common area landscaped areas. The volume reductions and hydromodification control achieved by these site design practices have not been considered in calculating the predicted increase in average annual stormwater runoff from the project area due to development.

Peak Flow Control. The current Los Angeles County Interim Peak Flow Standard requires that all post development runoff from a 2-year, 24-hour storm not exceed the predevelopment peak flow rate, burned, from a 2-year, 24-hour storm when the predevelopment peak flow rate equals or exceeds five cfs. Peak flow control of 2-year, 24-hour storm event would be achieved through runoff volume reduction occurring in the vegetated swales and bioretention areas. Additional storage would be provided via detention in oversized pipes if required. The design and size of the pipes and bioretention areas would be finalized during the design stage by the project engineer as part of the final hydrology study, which would be review and approved by the City of Santa Clarita to ensure consistency with the EIR analysis prior to issuance of a final grading permit. Compliance with the interim flow standards has not been quantitatively factored into the calculation of increased surface water runoff anticipated to result from project development, but compliance with these flow standards is qualitatively taken into account in assessing project hydromodification impacts.

Project Conditions. To assure that it complies with any new peak or other design flow standards that may be adopted in the future, the proposed project would be conditioned to require, as a design feature, sizing and design of the hydraulic features (i.e., oversized pipes) as necessary to control the post-development runoff rates as necessary to meet numeric flow criteria that may be adopted from time to time by the Los Angeles County Department of Public Works under Part 4, § D.1 of the MS4 Permit.

Energy Dissipation. Erosion protection would be provided in the vicinity of proposed outlets for outlet areas where discharges have the potential to cause stream erosion. Erosion protection would be provided at all storm drain outlets to the Santa Clara River in accordance with the provisions of the NRMP.

In summary, although proposed project runoff volumes, flow rates, and durations would increase, potential impacts of hydromodification (i.e., the potential to cause erosion, siltation, or channel instability) would be avoided, minimized, and mitigated by the proposed project PDFs in the following ways:

- Project site design and treatment controls PDFs, especially bioretention areas, would avoid and minimize increases in runoff volume from the development area, the preferred method for controlling hydromodification impacts from new development.

- Concentrated flows would be mitigated with energy dissipators at the discharge points to the Santa Clara River and the river banks have already been protected through vegetated buried bank stabilization in non-jurisdictional upland areas adjacent to the river. This type of biostabilization technique is the preferred approach for bank stabilization.
- The proposed project would comply with adopted interim standard for control of peak flows from the 50-year capital storm event and the 2-year, 24-hour storm event, or other flow criteria that may be adopted by the Los Angeles County Department of Public Works to meet the Permit requirements for hydromodification control.

Dry Weather Flows

In order to quantitatively address dry weather impacts, a dry weather water balance was performed. The quantity of dry weather flows from urban sources such as car washing and irrigation is variable and not easily quantified. Information available from the Irvine Ranch Water District suggests an average dry-weather flow from urban areas of 2.9×10^{-4} cfs per urbanized acre (IRWD, 2003). Dry weather flow estimates in Santa Monica, used to design a dry-weather flow recycling facility, indicate a range of dry-weather flows between 8.3×10^{-5} to 1.8×10^{-4} cfs per urbanized acre (Antich et al., 2003). For purposes of conservatively estimating the impacts of dry-weather flow, a dry-weather discharge of 3.0×10^{-4} cfs per urbanized acre was used in this report. *Table 7-16* in Appendix G presents a monthly dry weather flow balance for the proposed project. Swales were assumed to infiltrate at 0.1 in/hr, while bioretention areas were assumed to infiltrate at 0.2 in/hr. Evapotranspiration rates were conservatively assumed to be 60 percent of reference rates from CIMIS Zone 14, in which the project is located. It was assumed that open space in the project area would result in no dry weather runoff discharged to the Santa Clara River.

It is predicted that all dry weather flows would be infiltrated or removed by evapotranspiration in the project area.

Based on comprehensive site planning, source control, and treatment control strategy and the above water balance analysis, the potential for dry weather flows to result in hydromodification or associated habitat or water quality impacts is considered less than significant.

***Mitigation Measures*:** *Tables 5.7-4* and *5.7-5* identify the proposed project's SUSMP requirements and corresponding Project Design Features, and treatment control BMPs that would fully mitigate project impacts. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

GROUNDWATER RECHARGE IMPACTS

◆ ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT COULD RESULT IN ADVERSE GROUNDWATER RECHARGE IMPACTS.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: In a groundwater basin, the effect of urbanization on recharge to underlying groundwater is dependent on land uses, water uses, vegetative cover, and geologic conditions. Groundwater recharge from undeveloped lands occurs from precipitation alone, whereas areas that are developed for agricultural or urban land uses receive both precipitation and irrigation of vegetative cover. In an urban area, groundwater recharge occurs directly beneath irrigated lands and in drainages whose bottoms are not paved or cemented.

Currently the project site is graded open space, and historically it has been used for dry land farming. As a result, in the existing condition recharge occurs within the project site from precipitation alone. On one hand, development of the project site would introduce impervious surface over approximately 70 percent of the project site, which would tend to reduce recharge.

On the other hand, development of the project site would increase runoff volume discharged after treatment to the Santa Clara River, whose channel is predominantly natural and consists of vegetation and coarse-grained sediments (rather than concrete). The porous nature of the sands and gravels forming the streambed would allow for significant infiltration to occur to the underlying groundwater. Also, the proposed project would introduce landscaping, irrigation, and PDFs designed to infiltrate runoff. These project effects would increase groundwater recharge from the project. On balance, it is likely that the proposed project would result in a slight net increase in groundwater recharge in the project vicinity.

All of the post-development urban runoff infiltrated into groundwater would have been treated in PDFs prior to infiltration. The slight increase in groundwater recharge is unlikely to noticeably affect water quality within the groundwater basin. Based on the above discussion, the proposed project's impact on groundwater recharge is considered less than significant.

Mitigation Measures: *Table 5.7-4* identifies the proposed project's SUSMP requirements and corresponding Project Design Features that would fully mitigate project impacts. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

OPERATIONAL SURFACE WATER QUALITY IMPACTS

- ***OPERATION OF DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT COULD RESULT IN ADVERSE SURFACE WATER QUALITY IMPACTS.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis:

Modeled Pollutants of Concern

Results from the water quality model are organized by constituent, addressing predicted mean annual pollutant loads (lbs/yr) and mean annual concentrations, which are made for two conditions: (1) existing condition, and (2) developed condition with PDFs.

Treatment PDFs that are considered in the model include bioretention areas and vegetated swales. Bioretention results in a low predicted average annual pollutant load due to the runoff volume reduction through infiltration of 90 percent of treated flows. The predicted post-developed runoff concentrations from these areas are greater than runoff treated in vegetated swales because the concentrations represent mostly the untreated bypass flows, while the treated flows are mostly infiltrated. Vegetated swale treatment allows for less runoff volume reduction, but would provide a lower predicted average annual pollutant concentration due to the higher percentage of treated runoff in combination with untreated bypassed flows. The combination of these project PDFs would provide effective reduction of both pollutant load and concentration.

The modeling results account for pollutant reductions in the bioretention areas and vegetated swales only and do not account for the pollutant reductions that would occur due to source control PDFs and parking lot catch basin inserts. Because not all BMPs are modeled, the model results predict greater water quality impacts than are likely to occur from the project.

Stormwater Runoff Volume

Mean annual runoff volumes are expected to increase substantially with development. The increase can be explained by the change in percent imperviousness associated with urbanization and the highly infiltrative nature of the project site's soils. The percent imperviousness used for open space is five percent (a conservative figure that minimally accounts for certain impervious features in open space, such as roads, rock outcrops, and compacted soils), in contrast to a value of 80 percent for multi-family residential land uses. Runoff volume is directly proportional to percent imperviousness.

Project PDFs include site design, source control, and treatment control BMPs in compliance with the SUSMP requirements. The treatment control BMPs would allow for runoff volume reduction. Based on BMP monitoring data in the International Stormwater BMP Database, a 25 percent reduction in stormwater runoff volume was assumed to occur in the vegetated

swales PDFs. Bioretention areas would be designed for 100 percent reduction of the water quality volume, but were modeled with a 90 percent volume reduction to produce conservative estimates.

TSS

Comparison of Pre- and Post-Project Conditions: Conversion from pre-development open space to urban land-uses (with treatment) would reduce the average TSS concentration in stormwater runoff from the project site. The average annual TSS load is predicted to increase minimally in the post-development condition due to the increase in runoff volume.

Comparison with Water Quality Criteria: The predicted average annual TSS concentration in stormwater runoff from the total modeled area with PDFs was compared to water quality criteria and the range of observed concentrations in the Santa Clara River. Although the TSS load would increase slightly, the predicted concentration declines with development and is below the range of observed concentrations in Santa Clara River Reach 9_E.

Based on the comprehensive site design, source control, and treatment control strategy, and the comparison with available in-stream data and basin plan benchmark objectives, the TSS in stormwater runoff from the proposed project would not cause a nuisance or adversely affect beneficial uses in the receiving waters.

Total Phosphorus

Comparison of Pre- and Post-Project Conditions: TP concentration and load are predicted to increase post-development. The increase in TP load can be attributed to the increase in runoff volume and higher total phosphorous EMCs observed in monitoring data from urbanized land uses.

Comparison with Water Quality Criteria: There are no numeric objectives for TP in the LA Basin Plan. A narrative objective for biostimulatory substances in the LA Basin Plan states: *"waters shall not contain biostimulatory substances in concentrations that promote algal growth to the extent that such growth causes nuisance or adversely affects beneficial uses."*

Despite the predicted load increase, the low predicted TP concentrations in project stormwater discharges would not promote (i.e., increase) algae growth and therefore comply with the narrative objective for biostimulatory substances in the LA County Basin Plan. The predicted total phosphorus concentration is below the low end of the range of observed concentrations in Santa Clara River Reach 9_E.

Based on the comprehensive site design, source control, and treatment control strategy and the comparison with available in-stream monitoring data and Basin Plan benchmark objectives, potential impacts associated with total phosphorus are predicted to be less than significant.

Nitrogen Compounds

Comparison of Pre- and Post-Project Conditions: Average concentrations of nitrate-nitrogen plus nitrite nitrogen are predicted to decrease. Annual loads of nitrate-nitrogen plus nitrite nitrogen and average concentration and annual loads for ammonia are predicted to increase due to the increase in runoff volume and higher runoff EMCs for these pollutants observed in monitoring data from urbanized land uses versus open space.

Comparison with Water Quality Criteria: Predicted nitrogen compound concentrations were compared to Basin Plan objectives and observed concentrations. The ammonia Basin Plan objective is temperature and pH dependent. At a pH of 7.25 (the geometric mean observed wet weather value at LADPW Station S29) and a temperature of 20 degrees Celsius (conservatively assumed the maximum value in the Basin Plan), the one-hour average total ammonia-N objective is 15.8 mg/L as N for waters designated with a WARM beneficial use.

Average annual stormwater concentrations of ammonia are predicted to be 0.3 mg/L, which is considerably less than the waste load allocation of 1.75 mg/L for Santa Clara River Reach 7_E (which is 6.2 miles downstream of the project location) and well below the Basin Plan objective. Likewise, the average annual stormwater concentration of nitrate-N plus nitrite-N is predicted to be 0.8 mg/L, which is considerably less than the TMDL waste load allocation for Santa Clara River Reach 7_E of 6.8 mg/L or the Basin Plan water quality objective of 5.0 mg/L for this reach of the Santa Clara River.

Based on the comprehensive site design, source control, and treatment control strategy, and the comparison with available in-stream monitoring data and benchmark Basin Plan objectives and waste load allocations, potential impacts associated with nitrogen compounds are predicted to be less than significant.

Metals

Comparison of Pre- and Post-Project Conditions: Post-development trace metal loads and concentrations are projected to increase compared to pre-development conditions. This result can be explained by the difference in EMC values observed in representative monitoring data from the pre-developed open space condition and the post-developed urban condition. Runoff volumes would increase with development and the change in land use would increase the runoff concentrations for all three trace metals. PDF reductions in metal concentrations are limited due to the dissolved nature of the metals. Proposed bioretention areas would remove a greater percentage of trace metal loads through soil adsorption, plant uptake, and volume reduction through infiltration.

Project PDFs include site design, source control, and treatment control BMPs in compliance with the SUSMP requirements. Specific site design PDFs that would be implemented to minimize increases in trace metals include directing drainage from impervious areas to bioretention areas and the selection of building material for roof gutters and downspouts that do not include copper or zinc. Source control PDFs that target metals include education for property owners, BMP maintenance, and street sweeping private streets and parking lots. The treatment control bioretention area and vegetated swales would also reduce trace metals

in the runoff from the proposed development. Only the effects of bioretention areas and vegetated swales are reflected in the model results. Thus, increases in metals loads and concentrations are overstated.

Comparison with Water Quality Criteria: A narrative objective for toxic substances in the LA Basin Plan states: "all waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life."

The CTR criteria are the applicable water quality objectives for protection of aquatic life. The CTR criteria are expressed for acute and chronic (4-day average) conditions; however, only acute conditions were considered to be applicable for stormwater discharges because the duration of stormwater discharge is consistently less than 4 days. The CTR criteria are calculated on the basis of the hardness of the receiving waters. Lower hardness concentrations result in lower, more stringent CTR criteria. The minimum hardness value (280 mg/L as $CaCO_3$) observed in the Santa Clara River at the USGS monitoring site at Bouquet Junction during wet weather was used as a conservative estimate; the mean observed hardness value was 310 mg/L as $CaCO_3$.

Although the trace metal loadings and concentrations are predicted to increase, the comparison of the post-developed with PDFs condition to the benchmark CTR values shows that all of the trace metal concentrations are well below the water quality criteria. Predicted trace metal concentrations are generally within the range of observed concentrations in this reach of the Santa Clara River.

Based on the comprehensive site design, source control, and treatment strategy and the comparison with the instream water quality monitoring data and benchmark CTR values, the proposed project would not have significant impacts resulting from trace metals.

Chloride

Comparison of Pre- and Post-project Conditions: Due to the conversion from open space to urban land-uses, annual chloride concentration and load is predicted to increase when compared to the existing conditions. This is in part due to the increases volume of runoff, the highly soluble nature of chlorides, and the difficulty in removing them from stormwater runoff.

Comparison with Water Quality Criteria: The predicted chloride concentration in post-development project runoff was compared to the LA Basin Plan water quality objective and the range of observed concentrations in Santa Clara River Reach 9_E. The predicted average annual chloride concentration in stormwater runoff from the project area (8 mg/L) is at the low end of the range of observed concentrations for this pollutant and is well below the Santa Clara River Reach 9_E Basin Plan water quality objective and the TMDL waste load allocation for Santa Clara River Reach 7_E (100 mg/L for both).

Based on the comprehensive site design, source control, and treatment control strategy, and comparison with benchmark receiving water criteria and instream monitoring data, the proposed project is not expected to have significant water quality impacts resulting from chloride.

Pollutants and Basin Plan Criteria Evaluated Without Modeling

Turbidity

Turbidity is a measure of suspended matter that interferes with the passage of light through the water or in which visual depth is restricted. Turbidity may be caused by a wide variety of suspended materials, which range in size from colloidal to coarse dispersions, depending upon the degree of turbulence. In lakes or other waters existing under relatively quiescent conditions, most of the turbidity would be due to colloidal and extremely fine dispersions. In rivers under flood conditions, most of the turbidity would be due to relatively coarse dispersions. Erosion of clay and silt soils may contribute to in-stream turbidity, while organic materials reaching rivers serve as food for bacteria, and the resulting bacterial growth and other microorganisms that feed upon the bacteria produce additional turbidity. Nutrients in runoff may stimulate the growth of algae, which also contribute to turbidity.

Placement of impervious surfaces would serve to stabilize soils and to reduce the amount of erosion that may occur from the project area during storm events, and would therefore decrease turbidity in the runoff from the project area. Project PDFs, including source controls, such as common area landscape management and common area litter control, and treatment control BMPs, in compliance with the SUSMP requirements, would prevent or reduce the release of organic materials and nutrients (that might contribute to algal blooms) to receiving waters. As discussed above, post-development nutrients in runoff are not expected to cause significant water quality impacts.

Based on implementation of the project PDFs and the construction-related controls outlined previously, runoff discharges from the project would not cause increases in turbidity which would result in adverse affects to beneficial uses in the receiving waters. Based on these considerations, the water quality impacts of the proposed project on turbidity are considered less than significant.

Pesticides

Pesticides can be of concern where past farming practices involved the application of persistent organochlorine pesticides. Legacy pesticides Chlordane, Dieldrin, DDT, and Toxaphene are of particular concern, as TMDLs have been established for these pesticides in the Santa Clara River estuary, approximately 49 miles downstream of the project site and this intermittent reach of the river. Historical pesticides should no longer be discharged in the watershed except in association with erosion of sediments to which these pollutants may have adhered in the past. Site development would stabilize soils and prevent their transport from the project site, actually reducing the potential for discharge of sediments to which legacy pesticides may have adsorbed in pre-development conditions.

In the post-developed condition, pesticides would be applied to common landscaped areas and residential lawns and gardens. Pesticides that have been commonly found in urban streams include the organophosphate pesticides chlorpyrifos and diazinon. However, only 0 to 13 percent of the samples in the Los Angeles County database had detectable levels of diazinon (depending on the land use), while level of chlorpyrifos were below detection limits for all land uses in all samples taken between 1994 and 2000. Other pesticides presented in the database were seldom measured above detection limits. Furthermore, these data represent flows from areas without treatment controls, unlike the proposed project, which would incorporate treatment control PDFs.

Diazinon and chlorpyrifos (commonly used urban pesticides) would not be used for landscape maintenance in the post-development conditions due to the USEPA ban of diazinon and chlorpyrifos for most urban applications.

Source control measures such as education programs for owners, occupants, and employees in the proper application, storage, and disposal of pesticides are the most promising strategies for controlling the pesticides that would be used post-development. Structural treatment controls are less practical because of the variety of pesticides and wide range of chemical properties that affect their ability to treat these compounds. However, most pesticides, including legacy pesticides that may be present at the site, are relatively insoluble in water and therefore tend to adsorb to the surfaces of sediment, which would be stabilized with development, or if eroded, would be settled or filtered out of the water column in the water quality treatment PDFs. Thus, filtration in the bioretention and vegetated swales should achieve some removal of pesticides from stormwater as TSS is reduced.

For common area landscaping in commercial areas, multi-family residential areas, and parks, an Integrated Pest Management (IPM) Program would be incorporated. The goal of an IPM is to keep pest levels at or below threshold levels, reducing risk and damage from pest presence, while eliminating the risk from the pest control methods used. IPM programs achieve these goals through the use of low-risk management options by emphasizing use of natural biological methods and the appropriate use of selective pesticides. IPM programs also incorporate environmental consideration by implementing procedures that minimize intrusion and alteration of biodiversity in ecosystems.

While pesticides are subject to degradation, they vary in how long they maintain their ability to eradicate pests. Some break down almost immediately into nontoxic byproducts, while others can remain active for longer periods of time. While pesticides that degrade rapidly are less likely to adversely affect non-targeted organisms, in some instances it may be more advantageous to apply longer-lasting pesticides if it results in fewer applications or smaller amounts of pesticide use. As part of the Integrated Pest Management program, careful consideration would be made as to the appropriate type of pesticides for use on the project site. While pesticide use is likely to occur due to maintenance of landscaped areas, particularly in the residential portions of the development, careful selection, storage and application of these chemicals for use in common areas per the IPM Program, would help prevent adverse water quality impacts from occurring. Additionally, as discussed above, removal of sediments in the PDFs would also remove sediment-adsorbed pesticides.

Based on the incorporation of site design, source control, and treatment control BMPs pursuant to SUSMP requirements, potential post-development impacts associated with pesticides are expected to be less than significant.

Pathogens

Pathogens are viruses, bacteria, and protozoa that can cause illness in humans. Identifying pathogens in water is difficult as the number of pathogens is exceedingly small requiring sampling and filtering large volumes of water. Traditionally, water managers have relied on measuring "pathogen indicators", such as total and fecal coliform, as an indirect measure of the presence of pathogens. Although such indicators were considered reliable for sewage samples, indicator organisms are not necessarily reliable indicators of viable pathogenic viruses, bacteria, or protozoa in stormwater because coliform bacteria, in addition to being found in the digestive systems of warm-blooded animals, are also found in plants and soil. Moreover, certain pathogen indicators can multiply in the field if the substrate, temperature, moisture, and nutrient conditions are suitable. In a review of the Los Angeles Basin Plan Administrative Record, Paulsen and List summarized the debate over the use of pathogenic indicators and pointed out that scientific studies show no correlation between pathogens and therefore may not indicate a significant potential for causing human illness. In a recent field study, pathogens (in the form of viruses, bacteria, or protozoa) were found to occur in 12 of 97 samples taken, but the samples that contained pathogens did not correlate with the concentrations of indicator organisms.

There are numerous sources of pathogen indicators, including birds and other wildlife, domesticated animals and pets, and plant matter and soils. Human-related sources may include poorly functioning septic systems, cross-connections between sewer and storm drains, and the utilization of outdoor areas for human waste disposal by people without access to indoor sanitary facilities.

There are extensive studies in which samples have been collected and analyzed for bacteria. Almost all of these data do not distinguish bacteria that may result from new development versus bacteria from other sources. Runoff from new development is just one of many potential sources of bacteria in urban runoff. Urban runoff reflects both anthropogenic and natural sources, and consists of runoff from existing development, new development, and open space or vacant land. The large majority of existing development areas that contribute runoff into the monitored channels of Los Angeles County and other areas do not have the myriad of project design features that have been incorporated into the proposed project, see further discussions below. Consequently, it is likely that runoff from the proposed project would not contain the same elevated levels of bacteria found in other urban runoff studies.

Existing data from recent studies indicate that wildlife, plants and/or soils can be a very important source of pathogens and/or pathogen indicators such as fecal coliform. The proposed project, by converting some open land use to urban land use, would potentially reduce the pathogen contribution associated with such open space, including some terrestrial wildlife, plant matter, and soils.

For the proposed project, significant efforts have been made to reduce dry weather flows through project design features such as efficient irrigation systems, use of natural landscaping palettes, and infiltration/evaporation in treatment control facilities, making it unlikely that dry weather flows would persist as far as receiving waters. Even in the unlikely event that dry weather flows from the proposed project were to reach receiving waters, based upon the findings of recent studies, it is not likely that such dry weather flows would noticeably increase bacteria concentrations in the receiving waters.

The primary sources of fecal coliforms from the proposed project would likely be pet wastes, and wildlife or vectors living in the storm drain itself. Other sources of pathogens and pathogen indicators, such as cross connections between sanitary and storm sewers, and other human-derived bacteria, are unlikely given the new systems to be installed with the project, modern sanitary sewer installation methods, and inspection and maintenance practices.

The levels of bacteria in runoff from the proposed project would be reduced by virtue of source controls and treatment controls. The most effective means of controlling pet wastes as a source of pathogens is through source control, specifically education of pet owners, and providing products and disposal containers that encourage and facilitate cleaning up after pets. Storm drain cleaning practices help to remove pathogens that may have accumulated in the storm drain system. The bioretention areas and vegetated swales would have the effect of reducing the volume of stormwater and dry weather runoff from the proposed project area, thereby reducing any associated bacteria.

In summary, the proposed project, consistent with the SUSMP requirements, includes a comprehensive set of source and treatment control PDFs selected to manage pathogen indicators that, in combination, would reduce pathogen indicator levels in runoff from the proposed project. With this series of PDFs, the proposed project would not result in appreciable changes in pathogen indicator levels in the receiving waters compared to existing conditions, and potential bacteria-related water quality impacts, including those associated with total coliform, are considered less than significant.

Hydrocarbons

Various forms of hydrocarbons (oil and grease) are common constituents associated with urban runoff; however, these constituents are difficult to measure. Based on this consideration, hydrocarbons were not modeled but are addressed qualitatively.

Hydrocarbons are a broad class of compounds, most of which are non-toxic. Hydrocarbons are hydrophobic (low solubility in water), have the potential to volatilize, and most forms are biodegradable. A subset of hydrocarbons, Polynuclear Aromatic Hydrocarbons (PAHs) can be toxic depending on the concentration levels, exposure history, and sensitivity of the receptor organisms. Of particular concern are those PAH compounds associated with transportation-related sources.

Although the concentration of hydrocarbons in runoff is expected to increase slightly under post-development project conditions due to the increase in roadways, driveways, parking areas, and vehicle use, the project PDFs are expected to prevent appreciable increases in

hydrocarbon concentrations from leaving the project site. Source control PDFs that address petroleum hydrocarbons include educational materials on used oil programs, carpooling, and public transportation alternatives to driving; BMP maintenance; and street sweeping private streets. Although vehicle emissions and leaks are the primary source of hydrocarbons in urban areas, it is anticipated that vehicles in the proposed development would in general be well-maintained and newer models that would help to limit emissions and leaks. Lastly, the parking lot site design, source controls, treatment BMPs and vegetation and soils within the treatment control PDFs would adsorb the low levels of emulsified oils in stormwater runoff, preventing discharge of hydrocarbons and visible film in the discharge or the coating of objects in the receiving water.

The majority of PAHs in stormwater adsorb to the organic carbon fraction of particulates in the runoff, including soot carbon generated from vehicle exhaust. For example, a stormwater runoff study found that the dissolved-phase PAHs represented less than 11 percent of the total concentration of PAHs. Consequently, the bioretention areas and vegetated swales proposed as PDFs, which are designed to treat pollutants through settling, filtration, and infiltration, would be effective at treating PAHs.

Los Angeles County conducted PAH analyses on 27 stormwater samples from a variety of land uses in the period 1994-2000. For those land uses where sufficient samples were taken and were above detection levels to estimate statistics, the mean concentrations of individual PAH compounds ranged from 0.04 to 0.83 micrograms per liter (μg/L). The reported means were less than the acute toxicity criteria from available literature. Moreover, the Los Angeles County data do not account for any treatment, whereas the treatment in the project's PDFs should result in a reduction in hydrocarbon concentrations inclusive of PAHs. This makes it very unlikely that impacts would occur to the receiving water due to hydrocarbon loads or concentrations.

On this basis, the effect of the proposed project on petroleum hydrocarbon levels in the receiving waters post-development is considered less than significant.

Trash and Debris

Urban development tends to generate significant amounts of trash and debris. Trash refers to any human-derived materials including paper, plastics, metals, glass and cloth. Debris is defined as any organic material transported by stormwater, including leaves, twigs, and grass clippings. Debris can be associated with the natural condition. Trash and debris is often characterized as material retained on a five-millimeter mesh screen. It contributes to the degradation of receiving waters by imposing an oxygen demand, attracting pests, disturbing physical habitats, clogging storm drains and conveyance culverts and mobilizing nutrients, pathogens, metals, and other pollutants that may be attached to the surface. Sources of trash in developed areas can be both accidental and intentional. During wet weather events, gross debris deposited on paved surfaces can be transported to storm drains, where it can be eventually discharged to receiving waters. Trash and debris can also be mobilized by wind and transported directly into waterways. Trash and debris can impose an oxygen demand on the water body as organic matter decomposes.

Urbanization could significantly increase trash and debris loads if left unchecked. However, the project PDFs, including source control and treatment BMPs, would minimize the adverse impacts of trash and debris. Source controls such as street sweeping, public education, fines for littering, and storm drain stenciling can be effective in reducing the amount of trash and debris that is available for mobilization during wet and dry weather events. Common area litter control would include a litter patrol, covered trash receptacles, emptying of trash receptacles in a timely fashion, and noting trash violations by tenants/homeowners or businesses and reporting the violations to the owner/Homeowners' Association for investigation. Catch basin inserts would be provided for parking lots. The project's PDFs would remove or prevent the release of floating materials, including solids, liquids, foam, or scum, from runoff discharges and would prevent impacts on dissolved oxygen in the receiving water due to decomposing debris.

Based on these considerations, post-development trash and debris is not expected to significantly impact the receiving waters of the proposed project.

Methylene Blue Activated Substances (MBAS)

MBAS, which is related to the presence of detergents in runoff, may be incidentally associated with urban development due to commercial and/or residential vehicle washing or other outdoor washing activities. Surfactants disturb the surface tension that affects insects and can affect gills in aquatic life.

The presence of soap in runoff from the proposed project would be controlled through the source control PDFs, including a public education program on residential and charity car washing. Other sources of MBAS, such as cross connections between sanitary and storm sewers, are unlikely given modern sanitary sewer installation methods and inspection and maintenance practices. Therefore, MBAS are not expected to significantly impact the receiving waters of the proposed project.

MS4 Permit Requirements for New Development as Defined in the SUSMP

Project design features include site design, source control, and treatment control BMPs in compliance with the SUSMP requirements, as summarized above in *Table 5.7-4*. Treatment control PDFs would treat runoff from the entire project area. Sizing criteria contained in the MS4 Permit and the SUSMP requirements would be met for all treatment control BMPs.

In summary, the proposed site design, source control, and treatment control PDFs have been selected for the project based on:

- Effectiveness for addressing pollutants of concern in runoff from the project, resulting in insignificant water quality impacts;

- Sizing and outlet design consistent with the MS4 Permit and SUSMP requirements;

- Additional design guidance consistent with the California BMP Handbook: New Development and Redevelopment, other literature, and best professional judgment;
- Hydrologic and water quality modeling to verify performance;
- Meeting mean annual percent capture criteria contained in the California BMP New Development Manual; and
- Providing specific O&M requirements to inspect and maintain the facilities.

On this basis, the proposed PDFs meet the MS4 Permit requirements for new development.

Pollutant Bioaccumulation

Certain pollutants have the potential to accumulate in treatment BMP vegetation and soils, potentially increasing the risk of exposure to wildlife and the food chain. Factors that could affect the extent of potential bioaccumulation, include:

- The bioavailability of the pollutant;
- Conditions in the soils (e.g., pH, acid-volatile sulfide concentration, organic content) that affect the form and bioavailability of the pollutant;
- The efficiency by which pollutants in the soils enter the plant community, the storage of these pollutants in plant tissues that are edible, and the utilization of the plants as a food source by animals;
- The type of habitats, organisms attracted to these habitats, and their feeding habits; and
- System design and maintenance.

The potential for bioaccumulation impacts from the proposed bioretention and vegetated swale facilities would be minimal. Since the site is largely impervious, very little coarse solids and associated pollutants are expected to be generated. The vegetation in the facilities would trap sediments and pollutants in the soils, which contain bacteria that metabolize and transform trace metals, therefore reducing the potential for these pollutants to enter the food chain. The facilities do not provide open water areas and are not likely to attract waterfowl.

In the literature, the primary pollutants that are of concern with regard to bioaccumulation are mercury and selenium. However, selenium and mercury are not naturally present at levels of concern in this watershed and would not be introduced by the proposed project. Therefore, bioaccumulation of selenium and mercury is not expected.

Bioaccumulation of pollutants in the Santa Clara River is not of concern due to the low concentrations of pollutants, below the benchmark Basin Plan objectives and CTR criteria, predicted in the treated runoff. Also, sediments in the Santa Clara River are transported downstream in the wet season by storm flows, and therefore do not accumulate.

On this basis, the potential for bioaccumulation and adverse effects on waterfowl and other species is considered less than significant.

Dry Weather Runoff

While there are no specific requirements in the MS4 Permit and the SUSMP requirements to treat dry-weather discharges from the project area, pollutants in dry weather flows could also be of concern because dry weather flow conditions occur throughout a large majority of the year, and because some of the TMDLs in downstream reaches of the Santa Clara River are applicable for dry weather conditions (e.g., nutrients and chloride).

Dry weather flows are typically low in sediment because the flows are relatively low and coarse suspended sediment tends to settle out or is filtered out by vegetation. As a consequence, pollutants that tend to be associated with suspended solids (e.g., phosphorus, some bacteria, some trace metals, and some pesticides) are typically found in very low concentrations in dry weather flows. The focus of the following discussion is therefore on constituents that tend to be dissolved, e.g., nitrate and trace metals, or constituents that are so small as to be effectively transported, e.g., pathogens and oil and grease.

In order to minimize the potential generation and transport of dissolved constituents, landscaping in public and common areas would utilize drought tolerant vegetation that requires little watering and chemical application. Landscape watering in common areas, commercial areas, multiple family residential areas, and in parks would use efficient irrigation technology utilizing evapotranspiration sensors to minimize excess watering.

In addition, educational programs and distribution of materials (source controls) would emphasize appropriate car washing locations (at commercial car washing facilities or the car wash pad in the multi-family residential areas) and techniques (minimizing usage of soap and water), encourage low impact landscaping and appropriate watering techniques, and discourage driveway and sidewalk washing. Illegal dumping would be discouraged by stenciling storm drain inlets and posting signs that illustrate the connection between the storm drain system and the receiving waters and natural systems downstream.

The bioretention areas and vegetated swales would provide treatment for and infiltrate dry weather flows and small storm events. Water cleansing is a natural function of vegetation, offering a range of treatment mechanisms. Sedimentation of particulates is the major removal mechanism. However the performance is enhanced as plant materials allow pollutants to come in contact with vegetation and soils containing bacteria that metabolize and transform pollutants, especially nutrients and trace metals. Plants also take up nutrients in their root system. Some pathogens would be removed through ultraviolet light degradation. Any oil and grease would be effectively adsorbed by the vegetation and soil within the low flow wetland vegetation. Dry weather flows and small storm flows would

infiltrate into the bottom of the basin after receiving treatment in the low flow wetland vegetation. The swales and bioretention basins would not be designed to have open pools of standing water.

The Orange County Public Health Laboratory conducted a monitoring study in 1998 in the San Juan Creek watershed to help determine the sources of pathogen indicators during dry weather conditions. Monitoring stations were located in the ocean, in creeks in the San Juan Creek watershed, and in storm drains. One finding of the study was that *"the highest concentrations of fecal coliforms and Enterococcus were found in the storm drains as compared to the creeks and ocean sampling sites. Samples taken from creek sites distant to human habitat also had low to moderate levels of bacteria, suggestive of fecal contamination by non-human sources."* The principal anthropogenic sources of pathogens into dry weather flows is leaking septic systems, cross-connections between sanitary sewers and storm drains, or leakage from the sanitary sewer system into groundwater, which feeds the dry and non-storm flows. However, the proposed project would be new development with new storm drains and sanitary sewer systems, which are expected to have minimal, if any, leakage.

The treatment control PDFs would infiltrate or evapotranspire all expected dry weather runoff from the project. It is expected that no dry weather discharge would occur to the Santa Clara River from the proposed project. Based on source control PDFs reducing the amount of dry weather runoff and treatment control PDFs capturing and treating the dry weather runoff that does occur, the impact from dry weather flows is considered less than significant.

Summary of Operational Surface Water Quality Impacts

With the exception of TSS concentrations and nitrate+nitrite-N concentrations, concentrations and loads of modeled constituents are predicted to increase under proposed conditions when compared to existing conditions. The modeled concentrations in runoff from developed areas with PDFs are below all benchmark water quality objectives and criteria and TMDL waste load allocations for the Santa Clara River and are addressed by a comprehensive site design, source control, and treatment control strategy and compliance with SUSMP, and General De-Watering Permit requirements.

Concentrations of hydrocarbons are expected to increase, while concentrations of pathogens, pesticides, and trash and debris may or may not increase under proposed conditions when compared to existing conditions, but none of the qualitatively assessed constituents are expected to significantly impact receiving waters due to the implementation of a comprehensive site design and a source control and treatment control strategy in compliance with the MS4 Permit Requirements, and General De-Watering Permit requirements. Therefore potential impacts from the proposed project on receiving water quality are not expected to be significant.

Mitigation Measures: *Tables 5.7-4* and *5.7-5* identify the proposed project's SUSMP requirements and corresponding Project Design Features, and treatment control BMPs that would fully mitigate project impacts. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

CONSTRUCTION-RELATED SURFACE WATER QUALITY IMPACTS

◆ ***CONSTRUCTION ACTIVITIES ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN ADVERSE IMPACTS TO SURFACE WATER QUALITY.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: The potential impacts of construction activities, construction materials, and non-stormwater runoff on water quality focus primarily on sediment (TSS and turbidity). Construction-related activities that are primarily responsible for sediment releases are related to exposing soils to potential mobilization by rainfall/runoff and wind. Such activities include removal of vegetation from the site, grading of the site, and trenching for infrastructure improvements. Environmental factors that affect erosion include topographic, soil, and rainfall characteristics. Non sediment-related pollutants that are also of concern during construction relate to construction materials and non-stormwater flows and include waste construction materials such as chemicals, liquid products, petroleum hydrocarbon products used in building construction or the maintenance of heavy equipment, as well as concrete-related waste streams.

Construction impacts due to the project development, including the in-stream construction elements of the proposed project, would be minimized through compliance with the General Construction Permit. This permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which must include erosion and sediment control BMPs that would meet or exceed measures required by the General Construction Permit, as well as BMPs that control the other potential construction-related pollutants. A SWPPP would be developed as required by, and in compliance with, the General Construction Permit and the County of Los Angeles Standard Conditions. Erosion control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap sediment once it has been mobilized. The General Permit requires the SWPPP to include a menu of BMPs to be selected and implemented based on the phase of construction and the weather conditions to effectively control erosion and sediment to the Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology (BAT/BCT). BMPs to be included in this menu include, among others: slope stabilization using rock or vegetation, re-vegetation, hydro-seeding or using tackifiers on exposed areas and stockpiles, installation of energy dissipators, drop structures, catch basin inlet protection, construction materials management, and cover and containment of construction materials and wastes. This permit requires BMP selection, implementation, and maintenance during the construction phase of development.

The significance criteria for the construction phase of the proposed project is implementation of BMPs consistent with BAT/BCT, as required by the Construction General Permit and the general waste discharge requirements in the Dewatering General Permit. The proposed project would reduce or prevent erosion and sediment transport and transport of other potential pollutants from the project site during the construction phase through implementation of BMPs meeting BAT/BCT in order to prevent or minimize environmental impacts and to ensure that discharges during the construction phase would not cause or

contribute to any exceedance of water quality standards in the receiving waters. These BMPs would assure effective control of not only sediment discharge, but also of pollutants associated with sediments, such as and not limited to nutrients, heavy metals, and certain legacy pesticides, including legacy pesticides.

Discharges of turbid runoff are primarily of concern during the construction phase of development. The SWPPP must contain sediment and erosion control BMPs pursuant to the General Construction Permit, and those BMPs must effectively control erosion and discharge of sediment, along with other pollutants, per the Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology (BAT/BCT) standards. Additionally, fertilizer control and non-visible pollutant monitoring and trash control BMPs in the SWPPP would combine to help control turbidity during the construction phase.

Transport of legacy pesticides adsorbed to existing site sediments may be a concern during the construction phase of development. The SWPPP must contain sediment and erosion control BMPs pursuant to the General Construction Permit, and those BMPs must effectively control erosion and the discharge of sediment along with other pollutants per the BAT/BCT standards. Based on these sediment controls construction-related impacts associated with pesticides are expected to be less than significant.

During the construction phase, hydrocarbons in site runoff could result from construction equipment/vehicle fueling or spills. Construction-related impacts are addressed below. However, pursuant to the General Construction Permit, the Construction Stormwater Pollution Prevention Plan would include BMPs that address proper handling of petroleum products on the construction site, such as proper petroleum product storage and spill response practices, and those BMPs must effectively prevent the release of hydrocarbons to runoff per the Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology standards. PAH that are adsorbed to sediment during the construction phase would be effectively controlled via the erosion and sediment control BMPs. For these reasons, construction-related impacts related to hydrocarbons on water quality are considered less than significant.

During the construction phase, trash and debris have the potential for buildup due to lack of proper Contractor maintenance. Per the General Construction Permit, the SWPPP for the site must contain BMPs for trash control (trash racks on outlets, catch basin inserts, good housekeeping practices, etc.). Compliance with the Permit Requirements and inclusion of these BMPs, meeting BAT/BCT, included in the SWPPP would mitigate impacts from trash and debris to a level less than significant.

Construction on the project site may require dewatering and non-stormwater related discharges. For example, dewatering may be necessary for construction of outfall protection, if groundwater is encountered during grading, or to allow discharges associated with testing of water lines, sprinkler systems and other facilities.

In general, the General Construction Permit authorizes construction dewatering activities and other construction related non-stormwater discharges as long as they (a) comply with Section A.9 of the General Permit; (b) do not cause or contribute to violation of any water quality standards, (c) do not violate any other provisions of the General Permit, (d) do not require a non-stormwater permit as issued by some RWQCBs, and (e) are not prohibited by a Basin Plan provision. Full compliance with applicable local, state and federal water quality standards by the project applicant would assure that potential impacts from dewatering discharges are not significant.

An additional project design feature would be implemented to protect receiving waters from dewatering and construction related non-stormwater discharges. Such discharges would be implemented in compliance with the Los Angeles RWQCB's General Waste Discharge Requirements (WDRs) under Order No. R4-2003-0111, NPDES No. CAG994004 governing construction-related dewatering discharges within the project development areas. Typical BMPs for construction dewatering include infiltration of clean groundwater; on-site treatment using suitable treatment technologies; on-site or transport off-site for sanitary sewer discharge with local sewer district approval; or use of a sedimentation bag for small volumes of localized dewatering. Compliance with these WDRs constitutes a PDF for the proposed project, further assuring that the impacts of these discharges are not significant.

On this basis, the impact of construction-related runoff from the proposed project is considered less than significant.

***Mitigation Measures*:** *Tables 5.7-4* and *5.7-5* identify the proposed project's SUSMP requirements and corresponding Project Design Features, and treatment control BMPs that would fully mitigate project impacts. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

GROUNDWATER QUALITY IMPACTS

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT COULD RESULT IN ADVERSE GROUNDWATER QUALITY IMPACTS.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: Discharge from the proposed project's developed areas to groundwater would occur at three locations: (1) through general infiltration of irrigation water, (2) through incidental infiltration of urban runoff in the proposed treatment control PDFs after treatment, and (3) infiltration of urban runoff, after treatment in the project PDFs, in the Santa Clara River, which is the primary recharge zone for groundwater in the Santa Clarita Valley. Groundwater quality would be fully protected through implementation of the project's site design, source control, and treatment control PDFs prior to discharge of project runoff to groundwater.

The pollutant of concern with respect to groundwater is nitrate-N plus nitrite-N. The Basin Plan groundwater quality objective for nitrate-nitrogen plus nitrite-nitrogen is 10 mg/L (which is more stringent than the objective for nitrate-nitrogen alone (10 mg/L) and for nitrite-nitrogen alone (1 mg/L)). The predicted nitrate-nitrogen plus nitrite-nitrogen concentration in runoff after treatment in the project PDFs is 0.8 mg/L, which is well below the groundwater quality objective. The typical irrigation water supply nitrate-nitrogen concentration is 0.63 mg/L, which is also well below the groundwater quality objective.

On this basis, the potential for adversely affecting groundwater quality is considered less than significant.

***Mitigation Measures*:** *Table 5.7-4* identifies the proposed project's SUSMP requirements and corresponding Project Design Features that would fully mitigate project impacts. No additional mitigation measures are required.

Level of Significance After Mitigation: Less Than Significant Impact.

5.7.6 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS WOULD CONTRIBUTE TO CUMULATIVE HYDROLOGY AND WATER QUALITY IMPACTS.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis:

Hydromodification

As previously discussed, the proposed project would contribute only 0.05 percent of the total potential impervious surface within the watershed at buildout, and includes a number of hydrologic source control PDFs that would substantially lessen any potential contribution to cumulative hydromodification impacts to the Santa Clara River. In addition, all future development within the watershed would implement hydromodification controls to meet flow criteria that would be adopted by the LADPW under Part 4, § D.1 of the MS4 Permit. To assure that a project complies with any new flow standards that may be adopted in the future, the project would be conditioned to require, as a design feature, design of the hydrologic features to control post-development runoff as necessary to meet flow criteria that may be adopted from time to time under Part 4, § D.1 of the MS4 Permit.

Based on the area of impervious surface proposed, the avoidance and minimization provided by the various hydromodification source controls included as project design features, the fact that a project would be conditioned to include project design features to meet future flow control standards established under the MS4 Permit to protect the river from hydromodification impacts, and that future development projects within the watershed would control flow in compliance with the requirements of the MS4 Permit, the proposed project's contribution to cumulative hydromodification impacts to the Santa Clara River would be less than significant and consistent with the requirements of the MS4 permit.

Groundwater Recharge

Increased urbanization in the Santa Clarita Valley has resulted in the irrigation of previously undeveloped lands. The effect of irrigation is to maintain higher soil moisture levels during the summer than would exist if no irrigation were occurring. Consequently, a greater percentage of the fall/winter precipitation recharges groundwater beneath irrigated land parcels than beneath undeveloped land parcels. In addition, urbanization in the Santa Clarita Valley has occurred in part because of the importation of State Water project (SWP) water, which began in 1980. SWP water use has increased steadily, reaching nearly 44,500 acre-feet (AF) in 2003. Two-thirds of this water is used outdoors, and a portion of this water eventually infiltrates to groundwater. The remaining one-third is used indoors and is subsequently routed to local water reclamation plants (WRPs) and then to the Santa Clara River (after treatment). A portion of this water flows downstream out of the basin, and a portion infiltrates to groundwater.

Records show that groundwater levels and the amount of groundwater in storage were similar in both the late 1990s and the early 1980s, despite a significant increase in the urbanized area during these two decades. This long-term stability of groundwater levels is attributed in part to the significant volume of natural recharge that occurs in the streambeds, which do not contain paved, urban land areas. On a long-term historical basis, groundwater pumping volumes have not increased due to urbanization, compared with pumping volumes during the 1950s and 1960s when water was used primarily for agriculture. Also, the importation of SWP water is another process that contributes to recharge in the Valley. In summary, urbanization has been accompanied by long-term stability in pumping and groundwater levels, plus the addition of imported SWP water to the Valley, which together have not reduced recharge to groundwater, nor depleted the amount of groundwater that is in storage within the Valley.

Based on the above discussion, the cumulative impact on groundwater recharge is considered less than significant.

Surface Water Quality

As previously discussed, the anticipated quality of effluent expected from the proposed project's PDFs would not contribute loads or concentrations of pollutants of concern that would be expected to cause or contribute to a violation of the water quality standards in the project's receiving waters. Therefore, the proposed project's incremental effects on surface water quality are not expected to be significant.

The proposed project's surface runoff water quality, after PDFs, both during construction and post-development, is predicted to comply with adopted regulatory requirements that are designed by the LARWQCB to assure that regional development does not adversely affect water quality, including MS4 Permit and SUSMP requirements; General Construction Permit requirements; General Dewatering Permit requirements; and benchmark Basin Plan water quality objectives, CTR criteria, and TMDLs. Any future urban development occurring in the Santa Clara River watershed must also comply with these requirements. Therefore, cumulative impacts on surface water quality of receiving waters from the proposed project

and future urban development in the Santa Clara Watershed are addressed through compliance with the MS4 Permit and SUSMP requirements; General Construction Permit requirements; General Dewatering Permit requirements; and benchmark Basin Plan water quality objectives, CTR criteria, and TMDLs, which are intended to be protective of beneficial uses of the receiving waters. Based on compliance with these requirements designed to protect beneficial uses, cumulative water quality impacts are mitigated to a less than significant level.

Groundwater Quality

As previously discussed, the anticipated quality of stormwater runoff discharges from the project's developed areas and irrigation to groundwater would not contribute loads or concentrations of pollutants of concern that would be expected to cause or contribute to a violation of the groundwater quality standards. Therefore, the proposed project's incremental effects on groundwater quality are not expected to be significant.

The project's discharges to groundwater, after PDFs, both during construction and post-development, is predicted to comply with adopted regulatory requirements that are designed by the LARWQCB to assure that regional development does not adversely affect water quality, including MS4 Permit and SUSMP requirements; General Construction Permit requirements; General Dewatering Permit requirements; and benchmark Basin Plan groundwater quality objectives. Any future urban development occurring in the Santa Clara River watershed must also comply with these requirements. Therefore, cumulative impacts on groundwater quality from the proposed project and future urban development in the Santa Clara Watershed are addressed through compliance with the MS4 Permit and SUSMP requirements, General Construction Permit requirements, General Dewatering Permit requirements, and benchmark Basin Plan groundwater quality objectives, which are intended to be protective of beneficial uses of the groundwater. Based on compliance with these requirements designed to protect beneficial uses, cumulative groundwater quality impacts are mitigated to a less than significant level.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

5.7.7 UNAVOIDABLE SIGNIFICANT IMPACTS

All impacts related to hydrology and water quality would be reduced to a level less than significant with implementation of applicable project design features and associated BMPs. As such, no unavoidable significant impacts to hydrology and water quality would result from project implementation.

Section 5.8
WATER

5.8 WATER SUPPLY

This section describes the existing water purveyors in the Santa Clarita Valley and their service areas, and summarizes important characteristics applicable to the water service area in the Santa Clarita Valley, which includes the project site. The data found in the section provides an important backdrop to understanding water supplies and demand in the Santa Clarita Valley generally, as well as understanding the Soledad Village project's water demand and supplies. The following list identifies all of the documentation that has been relied upon in the preparation of the Soledad Village Water Study (WSA), prepared by Impact Sciences (October 2005); refer to Appendix H, Water Study.[1]

- *2000 Urban Water Management Plan*, *2005 Groundwater Perchlorate Contamination Amendment and Other Amendments*, prepared by Castaic Lake Water Agency (CLWA), January;
- *Impact and Response to Perchlorate Contamination*, prepared by Luhdorff & Scalmanini Consulting Engineers, April 2005;
- *Santa Clarita Valley Water Report 2004*, prepared by Luhdorff and Scalmanini, Consulting Engineers, for CLWA, Los Angeles County Waterworks District #36, Newhall County Water District (NCWD), and VWC, May 2005;
- *Santa Clarita Valley Water Report 2003*, prepared by Luhdorff and Scalmanini, Consulting Engineers, for CLWA, Los Angeles County Waterworks District #36, Santa Clarita Water Division of CLWA, and VWC, May 2004;
- *Santa Clarita Valley Water Report 2002*, prepared by Luhdorff and Scalmanini, Consulting Engineers, for CLWA, Los Angeles County Waterworks District #36, NCWD, and VWC, April 2003;
- *2001 Update Report, Hydrogeologic Conditions in the Alluvial and Saugus Formation Aquifer Systems*, prepared by Richard C. Slade & Associates LLC, July 2002;
- *Capital Improvement Program*, prepared by CLWA, Kennedy-Jenks Consultants, 2003;
- *The Final State Water Project Delivery Reliability Report*, prepared by California Department of Water Resources, 2002;
- *Water Supply Contract Between the DWR and the CLWA*, (plus amendments, including the "Monterey Amendment," 1995, and Amendment No. 18, 1999, the transfer of 41,000 AF of entitlement from Kern County Water Agency [KCWA] to CLWA), 1963;

[1] All the reference materials are located at the City of Santa Clarita Planning and Economic Development Department, located at 23920 Valencia Boulevard, Suite 300, Santa Clarita, California, 91355.

- *2002 Semitropic Groundwater Storage Program and Point of Delivery Agreement Among the DWR, CLWA and KCWA*;
- *2003 Semitropic Groundwater Storage Program*;
- *Water Management Program*, prepared by Valencia Water Company (VWC), 2001;
- *Hydrogeologic Investigation of the Perennial Yield and Artificial Recharge Potential of the Alluvial Sediments in the Santa Clarita Valley of Los Angeles County, California*, prepared by Richard C. Slade & Associates, December 1986;
- *Hydrogeologic Assessment of the Saugus Formation in the Santa Clarita Valley of Los Angeles County, California*, prepared by Richard C. Slade & Associates, February 1988;
- A technical memorandum prepared by Richard C. Slade & Associates, November 16, 2000;
- A letter from Joseph C. Scalmanini, Luhdorff and Scalmanini Consulting Engineers, dated December 15, 2000, regarding review of the groundwater components of the *UWMP*;
- *Assessment of the Hydrogeologic Feasibility of Injection and Recovery of Water in the Saugus Formation, Santa Clarita Valley, California*, prepared by Richard C. Slade & Associates, February 2001, including the Technical Appendix *Hydrogeologic Conditions in the Saugus Formation, Santa Clarita Valley, California*, February 2001;
- *Newhall Ranch ASR Impact Evaluation*, prepared by CH2MHILL, February 2001;
- *Newhall Ranch Updated Water Resources Impact Evaluation*, prepared by CH2MHILL, September 2002; and
- *Well Q2 Report*, prepared by VWC, April 2005.

5.8.1 ENVIRONMENTAL SETTING

WATER SERVICE

Castaic Lake Water Agency

Castaic Lake Water Agency (CLWA) is a public agency that serves an area of 195 square miles in Los Angeles and Ventura counties. CLWA is a water wholesaler that provides approximately one-half of the water for Santa Clarita households and businesses. CLWA operates two potable water treatment plants, storage facilities, and over 17 miles of transmission pipelines. CLWA supplements local groundwater supplies with State Water Project (SWP) water from northern California. This water is treated and delivered to the local water retailers. The four retail purveyors served by CLWA are the Valencia Water

Company (VWC), Los Angeles County Water District #36, Newhall County Water District (NCWD) and the Santa Clarita Division of CLWA (SCWD).

CLWA also delivers highly treated recycled water from one of the two water reclamation plants in the Santa Clarita Valley owned by the Sanitation Districts of Los Angeles County, in order to meet non-potable water demands (golf courses and landscape irrigation, etc.).
In 2001, CLWA signed the *Memorandum of Understanding Regarding Urban Water Conservation in California* (MOU) on behalf of the CLWA service area, as recommended in the *Amended 2000 UWMP*. By signing the MOU, CLWA became a member of the California Urban Water Conservation Council (CUWCC) and pledged to implement all cost-effective Best Management Practices (BMPs) for water conservation. CLWA has implemented 13 of the 14 BMPs recommended by CUWCC (one BMP is currently under revision by CUWCC). CLWA has estimated that conservation measures within the service area can reduce total water demands by approximately ten percent.

WATER SUPPLY

The current water supply for the Santa Clarita Valley is derived from five primary sources:

- Groundwater from the Alluvial Aquifer;
- Groundwater from the Saugus Formation;
- Imported SWP Water;
- Dry Year Groundwater Banking Programs; and
- Recycled Water.

The sources of water supply within CLWA's service area can be characterized as: (1) local supplies consisting of groundwater and recycled water; and (2) imported supplies that are transported via the SWP and consisting of SWP contract amounts and dry year supplies delivered from groundwater banking programs.

Potential future water sources include acquisition of additional imported water supplies, recycled water, desalination, storm water runoff, increased dry year Saugus pumping, and additional SWP reliability projects. Demand side management programs (conservation) is also considered a component of water supply resulting from efforts by CLWA and other retailers to reduce water demands on a long term basis.

Local Water Supplies

Groundwater

Groundwater is drawn from two aquifer systems within the Santa Clara River Valley East Sub-basin (Basin), one of the several sub-basins identified along the Santa Clara River in Los Angeles and Ventura counties. The Basin is approximately 22 miles long east to west and 13 miles wide. The shallow aquifer system is designated the Alluvial Aquifer and the deeper aquifer is designated the Saugus Formation.

It is estimated that approximately 200,000 acre-feet (AF) of water is in storage in the Alluvial Aquifer and approximately 1.65 million AF of potentially usable groundwater is present from depths of 500 to 2,500 feet in the Saugus Formation. Neither aquifer system is in overdraft at the present time. The Basin has not been adjudicated and has not been identified as overdrafted or projected to be overdrafted by the Department of Water Resources.

Total pumpage from the Alluvial Aquifer in 2004 was approximately 33,800 AF, an increase of approximately 200 AF from 2003. Of the total Alluvial Aquifer pumpage in 2004, 56 percent (approximately 19,000 AF) was for municipal water supply, and the remaining 44 percent was utilized for agricultural and other miscellaneous. Over the previous 20 years, total pumpage from the Alluvial Aquifer has ranged from a low of approximately 20,000 AFY in 1983 to slightly more than 43,000 AFY in 1999. The Allluvial Aquifer has a sustainable yield ranging from 30,000 to 40,000 AFY. The total annual groundwater production from the Alluvial Aquifer (urban and agricultural production) over the last 10 years has averaged approximately 35,000 AFY, approximately 10 percent higher than earlier estimates of the practical or perennial yield. However, there is no evidence of undesirable conditions that might be an indication of aquifer overdraft.

Total pumpage from the Saugus Formation in 2004 was 6,500 AF, an increase of approximately 2,300 AF from 2003. Of the total Saugus Formation pumpage in 2004, most (5,700 AF) was for municipal water supply, and the remainder (800 AF) was for agricultural and other miscellaneous uses. Groundwater pumpage from the Saugus Formation peaked in the early 1990s and the declined steadily; pumpage remained stable, at an average of approximately 4,800 AFY, since 1998. On a long-term average basis since the importation of SWP water, total pumpage from the Saugus Formation has ranged from a low of approximately 3,700 AFY in 1999 to a high of nearly 15,000 AFY in 1991; average pumpage from 1980 to present has been approximately 7,000 AFY. It is estimated that the Saugus Formation has a sustainable operational yield of 7,500 to 15,000 AFY, and that extraction can be increased on an infrequent basis to range from 15,000 to 35,000 AFY, without creating undesirable conditions (overdraft). However, the increase to 35,000 AFY would be temporary and would need to return to, or be reduced below, the historical range of 7,500 to 15,000 AFY once rainfall patterns returned to normal in order to avoid long-term adverse affects to the aquifer.

Recycled Water

Wastewater that has been highly treated and disinfected can be reused for landscape irrigation and other purposes. It is not suitable for use as potable water. In 1993, CLWA completed a *Reclaimed Water System Master Plan* (*Master Plan*), to use recycled water as a reliable water source to meet some non-potable demand within Santa Clarita Valley. The *Master Plan* is being updated, and the amount of recycled water expected to be produced is approximately 17,000 AFY in 2020. CLWA is currently under contract for 1,700 AFY that became available in 2003.

Imported Supplies

SWP Overview

In 1951, the California legislature authorized construction of a large state water storage and delivery system. Eight years later, in 1959, the legislature authorized the submission for voter approval of a $1.75 billion general obligation bond issue to build the SWP system. The voters approved the measure, which enabled DWR to commence construction of the SWP.

The DWR operates and manages the SWP facilities. The SWP is the largest state-built, multi-purpose water project in the country. The SWP was designed and built to deliver water, control floods, generate power, provide recreational opportunities and enhance fish and wildlife habitats. SWP water supplies are used for both urban and agricultural uses throughout California. The SWP facilities consist of a complex system of dams, reservoirs, power plants, pumping plants, canals and aqueducts to deliver water.

At the inception of the SWP, DWR entered into individual water supply contracts with agricultural and urban water suppliers (SWP contractors) throughout California. The contracts were the method used to fund construction and operation of the SWP facilities for the delivery of water to the SWP contractors. Each such contract sets forth a maximum annual allocation of SWP water, which is stated in Table A to the contract (Table A Amount, or allocation).

There are currently 29 SWP contractors with water supply contracts with DWR. A SWP contractor may annually request that DWR deliver water in the following year in any amount up to the SWP contractor's Table A Amount. The SWP contracts provide that in a year when DWR is unable to deliver the full amount of contractor requests, deliveries to contractors will be reduced so that total deliveries equal total available supply for that year. Some SWP contractors, including CLWA, historically have never requested delivery of their full annual amount because lower growth, other water supplies and water conservation efforts have held their demand below projections. Other SWP contractors historically have ordered their full Table A Amount nearly every year.

Existing long-term SWP water supply contracts called for the annual delivery of 4,103,651 acre-feet of Table A water by 1997 through SWP facilities, gradually increasing to a maximum of 4,172,686 acre-feet by 2020. Actual demand, however, has also not developed as projected, owing to circumstances, which have changed since the long-term contracts were signed in the 1960s. The changes include slower population growth, changes in local land use, local water conservation programs and conjunctive-use programs. The most SWP Table A water delivered to date (2003) in any year was about 3.5 million acre-feet in 2000. The demands for SWP water are expected to increase as the population of California continues to increase.

Monterey Agreement

By 1994, disputes arose among the many agricultural and urban SWP contractors and DWR regarding the availability and distribution of water through SWP facilities. To avoid potential litigation, DWR and agricultural and urban SWP contractors met in Monterey, California to attempt to resolve the ongoing disputes. After negotiations, DWR and the agricultural and urban SWP contractors agreed to a statement of principles, which became known as the "Monterey Agreement."

The Monterey Agreement, signed by DWR and many of the agricultural and urban SWP contractors in 1994, established principles to be incorporated in contract amendments (the Monterrey Amendments) to be offered to the SWP contractors. To date, all but two SWP contractors (Plumas County Flood Control and Water Conservation District and Empire West Side Irrigation District) have accepted the amendments. The amendments have three primary objectives: (i) to increase the reliability of all SWP contractors' water supplies; (ii) to stabilize the rate structure in order to improve the financial viability of the SWP; and (iii) to increase water management flexibility for all SWP contractors.

The Monterey Agreement provided a number of water management tools that have allowed local agencies to maximize their use of available supplies, thus meeting increased demand without construction of new SWP facilities. Most of these tools are environmentally beneficial or neutral. They include the following:

- Water Transfers: SWP contractors can transfer unneeded Table A water to other contractors on a permanent basis. This provides financial relief from SWP charges for the seller and additional water supplies for the buyer.
- Turnback Pool: SWP contractors with unneeded supplies on a short-term basis can turn their water back into a pool for purchase by other contractors.
- Storage Outside Service Area: SWP contractors are permitted to store water outside their service area (for example, in a groundwater banking project) for later use within their service areas.
- Terminal Reservoirs: SWP contractors are permitted to utilize flexible storage in Castaic Lake and Lake Perris to enhance their water supply reliability.
- SWP Allocation: Allocation of available SWP supply is made based on the proportion of each contractors' maximum contractual Table A water, rather than historical use with agricultural SWP contractors being cut first as in the past. This provides additional reliability to agricultural contractors earlier in the year, which improves their planning capability.
- Interruptible Water: Interruptible water (available surplus water) is distributed on an equal basis among SWP contractors rather than to agricultural SWP contractors first.
- Flexibility: Additional flexibility is granted to SWP contractors wishing to increase or decrease the Table A Amounts in their contracts.

- Banking: The Kern Water Bank was transferred to SWP agricultural users for development and use. This transfer has provided agricultural users as well as other local agencies with additional flexibility and water supply reliability.

- Non-Project Water: Use of project facilities for conveyance of non-project water is permitted to assist SWP contractors, which are able to locate additional sources of water.

As stated above, the Monterey Agreement has facilitated water transfers among SWP contractors. These water transfer provisions have resulted in 130,000 acre-feet of agricultural SWP contractors' Table A Amount being available for sale to urban SWP contractors. Agreements already have been executed among contractors to purchase the additional Table A water from the agricultural SWP contractors. Agreements for the additional Table A Amount of SWP water are effective upon execution (DWR Bulletin No. 132-96, August 1997, Ch. 1, p. 5), and, therefore, are considered permanent water reallocations of SWP Table A water. These permanent transfers of SWP Table A Amounts have allowed urban SWP contractors to obtain additional SWP Table A Amounts, thereby increasing their overall deliveries, even in times of drought. The permanent transfers of SWP Table A Amounts have also allowed SWP urban contractors to increase the reliability of their deliveries by having more Table A Amounts available overall.

The DWR now has approximately eight years of experience in implementing the Monterey Agreement and the associated water management tools identified above. The SWP contractors have come to rely on the Monterey Agreement water management tools and other provisions in their planning activities. Some of the results to date include the following:

- Up to 200,000 acre-feet transferred annually in the Turnback Pool program;

- Nearly 114,000 acre-feet transferred in permanent Table A water transfers;

- Nearly 1,000,000 acre-feet stored outside SWP contractors' service areas;

- Utilization of terminal reservoirs' flexible storage; and

- Delivery of up to 200,000 acre-feet annually in Interruptible water (available surplus water).

Monterey Agreement Environmental Review and Litigation

The Monterey Agreement gave rise to potentially significant environmental effects requiring analysis under CEQA. Therefore, a Program EIR was prepared to address the potentially significant environmental effects of implementing the Monterey Agreement. The Final Program EIR was certified in October 1995. The adequacy of the Final EIR was challenged in litigation arising under CEQA. The Sacramento Superior Court upheld the adequacy of the EIR. Before and after the trial court's decision, DWR and the agricultural and urban

SWP contractors who had executed the Monterey Agreement began implementing various amendment provisions, including the completion of permanent transfers of Table A Amounts among agricultural and urban SWP contractors. The trial court's decision was subsequently appealed. On appeal, the petitioners sought a writ to prevent further implementation of the Monterey Agreement during the appeal. However, the appellate court denied the requested writ (DWR Bulletin 132-98, November 1999, Ch. 6, p. 2).

The appellate court reversed the trial court's decision. The appellate court held that the Program EIR for the Monterey Agreement was improperly prepared by the Central Coast Water Agency, as "Lead Agency" under CEQA, rather than by DWR, which should have been the "Lead Agency." The appellate court also found that the EIR did not sufficiently discuss implementation of a "no project" alternative.

The court then concluded that a new EIR must be prepared and certified. Finally, the court held that the trial court improperly dismissed the plaintiffs' challenge to DWR's transfer of title to the Kern Water Bank from DWR to KCWA.

The appellate court then remanded the case to the trial court and directed that the trial court issue a writ of mandate vacating certification of the EIR and retaining jurisdiction until DWR certifies an EIR in accordance with CEQA. The appellate court further directed that the trial court consider whether the Monterey Agreement may continue to be implemented while the new EIR is being prepared. (Planning & Conservation League v. Department of Water Resources (2000) 83 Cal.App.4th 892.)

The appellate court decision invalidated certification of the EIR, but did not set aside, invalidate or otherwise vacate the Monterey Agreement. In addition, no court orders have been issued to "stay" further implementation of the Monterey Agreement.

In March 2001, the parties to the Monterey Agreement litigation commenced confidential mediation discussions in San Francisco. In a "Joint Statement on the Monterey Amendments Litigation," dated July 18, 2002, the parties to the litigation stated that they "have reached a joint agreement on the principles for settling the lawsuit…." The parties also stated that DWR had commenced preparing a new EIR for the Monterey Agreement. In May 2003, the DWR, Central Coast Water Authority, Kern Water Bank Authority and certain SWP contractors entered into a Settlement Agreement (Settlement) with the Planning and Conservation League, Plumas County Flood Control and Water Conservation District, and Citizens Planning Association of Santa Barbara County, Inc. Pursuant to the Settlement, the department agreed to public negotiation of certain amendments to the long term water supply contracts, including contract amendments to transfer Table A Amounts between existing SWP contractors. The settlement also contains an "Acknowledgment and Agreement Regarding Kern-Castaic Transfer" (i.e., the 41,000 acre-foot CLWA/WRMWSD water transfer described under the heading Santa Clarita Valley SWP Supplies, below). The settlement states: "nothing in this Settlement Agreement is intended to predispose the remedies or other actions that may occur in [the] litigation [on the 41,000 acre-foot transfer]." Consequently, the decisions reached in that litigation stand. Refer to Appendix H for the full text of the Settlement and further information regarding the Monterey Agreement and Monterey Amendment.

Santa Clarita Valley SWP Supplies

CLWA SWP Table A Amount

Imported water from the SWP has been a supplemental source of supply to the Santa Clarita Valley since 1980. The SWP is contracted (and designed) to deliver approximately 4.2 million acre-feet of water per year to 29 contracting agencies. However, because the SWP has not been fully constructed and cannot, on a regular basis, deliver the entire 4.2 million acre-feet. CLWA is a contracting agency with a current maximum annual SWP Table A Amount of 95,200 AFY, or about 2.3 percent of the total (The CLWA/WRMWSD water transfer of 41,000 AFY has been completed, CLWA has paid approximately $47 million for the additional Table A Amount, the monies have been delivered, the sales price has been financed through CLWA by tax-exempt bonds, and DWR has increased CLWA's SWP maximum Table A Amount to 95,200 AFY because it was a permanent transfer/reallocation of SWP Table A Entitlement between SWP contractors).

Prior to completion of the CLWA/WRMWSD water transfer, the proposed transfer was the subject of environmental review by the water agencies. The agencies selling the 41,000 acre-feet of SWP Table A Amount to CLWA assessed the environmental consequences of the proposed transfer within their service area in a Final EIR, dated June 1998. This EIR was certified in 1998 and has never been the subject of judicial review. As a result, the EIR is conclusively presumed to be valid. (Pub. Res. Code §21167.2)

CLWA also prepared a supplemental Final EIR, which assessed the environmental effects of CLWA's acquisition of the 41,000 acre-feet within its service area. The Board of Directors of CLWA certified the Supplemental Final EIR in March 1999. Thereafter, in April 1999, a lawsuit was brought challenging the adequacy of the EIR under CEQA (Friends of the Santa Clara River, et al. v. Castaic Lake Water Agency, et al., Case No. BS 056954). The trial court ruled in favor of CLWA and upheld the adequacy of the EIR under CEQA.

In October 2000, the plaintiffs filed an appeal. The appellate court reversed the trial court's judgment and ordered CLWA's EIR decertified. However, the appellate court did not order CLWA to void its approval of the water transfer. Instead, the appellate court remanded the matter to the trial court for further proceedings. After a hearing on September 24, 2002, the trial court concluded that CLWA could utilize the 41,000 AFY to which it is entitled. In December 2004, CLWA certified a new EIR addressing the impacts of the water transfer agreement. That document is now the subject of legal challenge.

Status of CLWA's Acquisition Under the Monterey Agreement

The CLWA/WRMWSD transfer of SWP Table A Amount was the type of water transfer that fell within the provisions of the Monterey Agreement. As stated above, under the Monterey Agreement, certain SWP agricultural contractors agreed that 130,000 acre-feet of their Table A Amount could be transferred to urban contractors. The CLWA 41,000 acre-feet acquisition was a part of the 130,000 acre-feet of SWP Table A Amount, which has been transferred under the Monterey Agreement.

The Monterey Agreement provides for those transfers by the participating SWP contractors, thus facilitating transfers of Table A Amounts from agricultural to urban SWP contractors. As stated above, the environmental documentation for the Monterey Agreement has been decertified. However, the legal proceedings (Planning and Conservation League v. Department of Water Resources [2000] 83 Ca.App.4th 892 [PCL litigation]) have not invalidated the Monterey Agreement or enjoined either the Monterey Agreement or further implementation of the Monterey Agreement. In addition, the subsequent settlement agreement in the PCL litigation did not invalidate or otherwise enjoin the Monterey Agreement.

Even in the absence of the Monterey Agreement, CLWA's permanent acquisition of an additional 41,000 acre-feet of SWP Table A Amount could occur under existing SWP water supply contract provisions, subject to appropriate environmental review.

Nothing in the existing SWP water supply contracts, or applicable law, prohibit such water transfers with or without the Monterey Agreement. The Monterey Agreement simply provides a specific vehicle for accomplishing transfers of SWP Table A Amounts from agricultural to urban SWP contractors; the amendments under the Monterey Agreement are not the exclusive means by which that amount may be transferred. In support of that fact, in 1981 (almost 15 years before the Monterey Agreement), the entire SWP Table A Amount of the Hacienda Water District was permanently transferred to the Tulare Lake Basin Water Storage District, pursuant to an agreement approved by DWR.

The acquisition of the 41,000 acre-feet could proceed as a water transfer under existing law. See, e.g., Water Code §§382, 383 (authority for transferring surplus water) and Water Code §1745, et seq. (authority for transferring non-surplus water). The KCWA has reaffirmed its willingness to allow transfers of up to 130,000 acre-feet of SWP Table A Amounts under pre-Monterey Agreement conditions even if the Monterey Agreement is ultimately invalidated.

If it were not for existing SWP water supply contract provisions which allow such transfers (without the need for the Monterey Agreement), and existing law which enables CLWA to enter into contracts outside the context of the Monterey Agreement, an adverse final judgment invalidating the Monterey Agreement could affect CLWA's completed acquisition of the 41,000 acre-feet, which could in turn impair CLWA's supply of SWP water through its contracts with DWR and other SWP contractors. However, CLWA believes that an adverse outcome in the Monterey Agreement litigation is not likely to adversely affect CLWA's water supplies over the long term because CLWA believes that such a result is unlikely to "unwind" executed and completed agreements with respect to the permanent transfer of SWP Water Amounts.

In May 2003, the California Department of Water Resources (DWR) completed its *State Water Project Deliver Reliability Report*. This report provides current information on the ability of the SWP to deliver water under existing and future levels of development, assuming historical levels of precipitation. On average, the SWP will be able to deliver between 72 to 76 percent of the maximum total contract amount of 4.1 million AF at both current and projected (2020) levels of demand. Assuming SWP reliability of 76 percent, CLWA's average/normal water year deliveries would be approximately 72,350 AFY. The single critical

dry year deliveries, according to the DWR are forecasted to be approximately 18,088 AFY and the multiple dry year deliveries could be approximately 35,244 AFY.

Average/Normal Year, Single Dry Year and Multiple Dry Year Water Supply

The amount of water supply available from the various sources is summarized in *Table 5.8-1, Existing Water Supplies (Acre-Feet)*. *Table 5.8-1* is not intended to be an operational plan for how supplies would be used in a particular year, but rather identifies the complete range of water supplies available under a range of hydrologic conditions. Diversity of supply allows SCWD and the purveyors the option of drawing on multiple sources of supply in response to changing conditions such as varying climatic conditions (average/normal years, single dry years, multiple dry years), natural disasters and contamination with substances such as perchlorate.

Table 5.8-1
Existing Water Supplies (Acre-Feet)

	Available During		Available During Single Dry Year	Available During Each of Three Consecutive Dry Years
	Average Year	Wet Year		
Local Supplies				
Alluvial Aquifer	35,000	40,000	32,500	32,500
Saugus Formation	11,000	11,000	15,000	24,000
Recycled Water	1,700	1,700	1,700	1,700
Imported Supplies				
SWP Amount[1]	56,800	95,200	37,900	37,900
Draw From Short-term Semitropic Bank Account	0	0	50,870	16,950
Draw From Flexible Storage Account	0	0	4,684	1,561
Existing Supplies (2004)	**104,500**	**147,900**	**142,654**	**114,611**

1. Since the *2000 UWMP* was adopted, DWR released its SWP Delivery Reliability Report (May 2003), which analyzes the reliability of SWP supplies. During infrequent dry periods, deliveries are projected to be less than 50 percent, and possibly as low as 19 percent during an unusual single dry year condition that occurs about once every 70 years. During very wet years, full deliveries can be expected. Thus, the amount of water available to CLWA in the worst-case single dry year would be 19 percent of 95,200 AF (18,088 AF). In a worst-case multiple dry-year period, the amount of water available to CLWA in each of those dry years would be 37 percent of 95,200 AF (35,244 AF). The May 2003 DWR report also assumes average year SWP deliveries of 76 percent. This would result in 72,352 AF of CLWA's entitlement amount. The *2005 UWMP* will reflect this new information.

For the *2000 UWMP*, water supplies reflected in this table are based on SWP reliability as of 2000. Use of the 2003 SWP reliability figures would reduce the existing Single Dry Year and Consecutive Dry Year Amounts to 18,088 AF and 35,244 AF, respectively. The corresponding total existing supplies would be reduced to 122,842 AF and 112,955 AF, respectively. Total existing and planned supplies in Single Dry and Consecutive Dry Years would be reduced to 147,272 AF and 134,305 AF, respectively. Assuming 76 percent reliability in the average year, total existing supplies would be 120,052 AF, and total existing and planned supplies would be 135,352 AF.

Source: *Amended 2000 UWMP*.

In April 2005, VWC confirmed the detection of perchlorate in its Well Q2, an Alluvial well, in connection with its regular monitoring of active municipal-supply wells near the former Whittaker-Bermite site. In response, VWC removed the well from active service, and requested Luhdorff & Scalmanini, Consulting Engineers to prepare a report assessing the impact of, and response to, the perchlorate contamination in VWC's Well Q2 (*Q2 Report*).

The *Q2 Report* documents that the perchlorate detected in Well Q2 does not significantly impact the water supplies used to meet demand in the Santa Clarita Valley. VWC's response plan for Well Q2 is to pursue permitting and installation of wellhead treatment by the fall of 2005, which will return the well to water supply service.

2000 URBAN WATER MANAGEMENT PLAN AND 2005 AMENDMENT

The final version of the Santa Clarita Valley's Urban Water Management Plan (2000 UWMP) was adopted by the CLWA Board of Directors on December 20, 2000. In the County of Ventura v. Castaic Lake Water Agency case, (Kern County Superior court case no. 245365-RJO), the validity and sufficiency of the regional 2000 UWMP prepared by VWC, CLWA and NCWD were challenged. The Court of Appeal issued a decision that focused on the 2000 UWMP's discussion regarding perchlorate contamination as it related to groundwater supplies and concluded that the 2000 UWMP must have a discussion as to the time needed to implement the method for treating the affected groundwater as well as a discussion as to the reliability of groundwater during the treatment period. The decision also required the trial court to vacate the approval of the 2000 UWMP. However, SCWD and the other affected water agencies have prepared and adopted an amendment to the 2000 UWMP, the Water Management Plan, (Amendment 2000 UWMP) to address the insufficiencies identified by the Court of appeal regarding perchlorate contamination. The CLWA and other retailers are currently preparing the 2005 Water Management Plan, with approval anticipated by the end of 2005. Some supply and demand factors may be modified but the overall conclusions (there is sufficient water for existing and planned growth) are expected to remain the same.

The *Amended 2000 UWMP* uses *Table 5.8-1* as a basis for developing the mix of supplies for the two operational scenarios needed to meet the demand. The near-term and long-term operating scenarios have been conservatively developed to match available supplies necessary to meet existing and projected demands over the next three years and through the year 2020. Because of the diverse nature of these supplies, there are multiple combinations of supplies that can be utilized in any year to meet demands, and the scenarios presented in the *Amended 2000 UWMP* represent reasonable assumptions about the availability of each water supply based upon the most up to date information at this time.

The *Amended 2000 UWMP* concluded the following findings in regards to groundwater supply:

- Both the Allluvial Aquifer and the Saugus Formation are reasonable and sustainable sources at the yields represented in the *Amended 2000 UWMP*;
- The yields are not overstated and will not deplete or "dry up" the groundwater basin; and
- There is no need to reduce the yields for purposes of planning in the context of the *Amended 2000 UWMP*.

Based on the findings in the *Q2 Report* and the *Amended 2000 UWMP*, CLWA, SCWD, and other retail purveyors believe that sufficient water supplies continue to be available to meet the current and projected water demands in the Santa Clarita Valley over the next 20-year horizon, even after taking into account groundwater supply impacted by perchlorate contamination.

5.8.2 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix A of this EIR. The Initial Study includes questions relating to water. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

- Have sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements; and

- 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.

5.8.3 IMPACTS AND MITIGATION MEASURES

WATER DEMAND AND SUPPLY

◆ ***DEVELOPMENT OF THE SOLEDAD VILLAGE PROJECT COULD CREATE DEMAND FOR WATER THAT EXCEEDS AVAILABLE SUPPLIES.***

Level of Significance Prior to Mitigation: Potentially Significant Impact.

Impact Analysis: The Soledad Village project is a proposed residential development consisting of multi-family housing on a 30-acre site in the City of Santa Clarita. It would include 437 townhomes, 8,000 square feet of commercial building area, and a recreation center.

Using water demand factors provided by Santa Clarita Water Division, the proposed project would consume approximately 154 AFY. The anticipated project demand for water is summarized in *Table 5.8-2, Estimated Water Demand*.

Table 5.8-2
Estimated Water Demand

Land Use Category	Amount	Water Duty Factor	Water Demand (AFY)
Townhomes	437 units	0.24 AFY per unit	104.9
Recreation Area	0.75	3 AFY per acre	2.2
Landscaping	15 acres	3 AFY per acre	45.0
Commercial (8,000 square feet)	1 acre	0.0289 AFY per 100 square feet	2.3
Total			**154.4**

Existing Conditions Plus Project Water Demand

Table 5.8-3, *Existing Plus Project Demand for the Santa Clarita Valley*, illustrates the project demand, in conjunction with existing demand in the Santa Clarita Valley. As shown in *Table 5.8-3*, existing water demand in the Santa Clarita Valley is approximately 82,364 AFY in average years (this figure accounts for a dry year increase in water demand in 2004 of approximately 10 percent). Of this demand, approximately 66,364 AFY is related to urban or developed areas and approximately 16,000 AFY is related to other uses in the Santa Clarita Valley, including agricultural uses. When combined with the Soledad Village project, water demand of 154 AFY, the total water demand in the Santa Clarita Valley would be approximately 82,518 AFY if Soledad Village were completely built out today. The land use-related water demand would increase by approximately 10 percent in dry years, resulting in a water demand of approximately 89,169 AFY. In a critical dry year, demand could decrease by up to 20 percent due to conservation measures that would be enacted by the local water purveyors and CLWA. However, this analysis conservatively assumes that critical dry-year demand would decrease by 10 percent from the dry-year demand. During such extreme conditions, water demand in the Santa Clarita Valley with the Soledad Village project would be approximately 80,252 AF.

Table 5.8-4, *Existing Plus Project Demand and Supply for the Santa Clarita Valley*, illustrates that existing supplies exceed the project demand, in conjunction with existing demand in the Santa Clarita Valley. Existing water supplies exceed demand by 42,590 to 62,485 AFY in dry years and by 21,982 AFY in an average/normal year after adding the proposed project to existing demands. It should be noted that dry year supplies available above demand reflect water supplies that would be available to purveyors in dry years. Purveyors would typically secure water from these supplies only in amounts necessary to meet demand.

Table 5.8-3
Existing Plus Project Demand for the Santa Clarita Valley

	Average Year	Dry Year[1]	Critical Dry Year[2]
Existing Demand	66,364	73,000	73,000
Other Demand (Agricultural)	16,000	16,000	16,000
Soledad Village Demand	154	169	169
Critical Dry Year 10% Demand Decrease			(8,917)
Total Demand	**82,518**	**89,169**	**80,252**

Notes:
1. Demand is increased by approximately 10 percent in dry years. 2004, the year from which this demand was derived, was a dry year and already reflects the 10 percent increase in demand over a normal or average year. A dry year is a year when below average rainfall occurs after a normal or wet year.
2. Demand in a critical dry year is expected to decrease by as much as 20 percent due to voluntary and mandatory planned purveyor conservation programs. This analysis assumes a critical dry year 10 percent reduction in demand from the dry year demand. A critical dry year is a year when rainfall is at a critically low level (i.e., a year that occurs once every 73 years). Such a demand reduction occurred in the last critical dry year experienced in the Santa Clarita Valley (1991).

Source: *Santa Clarita Valley Water Report 2004*, prepared by the CLWA, Los Angeles County Waterworks District #36, Newhall County Water District, VWC, May 2005.

Table 5.8-4
Existing Plus Project Demand and Supply for the Santa Clarita Valley

	Average Year	Dry Year[1]	Critical Dry Year[2]
Existing Demand	66,364	73,000	73,000
Other Demand (agricultural)	16,000	16,000	16,000
Soledad Village Demand	154	169	169
Critical Dry Year 10% Demand Decrease			(8,917)
Total Demand	**82,518**	**89,169**	**80,252**
Existing Water Supply Programs Available:			
Local Supplies			
Alluvial Aquifer	35,000	32,500	32,500
Saugus Formation	11,000	24,000	15,000
Recycled Water	1,700	1,700	1,700
Imported Supplies[1]			
SWP Table A Amount	56,800	37,900	18,088
Semitropic Bank Account		50,870	50,870
Flexible Storage Account		4,684	4,684
Total Existing Supplies	**104,500**	**151,654**	**122,842**
Surplus/(Deficit)	**21,982**	**62,485**	**42,590**

Notes:
1. Demand is increased by approximately 10 percent in dry years. 2004, the year from which this demand was derived, was a dry year and already reflects the 10 percent increase in demand over a normal or average year. A dry year is a year when below average rainfall occurs after a normal or wet year.
2. Demand in a critical dry year is expected to decrease by as much as 20 percent due to voluntary and mandatory planned purveyor conservation programs. This analysis assumes a critical dry year 10 percent reduction in demand from the dry year demand. A critical dry year is a year when rainfall is at a critically low level (i.e., a year that occurs once every 73 years). Such a demand reduction occurred in the last critical dry year experienced in the Santa Clarita Valley (1991).

Source: *Santa Clarita Valley Water Report 2004*, prepared by the CLWA, Los Angeles County Waterworks District #36, Newhall County Water District, VWC, May 2005.

Table 5.8-5, *Example Near-Term Operation Scenario Average/Normal Water Year Water Supply and Demand Assessment*, and *Table 5.8-6*, *Example Near-Term Operation Scenario Single Dry Year and Multiple Dry Year Water Supply and Demand Assessment*, delineate the mixes of water supplies expected to be used to meet demands in the next three years (2005-2007) under average/normal water supply conditions (refer to *Table 5.8-5*) and under dry water supply conditions (refer to *Table 5.8-6*). This three-year period was selected to specifically respond to concerns over the reliability of supply during the implementation phase of the perchlorate contamination treatment project to restore currently impacted groundwater supplies. This scenario takes into account the impact of perchlorate on the reliability of groundwater supplies from the Alluvial aquifer and Saugus Formation under an average/normal year, single dry year, and three consecutive dry years. It also includes delivery of dry year "firming" supplies that were planned but not yet available when the *2000 UWMP* was adopted. The mix of water supplies from available groundwater not impacted by perchlorate contamination in combination with other available supplies is sufficient to meet customer demands with a high degree of reliability over the next three years, which includes the transition to full restoration of groundwater production currently impacted by perchlorate contamination.

Table 5.8-5
Example Near-Term Operation Scenario
Average/Normal Water Year Water Supply
and Demand Assessment

Existing Water Supply	2005	2006	2007
Local Supplies			
Alluvial Aquifer	35,000	35,000	35,000
Saugus Formation	5,000	5,000	9,000
Recycled Water	700	1,000	1,300
Imported Supplies			
SWP Table A Amount	41,000	42,380	39,760
Draw From Short-Term Semitropic Bank Acct	0	0	0
Draw From Flexible Storage Account	0	0	0
Existing Supply	**81,700**	**83,380**	**85,060**
Existing Demand	**81,700**	**83,380**	**85,060**

Source: *Groundwater Perchlorate Contamination Amendment and Other Amendments, 2000 Urban Water Management Plan*, CLWA, CLWA Santa Clarita Water Division, Newhall County Water District, Valencia Water Company, January 2005.

WATER DISTRIBUTION SYSTEM

The entire project site is located within Santa Clarita Water Division Pressure Zone E. The project would be served by a proposed looping system of water lines connecting to an existing 10-inch water main located on the north side of Soledad Canyon Road at the east end and to a 14-inch main installed along the remaining project frontage in the south side of Soledad Canyon Road. The proposed project's water delivery system would consist of 12- to 16-inch water mains that generally follow the roadway system within the project site. Additionally, a series of fire hydrants would be located along Soledad Canyon Road.

Table 5.8-6
Example Near-Term Operation Scenario
Single Dry Year and Multiple Dry Year Water Supply
and Demand Assessment

Existing Water Supply	Single Dry Year	Multiple Dry Years		
	2005	2005	2006	2007
Local Supplies				
Alluvial Aquifer	32,500	32,500	32,500	32,500
Saugus Formation	5,000	5,000	5,000	11,000
Recycled Water	700	700	1,000	1,300
Imported Supplies				
SWP Table A Amount	37,900	37,900	37,900	37,900
Draw From Short-Term Semitropic Bank Acct	916	4,039	5,419	2,360
Draw From Flexible Storage Account	4,684	1,561	1,561	0
Existing Supply	**81,700**	**81,700**	**83,380**	**85,060**

Source: *Groundwater Perchlorate Contamination Amendment and Other Amendments, 2000 Urban Water Management Plan*, CLWA, CLWA Santa Clarita Water Division, Newhall County Water District, Valencia Water Company, January 2005.

The Los Angeles County Fire Department requires sufficient capacity for fire flows of 5,000 gallons per minute (gpm) at 20 pounds per square inch (psi) for a five-hour duration for multi-family and commercial uses with a first floor area of 35,000 square feet or greater (actual fire flow requirements would be confirmed for each use by the Los Angeles County Fire Department prior to final tract map approval). According to the project engineer, the proposed water system would be able to meet both domestic and fire flow requirements of the project.

In summary, there would be sufficient water supply to meet the project's water demand under an average/normal water year, single dry year, or multiple dry years. In addition, the proposed project would include development of a distribution system that would provide sufficient capacity for domestic and fire flow requirements. Regardless, mitigation measures are recommended in order to ensure impacts to water supply and distribution remain below a level of significance.

Mitigation Measures:

WS1 Landscape concept plans shall include a palette rich in drought-tolerant and native plants.

WS2 Major manufactured slopes shall be landscaped with materials that will eventually naturalize, requiring minimal irrigation.

WS3 Water conservation measures as required by the State of California shall be incorporated into all irrigation systems.

WS4 Prior to commencement of use, all uses of recycled water shall be reviewed and approved by the State of California Health and Welfare Agency, Department of Health Services.

WS5 Prior to the issuance of building permits that allow construction, the applicant of the proposed project shall finance the expansion costs of water service extension to the subdivision through the payment of connection fees to the appropriate water agency(ies).

Level of Significance After Mitigation: Less Than Significant Impact.

5.8.4 CUMULATIVE IMPACTS AND MITIGATION MEASURES

◆ ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED PROJECTS WOULD INCREASE DEMAND FOR WATER SUPPLIES.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: The following discussion focuses on the cumulative impacts to water availability for the Santa Clarita Valley. The analysis evaluates cumulative impacts under the following three future water demand and supply scenarios:

Scenario 1: Existing development within the CLWA service area, plus near-term projections, plus the project (referred to as the "SB 610 Water Supply Scenario");

Scenario 2: Existing development within the CLWA service area, plus Development Monitoring System ("DMS") projections, plus the project (referred to as the "DMS Build-Out Scenario"); and

Scenario 3: Buildout within the CLWA service area by 2025, plus active pending General Plan Amendment requests, plus the project (referred to as the "Santa Clarita Valley 2025 Build-Out Scenario").

SB 610 Water Supply Scenario

As indicated previously, a WSA is not required for the Soledad Village project. However, for information purposes, an SB 610 scenario was prepared. As indicated below, there will be a sufficient water supply available at the time the Soledad Village project is ready for occupancy to meet the needs of the project in addition to existing and other planned future uses.

CLWA has existing water allocation rights and contracts to meet future demand as needed over time, and has committed sufficient capital resources and planned investments in various water programs and facilities to serve all of its existing and planned customers, including Santa Clarita Valley Water Division's customers. Santa Clarita Valley Water Division's water rights and contracts for local supplies, in addition to imported supplies provided by CLWA, are sufficient to serve all of its existing and planned customers. Santa Clarita Valley Water District has also identified an operational strategy combined with a prudent and flexible management approach to ensure water reliability.

Santa Clarita Valley Water District's current service area-wide demand is approximately 29,191 AFY. As mentioned previously, the Soledad Village project will require 154 AFY at buildout. The conclusions as stated in the *2000 UWMP* related to the requirements of the SB 610 for Soledad Village are as follows:

Average/Normal Year Water Assessment: The *UWMP* indicates that no shortages are anticipated within the agency's service area in an average water year through 2020 if planned water supply programs are developed as estimated. Without such programs, a deficit is possible in 2020. Total projected water demands for the CLWA through the year 2020 are compared with the supplies projected to be available to meet demands in this analysis. The following table, *Table 5.8-7, Long-Term Projection Average/Normal Water Year Water Supply and Demand Assessment*, summarizes the data from the *2000 UWMP*.

Table 5.8-7
Long-Term Projection Average/Normal Water Year
Water Supply and Demand Assessment

	2005	2010	2015	2020
EXISTING WATER SUPPLY				
Local Supplies				
Alluvial Aquifer	35,000	35,000	35,000	35,000
Saugus Formation	5,000	11,000	11,000	11,000
Recycled Water	700	1,700	1,700	1,700
Imported Supplies				
SWP Table A Amount	41,000	56,800	56,800	56,800
Draw From Short-Term Semitropic Bank Account	0	0	0	0
Draw From Flexible Storage Account	0	0	0	0
Total Existing Supply	**81,700**	**104,500**	**104,500**	**104,500**
PLANNED WATER SUPPLY				
Local Supplies				
Recycled Water	0	7,300	12,300	15,300
Imported Supplies				
Draw From Long-Term Water Banking Programs	0	0	0	0
Total Planned Supply	0	7,300	12,300	15,300
Total Supply (Existing Plus Planned)	**81,700**	**111,800**	**116,800**	**119,800**
Estimated Demand (without conservation)	**81,700**	**90,100**	**100,700**	**113,100**

Source: *Amended 2000 UWMP.*

Single Dry Year Water Assessment: The *2000 UWMP* evaluated the estimated dry-year demands and projected supplies for the year 2010 for the purpose of assessing a single critical dry year. This year was selected in order to show the results of local and imported water supply development over the next 10 years. For the worst-case scenario single dry year (1977, with a one in 73 year probability of occurrence), DWR estimates that SWP deliveries to contractors would be approximately 20 percent of contract amounts. If projected imported and local supplies are developed as indicated, no shortages are anticipated within the agency's service area for the extreme-case single dry-year scenario analyzed.[2] In fact, as

[2] *UWMP* p. 4-3. Hot, dry weather may generate a 10 percent increase above normal in both urban and agricultural water usage. This percentage was used to generate the dry year demands.

shown in *Table 5.8-8*, *Long-Term Projection Single Dry Year and Multiple Dry Year Water Supply and Demand Assessment*, water supplies exceed demand by 56,484 AF in the single, critical-dry year (2010). It should be noted that dry year supplies available above demand reflect water supplies that would be called upon by purveyors in dry years. Purveyors would typically secure water from these supplies only in amounts necessary to meet demand.

Table 5.8-8
Long-Term Projection Single Dry Year and Multiple Dry Year Water Supply and Demand Assessment

	Single Dry Year 2010	Multiple Dry Years		
		Year 1	Year 2	Year 3
		2018	2019	2020
Existing Water Supply				
Local Supplies				
Alluvial Aquifer	32,500	32,500	32,500	32,500
Saugus Formation	15,000	15,000	15,000	15,000
Recycled Water	1,700	1,700	1,700	1,700
Imported Supplies				
SWP Table A Amount[1]	37,900	37,900	37,900	37,900
Draw From Short-Term Semitropic Bank Account (through 2013)	17,500	0	0	0
Draw From Flexible Storage Account	4,684	1,561	1,561	1,561
Total Existing Supply	**109,284**	**88,661**	**88,661**	**88,661**
Planned Water Supply				
Local Supplies				
Restored Contaminated Wells	10,000	10,000	10,000	10,000
New Saugus Wells	0	0	0	10,000
Recycled Water	7,300	12,300	12,300	15,300
Imported Supplies				
Draw From Long-Term Water Banking Programs	20,000	13,000	13,000	13,000
Total Planned Supply	**37,300**	**35,300**	**35,300**	**48,300**
Total Supply (Existing plus Planned Future)	**146,584**	**123,961**	**123,961**	**136,961**
Estimated Demand (without conservation)	**90,100**	**108,140**	**110,620**	**113,100**

Source: *Amended 2000 UWMP*. Since the *2000 UWMP* was adopted, DWR released its SWP Delivery Reliability Report (May 2003), which analyzes the reliability of SWP supplies. During infrequent dry periods, deliveries are projected to be less than 50 percent, and possible as low as 19 percent during an unusual single dry year condition that occurs about once every 70 years. During very wet years, full deliveries can be expected. Thus, the amount of water available to CLWA in the worst-case single dry year would be 19% of 95,200 AF, or 35,244 AF. The *2005 UWMP* will reflect this new information.

For the *2000 UWMP*, water supplies reflected in this table are based on SWP reliability as of 2000. Use of the 2003 SWP reliability figures would reduce the existing single dry year and consecutive dry year Table A Amounts to 18,088 AF and 35,244 AF, respectively. The corresponding total existing supplies would be reduced to 89,472 AF and 86,005 AF, respectively. Total existing plus planned supplies in single dry, consecutive dry years 1–2 and consecutive dry year 3 would be reduced to 126,772 AF, 121,305 AF and 134,305 AF, respectively.

Multiple Dry Year Water Assessment: The *2000 UWMP* estimated the minimum water supply available during each of the three water years, 2018, 2019, and 2020; refer to *Table 5.8-8*. The surface and groundwater supplies included in this analysis are reflective of supplies available during the 1987 to 1992 drought years, and in particular, 1990, 1991, and 1992. The supplies available from recycling projects are assumed to experience no reduction

in a dry year but are also assumed not to be fully on-line at this early stage of the 20-year projection. Demand reductions of 10 percent based on short-term water conservation programs are assumed for these dry-year scenarios (this level of conservation was achieved during the 1987–1992 drought). If projected imported and local supplies are developed as indicated, no shortages are anticipated within the agency's service area in the dry-year scenarios analyzed.[3] As shown in *Table 5.8-8*, water supplies exceed demand by 13,341 to 23,861 AF in multiple dry years. Again, it should be noted that dry year supplies available above demand reflect water supplies that would be called upon by purveyors in dry years. Purveyors would typically secure water from these supplies only in amounts necessary to meet demand.

DMS Build-Out Scenario (2015)

The County's General Plan includes provisions known as the DMS to give decision makers information about the existing capacity of available public services at the time a new development proposal is considered in the four major Urban Expansion Areas of the County of Los Angeles General Plan (Antelope Valley, Santa Clarita Valley, Malibu/Santa Monica Mountains, and East San Gabriel Valley).[4] The goal of DMS is to identify what new public facilities will be required for the new development, and to ensure that the appropriate cost of any expansion of facilities will be paid for by that new development, and not assumed by the taxpayers. To ensure new development is located in proximity to services and existing development, DMS states that in no event is the proposed development to be located beyond one mile of an existing development or service. Also, DMS states that new development is to be located within, generally, five miles of commercial services and job opportunities. The DMS also works toward ensuring that the expansion costs of new development are paid for by that development.

This analysis addresses water supply requirements resulting from buildout of all pending, recorded, and approved projects listed in the County's DMS, plus the Soledad Village project and a portion of the Newhall Ranch Specific Plan. As indicated in *Table 5.8-9*, *Scenario 1: DMS Build-Out Scenario Demand and Supply for the Santa Clarita Valley*, under the DMS analysis there is sufficient water supply for the entire demand of the Soledad Village project and all pending, approved, and recorded projects in the DMS. In fact, available water supplies would exceed demand by 15,876 to 24,913 AF in average years and by 45,145 to 82,994 AF in a dry year (dry year supplies available above demand reflect water supplies that would be available to purveyors in dry years. Purveyors would typically secure water from these supplies only in amounts necessary to meet demand). Therefore, the Soledad Village project is not expected to create any significant cumulative water availability impacts.

In addition to ensuring that an adequate supply of water is available for a project, DMS requirements also indicate that the project in question must be located within one mile of an existing development or service and that the development be located within generally five miles of commercial services and job opportunities. The Soledad Village site is located immediately adjacent to existing development and is within the retail water service area of

[3] UWMP p. 4-4.

[4] Resolution of the County of Los Angeles Board of Supervisors, Plan Amendment Case No. S.P. 86-173.

the Santa Clarita Water Division of CLWA. It is also within the wholesale service area of the CLWA.

Table 5.8-9
Scenario 1: DMS Build-Out Scenario Demand and Supply for the Santa Clarita Valley

	Average Years	Dry Years
Santa Clarita Valley Demand		
Existing Plus DMS Demand[1]	100,654	110,720
Soledad Village Demand	154	169
Less Conservation	(10,081)	(11,089)
Total	**90,727**	**99,800**
Santa Clarita Valley Supply[2]		
Local Supply		
Groundwater		
Alluvial Aquifer	35,000	32,500
Less Newhall Ranch Agricultural Water	(3,402)	(4,534)
Saugus Formation	11,000	15,000–24,000
Restored Impacted Wells	0	10,000
Saugus Formation (new)	0	10,000
Newhall Ranch Agricultural Water	3,402	4,534
Reclaimed Water	1,700 - 10,737	1,700 - 10,737
Less CLWA Reclaimed Water Supply for Newhall Ranch	(1,017)	(1,017)
Newhall Ranch WRP Supply	2,103	2,103
CLWA Newhall Ranch Supply	1,017	1,017
Imported Supplies		
SWP Supplies[3]	56,800	18,088–37,900
Water Banking/Conjunctive Use	0	50,870
Flexible Storage Account	0	4,684
Total Supplies	**106,603–115,640**	**144,945–182,794**
Total Supplies Above Demand	**15,876–24,913[4]**	**45,145–82,994[5]**

1. Complete buildout of DMS land uses is estimated to occur in 2015.
2. Source: *2000 UWMP*, December 2000, Tables 2-6 and 4-1, and the Santa Clarita Valley Water Report 2004, May 2005.
3. Consistent with the DWRSIM model, the figures show SWP allocation reduced in average years to approximately 59.7 percent of maximum allocation and in multiple dry years to approximately 39 percent of maximum allocation. The CALSIM II model projects that reliability in average years raises to approximately 75 percent and decreases to 20 percent in a single dry year. In any given year, the actual amount of SWP water deliveries could be above or below these model projections. Deliveries of water associated with the agency's SWP maximum allocation of 95,200 AFY are affected by a number of factors, including hydrologic conditions, the status of SWP facilities' construction, environmental requirements and evolving policies for the Bay-Delta. Programs are in place that has the potential to improve the reliability of imported water. As these programs are needed in dry years, they could be used up to the amounts indicated (as needed).
4. The surplus shown above is the net water available for injection into banking programs (e.g., Semitropic Groundwater Banking Project, other groundwater banking projects, etc.).
5. Dry year supplies available above demand reflect water supplies that would be available to purveyors in dry years. Purveyors would typically secure water from these available supplies only in amounts necessary to meet demand.

The DMS Build-Out Scenario entails existing development, buildout of the near-term subdivision projects listed in the County's DMS, plus a portion of the Newhall Ranch Specific Plan, plus the project. The County's DMS lists all pending, recorded, and approved projects for which land divisions have been filed within County unincorporated lands and within the City of Santa Clarita. The City plus County unincorporated areas together constitute the County's Santa Clarita Valley Planning area.

Table 5.8-9 illustrates both the cumulative water demand (existing plus DMS) and supply for the Santa Clarita Valley. This cumulative water demand is compared to the near-term projected Santa Clarita Valley water supplies and the additional Newhall Ranch Specific Plan water supplies. As shown, there is an adequate supply of water expected in both average years and dry years and no cumulative water supply impacts would occur. In fact, *Table 5.8-9* shows that water supplies exceed demand for the DMS Development Scenario by 15,876 to 24,913 AF in average years and by 45,145 to 82,994 AF in a single dry year. However, it should be noted that dry year supplies available above demand reflect water supplies that would be available to purveyors in dry years. Purveyors would typically secure water from these supplies only in amounts necessary to meet demand. Based on the information provided in this analysis, the Soledad Village project is consistent with the General Plan DMS policies as they relate to water supplies.

Santa Clarita Valley 2025 Buildout Scenario

The Santa Clarita Valley 2025 Buildout Scenario entails buildout of lands under the current land-use designations indicated in the *County's Area Plan* and the *City of Santa Clarita's General Plan* by the year 2025, plus the proposed Soledad Village project, plus all known active pending General Plan Amendment requests for additional urban development in the County unincorporated area and the City of Santa Clarita.

Table 5.8-10, *Scenario 2: Santa Clarita Valley 2025 Buildout Scenario Water Supplies*, and *Table 5.8-11*, *Scenario 2: Santa Clarita Valley 2025 Buildout Scenario Water Demand and Supply*, summarize the cumulative water demand and supply for this build-out scenario. As shown, at partial buildout by the year 2020, there are adequate water supplies for the project. As a result, the Soledad Village project is not expected to create any significant cumulative water availability impacts in either average/normal or dry years. In addition, as shown, at buildout by the year 2025, there are adequate water supplies for the project, with no significant cumulative water supply impacts occurring in either average/normal or dry years. In fact, the two tables show that water supplies exceed demand under this scenario in average and dry years in both 2020 and 2025.

Dry year supplies available above demand reflect water supplies that would be available to purveyors in dry years. Purveyors would typically secure water from these supplies only in amounts necessary to meet demand. For a critical dry year, when reliability of the SWP could be reduced, CLWA would utilize both dry-year supplies available from the Saugus Formation, and water banking and conjunctive use projects as indicated in *Table 5.8-10*.

Table 5.8-10
Scenario 2: Santa Clarita Valley 2025 Buildout Scenario
Water Supplies

	Buildout (Year 2020)		Buildout (Year 2025)	
	Average Years	Dry Years	Average Years	Dry Years
Local Supply				
Groundwater				
Alluvial Aquifer	35,000	32,500	35,000	32,500
Saugus Formation	11,000	15,000–24,000	11,000	15,000–24,000
Restored Impacted Wells	0	10,000	0	10,000
Saugus Formation (new wells)	0	10,000	0	10,000
Reclaimed Water	17,000	17,000	17,000	17,000
Newhall Ranch WRP Supply	3,155	3,155	5,258	5,258
Imported Supplies				
CLWA SWP Table A Water[1]	56,800	18,088–37,900	56,800	18,088–37,900
Newhall Nickel Water	0	0	1,468	1,607
Newhall Semitropic Groundwater Bank Storage	0	0	0	712
Water Banking/Conjunctive Use, etc.	0	90,870	0	90,870
Flexible Storage Account	0	4,684	0	4,684
Total Supply	**122,955**	**201,297–230,109**	**126,526**	**205,719–234,531**

Note:
1. SWP maximum allocation reduced in average years to approximately 59.7% of maximum allocation and in dry years to approximately 39.8% of maximum allocation. In any given year, the actual amount of SWP water deliveries could be above or below these model projections.

Source: *2000 UWMP*, December 2000, Tables 2-2, 2-6 and 4-1.

Table 5.8-11
Scenario 2: Santa Clarita Valley 2025 Buildout Scenario
Water Demand and Supply

	Buildout (Year 2020)		Buildout (Year 2025)	
	Average Years	Dry Years[5]	Average Years	Dry Years[5]
Total Build-Out Demand[2]	113,100[1]	124,410	123,176[3]	135,494
Santa Clarita Valley Water Supplies[4]	122,955	201,297–230,109	126,526	205,719–234,531
Total	**9,855**	**76,887–105,699**	**3,350**	**70,225–99,037**

Notes:
1. Source: *2000 UWMP*, December 2000, Table 3-5 and the SB 610 Water Supply Assessment for the Soledad Village Project.
2. Demand is increased by approximately 10 percent in dry years.
3. Source: *2000 UWMP*, December 2000, Table 3-5, using a straight-line projection from 2020–2025.
4. Source: *2000 UWMP*, December 2000, Tables 2-2, 2-6 and 4-1.
5. Dry year supplies available above demand reflect water supplies that would be called upon by purveyors in dry years. Purveyors would typically secure water from these supplies only in amounts necessary to meet demand.

As depicted in *Table 5.8-10*, purveyors have access to an amount of water supplies that exceed demand during dry conditions. Therefore, no cumulatively significant water availability impacts would occur due to buildout of the Soledad Village project.

CONCLUSION

Because cumulative water supplies exceed demand, cumulative development (including the proposed Soledad Village project) would not result in unavoidable significant cumulative impacts on Santa Clarita Valley water resources. This includes potential impacts to groundwater resources related to recharge potential. Development of the proposed project site and other sites proposed for development in the Santa Clarita Valley, no significant project-specific or cumulative impacts would occur to the groundwater basin with respect to aquifer recharge. This is due to the fact that urbanization in the Santa Clarita Valley has been accompanied by long-term stability in pumping and groundwater levels, plus the addition of imported SWP water to the valley, which together have not reduced recharge to groundwater, nor depleted the amount of groundwater that is in storage within the valley. Therefore, cumulative mitigation measures are not required with respect to water resources.

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

***Level of Significance After Mitigation**:* Not applicable.

5.8.5 UNAVOIDABLE SIGNIFICANT IMPACTS

Implementation of the proposed Soledad Village Project would not result in significant and unavoidable impacts to water supply and distribution facilities.

Section 5.9
SCHOOLS/EDUCATION

5.9 SCHOOLS/EDUCATION

The project site is within the Saugus Union School District (Saugus District) and the William S. Hart Union High School District (Hart District). This section of the EIR evaluates impacts of the proposed project on schools in those districts that currently provide public elementary, junior high, and high school education in the project area.

5.9.1 ENVIRONMENTAL SETTING

The Saugus District provides elementary school service (grades K through 6), while the Hart District serves the project area for junior high education (grades 7 and 8) and high school education (grades 9 through 12).

SAUGUS UNION SCHOOL DISTRICT

There are a total of 15 elementary schools within the Saugus District, with a total enrollment of 10,741 students in the 2005/2006 school year.[1] The total capacity with the use of both permanent and temporary (i.e., portable) classrooms is 12,345 students, with a remaining capacity for approximately 1,604 students. The Saugus District has plans to construct two new elementary schools within its jurisdiction. The California electorate approved State School Construction Bonds in November 2002 authorizing $13.2 billion of school facility construction funding which eliminated a backlog of approximately $4 billion, and provides substantial additional funds for new construction. As illustrated in *Table 5.9-1*, *Saugus District Enrollment/Capacity*, two of the elementary schools are over capacity, and the remaining 13 elementary schools are near capacity.

WILLIAM S. HART UNION HIGH SCHOOL DISTRICT

There are a total of six junior high schools and six high schools within the William S. Hart Union High School District (Hart District). Total student capacity within the District is 23,298 students. Total student enrollment in the District as of October 2004 was 20,026 students. The District opened one new junior high school and two high schools in the fall of 2004. Golden Valley High School opened in the fall of 2004 with 35 classrooms and 25 relocatable classrooms for a total capacity of 2,600 students. West Ranch High School includes 35 classrooms and 25 relocatable classrooms with a total capacity of 2,600 students. Currently, West Ranch High School accommodates 9th and 10th Grades, and one grade will be added every year after that, with anticipated full buildout by the fall of 2007. Rancho Pico Junior High School opened with 23 classrooms and six relocatable classrooms for a total capacity of 1,200 students. The Hart District is also constructing a new high school (Castaic High School) within the Northlake subdivision, which will have a design capacity of 2,600 students or 3,000 students including temporary classrooms. These schools are being funded through SB 50 (discussed below) and Hardship funds under SB 50. In addition, the Hart District has voted to incur debt in order to fund future school construction.

[1] Per written communication with Robert A. Cutting, P.E., Assistant Superintendent of Business for the Saugus Union School District, on September 12, 2005, included in Appendix I, Correspondence.

Table 5.9-1
Saugus District Enrollment/Capacity

School	Capacity	Current Enrollment[4]
Bouquet Canyon	575	561[1]
Bridgeport	900	**906**
Cedarcreek	725	700[1]
Emblem[3]	800	254[1]
James Foster	775	678[1]
Charles Helmers	1,075	977[1]
Highlands[2]	775	684[1]
Mountainview	1,175	1,070[1]
North Park	900	**919**
Plum Canyon	775	751[1]
Rio Vista	1,050	973[1]
Rosedell	800	731[1]
Santa Clarita	725	610[1]
Skyblue Mesa	575	487[1]
Tesoro Del Valle	720	440
TOTAL	**12,345**	**10,741 (87 percent of capacity)**

Notes:
1. Capacity includes temporary portable classrooms.
2. Highlands campus closed 2005/2006. Temporary District Capacity: 11,570.
3. Emblem campus closed. Temporary District Capacity: 11,545.
4. Current Enrollment numbers in **bold** indicates schools over capacity.

Source: Per written communication with Robert A. Cutting, P.E., Assistant Superintendent of Business for the Saugus Union School District, on September 12, 2005.

La Mesa Junior High School, located approximately 2.3 miles southeast of the project site, and Golden Valley High School, located approximately 1.8 miles southeast of the project site, serve students living in the project area. As illustrated in *Table 5.9-2, Hart District Enrollment/Capacity*, one junior high and four high schools are over capacity. However, these schools are expected to operate within their capacity once the new junior high and high school are fully operating by the fall of 2007.

SCHOOL FUNDING

The State of California has traditionally been responsible for the funding of local public schools. To assist in providing facilities to serve students generated by new development projects, the State passed Assembly Bill 2926 (AB 2926) in 1986. This bill allowed school districts to collect impact fees from developers of new residential and commercial/industrial building space. Development impact fees were also referenced in the 1987 Leroy Greene Lease-Purchase Act, which required school districts to contribute a matching share of project costs for construction, modernization, or reconstruction.

Senate Bill 50 (SB 50) and Proposition 1A (both of which passed in 1998) provided a comprehensive school facilities financing and reform program by, among other methods, authorizing a $9.2 billion school facilities bond issue, school construction cost containment provisions, and an eight-year suspension of the Mira, Hart, and Murrieta court cases.

Table 5.9-2
Hart District Enrollment/Capacity

School	Capacity	Current Enrollment[3]
Arroyo Seco Junior High School	1,589[1]	1,302
La Mesa Junior High School	1,394[1]	1,165
Placerita Junior High School	1,236[1]	1,178
Rancho Pico Junior High School	1,200	642
Rio Norte Junior High School	1,568[1]	1,121
Sierra Vista Junior High School	1,221[1]	**1,422**
Canyon High School	2,538[1]	**2,747**
Golden Valley High School	2,600	989
Hart High School	2,315[1]	**2,847**
Saugus High School	2,273[1]	**2,718**
Valencia High School	2,764[1]	**3,217**
West Ranch High School	2,600[2]	678[2]
TOTAL	**23,298**	**20,026 (86 percent of capacity)**

Notes:
1. Capacity includes temporary capacity provided by relocatable classrooms.
2. Opened fall 2004 for 9th grade only. Permanent campus with 35 classrooms and 24 relocatable classrooms will open in August 2005.
3. Current Enrollment numbers in **bold** indicates schools over capacity

Source: Per communication with Lorna Burrill, William S. Hart Union High School District. October 10, 2005.

Specifically, the bond funds are to provide $2.9 billion for new construction and $2.1 billion for reconstruction/modernization needs. The provisions of SB 50 prohibit local agencies from denying either legislative or adjudicative land use approvals on the basis that school facilities are inadequate and reinstate the school facility fee cap for legislative actions (e.g., general plan amendments, specific plan adoption, zoning plan amendments) as was allowed under the Mira, Hart, and Murrieta court cases. According to Government Code Section 65996, the development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation." These provisions are in effect until 2006 and will remain in place as long as subsequent state bonds are approved and available.

SB 50 establishes three levels of Developer Fees that may be imposed upon new development by the governing board of a school district depending upon certain conditions within a district. These three levels are described below:

Level 1: Level 1 fees are the base statutory fees. These amounts are the maximum that can be legally imposed upon new development projects by a school district unless the district qualifies for a higher level of funding. Currently, Level 1 fees assessed by the Saugus District are $1.01 per square foot of new residential development and $0.16 per square foot for new commercial/industrial development. Currently, Level 1 fees assessed by the Hart District are $1.23 per square foot for new residential development and $0.20 per square foot of chargeable, covered and enclosed floor space for new commercial/industrial development.

Level 2: Level 2 fees allow the school district to impose developer fees above the statutory levels, up to 50 percent of certain costs under designated circumstances. The state would match the 50 percent funding if funds are available. Under Level 2, the

governing board of a school district may require a developer to finance up to 50 percent of new school construction costs. However, in order to qualify for Level 2 funding the district must satisfy at least one of the following four requirements until January 1, 2000, or satisfy at least two of the four requirements after January 1, 2000:

- Impose a Multi Track Year Round Education (MTYRE) with:
  - At least 30 percent of K-6 enrollment in the high school attendance area on MTYRE for unified and elementary school districts; or
  - At least 30 percent of high school district enrollment on MTYRE; or
  - At least 40 percent of K-12 enrollment on MTYRE within boundaries of the high school attendance area for which the district is applying for funding.
- Place a local bond measure on the ballot in the last four years which received at least 50 percent plus 1 of the votes.
- District has issued debt or incurred obligations for capital outlay equal to a specified (under Government Code 65995.5(b)(3)(C)) percentage of its local bonding capacity.
- At least 20 percent of teaching stations within the district are portable classrooms.

Currently, Level 2 fees assessed by the Saugus District are $2.55 per square foot of residential development. Level 2 fees currently assessed by the Hart District are $2.53 per square foot for new residential development.

Level 3: Level 3 fees apply if the state runs out of bond funds after 2006, allowing the school district to impose 100 percent of the cost of the school facility or mitigation minus any local dedicated school moneys. Currently, Level 3 fees assessed by the Saugus District are $5.10 per square feet of residential development. Level 3 fees currently assessed by the Hart District are $5.06 per square foot for new residential development.

To accommodate students from new development projects, school districts may alternatively finance new schools through special school construction funding resolutions (e.g., the Valley-Wide Joint Fee Resolution) and/or agreements between developers, the affected school districts and, occasionally, other local governmental agencies. These special resolutions and agreements often allow school districts to realize school mitigation funds in excess of the developer fees allowed under SB 50. Relative to the proposed project, the applicant is currently subject to the Saugus District School Facilities Funding Agreement and two Hart School Facilities Funding Agreements; refer to Appendix J, School Funding Agreements. The school districts agree that compliance with these agreements mitigate the impacts of all projects listed in the agreements on their school facilities. Both of these agreements were entered into prior to November 1998 and both are grand-fathered for purposes of SB 50

(Government Code Section 65995(c)(1) and (2), and the provisions of these agreements control over any fee limitations imposed by SB 50. Each agreement is discussed individually below.

Saugus School Facilities Funding Agreement

In February 1997, the Saugus Union School District entered into an agreement entitled "*School Facilities Funding Agreement Between the Saugus Union School District and the Newhall Land and Farming Company*." Through compliance with this Agreement, the applicant satisfies its mitigation obligations to the Saugus Union School District by agreeing to provide the land, buildings,[2] furnishings and equipment necessary to construct new elementary schools to serve students generated by Newhall Land and Farming Company projects (including the proposed project).[3] The Saugus School Facilities Funding Agreement is grandfathered for purposes of satisfying the provisions of SB 50 and consequently the provisions of this Agreement take precedent over any fee limitations imposed by SB 50.

Hart School Facilities Funding Agreement

The Hart District has entered into a School Facilities Funding Agreement with The Newhall Land and Farming Company in October 1998 which conditionally obligates the Newhall Land and Farming Company to provide for up to three additional junior high schools and two additional senior high schools to the Hart District. Compliance with the Agreement constitutes the entire extent of the project applicant's obligation to provide the means necessary for the Hart District to obtain the school facilities needed to house students generated by The Newhall Land and Farming Company's projects. As a result, compliance with the agreement would satisfy all of proposed project's obligations to the Hart District with respect to its junior and senior high school impacts, and ensures that the project would have no direct or cumulative impacts on the school district. The Hart School Facilities Funding Agreement is grandfathered for purposes of satisfying the provisions of SB 50 and consequently the provisions of this Agreement take precedent over any fee limitations imposed by SB 50.

5.9.2 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix A of this EIR. The Initial Study includes questions relating to schools/education. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in

[2] According to the Agreement, school facilities would be constructed in accordance with the requirements and specifications contained in the Education Code and the Applicant Handbook for State School Building Lease- Purchase Program put out by the Office of Public School Construction as those requirements and specifications exist at any given time.

[3] Although the Saugus School Funding Agreement operates apart from and in lieu of the Valley-Wide Joint Fee Resolution, its purpose is similar. Like the Valley-Wide Joint Fee Resolution, the Saugus Funding Agreement serves to ensure that the project's impacts on the Saugus Union School District are mitigated to below a level of significance and that the County DMS is satisfied.

this Section. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

5.9.3 IMPACTS AND MITIGATION MEASURES

SAUGUS UNION SCHOOL DISTRICT

◆ ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT WOULD INCREASE STUDENT ENROLLMENT WITHIN THE SAUGUS UNION SCHOOL DISTRICT.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: Based upon a generation factor of 0.1455 students per residential unit, the Saugus District estimates that the proposed project would generate approximately 64 elementary age students upon buildout of the proposed project.[4] As illustrated in *Table 5.9-1*, the Saugus District schools are already at or near capacity.

The School Funding Agreement between Newhall Land and Farming Company and Saugus School District would provide funding to ensure that adequate school capacity would be available to serve the students generated by the project.[5] As a result, no project impacts to the Saugus District would occur.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

[4] Per written communication with Harold Pierre, P.E., Director of Facilities, Hart Union School District on June 17, 2005.

[5] Harold J. Pierre, P.E., Saugus Union School District, correspondence to Impact Sciences, Inc., 13 November 2002.

HART DISTRICT

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT WOULD INCREASE STUDENT ENROLLMENT WITHIN THE HART DISTRICT.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: The Hart District provides student generation rates based upon the type of residential development. As illustrated in *Table 5.9-3*, *Hart Student Generation Rates*, development of the proposed project would result in a total of 15 junior high school students and 33 high school students.

Table 5.9-3
Hart Student Generation Rates

School	Student Generation Factor			Project Total
	Single-Family Detached	Single-Family Attached	Multi-Family	
Junior High School	0.1713	0.0571	0.0345	15
High School	0.2466	0.0770	0.0745	33
Source: Student generation rates adopted by the Governing Board on March 16, 2005.				

As illustrated earlier in *Table 5.9-2*, the La Mesa Junior High School has a remaining capacity of 229 students and the Golden Valley High School has a remaining capacity of 1,611 students. Therefore, the Hart District currently has the capacity to accommodate the students generated by the proposed project. In addition, the School Funding Agreement between the Newhall Land and Farming Company and the William S. Hart Union High School District would provide funding to ensure that adequate school capacity would be available to serve the students generated by the project.[6] As a result, no project impacts to the Hart District would occur.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

5.9.4 CUMULATIVE IMPACTS AND MITIGATION MEASURES

COUNTY DEVELOPMENT MONITORING SYSTEM (DMS) BUILDOUT SCENARIO

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS WOULD INCREASE THE DEMAND FOR SCHOOL FACILITIES WITHIN THE SAUGUS AND HART SCHOOL DISTRICTS.***

[6] *Ibid.*

***Level of Significance Prior to Mitigation*:** Less Than Significant Impact.

Impact Analysis: The County's Development Monitoring System (DMS) buildout scenario assumes complete buildout for the project and those subdivision projects listed in the County's DMS for the Saugus District and the Hart District. County DMS data used for this analysis includes all pending, recorded and approved residential projects involving land divisions located in these two school districts.

A summary of development by school district under the DMS build-out scenario is presented in *Table 5.9-4*, *Summary of Cumulative Projects by School District – DMS Buildout Scenario (Pending, Approved, and Recorded Projects)*. As shown, the junior high schools in the Hart District serve a smaller number of cumulative residential units than the senior high schools. This variation exists because two school districts in the Santa Clarita Valley serve grades 7 and 8 students (Hart District and Castaic Union School District), while only one district serves high school students (Hart District).

Table 5.9-4
Summary of Cumulative Projects by School District – DMS Buildout Scenario
(Pending, Approved, and Recorded Projects)

School District		Residential Units		
		Single-Family	Multi-Family	Total Units
Saugus Union	Cumulative Projects	10,437	4,087	14,524
	Proposed Project	437	0	437
	Total	**10,874**	**4,087**	**14,961**
Hart Jr. High	Cumulative Projects	18,594	9,440[1]	28,034
	Proposed Project	437	0	437
	Total	**19,031**	**9,440**	**28,471**
Hart Sr. High	Cumulative Projects	23,343	12,196[1]	35,539
	Proposed Project	437	0	437
	Total	**23,780**	**12,196**	**35,976**

1. Includes 273 mobile homes.

Source: Los Angeles County Department of Regional Planning, Service Provider Report (October 16, 2002). The published DMS Service Provider Report of October 16, 2002 does not include Newhall Ranch residential units.

Under the DMS buildout scenario with the proposed project, there would be an additional 2,177 elementary school students, 1,413 junior high school students and 2,740 senior high school students that would need to be served by the Saugus and Hart Districts. Based on an elementary school classroom size of 20 and a junior and senior high school classroom size of 32, these students would require a total of 109 additional elementary school classrooms, 44 additional junior high school classrooms and 86 additional senior high school classrooms.

The additional 2,177 elementary school students would exceed the existing remaining capacity of 1,165 elementary school students. As previously discussed, the Saugus District proposes construction of two new elementary schools within its jurisdiction. In addition, cumulative impacts based on DMS buildout may be mitigated through the school facilities funding agreements between the districts and proposed project applicant, or through other mechanisms, such as SB 50, the Valley-Wide Joint Fee Resolution, and/or future facilities

funding agreements between the districts and the developers of new residential projects. Assuming such mechanisms are implemented for each new residential development included in the related projects, impacts on schools caused by County DMS buildout would be mitigated to less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

CUMULATIVE BUILDOUT SCENARIO

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND OTHER RELATED CUMULATIVE PROJECTS WOULD INCREASE THE DEMAND FOR SCHOOL FACILITIES WITHIN THE SAUGUS AND HART SCHOOL DISTRICTS.***

***Level of Significance Prior to Mitigation*:** Less Than Significant Impact.

Impact Analysis: Cumulative development (refer to Appendix C, Cumulative Growth Calculations) would generate 1,004 elementary school students, 632 junior high school students and 1,010 senior high school students. The Saugus District has adequate capacity (1,165 students) to accommodate the 1,004 additional elementary students that would be associated with the proposed project and cumulative projects in the area. The Hart District currently has a remaining capacity for 1,378 junior high school students and 1,894 senior high school students, which could accommodate the cumulative junior and high school students.

A significant cumulative impact could occur if a project does not contribute its fair share to mitigate adverse effects on school facilities. However, the school funding agreements into which the project applicant has entered with the respective school districts would ensure that the project would not contribute to education impacts. Cumulative impacts on schools may be mitigated through the school facilities funding agreements between the districts and proposed project applicant, or through other mechanisms, such as SB 50, the Valley-Wide Joint Fee Resolution, and/or future facilities funding agreements between the districts and the developers of new residential projects. Assuming such mechanisms are implemented for each new residential development included in the related projects, cumulative impacts on schools caused by other future residential development would be mitigated to less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

5.9.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Implementation of the proposed Soledad Village project would not result in any significant and unavoidable impacts to schools.

Section 5.10
PARKS AND RECREATION

5.10 PARKS AND RECREATION

Information in this section is derived from the City of Santa Clarita Department of Parks and Recreation and Community Services, *City of Santa Clarita General Plan*, and local, County, state and Federal recreation facility records.

5.10.1 ENVIRONMENTAL SETTING

LOCAL AND REGIONAL PARKS

City of Santa Clarita Parks

As shown in *Table 5.10-1*, *City of Santa Clarita Parks*, and *Exhibit 5.10-1*, *City of Santa Clarita Parks*, the City has 24 existing and proposed parks totaling 307 acres. The developed parks contain amenities such as children's play areas, multi-purpose fields, restrooms, volleyball courts, picnic tables, etc. The project site is in close proximity to the Sports Complex and Aquatic Center, which includes basketball courts, racquetball courts, skate park, teen center, game room, meeting rooms, 50-meter swimming pool, and a 25-meter diving platform. However, based upon the City's standard of three acres of parkland per 1,000 people, the City has an existing deficit of approximately 263 acres of parkland.[1] Even after all proposed parks are constructed, the City will still have a deficit of approximately 197 acres of parkland.

City of Santa Clarita Open Space Areas

In addition to developed parks, the City has 9,075 acres of undeveloped lands that are or will be preserved as open space recreation areas, as shown in *Table 5.10-2*, *Open Space Areas in the Santa Clarita Planning Area*. Many of these include amenities such as hiking trails, horse trails, nature preserves, natural watercourses and wildlife corridors. The largest of these areas is the 6,000-acre Newhall Ranch open space area to be dedicated to the City, County, and Mountains Conservancy.

State and County Parks Within The City's Planning Area

State and County parks located within the jurisdictional boundaries of the City of Santa Clarita or within its established planning area are described in *Table 5.10-3*, *State and County Parks Facilities*, and *Exhibit 5.10-2*, *State and County Parks and Recreation Facilities*. Most of the County's parks are community-orientated and regional in nature, having parkland in excess of ten acres in area. Of the 23 existing and proposed State and County parks in the City's planning area, two are 50 acres or larger in area.

[1] Based upon the City's population of 167,954 persons as of January 1, 2005, as reported by the California Department of Finance.

Table 5.10-1
City of Santa Clarita Parks

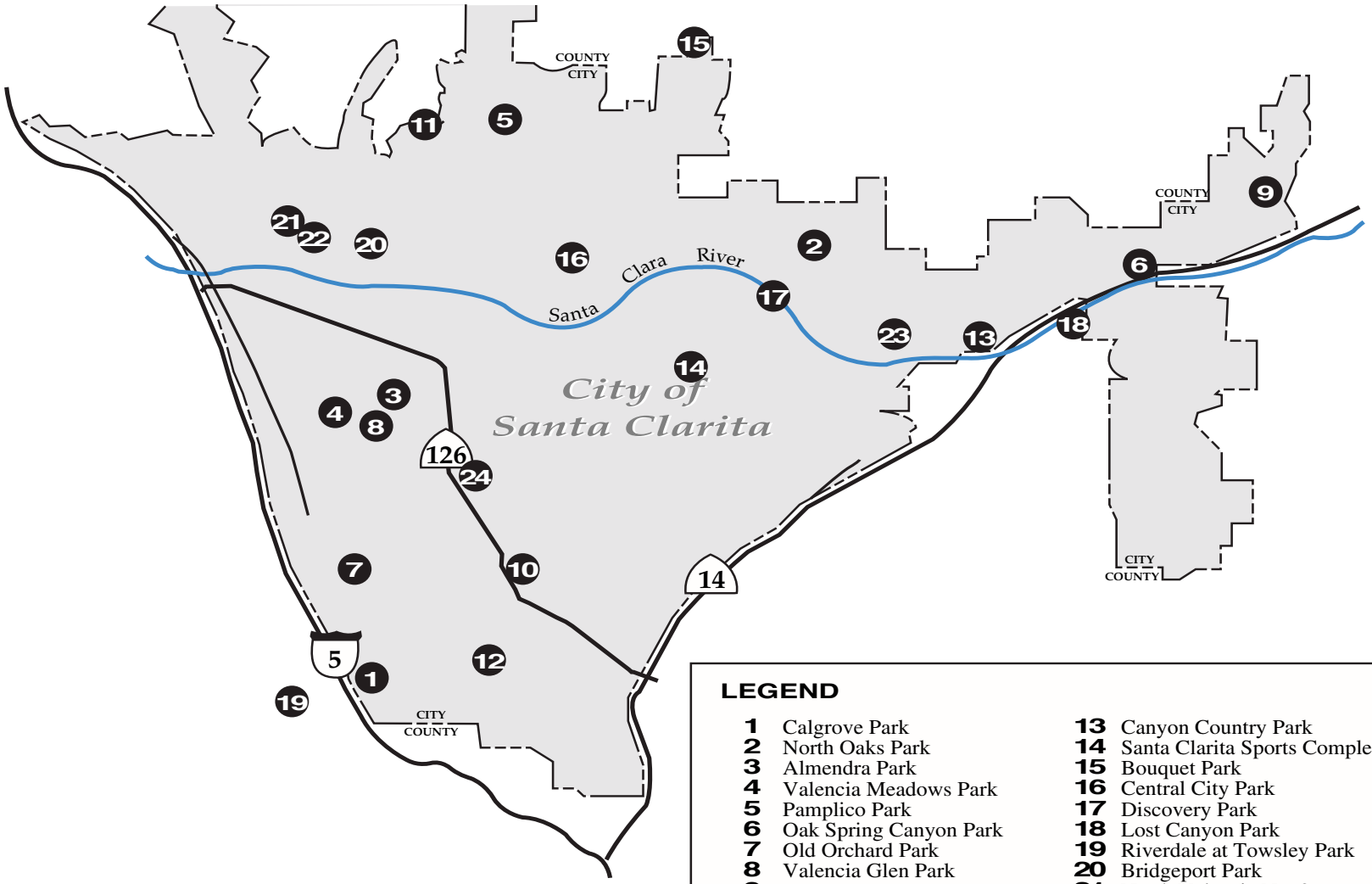
Parks	Acreage	Location	Condition
Almendra Park	4.3	23420 Alta Madera Drive, Valencia	Developed
Begonias Lane Park	4.2	14911 Begonias Lane, Canyon Country	Developed
Bouquet Canyon Park	10.5	28127 Wellston Drive, Saugus	Developed
Bridgeport Park	16.0	23520 Bridgeport Lane, Valencia	Developed
Canyon Country Park	19.5	17615 Soledad Canyon Road, Canyon Country	Developed
Central City Park (Phases I and II)[1]	80.00	27150 Bouquet Canyon Road, Saugus	Developed
Circle J. Ranch	5.3	22651 Via Princessa, Newhall	Developed
Community Center	4.5	Market Street, Newhall	Undeveloped
Creekview Park	5.0	22200 Park Street, Newhall	Developed
Discovery Park	24.7	27150 Canyon View Drive, Canyon Country	Undeveloped
H.M. Newhall Memorial Park	14.3	24923 Newhall Avenue, Newhall	Developed
North Oaks Park	2.3	27824 N. Camp Plenty Road, Canyon Country	Developed
Valencia Heritage Park	17.6	24155 Newhall Ranch Road, Valencia	Developed
Oak Park	2.0	Southeast of Newhall Ranch Road and San Francisquito Creek, Valencia	Developed
Oak Spring Canyon Park	5.7	28920 Oak Spring Canyon Road, Canyon Country	Developed
Old Orchard Park	5.4	25023 Avenida Rotella, Valencia	Developed
Pamplico Drive Park	7.6	22444 Pamplico Drive, Saugus	Developed
Riverpark[2]	5.2	West of Santa Clarita Way, south of Newhall Ranch Road	Undeveloped
Santa Clarita Park	7.5	27285 Seco Canyon Road, Saugus	Developed
Santa Clarita Sports Complex and Aquatic Center[3]	20.0	20850-80 Center Pointe Parkway, Canyon Country	Developed
Valencia Glen Park	7.3	23750 Via Gavola, Valencia	Developed
Valencia Meadows Park	6.1	25671 Fedala Road, Valencia	Developed
Veteran's Historic Plaza	0.5	24275 Walnut Avenue, Newhall	Developed
Whites Canyon	31.6	Whites Canyon Road	Undeveloped
Total Park Acreage	**307.1**		

Notes:
1. Developed portion of the 108-acre site.
2. The park is included in a total of 29 acres dedicated to open space.
3. Developed portion of the 58-acre site.

Source: Per Jessica Humphries, City of Santa Clarita Department of Park, Recreation and Community Services, March 30, 2005.

The largest of these parks is the 8,700-acre Castaic Lake State and County Recreation Area. This multi-use park is located north of the project site in the unincorporated area of Castaic and includes 2,600 surface acres of water contained in an upper and lower reservoir system. Castaic Lake reservoir and surrounding land is owned by the state; however, the County has a lease on the land and operates the upper lake, Castaic Lake Reservoir, and the lower lake, Castaic Lagoon.[2] Facilities at the upper lake include major boat ramps and supporting facilities with fishing, boating, water and jet skiing, and parking for boats and trailers. Development around the 180-acre Castaic Lagoon includes major picnic areas for groups and families, swimming beaches, parking areas, non-motorized boat facilities, and general day-use recreation facilities, such as comfort stations.

[2] Per communication with Lillie Lowery, Los Angeles County Department of Parks and Recreation, January 7, 2003.



Source: City of Santa Clarita General Plan, City of Santa Clarita Department of Parks, Recreation and Community Services, January 2001; Impact Sciens, April 2003.

NOT TO SCALE

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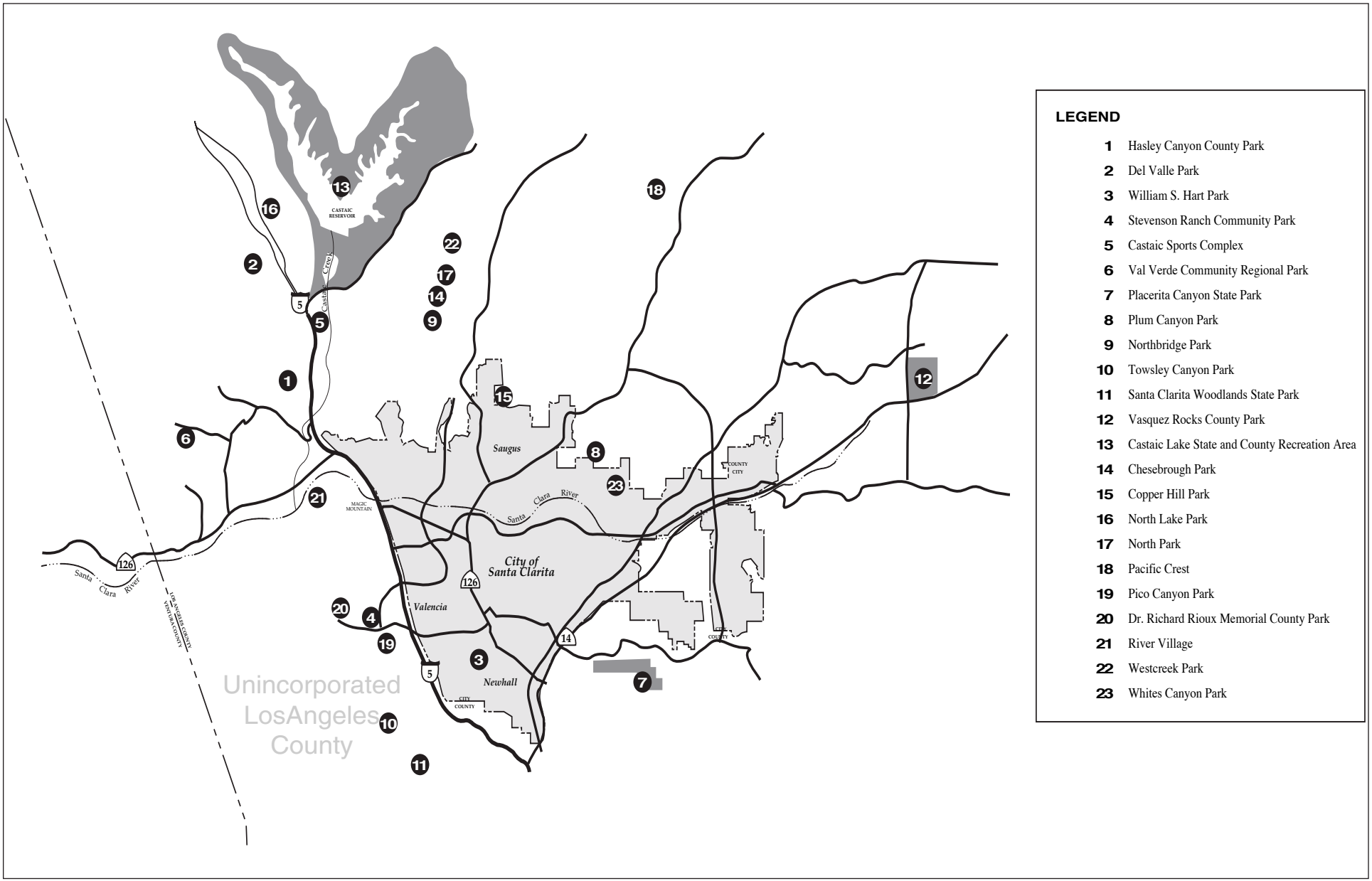
SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

City of Santa Clarita Parks

Exhibit 5.10-1



Source: Santa Clarita General Plan; Impact Sciences, April 2003.

NOT TO SCALE

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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

State and County Parks and Recreation Facilities

Exhibit 5.10-2

Table 5.10-2
Open Space Areas in the Santa Clarita Planning Area

Open Space Area	Acreage	Location	Proposed Preserve
Gate King	240	Southwest of Sierra Highway and San Fernando Road, Newhall	Preserved
Golden Valley Ranch	910	Southeast of SR-14 and Golden Valley Road, Canyon Country	Preserved
Lost Canyon Park	40	Lost Canyon Road/La Veda Avenue, Canyon Country	Preserved
Quigley Canyon	158	Southwest of Golden Valley Road and Via Princessa, Newhall	Preserved
Newhall Ranch	6,000		Preserved
North Valencia 1 Annexation	296		Preserved
North Valencia 2 Annexation	60		Preserved
Rivendale/Towsley Canyon	60	24255 The Old Road, Newhall	Preserved
Riverpark	707		Preserved
Westridge	150		Preserved
Whitney Canyon	454	Southeast of SR-14 and San Fernando Road, Newhall	Preserved
Total Open Space Acreage	**9,075**		

Source: Per Jessica Humphries, City of Santa Clarita Department of Park, Recreation and Community Services, March 30, 2005.

Table 5.10-3
State and County Park Facilities

Parks	Acreage	Location	Condition
Hasley Canyon County Park	5.38	28700 West Quincy Street, Castaic	Developed
Del Valle Park (County)	5.00	28201 W. Sloan Canyon Road, Castaic	Developed
William S. Hart Regional County Park	110.00	24151 San Fernando Road, Newhall	Developed
Stevenson Ranch Community Park (County)	16.00	1 mile west of I-5 and Pico Canyon Road	Developed
Castaic Sports Complex Community Regional Park (County)	50.00	31320 North Castaic Road, Castaic	Developed
Val Verde Community Regional Park (County)	57.58	30300 W. Arlington Street, Saugus	Developed
Placerita Canyon Park (State)	341.12	19152 Placerita Canyon Road, Newhall	Developed
Deputy David March Park (County)	8.00	¼ mile eat of Bouquet Canyon Road	Under Construction
Northbridge Park (County)	8.63	27400 N. Grandview Drive, Valencia	Developed
Ed Davis/Towsley Canyon Park (State)	145.00	24255 The Old Road	Developed
Santa Clarita Woodlands State Park	3,000.00+		Developed
Vasquez Rocks County Park	745.00	Aqua Dulce	Developed
Castaic Lake State and County Recreation Area[1]	8,700.00	32132 Ridge Route Road, Castaic	Developed
Chesebrough Park (County)	5.48	Sunset Hills Drive/McBean Parkway	Developed
Copper Hill Park	4.40	Northbridge Planning Area	Proposed
North Lake Park	14.0	Castaic/Val Verde	Proposed
North Park	4.87	Saugus	Proposed
Pacific Crest	4.00	Castaic/Val Verde	Proposed
Pico Canyon Park	10.80	Pico Canyon	Under Construction
Richard Rioux Memorial County	15.46	Stevenson Ranch	Developed
River Village	21.30	Newhall/Valencia	Proposed
West Creek Park	15.63	Saugus	Proposed
Whites Canyon Park	8.50	Canyon Country	Proposed
Total Park Acreage[2]	**13,296.15**		

Notes:
1. State-owned park maintained and operated by the County.
2. This total does not include the Ed Davis/Towsley Canyon Park, which is already included in the acreage for the Santa Clarita Woodland State Park.

Source: Per Tom Reilly, Park Development Administrator, City of Santa Clarita Department of Park, Recreation and Community Services.

STATE PARKS

The two state parks within the City's planning area are the Santa Clarita Woodlands State Park and the Placerita Canyon State Park, which are described below.

Santa Clarita Woodlands State Park

This 3,000 plus-acre state park is located west of Interstate 5, adjacent to the Ed Davis Park, and may be accessed via either the Lyons Avenue or the Calgrove/The Old Road interchanges.

The creation of this park involved a land transaction that included the City of Santa Clarita, Chevron, and the Santa Monica Mountains Conservancy as the primary participants.[3] The transaction involved the donation of 851 acres of land historically owned by Chevron, with the Conservancy purchasing another 2,184 acres.

Santa Clarita Woodlands State Park includes the 145-acre Ed Davis/Towsley Canyon Park at 24255 The Old Road in Newhall, the three-mile Pico Canyon Trail, the 2.4-mile Rice Canyon Trail, and the 3.8-mile East Canyon Trail. The facilities at Towsley Canyon Park include trails for hiking, mountain biking and equestrian uses; picnic areas; the Sonia Thompson Nature Center; the Towsley Canyon Lodge available for daily or overnight use; and restroom facilities with a drinking fountain.

Placerita Canyon Park

Placerita Canyon Park is located east of the Antelope Valley Freeway and is accessible from Placerita Canyon Road. It is a state park that is operated by the Los Angeles County Department of Parks and Recreation, and it contains a nature center, picnic areas, overnight and day camping facilities, a children's play area, hiking trails, and an equestrian campground.

FEDERAL PARKS

The City's planning area encompasses a portion of the Angeles National Forest and is adjacent to the Los Padres National Forest. Each of these Federal parks is briefly described below.

Angeles National Forest

Portions of the City's planning area that are north and southeast of the City limits encompass a portion of the 650,000-acre Angeles National Forest, which offers a wide range of camping (with fees) and picnicking facilities. A segment of the Pacific Crest National Trail extends for 160 miles through the forest, providing views of the Antelope Valley; varied

[3] The Santa Monica Mountains Conservancy is a state agency created in 1980 under the auspices of the Resources Agency. It was initially established to preserve land and to provide opportunities for recreation in the Santa Monica Mountains and the Rim of the Valley Corridor. The Conservancy is primarily responsible for funding the acquisition of land with statewide and regional significance.

terrain, vegetation, and wilderness; and the San Gabriel Mountains. In addition, there are hundreds of miles of trails in the forest. The water reservoirs charge entrance fees, as well as boat launching, boat rental, and overnight camping fees. In addition to providing recreational opportunities, the forest provides a home for an array of wildlife. User fees (Adventure Pass) are required for any use of the Angeles National Forest.

Los Padres National Forest

The 311,294-acre Ojai Ranger District of the nearly two million-acre Los Padres National Forest is located primarily in the northern section of Ventura County; however, a portion of the Los Padres National Forest crosses the Los Angeles/Ventura County line and is adjacent to the City's northwestern planning area boundary.

Various recreation facilities are provided in the Los Padres National Forest, including hiking, equestrian and off-road vehicle trails, and camping areas (with fees) accessible by road and trail. There are 57 dispersed trail camps, 19 developed family campgrounds, and one developed group campground. There are many miles of recreation roads utilized by visitors as scenic drives and by off-highway vehicles. The forest has inventoried 373.7 miles of trails, including 17.7 miles of the scenic Gene-Marshall-Piedra Blanca National Recreation Trail, which begins at Reyes Creek Campground and ends at Lion Campground.[4] User fees (Adventure Pass) are required for any use of the Los Padres National Forest.

TRAILS

City of Santa Clarita Trail System

The City of Santa Clarita has adopted a system of trails to provide pedestrian, bicycle and equestrian connections to residential communities within the City of Santa Clarita and to the regional trail system as well. Approximately 32.1 miles of trails currently exist within the City limits, with another 13.8 miles under construction as part of other developments. The Santa Clara River trail abuts the southern and northern property lines of the project site. This direct access allows pedestrians and bicycle riders to access areas throughout the City without traveling on regular roadways. There are two main types of trails discussed in this section: Class I trails where the path is paved for bicycles and pedestrians and separate from automobile traffic; and Multi-Use trails where the path is unpaved for pedestrians and horses and separate from automobile traffic. Wherever possible, these trails are fenced on one or both sides and are landscaped and irrigated. City trails are listed below in *Table 5.10-4, City of Santa Clarita Trails*. The Backbone Trails within the City are briefly described below and illustrated in *Exhibit 5.10-3, City of Santa Clarita Trail System*.

South Fork Trails

The South Fork Trails include 4.0 miles of Class I trails along the west side of the South Fork Santa Clara River from Valencia Boulevard to Orchard Village Road. In addition, a 2.4 mile Multi-Use trail also extends along a portion of the river.

[4] *Ventura County General Plan*, Public Facilities and Services Appendix, May 1988.

Table 5.10-4
City of Santa Clarita Trails

Trail Name	Existing (in miles)	Under Construction (in miles)	Proposed (in miles)
South Fork Trails	6.4	--	--
Placerita Canyon Trail	1.2	--	--
San Francisquito trails	4.8	--	2.4
Newhall Ranch Road trail	2.1	--	2.5
Santa Clara River North trails	2.3	5.0	1.5
Santa Clara River West trail	2.8	--	--
Santa Clara River East trails	7.2	--	0.5
Golden Valley trails	3.0	5.0	1.0
Sand Canyon trails	2.3	3.8	--
Total Trail Miles	**32.1**	**13.8**	**7.9**

Source: Per Tom Reilly, City of Santa Clarita Department of Park, Recreation and Community Services, July 28, 2005.

Placerita Canyon Trail

The Placerita Canyon Trail includes a 1.2 mile Multi-Use trail from Quigley Canyon to Creekview Park.

San Francisquito Trails

The San Francisquito Trails includes 4.8 miles of Class I trails along both sides of the San Francisquito Creek from the north side of the Santa Clara River to Copper Hill Drive. A 1.7 mile extension of one of the Class I trails is proposed on the west side of the creek north of Decoro Drive. In addition, a 0.7-mile extension is proposed to connect the southern point of the trail to thee I-5 freeway.

Newhall Ranch Road Trail

The Newhall Ranch Road trails include two segments totaling 2.1 miles of Class I trails along Newhall Ranch Road between Copper Hill Drive to Bouquet Canyon Road. An additional 2.5 miles of extensions are proposed to fill existing gaps and connect the trail to the I-5 freeway.

Santa Clara River North Trails

The Santa Clara River North trails include a series of Class I trails totaling 2.3 miles along the northern bank of the Santa Clara River from McBean Parkway to Bouquet Canyon Road. An additional 4.0 miles of Class I trails are currently under construction as part of the Riverpark development on the north side of the river east of Bouquet Canyon Road. Another 1.0 mile Class I trail is under construction along the north side of the river from Soledad Canyon Road to Discovery Park. Finally, a 1.5-mile Class I trail is proposed to connect the trails currently under construction.

Source: City of Santa Clarita.

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SOLEDAD VILLAGE
ENVIRONMENTAL IMPACT REPORT

City of Santa Clarita Trail System

Exhibit 5.10-3

Santa Clara River Trail/West

The Santa Clara River West trail is a 2.8-mile Class I trail along the side of the river from Valencia Bouelvard to the area west of McBean Parkway.

Santa Clara River Trails/East

The Santa Clara River East trails include a series of Class I tails totaling 7.2 miles along Soledad Canyon Road and the river from Magic Mountain Parkway to Valcour Drive. This trail also extends along the southern and northern boundaries of the subject site. A 0.5 mile Class I extension is proposed to connect the trails to Sand Canyon Road.

Golden Valley Trails

The Golden Valley trails include a series of existing and proposed Class I and Multi-Use trails. A 3.0 mile Class I trail has already been completed along Golden Valley Road from Centerpoint to SR-14. Another 1.5 miles of Class I trails are under construction from SR-14 to the Golden Valley Ranch development. 3.5 miles of multi-use trails are also under construction to connect the Golden Valley Ranch development to the Angeles National Forest. Finally, a 1.0 mile Class I extension is proposed along Golden Valley Road from Centerpoint to the Riverpark development.

Sand Canyon Trails

The Sand Canyon Trails include a series of Multi-Use trails totaling 2.3 miles. One segment is within the Robinson Ranch development and the other is along Sand Canyon Road. Another 3.8 miles of Multi-Use trails is proposed to extend the length of Sand Canyon Road from Soledad Canyon Road to Placerita Canyon Road and to connect Robinson Ranch to Soledad Canyon Road.

Los Angeles County Trails Within The City's Planning Area

The County of Los Angeles Department of Parks and Recreation plans and maintains an extensive system of regional riding and hiking trails within the County, many of which extend to and within the City of Santa Clarita planning area. County trails located in the City's planning area are listed in *Table 5.10-5*, *Existing and Proposed County Trails*, and are described below.

Los Pinetos Trail

Los Pinetos Trail is an equestrian trail with camping facilities available by reservation. The trail is intended to link the City of Santa Clarita trail system to the partially-built Rim of the Valley state trail (discussed below) via the City's partially developed Placerita Canyon Trail. The trail follows a flood control channel through seven miles of natural area, including Placerita Canyon State Park.

Table 5.10-5
Existing and Proposed County Trails

Trail Name	Length (Miles)	Condition
Los Pinetos Trail	7.0	Developed
Wilson Canyon Channel Trail	2.0	Developed
William S. Hart Park Trail	2.5	Developed
Pico Canyon Trail	9.0	Proposed
Hasley Canyon Trail	3.4	Partially Built
Castaic Creek Trail	5.0	Proposed
Mint Canyon Trail	3.7	Proposed
Gavin Canyon Trail	8.0	Proposed
Total Trail Miles	**40.6**	

Source: Per James McCarthy, Trails Coordinator, Los Angeles County Department of Parks and Recreation.

Wilson Canyon Channel Trail

Wilson Canyon Channel Trail provides two miles of moderately difficult hiking in the Angeles National Forest and provides views of the San Fernando Valley and Placerita Canyon. This trail is a link to the partially built Rim of the Valley Trail via the Los Pinetos Trail.

William S. Hart Park Trail

This 2.5-mile nature trail winds through the William S. Hart Park past the William S. Hart Museum and designated points of interest, and provides views of the Santa Clarita Valley. Separate access is provided for equestrian use.

Pico Canyon Trail

Pico Canyon Trail is proposed to be approximately nine miles in length beginning at the intersection of Potrero Canyon and the Santa Clara River just east of the Los Angeles/Ventura County line. Moving in an easterly direction, the trail is generally proposed to follow Potrero Canyon, and then connect to Pico Canyon ending at the mouth of the canyon just west of Interstate 5. At this juncture, the trail will connect to another County proposed trail (Gavin Canyon Trail) that will connect to the partially built Rim of the Valley Trail.

Hasley Canyon Trail

Hasley Canyon Trail is proposed to follow Hasley Canyon for 3.4 miles in a westerly direction from Castaic Creek. A portion of this trail runs through, and is adjacent to, the Valencia Commerce Center, and is partially built.

Castaic Creek Trail

The Castaic Creek Trail is proposed to link with the Santa Clara River Trail at the intersection of Castaic Creek and the Santa Clara River. The trail is proposed to follow Castaic Creek north for five miles to the Castaic Lake State and County Recreation Area, ultimately intersecting with the other proposed County trails located further north.

Mint Canyon Trail

This 3.7-mile trail links the Mint Canyon Equestrian Trail to the Bouquet Canyon Equestrian Trail. The trail runs through Vasquez Canyon.

Gavin Canyon Trail

This approximately eight-mile trail links Pico Canyon to Rim of the Valley Trail. The Rim of the Valley/Corridor Trail is discussed immediately below.

Regional Trails in the City's Planning Area

Rim of the Valley Corridor/Trail

The Santa Monica Mountains Conservancy Rim of the Valley Corridor includes land in the mountains that surround the San Fernando, Simi, Conejo, and La Crescenta Valleys (i.e., the San Rafael and Simi Hills, and the Verdugo, San Gabriel, and Santa Susana Mountains). It is actually an overlay on private property and the Corridor is a proposal envisioning an approximately 200 mile state trail. At the present time, only ten miles have been acquired in the Santa Susana Mountains. Located on both public and private land within the Rim of the Valley Corridor, it will connect to many of the regional trails that, in turn, connect to the local trails within the City of Santa Clarita.

Pacific Crest National Trail

A segment of the Pacific Crest National Trail extends for 160 miles through the Angeles National Forest, providing views of the Antelope Valley, varied terrain, vegetation, wilderness, and the San Gabriel Mountains. Campgrounds, picnic areas, and staging areas are available along the trail. In all, the Pacific Crest National Trail traverses 2,500 miles from Canada to Mexico. The trail was established under the National Trails System Act of 1968 and is part of the National System of Recreation and Scenic Trails. Only foot and equestrian travel is permitted on the trail; motorized vehicles and mountain bicycles are prohibited. Other trails that connect to the Pacific Crest National Trail include Fish Canyon Trail, Bear Canyon Trail and Gillette Mine Trail. All of these trails are located within the Angeles National Forest land and are north of Castaic Lake. The proposed County Castaic Creek Trail would connect to these trails.

CITY OF SANTA CLARITA PARK STANDARDS

The City of Santa Clarita Department of Parks, Recreation and Community Services provides local park and recreation facilities and services for the City of Santa Clarita. Local parks in the City are categorized as either neighborhood parks or community parks. Neighborhood parks are usually five to ten acres in size, and are often sited in residential neighborhoods adjacent to elementary schools. According to the Parks and Recreation Element of the City of Santa Clarita General Plan, neighborhood parks should include at least two of the following amenities:[5]

- Children's play area(s), including tot lots (at a rate of one per 5,000 persons served);
- Tennis courts (at a rate of one for each 2,000 persons served);
- Baseball/softball and football area(s) (at a rate of one baseball diamond per 12,000 persons served, one softball diamond per 6,000 persons served, one football/soccer field per 1,500 persons served);
- Baseball/volleyball area(s) (at a rate of one per 500 persons served); and
- Racquetball court(s) (at a rate of one per 2,000 persons served).

Community parks are ten to 40 acres in area with amenities that may include a community building, swimming pool, multi-purpose fields, hard court areas, picnic areas, and parking.

Section 66477 of the State Government Code allows cities and counties to require, as a condition of approval of a subdivision, the dedication of land or the payment of a fee in lieu of dedication, or a combination of both, for park or recreational purposes at a minimum of three acres per 1,000 population. This legislation is commonly known as the "Quimby Act." As allowed under the Quimby Act, the City's Unified Development Code (UDC) requires a minimum of three acres per 1,000 persons using the latest State Department of Finance population figures.[6] Section 17.15.020 of the City's UDC also specifies the following requirement for multi-family residential uses:

> *A minimum of two hundred (200) square feet of open area per ground floor unit shall be provided and a minimum of one hundred fifty (150) square feet of open space for units contained wholly on the second story or above shall be provided. Land required for setbacks or occupied by buildings, streets, driveways or parking spaces may not be counted in satisfying this open space requirement; however, land occupied by any recreational buildings and structures may be counted as required open space.*

The City's UDC identifies the following park and recreation facilities that may be eligible for Quimby credit: publicly- or privately-owned playgrounds, tennis, basketball or other similar

[5] *City of Santa Clarita General Plan*, PR-5, adopted 1991.
[6] *City of Santa Clarita Unified Development Code*, Chapter 16.15.

game court areas, swimming pools, athletic fields, picnic areas, and other types of natural or scenic areas that comply with established criteria and as recommended by the Department of Parks, Recreation and Community Services for passive or active recreation.[7] Partial credit may be permitted for private parkland usable for active recreational purposes. The amount of the credit may be based on the commitment of the developer to install within the private open space any of the local park basic elements listed below, or a combination of such and other recreation improvements that will meet the specific recreation needs of future residents of the area:[8]

- Three acres of open turf less than three percent slope for soccer, football, golf, basketball, etc.;
- Recreation building and facilities;
- Court areas; and
- Recreational swimming areas (minimum 800 square feet surface area).

Quimby credit is given for active parkland and not open space. The City also requires parallel and adjacent Class I bike trails along all new major and secondary highways.

5.10.2 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix A of this EIR. The Initial Study includes questions relating to parks and recreation. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

[7] *Ibid.*
[8] *City of Santa Clarita Unified Development Code*, Chapter 16.15.090.

Additionally, the State of California (California Government Code, Section 66477 [Quimby Act]), and the City's UDC Chapter 16.15 have established a minimum standard of three acres per 1,000 population as the proportionate amount of land necessary to satisfy the park requirement for new subdivisions. If it is determined by the City that land dedication is not required, the applicant may pay fees in-lieu of the dedicated parkland or construct amenities on dedicated parkland that are of equal dollar value to the park fee, or a combination of the two alternatives to satisfy the requirement. Therefore, the project will be required to satisfy the park requirements through the payment of fees.

5.10.3 IMPACTS AND MITIGATION MEASURES

PROJECT AMENITIES

Recreational/Open Space/Pedestrian Circulation

Active Recreational Facilities. A private recreational center would be located north of the commercial building. The facilities would include an approximately 1,200 square foot recreation building (including a community room, restrooms, and a pool equipment room) on a 14,000 square foot area, which would also include a swimming pool, wading pool, spa, shade structures and a cabana. A tot lot on a 4,000 square foot open area would also be provided within the western portion of the project site.

In addition, pedestrian trails would extend along Soledad Canyon Road, and along the western and southern boundary of the project site as part of the Santa Clara River trail system. Primary and secondary trails would also be provided throughout the project site. A pedestrian bridge would also be developed west of the project site. The pedestrian bridge would connect from a trail along the Santa Clara River, cross Soledad Canyon Road to the Metrolink Commuter Rail station.

Passive Recreational Facilities. Approximately 1.96 acres of additional open space areas with a minimum dimension of 20 feet would also be provided, allowing for passive recreational areas and green space throughout the project site.

Other Landscaped Areas. Other areas of the property would also be landscaped including building separations, driveway parkways and street and river setbacks. Landscape setbacks would be located along Soledad Canyon Road (minimum of 15 feet) and along the Santa Clara River.

Pedestrian Circulation. As discussed, the site is bounded by the Santa Clara River East trails along the northern and southern property boundary. A main walkway at the Gladding Way entrance would directly connect the two trails. Another two access points would be provided along the northern trail along the Santa Clara River and another one access point would be provided along the southern trail along Soledad Canyon Road. Various walkways would provide internal connections from the units to the trail access points, recreation areas and other points of interest.

NEIGHBORHOOD AND COMMUNITY PARKS

◆ ***DEVELOPMENT OF THE PROPOSED PROJECT WOULD INCREASE USAGE OF NEIGHBORHOOD AND COMMUNITY PARKS.***

***Level of Significance Prior to Mitigation*:** Potentially Significant Impact.

***Impact Analysis*:** As stated above, the proposed project includes private recreational facilities for residents, but proposes no public recreational facilities.

The City of Santa Clarita has adopted park dedication requirements for new subdivisions that are applicable to the proposed project. These requirements are set forth in Chapter 16.15 of the City's UDC. The UDC requires that land be dedicated, or equivalent fees be paid, for neighborhood and community park or recreational purposes at the rate of a minimum of three acres per 1,000 persons residing within the project. The development of 437 residential units would result in a population increase of 1,356 persons (refer to *Section 5.2, Population, Employment, and Housing* of this EIR), which would require a minimum of four acres of parkland.[9] Based upon the standards identified in Section 17.15.020 of the City's UDC, the proposed project would be required to provide 2.0 acres of parkland.[10]

The City Ordinance identifies several types of park and recreation facilities, which may satisfy projected needs and are eligible for Quimby credit. The UDC allows for up to 30 percent credit (or 1.32 acres) for private recreation areas. These facilities may include, but are not limited to: publicly or privately owned playgrounds, tennis, basketball or other similar game court areas, swimming pools, putting greens, and athletic fields.[11] Traditionally, Quimby credit is given for active parkland and not open space. The park requirement for the proposed project may, at the City's discretion, be partially offset through the dedication of active private recreational facilities.

Credits toward meeting the park requirements are determined by the City of Santa Clarita Department of Parks, Recreation and Community Service, and are based upon several criteria (e.g., access, improvements, topography, etc.), City park dedication guidelines and City Ordinance requirements. Street area (either public or private) does not constitute parkland acreage toward the satisfaction of Quimby requirements because street area is not active parkland and, therefore, does not mitigate active parkland impacts.

Implementation of the recommended mitigation measure requires that project-related park requirements be met based on the City Ordinance through a combination of methods/project features. In addition, the City may require further payment of park fees, which would ensure that the proposed project would meet its park requirements, reducing impacts to a less than significant level.

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[9] Based on an estimate of 3.103 persons per household obtained from the State of California, Department of Finance, *City/County Population and Housing Estimates, 2005, Revised 2001-2004, with 2000 DRU Benchmark*, Sacramento, California, May 2005.

[10] Based upon the standard of 200 square feet provided for 437 multi-family residential units.

[11] *City of Santa Clarita Unified Development Code*, Chapter 16.15.

Project park requirements would be met based on the City Ordinance through a combination of the methods/project features described above. Therefore, the proposed project would not have a significant impact on parks, recreation, or trails. This is not to say project residents would not use off-site facilities, but that park facilities are being provided to serve projected needs.

***Mitigation Measure*:**

PR1 The project shall comply with the City Ordinance and Quimby Act in providing a minimum of 4.0 acres of parkland either through the dedication of park area, and/or payment of fees in-lieu of the dedicated parkland.

***Level of Significance After Mitigation*:** Less Than Significant Impact.

REGIONAL PARKS

- ***DEVELOPMENT OF THE PROPOSED PROJECT WOULD INCREASE USAGE OF REGIONAL PARKS.***

***Level of Significance Prior to Mitigation*:** Less Than Significant Impact.

***Impact Analysis*:** While it is possible that project residents would use Los Angeles County Regional Facilities, no significant regional parkland impacts are expected. Since the proposed project would include recreational facilities and approximately 2.33 acres of active and passive open space areas (approximately 0.37 acres of active and 1.96 acres of passive open space areas), it is not expected that the project residents would, in any appreciable manner, need to use regional parks that are located off-site. This is not to say the project site residents would not use off-site facilities, but that City and County regional park and recreational facilities are in place or programmed to adequately serve user needs generated by the proposed project. Consequently, impacts to regional parks would be less than significant.

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

***Level of Significance After Mitigation*:** Not applicable.

STATE AND FEDERAL RECREATION/FORESTS

- ***DEVELOPMENT OF THE PROPOSED PROJECT WOULD INCREASE USAGE OF STATE AND FEDERAL RECREATION/FORESTS.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: It is anticipated that new residents of the proposed project would use the State and Federal recreation areas and forests. As such, increased usage would be considered a potentially adverse impact. However, the State and National Forest facilities charge user fees for water sports and overnight camping at the reservoirs and camping areas.

Additionally, State and Federal taxes, which would be paid by residents and businesses located within the project site, would be available for maintenance of these facilities. Consequently, as with regional and local off-site facilities, no significant State or Federal parkland impacts would occur.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

TRAILS

- ***DEVELOPMENT OF THE PROPOSED PROJECT WOULD INCREASE USAGE OF LOCAL TRAILS.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

Impact Analysis: As previously discussed, the proposed project includes a pedestrian circulation plan that provides access to the regional trail network along the Santa Clara River, open areas and connections between living areas, shopping, and recreational facilities. This feature is considered to be an important local and regional recreational and scenic amenity of the proposed project.

New residents of the proposed project are expected to use the City's and County's existing and proposed trail systems in the Santa Clarita Valley area as they are constructed. Anticipated use of the surrounding trails would increase the density of users on such trails once they are constructed. Once the proposed project is completed, the trails would connect to those local and regional trails that would be in place at that time. Because the proposed trail alignments would provide linkages to local and regional trails, the proposed project is considered to have a beneficial impact on the local and regional trail system.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Beneficial Impact.

5.10.4 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND RELATED CUMULATIVE PROJECTS WOULD INCREASE DEMANDS FOR PARKS AND RECREATIONAL FACILITIES IN THE SANTA CLARITA VALLEY.***

Level of Significance Prior to Mitigation: Less Than Significant Impact.

***Impact Analysis**:* The City of Santa Clarita's park dedication requirements for new subdivisions is applicable to the proposed project and related projects in the City that include residential development. Per the Quimby Act, the City requires that land be dedicated, or equivalent fees be paid, for neighborhood and community park or recreational purposes at the rate of three acres per 1,000 persons residing within the project. The expected cumulative population growth associated with the proposed project and related cumulative projects of 32,020 persons (refer to Appendix C, Cumulative Growth Calculations) would create a need for an additional 96 acres of parkland, regardless of whether this growth occurs within the City of Santa Clarita or unincorporated areas. The proposed project includes private recreational areas and 2.33 acres of open space, some or all of which would count toward park dedication requirements, as applicable. As previously discussed, fees may also be used to satisfy parkland requirements in-lieu of the dedicated parkland. The actual park dedication calculations and credit determinations would be based on the subdivision maps submitted for each residential development among the cumulative projects. Given compliance with park dedication requirements and/or fees, as applicable, cumulative parks and recreation impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Not applicable.

5.10.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Implementation of the proposed Soledad Village project would not result in significant and unavoidable impacts to parks and recreational facilities.

Section 5.11
SOLID WASTE

5.11 SOLID WASTE

This section analyzes the solid waste impacts of the project and recommends mitigation measures to reduce the amount of solid waste going to landfills. Specifically, this section compares the solid waste generation of the proposed project with the capacity of the existing landfills operating within Los Angeles County that accept waste from municipalities and unincorporated areas.

5.11.1 ENVIRONMENTAL SETTING

STATE PLANS AND POLICIES FOR SOLID WASTE DISPOSAL

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (AB 939) requires every city and county in the state to prepare a Source Reduction and Recycling Element (SRRE) to its Solid Waste Management Plan, that identifies how each jurisdiction will meet the mandatory state waste diversion goals of 25 percent by the year 1995 and 50 percent by the year 2000. The purpose of AB 939 is to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." Noncompliance with the goals and timelines set forth within AB 939 can result in fines up to $10,000 per day on jurisdictions (cities and counties) not meeting the recycling and planning goals.

The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. AB 939 established a waste management hierarchy as follows:

- Source Reduction;
- Recycling;
- Composting;
- Transformation; and
- Disposal.

As of January 2003, neither the California Integrated Waste Management Board nor the State Legislature have introduced new legislation to set diversion requirements beyond 2000.

REGIONAL PLANS AND POLICIES FOR SOLID WASTE DISPOSAL

Los Angeles Countywide Siting Element

In 1997, the County of Los Angeles prepared a countywide siting element that estimates the amount of solid wastes generated in the County and proposes various diversion and alternate disposal options.

The Los Angeles Countywide Siting Element identifies the Los Angeles County Department of Public Works (LACDPW) as the responsible agency to develop plans and strategies to manage and coordinate the solid waste generated (including hazardous waste) in the County unincorporated areas and address the disposal needs of Los Angeles County as a whole. The Siting Element is based upon the traditional practice of simply collecting solid waste and disposal of at landfills in the local vicinity. Therefore, currently many jurisdictions (such as the County of Los Angeles) are stating that existing local landfill space may reach capacity in the very near future.

LOCAL PLANS AND POLICIES FOR SOLID WASTE DISPOSAL

City of Santa Clarita Integrated Solid Waste Management Program

Subsequent to the Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Re-Use and Recycling Access Act of 1991 (§42900-42911 of the Public Resources Code) directed the California Integrated Waste Management Board (CIWMB) to draft a "model ordinance" relating to adequate facilities for collecting and loading recyclable materials in development projects. If by September 1, 1994, a local agency did not adopt its own ordinance based on the CIWMB model, the CIWMB model took effect for that local agency. The City of Santa Clarita chose to use the CIWMB Model Ordinance by adopting City Resolution No. 93-97 in July 1993.

The Model Ordinance is used by the City as the basis for imposing recycling conditions on new development projects and on existing projects that add 30 percent or more to their existing floor area. The City of Santa Clarita has established a comprehensive Integrated Waste Management Program, which incorporates the hierarchy of preferred solid waste management practices as established by AB 939. These are, in order of priority: Source Reduction, Recycling, Composting, Transformation, and Landfilling. City-sponsored programs intended to address these solid waste management practices include:

- Curbside residential and commercial recycling;
- Curbside Christmas tree recycling;
- Educational outreach;
- Yard trimming recycling;
- Certified oil recycling collection centers;
- Participation in the Household Hazardous Waste Program;
- Home Composting Program;
- City Facilities Recycling Program;
- Procurement Policy;
- Curbside Oil and Filter Recycling; and
- Project Pollution Prevention Week (including River Rally).

City of Santa Clarita Source Reduction and Recycling Element (SRRE)

The SRRE describes policies and programs that will be implemented by the City to achieve the state's mandate of 50 percent waste disposal reductions by the year 2000. Per the Integrated Waste Management Act of 1989, the SRRE projects disposal capacity needs for a fifteen-year period. The current SRRE fifteen-year period commenced in 1991. The City of Santa Clarita is in full compliance with the SRRE with regard to preparation of plans and policies.[1] In 2003, the City' diversion rate was 40 percent, which is below the state's mandate. The City received a time extension on its compliance deadline, giving until the end of 2005 to achieve a diversion rate of 50 percent.

City of Santa Clarita Household Hazardous Waste Element (HHWE)

The City's household hazardous waste management program, consisting of collection and public education/information services, has been formulated to serve residents throughout the City in a convenient and cost-effective manner. In addition to reducing the amount of waste that might otherwise be sent to a landfill as required by AB 939, these programs are important facets in the City's effort to clean up the solid waste stream. The City of Santa Clarita adopted its HHWE in 1991.

City of Santa Clarita Non-Disposal Facility Element (NDFE)

The City's NDFE identifies one proposed and one existing materials recovery facilities/transfer station that the City intends to utilize to implement its SRRE and meet the diversion requirements of AB 939. In addition, the City's NDFE also identifies the utilization of the Chiquita Canyon Landfill for diversion of yard trimmings. The Chiquita Canyon Landfill received approval to operate a composting facility and the composting operation was initiated in October 1996. The City is looking to add a Materials Recovery Facility (MRF) within it's borders and will update its NDFE once the project is underway.

City of Santa Clarita Beyond 50 Percent Waste Reduction by 2000 Report

In July 1996, the City Council adopted the Beyond 50 Percent Waste Reduction by 2000 Report. The report identifies the current state of waste management service provided to residents. The report found that a franchise arrangement for Citywide refuse collection remains the most cost-effective alternative for the City to comply with the established waste reduction goal of 50 percent by the end of 2005.

As part of the City's ongoing efforts to divert waste from landfills, the City Council adopted the Construction and Demolition Debris Recycling Ordinance in July 2005. The ordinance will require a minimum of 50 percent diversion of the waste materials generated through construction and demolition related projects valued over $500,000 (including the proposed project) throughout the City. The program requires recycling of waste materials coming from construction and demolition projects such as wood, cement and bricks.

[1] Per Riverpark Draft EIR, telecommunication with Benjamin Lucha, Environmental Analyst, Environmental Services Division, City of Santa Clarita, November 25, 2002.

EXISTING SOLID WASTE COLLECTION AND DISPOSAL IN THE CITY OF SANTA CLARITA

Three haulers are franchised by the City to collect residential and commercial waste in the City of Santa Clarita. These haulers operate under two franchise systems: one for commercial uses and one for residential uses.

In 2003, approximately 192,542 tons of solid waste was disposed of by the City of Santa Clarita; refer to *Table 5.11-1*, *Landfills Summary*).[2] Approximately 81 percent (156,035 tons) of Santa Clarita's solid waste is sent to the Chiquita Canyon Sanitary Landfill (in Castaic), with most of the remaining being sent to the Antelope Valley Public Landfill (in Palmdale), the Puente Hills Landfill No. 6 (in the City of Industry) and the Bradley Landfill West and West Extension (in Sun Valley). The Chiquita Canyon Landfill has been approved for expansion resulting in the extension of its closure date to 2019, assuming a maximum daily tonnage of 6,000 tons of solid waste. This landfill is classified as a major landfill, which is defined as a facility that receives more than 50,000 tons of solid waste per year. Additionally, the Chiquita Canyon Landfill is classified as Class III since it is permitted to accept only non-hazardous wastes. It should be noted that in the future, nearly all of the solid waste from the City will be transferred to the Antelope Valley Public Landfill. The 15 landfills serving Santa Clarita have a total permitted capacity of 210.8 million tons and a remaining capacity of approximately 810.7 million tons.

EXISTING SOLID WASTE GENERATED AT THE PROJECT SITE

The project site is currently vacant and undeveloped, and thus generates no solid waste.

5.11.2 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix A of this EIR. The Initial Study includes questions relating to solid waste disposal. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this Section. Accordingly, a project may create a significant environmental impact if one or more of the following occurs:

- Would be served by a landfill with insufficient capacity to accommodate the project's solid waste disposal needs.

Based on these standards, the effects of the proposed project have been categorized as either a "less than significant impact" or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant and unavoidable impact.

[2] Jurisdiction Disposal and ADC by Facility, Integrated Waste Management Board, 2004, www.ciwmb.ca.gov.

Table 5.11-1
Landfills Summary

Facility	Amount Disposed from Santa Clarita (tons/year)[1]	Permitted Throughput (tons/day)[2]	Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)
Arvin Sanitary Landfill	13	800	11,464,719	2,246,339
Bakersfield SLF	8	4,500	53,000,000	2,985,888
CWMI-B18 Nonhazardous Codisposal	11	8,000	10,700,000	6,000,000
Antelope Valley Public Landfill	10,743	1,400	6,480,000	11,550,016
Azusa Land Reclamation Company, Inc.	740	6,500	66,670,000	34,100,000
Lancaster Landfill and Recycling Center	4,481	1,700	22,645,000	19,225,934
Chiquita Canyon Sanitary Landfill	156,035	6,000	45,889,550	22,421,485
Puente Hills Landfill #6	8,895	13,200	106,400,000	72,900,000
Calabasas Sanitary Landfill	29	3,500	69,700,000	25,400,000
Commerce Refuse-To-Energy Facility	1	1,000	1,000 tons/day	N/A
Sunshine Canyon SLF County Extension	2,793	6,600	23,720,000	8,442,302
Bradley Landfill West and West Extension	8,405	10,000	38,600,000	510,949
Frank R., Bowerman Facility LF	8	8,500	127,000,000	98,179,886
El Sobrante Landfill	8	10,000	184,930,000	3,674,267
Simi Valley Landfill-Recycling Center	372	3,000	43,500,000	9,473,131
TOTAL	**192,542**	**84,700**	**810,700,269**	**317,110,200[1]**

Sources:
1. *Jurisdiction Disposal and ADC by Facility*, Integrated Waste Management Board, www.ciwmb.ca.gov.
2. *Solid Waste Information System (SWIS)*, Integrated Waste Management Board, www.ciwmb.ca.gov.

5.11.3 IMPACTS AND MITIGATION MEASURES

CONSTRUCTION-RELATED IMPACTS

◆ **CONSTRUCTION OF THE PROPOSED PROJECT WOULD GENERATE SOLID WASTE, WHICH WOULD INCREMENTALLY DECREASE THE CAPACITY AND LIFESPAN OF LANDFILLS.**

***Level of Significance Prior to Mitigation*:** Potentially Significant Impact.

***Impact Analysis*:** Site preparation (vegetation removal and grading activities) and construction activities would generate typical construction debris, including wood, paper, glass, plastic, metals, cardboard, and green wastes. Construction activities could also generate hazardous waste products. The wastes generated would result in an incremental and intermittent increase in solid waste disposal at landfills and other waste disposal

facilities within Los Angeles County. Regardless, as a consequence of the finite resources associated with solid waste disposal, and despite the implementation of the recommended mitigation measure, impacts would be significant and unavoidable.

***Mitigation Measure*:**

SW1 The project applicant/individual project applications shall adhere to all source reduction programs for the disposal of construction materials and solid waste, as required by the City of Santa Clarita. Prior to issuance of building permits, a source reduction program shall be prepared and submitted to the Director of Field Services for the project to achieve a minimum 50 percent reduction in waste disposal rates, including green waste and construction debris.

Level of Significance After Mitigation: Significant Unavoidable Impact.

OPERATION-RELATED IMPACTS

- ***OPERATION OF THE PROPOSED PROJECT WOULD GENERATE SOLID WASTE WHICH WOULD INCREMENTALLY DECREASE THE CAPACITY AND LIFESPAN OF LANDFILLS.***

***Level of Significance Prior to Mitigation*:** Potentially Significant Impact.

***Impact Analysis*:** At buildout, the project would generate approximately 85 to 100 tons per year of solid waste from the proposed residential and commercial uses. The residential solid waste would be collected by Blue Barrel Disposal and the commercial solid waste would be collected by Burtec Disposal.[3] This quantity represents the proposed project's solid waste generation under a worst-case scenario without any recycling activities in place. However, under the City Model Ordinance, the proposed project would be required to provide adequate areas for collecting and loading recyclable materials in concert with Countywide efforts and programs to reduce the volume of solid waste entering landfills. Therefore, although the proposed project would generate approximately 85 to 100 tons per year it can also be assumed that the project would meet the current recycling goals of the community and in actuality, only generate approximately 43 to 50 tons per year due to City mandate to divert at least 50 percent of potential waste disposal.

The two potential landfills that would serve the site (Chiquita Canyon Sanitary Landfill and Antelope Valley Public Landfill) have approximately 57 percent and 46 percent, respectively, capacity remaining. Assuming a worst-case assumption of 100 tons per year, the proposed project represents 0.005 percent of the daily permitted tonnage at the Chiquita Canyon Sanitary Landfill and 0.02 percent of the daily permitted tonnage at the Antelope Valley Public Landfill. Regardless, as a consequence of the finite resources associated with solid waste disposal, and despite the implementation of the recommended mitigation measures, long-term operational impacts would be significant and unavoidable.

[3] Per written communication with Chris Fall, Blue Barrel Disposal, May 25, 2005.

Mitigation Measures:

General

SW2 The location of recycling/separation areas shall be in close proximity to dumpsters for non-recyclables, elevators, loading docks, and primary internal and external access points.

SW3 The location of recycling/separation areas shall not be in conflict with any applicable federal, state or local laws relating to fire, building, access, transportation, circulation, or safety.

SW4 The location of recycling/separation areas shall be convenient for those persons who deposit, collect, and load the recyclable materials.

SW5 Recycling containers/bins shall be located so that they do not block access to each other.

SW6 Yard waste shall be reduced through the use of drought-tolerant and native vegetation in common area landscaping wherever possible.

Commercial

SW7 For commercial developments and residential buildings having five or more living units, no refuse collection or recycling areas shall be located between a street and the front of a building.

SW8 On-site trash compactors shall be installed for non-recyclables in all restaurants/food services areas.

Residential

SW9 If possible, kitchen, garage or garden design shall accommodate trash and recyclable components to assist in the City's recycling efforts.

SW10 Property buyers shall receive educational material on the City's waste management efforts.

SW11 The applicant shall comply with all applicable state and Los Angeles County regulations and procedures for the use, collection and disposal of solid and hazardous wastes.

***Level of Significance After Mitigation*:** Significant Unavoidable Impact.

5.11.4 CUMULATIVE IMPACTS AND MITIGATION MEASURES

- ***DEVELOPMENT ASSOCIATED WITH THE PROPOSED PROJECT AND RELATED CUMULATIVE PROJECTS WOULD INCREASE THE DEMAND FOR LANDFILL DISPOSAL CAPACITY.***

***Level of Significance Prior to Mitigation*:** Potentially Significant Impact.

Impact Analysis: Development associated with the proposed project and related cumulative projects would generate approximately 166 tons of solid waste per day, or 60,590 tons per year (refer to Appendix C for cumulative solid waste generation calculations). This quantity represents cumulative solid waste generation under a worst-case scenario without any recycling activities occurring. However, the proposed project and related cumulative projects would be required to comply with recycling requirements, in support of City and County efforts and programs to reduce the volume of solid waste entering landfills.

Although the proposed project and related cumulative projects would generate approximately 60,590 tons per year, it is anticipated that the proposed project and related projects would meet the current recycling goals. As such, it is assumed that only approximately 30,300 tons per year of cumulative solid waste would require landfill disposal. Regardless, as a consequence of the finite resources associated with solid waste disposal, and despite the implementation of the recommended mitigation measures, cumulative impacts would be significant and unavoidable.

Mitigation Measures: Refer to Mitigation Measures SW1 through SW11. No additional mitigation measures are required.

***Level of Significance After Mitigation*:** Significant Unavoidable Impact.

5.11.5 SIGNIFICANT UNAVOIDABLE IMPACTS

Implementation of the proposed Soledad Village Project would result in significant and unavoidable impacts to solid waste services in regards to short-term construction, long-term operations, and cumulative impacts.

If the City of Santa Clarita approves the Soledad Village Project, the City shall be required to adopt findings in accordance with Section 15091 of the *CEQA Guidelines* and prepare a Statement of Overriding Considerations in accordance with Section 15093 of the *CEQA Guidelines*.

Section 6.0
ALTERNATIVES TO THE PROPOSED ACTION

6.0 ALTERNATIVES TO THE PROPOSED PROJECT

In accordance with *CEQA Guidelines* Section 15126.6, the following section describes a range of reasonable alternatives to the proposed project, which could feasibly attain most of the basic objectives of the proposed project but would avoid or substantially lessen any of the significant effects of the proposed project. The evaluation considers the comparative merits of each alternative. The analysis focuses on alternatives capable of avoiding significant environmental effects or reducing them to less than significant levels, even if these alternatives would impede, to some degree, the attainment of the proposed project objectives. Potential environmental impacts associated with four separate alternatives are compared to impacts from the proposed project. The alternatives include:

- No Project/No Development Alternative;
- Reduced Density Alternative;
- Existing General Plan Alternative; and
- Work/Live Unit Alternative.

A comparison of the proposed project with the alternatives is provided in *Table 6-1*, *Comparison of Proposed Project and Alternatives*.

Table 6-1
Comparison of Proposed Project and Alternatives

	Proposed Project	No Project/No Development	Reduced Density	Existing General Plan	Work/Live Unit Alternative
Multi-Family Residential – Townhome	275	0	201	0	222
Multi-Family Residential – Triplex	162	0	118	0	168
Multi-Family Residential – Work/Live	0	0	0	0	22
Residential Subtotal (dwelling units)	**437**	**0**	**319**	**0**	**412**
Commercial – Office (square feet)	0	0	0	980,100	8,000
Commercial – Retail (square feet)	8,000	0	8,000	653,400	8,000
Commercial Subtotal (square feet)	**8,000**	**0**	**8,000**	**1,633,500**	**16,000**

Throughout the following analysis, impacts of alternatives are examined for each of the issue areas examined in Section 5.0 of this EIR. In this manner, each alternative can be compared to the proposed project on an issue-by-issue basis. Each alternative's impacts are compared to the proposed project. *Table 6-2, Comparison of Alternatives*, at the end of this section, provides an overview of the alternatives analyzed and a comparison of each alternative's impact in relation to the proposed project.

Only those impacts found significant and unavoidable are relevant in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. The proposed project would result in significant and unavoidable impacts in four environmental issue areas:

- Traffic and Circulation
  - Long-Term Cumulative Impacts
- Air Quality
  - Short-Term Construction Impacts (ROC, NO_x, and PM_{10} emissions)
  - Long-Term Operational Impacts (ROC emissions)
- Noise
  - Long-Term Stationary Source Noise Impacts (Saugus Speedway)
- Solid Waste
  - Short-Term (Construction)
  - Long-term (Operational)
  - Cumulative Impacts

At the conclusion of the alternative analysis is the selection of the "environmentally superior" alternative, which is required by CEQA.

6.1 NO PROJECT/NO DEVELOPMENT ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The No Project/No Development Alternative assumes the Soledad Village Project would not be implemented and land uses and other improvements would not be constructed. The existing project site would remain unaltered and in its current condition. All infrastructure improvements including water, wastewater, drainage, and circulation facilities identified on the Soledad Village Tentative Tract Map would not be constructed, and the project site's *City of Santa Clarita General Plan (General Plan)* and zoning designations would not be changed. No additional entitlements would be required under this Alternative.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use

The No Project/No Development Alternative does not involve any development proposals that would affect land use plans or policies of the City or other local and regional agencies. Because this Alternative would not require a *General Plan* Amendment or zone change, the project site would retain its existing *General Plan* land use and zoning designations for

commercial use. Additionally, unlike the proposed project, this Alternative would not require a Conditional Use Permit (CUP) for building heights up to 50 feet. This alternative would not create any potential inconsistencies with City or SCAG land use policies, nor would it create any new land use compatibility conflicts. Although land use impacts associated with the proposed project can be reduced to a level considered less than significant, the impacts associated with the No Project/No Development Alternative would be much less in comparison. Therefore, the No Project/No Development Alternative would be considered environmentally superior to the proposed project in this regard.

Population, Employment, and Housing

The No Project/No Development Alternative would not result in development of 437 multi-family residential units and 8,000 square feet of retail commercial uses on the project site. Without development of the residential units and commercial uses on-site, the population would not increase by 1,346 persons. Therefore, population impacts under this Alternative would be reduced. However, it should be noted that population impacts would be less than significant under the proposed project. This Alternative would not provide 19 additional employment opportunities, resulting in greater employment impacts. Since this Alternative would not include development of residential units, this Alternative would result in greater housing impacts compared to the proposed project, as it would reduce the amount of residential units required for the anticipated increase in population in the region. Thus, the No Project/No Development Alternative would be considered environmentally inferior to the proposed project due to the greater employment and housing impacts.

Aesthetics and Visual Resources

The No Project/No Development Alternative would maintain the current views across the project site from off-site vantage points. The No Project/No Development Alternative would not obstruct views of and across the Santa Clara River with development of residential and commercial uses. However, aesthetic improvements to the project site resulting from project implementation would not occur. Under the No Project/No Development Alternative no new light sources would be created. The No Project/No Development Alternative, would be considered environmentally superior to the proposed project, since no views would be obstructed and there would be no new light and glare impacts.

Traffic and Circulation

Existing morning and evening peak hour operating conditions were evaluated. The results of the analysis indicate that all but one of the study intersections, Soledad Canyon Road at Bouquet Canyon Road, are operating at an acceptable Level of Service (LOS). This existing condition would continue with the No Project/No Development Alternative. Existing conditions may be further aggravated by additional growth in the area since the Soledad Canyon Road/Bouquet Canyon Road intersection is forecast to operate at a deficient LOS for forecast year 2015 without project conditions. The projected increase in average daily traffic (ADT) that is expected to occur with buildout of the proposed project (3,926 ADT) would not occur with this Alternative. Thus, the No Project/No Development Alternative would be considered environmentally superior to the proposed project in this regard.

Air Quality

Grading and construction activities associated with the proposed project would not occur with this Alternative. Emissions associated with construction equipment, which have been concluded to exceed SCAQMD construction thresholds for ROC, NO_X, and PM_{10}, would not occur. In addition, SCAQMD operational emissions thresholds for ROC would not be exceeded. Implementation of the No Project/No Development Alternative would be consistent with the regional air quality plan and would not result in significant cumulative air quality impacts. Therefore, the No Project/No Development Alternative would be considered environmentally superior to the proposed project since no construction or operational air emissions would occur.

Noise

Under the No Project/No Development Alternative, no new land uses would be developed within the project site. Nearby sensitive receptors would not be subjected to construction- or Saugus Speedway-related noise. New stationary and mobile noise sources would not occur and ambient noise levels would not increase. Thus, the No Project/No Development Alternative would be considered environmentally superior to the proposed project in this regard.

Hydrology and Water Quality

The No Project/No Development Alternative would not result in short-term impacts to water quality associated with grading, excavation, construction activities, and project operation since development of the proposed residential and commercial uses would not occur. The existing quality and quantity of storm water and urban runoff would not change, since the project site would not be altered from its current condition. Thus, the No Project/No Development Alternative would be considered environmentally superior to the proposed project in this regard.

Public Services and Utilities

An increased demand for public services and utilities would not occur with the No Project/No Development Alternative, as no new land uses would be developed within the project site. The significant impact from the creation of additional solid waste under the proposed project would not occur with this Alternative. The No Project/No Development Alternative would be considered environmentally superior to the proposed project in this regard.

ABILITY TO MEET PROJECT OBJECTIVES

The No Project/No Development Alternative would not implement the overall objective of the proposed project, which is to achieve the development of an economically feasible, high quality mix of residential, commercial, and recreational uses with a strong relationship to natural open space and the surrounding community, and conservation of nearby sensitive natural resources. Under this Alternative, the proposed residential, commercial, and recreational uses would not be developed. Therefore, none of the project objectives identified Section 3.3, Project Objectives, would be met under the No Project/No Development Alternative.

6.2 REDUCED DENSITY ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The Reduced Density Alternative would be similar to the proposed project in terms of land use types, but would provide multi-family residential units at a lower density. This Alternative would still require approval of the entitlements required under the proposed project, including the following: Tentative Tract Map, *General Plan* Amendment, zone change, and CUP. The Reduced Density Alternative would retain the 8,000 square feet of commercial retail uses included in the proposed project, but would provide a similar proportion of triplex and townhome dwelling units, but the residential portion of the site would be zoned Residential Medium with a Planned Development overlay (RM-PD). The RM-PD zone allows for multi-family residential uses at a maximum density of 11 dwelling units per acre (du/acre). Given that the Reduced Density Alternative would still include 8,000 square feet of commercial, a minimum lot size of approximately 1-acre is required for the commercial uses and associated roadways and setbacks under the Neighborhood Commercial – Planned Development (CN-PD) zone, which provides for a maximum floor-area ratio (FAR) of 0.375:1. Per the City's Uniform Development Code (UDC), a CUP is required for all development within a Planned Development overlay, as well as for architectural elements above the 35-foot maximum building height within the RM and CN zones. As such, the remainder of the project site, approximately 29 acres, would be zoned RM-PD, allowing a density of 319 multi-family dwelling units. As previously indicated, the proportion of housing types in the residential portion of the project under this Alternative is anticipated to be comparable to that of the proposed project, yielding 201 townhome units and 118 triplex units. All other proposed facilities, infrastructure, and amenities would also be provided, to the extent required by the City or other affected agencies.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use

The Reduced Density Alternative would develop the project site with a similar mix of land uses as the proposed project, but would be reduced in terms of residential density. As is the case with the proposed project, this Alternative would require a *General Plan* Amendment and zone change from commercial office (CO) to RM and CN. Similar the proposed project, this Alternative would also require a CUP for residential building heights up to 50 feet. Given the mix of land uses and the reduction in overall intensity of development, this Alternative would be consistent with applicable goals and policies of the *General Plan* and UDC, similar to the proposed project. The Reduced Density Alternative would also be consistent with the SCAG *Regional Comprehensive Plan and Guide* policies and *Compass Growth Visioning Program* strategies. In terms of land use and planning impacts, the Reduced Density Alternative would be considered neither environmentally inferior nor superior to the proposed project.

Population, Employment, and Housing

The Reduced Density Alternative would result in development of 319 multi-family residential units and 8,000 square feet of commercial retail uses. Development of 319 residential units would result in a population increase of approximately 990 persons (based on a household size of 3.103 persons per household). Development of 8,000 square feet of commercial uses would result in an additional 19 employment positions and would increase the resident population by approximately 16 persons, yielding a total project-related population increase of 1,006 persons under this Alternative.[1] The Reduced Density Alternative would result in approximately 366 fewer persons compared to the proposed project as a result of 118 fewer residential units being developed. However, development of fewer residential units would result in greater housing impacts compared to the proposed project, as it would reduce the amount of residential units required for the anticipated increase in population in the region. This Alternative would result in similar employment impacts as it would result in an additional 19 employees from the commercial uses; however, due to the decrease in residential units; fewer indirect employment opportunities (landscapers, security personnel, etc.) would be created. Thus, the Reduced Density Alternative would be considered environmentally inferior to the proposed project in this regard.

Aesthetics and Visual Resources

The Reduced Density Alternative would result in slightly greater open space acreage, which would allow for greater retention of views of and across the project site. The short-term impacts associated with construction activities would be slightly reduced under this Alternative, as it would result in less intensity of construction activities and associated equipment, and possibly a reduced construction schedule. Architectural design, landscaping, and other visual relief features of the project would still be provided, as required by City standards. Thus, the Reduced Density Alternative would be considered environmentally superior to the proposed project in this regard.

Traffic and Circulation

Development under this Alternative would be similar to that of the proposed project, but multi-family residential uses would be reduced by 118 dwelling units. As such, the Reduced Density Alternative would result in 3,043 ADTs (2,386 ADTs for residential uses and 657 for commercial uses) [2], or a reduction of 883 ADTs (22 percent), compared to the proposed project's 3,926 ADTs (based on a trip rate of 8 ADTs per dwelling unit). However, mitigation measures would still be required to reduce impacts to the extent feasible, as with the proposed project, but a significant unavoidable impact would still occur at the intersection of Soledad Canyon Road and Bouquet Canyon Road. Impacts to the public transit system would also be reduced under this Alternative. Thus, the Reduced Density Alternative would be considered environmentally superior to the proposed project in this regard.

[1] Based on the assumption that 25 percent of the employees would locate within the City, creating a demand for 5 residential units. Based on a household size of 3.103 persons, this would result in an increase of 15 persons.

[2] Based on the same trip generation rates as the proposed project, and assuming the same 50 percent pass-by reduction for on-site retail uses (given proximity to proposed residential), as well as a 6.5 percent reduction in residential-related trips to account for Metrolink ridership.

Air Quality

Short-term construction impacts would be reduced under this Alternative with development of 118 fewer residential units. However, ROC, NO_X, and PM_{10} emissions would still exceed SCAQMD thresholds during construction activities, resulting in significant short-term air quality impacts. However, operational emissions would be reduced under this Alternative, and therefore ROC emissions would no longer exceed SCAQMD thresholds, eliminating a significant long-term operational air quality impact resulting from the proposed project. As with the proposed project, this Alternative would result in less than significant impacts in regards to CO "hot spot" impacts. Given the reduction in development intensity relative to the proposed project, this Alternative would also be consistent with the regional air quality management plan, and would not result in significant cumulative air quality impacts. Although significant and unavoidable air quality impacts would occur under this Alternative, the Reduced Density Alternative would be considered environmentally superior to the proposed project in this regard.

Noise

Development of this Alternative would result in a reduction of the length of the construction period due to the reduction of residential units. However, mitigation measures would still be required to reduce construction noise impacts to less than significant. Similarly, although this Alternative would result in a reduction of mobile-source noise levels compared to the proposed project, mitigation measures would be required to reduce mobile noise impacts to less than significant. As with the proposed project, stationary noise impacts would be considered significant, due to the site's proximity to the Saugus Speedway facility. Although significant noise impacts would occur under this Alternative, the Reduced Density Alternative would be considered environmentally superior to the proposed project in this regard.

Hydrology and Water Quality

Due to the reduced density of this Alternative, impacts regarding drainage, hydrology, floodplain, and water quality would be incrementally reduced compared to the proposed project. However, as with the proposed project, mitigation measures would be required to reduce all hydrology impacts to a less than significant level. As such, the Reduced Density Alternative would be considered neither environmentally superior nor inferior to the proposed project.

Public Services and Utilities

This Alternative would result in a reduction in demand for water, parks and recreational facilities, school facilities, and would reduce the amount of solid waste requiring disposal at local and regional landfills. Impacts related to water supply, parks and recreation, and schools would be less than significant with implementation of applicable mitigation measures, including payment of fees to affected agencies. Impacts to solid waste facilities under this Alternative would remain significant and unavoidable, even with implementation of mitigation measures, although the lower residential intensity would result in an

incremental reduction in solid waste generation. Given that this Alternative would create fewer demands for public services and utilities, it would be considered environmentally superior to the proposed project.

ABILITY TO MEET PROJECT OBJECTIVES

The overall objective of the proposed project is to achieve the development of an economically feasible, high quality mix of residential, commercial, and recreational uses with a strong relationship to natural open space and the surrounding community, and conservation of nearby sensitive natural resources. However, development of this Alternative would provide 118 fewer housing units than the proposed project. As such, the Reduced Density Alternative would not accommodate projected growth in the Santa Clarita Valley to the extent that the proposed project would. Although this Alternative would generally meet the objectives of the project, it would not provide the amount of housing as the proposed project, and therefore may not be economically feasible. Therefore, all of the project objectives identified Section 3.3, Project Objectives, would be at least partially met under the Reduced Density Alternative.

6.3 EXISTING GENERAL PLAN ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The Existing *General Plan* Alternative would eliminate all of the residential uses and dramatically increase the amount of commercial uses on site relative to the proposed project. Under the Existing *General Plan* Alternative, the entire 30-acre project site would remain designated and zoned CO-PD with the Valley Concept Center (VCC) overlay. This Alternative would still require approval of a Tentative Tract Map and a CUP, the latter of which is required for all development within a Planned Development overlay. Under this Alternative, no residential units would be constructed on-site, but instead the site would be developed with a mix of office and retail uses. The commercial development would be comprised of approximately 60 percent office uses (980,100 square feet) and 40 percent retail uses (653,400 square feet), totaling 1,633,500 square feet, the maximum allowable density under the CO zone, which limits the FAR to 1.25:1. All other, facilities, parking, landscaping, and infrastructure would also be provided, as required for the CO zone per the UDC.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use

Under the Existing *General Plan* Alternative, the project site would not require a *General Plan* Amendment or zone change to allow for residential and neighborhood commercial uses. No additional development would occur at the site beyond that already anticipated in the *General Plan*. It is anticipated that this Alternative project would be consistent with applicable goals and policies of the *General Plan* and UDC, as well as applicable SCAG regional policies and strategies. Implementation of this Alternative would result in fewer land use and planning impacts as compared to the proposed project, based on the fact that

this Alternative would be consistent with existing land use designations and development standards, and would not require a CUP for residential building heights up to 50 feet. Because land use impacts would be reduced under this Alternative, the Existing *General Plan* Alternative would be considered environmentally superior to the proposed project in this regard.

Population, Employment, and Housing

The Existing *General Plan* Alternative would result in development of approximately 1.63 million square feet of commercial uses. Development of these commercial uses would result in an employment increase of 3,855 employees within the City. Consequently, a population increase of approximately 2,991 persons would also occur, assuming 25 percent of new employees would relocate to the area, and based on a household size of 3.103 persons per household (3,855 * 0.25 * 3.103 = 2,969). Although this Alternative would increase employment in the City relative to the proposed project, it would result in approximately 1,597 more persons moving to the City and 437 fewer residential units being developed. The population increase under this Alternative would result in greater impacts than those associated with the proposed project, and development of fewer residential units would result in greater housing impacts compared to the proposed project, as it would reduce the amount of residential units required for the anticipated increase in population in the region. This Alternative would result in a beneficial employment impact compared to the proposed project, but would also result in greater population and housing impacts. As such, the Existing *General Plan* Alternative would be considered environmentally inferior to the proposed project in this regard.

Aesthetics and Visual Resources

The Existing *General Plan* Alternative would result in greater intensity of development at the project site, and therefore would have a greater adverse impact on the visual character of the site than that associated with the proposed project. Development of this Alternative would provide office and retail uses on the site at a floor-area ratio of 1.25:1, which would provide for bulkier structures on-site and greater obstruction of views of and across the site. The short-term impacts associated with construction activities would also be increased under this Alternative, as it would result in greater intensity and duration of development compared to the proposed project. Thus, the Existing *General Plan* Alternative would be considered environmentally inferior to the proposed project in this regard.

Traffic and Circulation

Development of 1.63 million total square feet of commercial office and retail uses would result in a total of 31,495 ADTs (10,791 ADTs from office uses, and 20,704 ADTs from retail uses) [3], an increase of 27,569 ADTs (over 700 percent) compared to the proposed project. Impacts to local roadways and intersections, the Los Angeles County Congestion Management Program, and public transit system would also be substantially increased under

[3] This is based on a factor of 11.01 ADTs per 1,000 square feet of general office use, which is the ITE's factor for "General Office Building," as well as the log-based retail ADT equation included in the project's *Traffic Impact Analysis* report, assuming a 10% pass-by reduction in trips for retail uses.

this Alternative, and impacts would be significant. Thus, the Existing *General Plan* Alternative would be considered environmentally inferior to the proposed project.

Air Quality

Given the increased intensity of development and approximately 700 percent increase in associated operational ADTs under this Alternative, short-term construction and long-term operational emissions would be substantially increased under this Alternative with development of 1.63 million square feet of office and retail uses. The Existing *General Plan* Alternative would be consistent with the regional air quality management plan, as the commercial development is included in growth projections for the project site, based on the *General Plan*. Although the proposed project and this Alternative would result in significant short- and long-term emissions impacts, those associated with this Alternative would be substantially increased commensurate with the increase in ADTs. Thus, the Existing *General Plan* Alternative would be considered environmentally inferior to the proposed project in this regard.

Noise

Development of this Alternative would result in an increase in development intensity and the length of the construction period compared to the proposed project. Mitigation measures would still be required to reduce construction noise impacts to less than significant. This Alternative would result in a substantial increase in traffic-related mobile-source noise levels compared to the proposed project, given the more than 700-percent increase in ADTs, although mitigation measures would be required to reduce mobile-source noise impacts to the extent feasible. Mobile-source impacts would be considered significant even with mitigation measures. Stationary noise impacts would be less than significant, as special events at the Saugus Speedway facility would likely occur outside of business hours (for office and retail uses), and permissible exterior noise levels are higher for non-residential uses than for residential neighborhoods. Overall, this Alternative would result in increased noise impacts when compared to the proposed project, and therefore the Existing *General Plan* Alternative would be considered environmentally inferior to the proposed project in this regard.

Hydrology and Water Quality

Due to the increased development intensity of this Alternative and associated impervious surface area, impacts regarding drainage, hydrology, floodplains, and water quality are anticipated to be increased compared to the proposed project. However, as with the proposed project, mitigation measures would be required to reduce all hydrology and water quality impacts to a less than significant level, in compliance with National Pollutant Discharge Elimination System (NPDES) permit requirements. Thus, the Existing *General Plan* Alternative would be considered neither environmentally superior nor inferior to the proposed project.

Public Services and Utilities

Compared to the proposed project, this Alternative would result in a direct increase in demand for water supply and solid waste disposal capacity, and an indirect increase in the demand for parks and recreational facilities and schools. Impacts to water supply, parks and recreational facilities, and schools would be less than significant with payment of requisite fees and implementation of applicable mitigation measures. However, this Alternative would also result in significant and unavoidable impacts to solid waste, due to the finite disposal capacity in regional landfills. Thus, the Existing *General Plan* Alternative would be considered environmentally inferior to the proposed project due to the increase in intensity of development and related population growth, and associated increase in demands for public services and utilities.

ABILITY TO MEET PROJECT OBJECTIVES

The overall objective of the proposed project is to achieve the development of an economically feasible, high quality mix of residential, commercial, and recreational uses with a strong relationship to natural open space and the surrounding community, and conservation of nearby sensitive natural resources. However, development of this Alternative would not provide any housing units or recreational facilities. As such, the Existing *General Plan* Alternative would not accommodate projected population growth in the Santa Clarita Valley to the extent that the proposed project would. Although this Alternative would generally meet the objectives of the project, it would not provide the amount of housing units as the proposed project and therefore may not be economically feasible. Therefore, most of the project objectives identified Section 3.3, Project Objectives, would be met under the Existing *General Plan* Alternative.

6.4 WORK-LIVE UNIT ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

Under the Work-Live Unit Alternative, the proposed project would be modified to provide 22 work-live units in the central portion of the development. These work-live units would be townhome units, which would be intended to provide a convenient, innovative form of workforce housing by allowing homeowners to live and work at home, thereby also reducing vehicle trips. All other aspects of the project under the Work-Live Unit Alternative would be similar to the proposed project, with 412 total residential units (including 222 townhomes, 168 triplex units, and 22 work-live units). In addition, the size of the commercial component will be increased to include 8,000 square feet of first-floor retail uses, and 8,000 square feet of second-floor office.

This Alternative would still require approval of the entitlements required under the proposed project, including the following: Tentative Tract Map, General Plan Amendment, zone change and CUP. The boundaries of the zone change would be modified, as a larger portion of the project site would be zoned CN-PD to allow for the inclusion of work-live units on-site. In addition, the scope of the CUP would be expanded to include the construction of three-story buildings up to 50 feet in height and to include the inclusion of work-live units on-site.

In addition, this Alternative would require the approval of a Parking Adjustment, to reduce the parking requirements for the commercial component by 20 percent.

All other proposed facilities, infrastructure, and amenities, including landscaping open space, pathways/trail connections, recreational facilities and pedestrian bridge over Soledad Canyon Road, would still be provided to the extent required by the City or other affected agencies.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use

The Work/Live Unit Alternative would develop the project site with a similar mix of land uses as the proposed project, but would include 22 work/live units, which would be zoned CN along with the proposed commercial component. As is the case with the proposed project, this Alternative would require a *General Plan* Amendment and zone change from CO to RMH and CN. Similar to the proposed project, this Alternative would also require a CUP for residential building heights up to 50 feet, as well as another CUP to allow residential uses within a CN zoning district (i.e., the work/live units). Given the mix of land uses and comparable overall intensity of development, this Alternative would be consistent with applicable goals and policies of the *General Plan* and UDC, similar to the proposed project. The Work/Live Unit Alternative would also be consistent with the SCAG *Regional Comprehensive Plan and Guide* policies and *Compass Growth Visioning Program* strategies. In terms of land use and planning impacts, although this Alternative would require an additional CUP for work/live units in the CN zone, it would be considered neither environmentally inferior nor superior to the proposed project in this regard.

Population, Employment, and Housing

The Work/Live Unit Alternative would result in development of 412 multi-family dwelling units, 22 of which would be work/live units. Development of 412 residential units would result in a direct population increase of approximately 1,278 persons (based on a household size of 3.103 persons per household). Development of 16,000 square feet of commercial and office uses would result in an additional 38 employment positions and would increase the resident population by approximately 29 persons[4], yielding a total project-related population increase of 1,307 persons under this Alternative. This Alternative would result in approximately 65 fewer persons compared to the proposed project as a result of 25 fewer residential units being developed. However, development of fewer residential units would result in greater housing impacts compared to the proposed project, as it would reduce the amount of residential units required for the anticipated increase in population in the region. This Alternative would offer greater employment benefits than the proposed project, since this Alternative would include an additional 8,000 square feet of office uses and the work/live units would provide opportunities for small home-based businesses to operate on-site, although fewer indirect employment opportunities (landscapers, security personnel, etc.) would result due to the decrease in residential units. Thus, overall, the Work/Live Unit

[4] Based on the assumption that 25 percent of the employees would locate within the City, creating a demand for 5 residential units. Based on a household size of 3.103 persons, this would result in an increase of 15 persons.

Alternative would be considered neither environmentally superior nor inferior to the proposed project in this regard.

Aesthetics and Visual Resources

The Work/Live Unit Alternative would result in less overall density on-site, which allows for greater open space acreage, thereby reducing impacts to views of and across the project site. The short-term aesthetics, views, and light and glare impacts associated with construction activities would be slightly reduced under this Alternative, as it would result in less intensity of construction activities and associated equipment, and possibly a reduced construction schedule. The Work/Live Unit Alternative would involve developing vacant land with residential, commercial, and office uses. While this Alternative would result in an increase in urban development within the project area relative to existing conditions, it would be compatible with existing and approved developments located to the north, east, and south. The residential uses would be compatible with the existing mobile home park located to the east and the proposed residential uses that would be developed as part of the Riverpark project that will be located north of the project site across the Santa Clara River. The office and commercial uses proposed along Soledad Canyon Road would also be compatible with the recreational and commercial uses located to the east and south of the project site. Long-term light and glare impacts would be reduced to less than significant with implementation of applicable mitigation measures, as is the case with the proposed project. Overall, given the similarity in development compared to the proposed project, the Work/Live Unit Alternative would be neither environmentally superior nor inferior to the proposed project.

Traffic and Circulation

Development of 412 multi-family residential units, 8,000 square feet of commercial uses, and 8,000 square feet of office uses, would result in a total of 3,827 ADTs (3,082 ADTs for residential, 657 ADTs for retail uses, and 88 ADTs for office uses)[5], a reduction of 99 ADTs (2.5 percent) compared to the proposed project. Vehicle trips under this Alternative would therefore be slightly reduced but comparable to those associated with the proposed project, and are anticipated to be further reduced by operation of the work-live units on-site. Mitigation measures would be required to reduce impacts to intersections and roadways to less than significant, similar to the proposed project. Impacts to the Los Angeles County Congestion Management Program and public transit system would also be incrementally reduced under this Alternative. Thus, the Work/Live Unit Alternative would be considered environmentally superior to the proposed project in terms of traffic impacts.

[5] This is based on a factor of 11.01 ADTs per 1,000 square feet of general office use, which is the ITE's factor for "General Office Building,," as well as the same retail trip generation rate as the proposed project that assumes a 50% pass-by reduction (658 ADT) for on-site retail units (given proximity to proposed residential), and a 6.5% reduction (214 ADT) in residential-related trips to account for Metrolink ridership.

Air Quality

Overall short-term construction impacts would be slightly reduced under this Alternative with development of 25 fewer residential units, despite the addition of 8,000 square feet of office uses. Similarly, operational emissions would also be incrementally reduced, given the net 2.5-percent reduction in vehicle trips relative to the proposed project. As with the proposed project, given the overall reduction in intensity of development, this Alternative would result in less than significant impacts with regard to CO impacts. This Alternative, similar to the proposed project, would result in the exceedance of short-term construction ROC, NO_x, and PM_{10} emissions thresholds, as well as long-term operational ROC emissions threshold, which would be a significant unavoidable impact even with implementation of applicable mitigation measures. Given the reduction in development intensity associated with this Alternative, the development would also be consistent with the regional air quality management plan, as is the case with the proposed project, since this Alternative would result in less intense use of the site than that envisioned in the *General Plan*. The Work/Live Unit Alternative would also not result in significant cumulative air quality impacts. This Alternative would result in slightly reduced air quality impacts when compared to the proposed project, but this Alternative does not eliminate the significant and unavoidable impacts related to short- and long-term air pollutant emissions. Nonetheless, because overall emissions would be reduced with 25 fewer residential units, the Work/Live Unit Alternative would be considered environmentally superior to the proposed project relative to air quality.

Noise

Development of this Alternative would result in similar duration and intensity of construction activities compared to the proposed project, and mitigation measures would still be required to reduce construction noise impacts to less than significant. Additionally, because this Alternative would result in comparable, though slightly reduced, traffic generation and associated mobile-source noise levels as that of the proposed project, mitigation measures would still be required to reduce mobile source noise impacts to less than significant. As with the proposed project, stationary noise impacts would be significant and unavoidable even with implementation of applicable mitigation measures, due to the potential for special events (including racing events) at the nearby Saugus Speedway facility. This Alternative would result in similar, but slightly reduced, noise impacts when compared to the proposed project, as this Alternative causes less mobile-source noise yet does not eliminate the significant and unavoidable stationary source impact even with applicable mitigation. Thus, the Work/Live Unit Alternative would be considered environmentally superior to the proposed project in this regard.

Hydrology and Water Quality

Due to the similarity in use and intensity of development under this Alternative compared to the proposed project, impacts to hydrology and water quality would be comparable. Impervious surface area under the Work/Live Unit Alternative would be similar to that associated with the proposed project, and stormwater conveyance infrastructure requirements would therefore also be comparable. The Stormwater Pollution Prevention Plan (SWPPP) and Stormwater Management Plan (SWMP) for the development to satisfy

NPDES permit requirements would also be developed under this Alternative, which would include measures to address water quality during both construction and operation of the development. Mitigation measures, including Best Management Practices (BMPs) included in the SWPPP and SWMP, would be required to reduce all hydrology and water quality impacts to less than significant. As such, the Work/Live Unit Alternative would be considered neither environmentally superior nor inferior to the proposed project in terms of hydrology and water quality impacts.

Public Services and Utilities

This Alternative, with 25 fewer residential units, would result in a slight reduction in, parks and recreational facilities, schools, and solid waste disposal facilities compared to the proposed project. Water demand associated with this Alternative would be approximately 150.8 acre-feet per year (AFY), which is 3.6 AFY (2 percent) less than the water demand associated with the proposed project. Required park dedication acreage (or equivalent fee payment) under the Work/Live Unit Alternative would be approximately 3.8 acres, compared to 4.0 acres associated with the proposed project. The 412 dwelling units proposed under this Alternative would create a demand for 60 elementary school, 14 junior high, and 31 high school seats, compared to 64 elementary, 15 junior high, and 33 high school seats under the proposed project. As such, impacts related to water supply, parks and recreation, and schools under this Alternative would be less than significant with payment of requisite fees and implementation of applicable mitigation measures, as appropriate. However, although solid waste generation would be incrementally reduced with the development of 25 fewer residential units, this Alternative would still result in significant and unavoidable impacts to solid waste due to the lack of adequate landfill disposal capacity in the region, as is the case with the proposed project. Thus, because impacts would be slightly reduced, the Work/Live Unit Alternative would be considered environmentally superior to the proposed project relative to public services and utilities.

ABILITY TO MEET PROJECT OBJECTIVES

The overall objective of the proposed project is to achieve the development of an economically feasible, high quality mix of residential, commercial, and recreational uses with a strong relationship to natural open space and the surrounding community, and conservation of nearby sensitive natural resources. Development of this Alternative would provide all of the residential, commercial, and recreational uses, including work/live units to foster vehicle trip reduction and other benefits. This Alternative would be economically feasible, foster a strong relationship with open space areas and the surrounding community, and would help conserve sensitive natural resources. Therefore, all of the project objectives identified Section 3.3, Project Objectives, would be met under the Work/Live Unit Alternative.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6 indicates that if the No Project Alternative is the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives.

The context of an environmentally superior alternative for this EIR is based on the consideration of several factors including the project's objectives, as described in Section 3.3, Project Objectives, and the alternative's ability to fulfill the objectives with minimal impacts to the surrounding environment.

NO PROJECT/NO DEVELOPMENT ALTERNATIVE

The No Project/No Development Alternative results in fewer impacts to land use, aesthetics and visual resources, traffic and circulation, air quality, noise, hydrology and water quality, and public services and utilities. However, this Alternative would result in an increase in impacts regarding population, housing, and employment.

The No Project/No Development Alternative would not implement the overall objective of the proposed project, which is to achieve the development of an economically feasible, high quality mix of residential, commercial, and recreational uses with a strong relationship to natural open space and the surrounding community, and conservation of nearby sensitive natural resources. Under this Alternative, the proposed residential, commercial, and recreational uses would not be developed. Therefore, none of the project objectives identified Section 3.3, Project Objectives, would be met under the No Project/No Development Alternative.

REDUCED DENSITY ALTERNATIVE

The Reduced Density Alternative would reduce impacts to aesthetics and visual resources, traffic and circulation, air quality, noise, and public services and utilities. However, this Alternative would result in greater impacts to population, employment, and housing. Impacts related to land use and hydrology and water quality would be comparable to the proposed project. However, significant and unavoidable impacts would still occur with respect to traffic and circulation, air quality, noise, and public services and utilities.

The overall objective of the proposed project is to achieve the development of an economically feasible, high quality mix of residential, commercial, and recreational uses with a strong relationship to natural open space and the surrounding community, and conservation of nearby sensitive natural resources. However, development of this Alternative would provide 118 fewer housing units than the proposed project. As such, the Reduced Density Alternative would not accommodate projected growth in the Santa Clarita Valley to the extent that the proposed project would. Although this Alternative would generally meet the objectives of the project, it would not provide the amount of housing as the proposed project, and therefore may not be economically feasible. Therefore, all of the project objectives

identified Section 3.3, Project Objectives, would be at least partially met under the Reduced Density Alternative.

EXISTING GENERAL PLAN ALTERNATIVE

The Existing *General Plan* Alternative would reduce impacts related to land use. However, this Alternative would result in greater impacts to population, employment, and housing, aesthetics and visual resources, traffic and circulation, air quality, noise, and public services and utilities. Nonetheless, significant and unavoidable impacts would still occur with respect to traffic and circulation, air quality, noise, and public services and utilities.
The overall objective of the proposed project is to achieve the development of an economically feasible, high quality mix of residential, commercial, and recreational uses with a strong relationship to natural open space and the surrounding community, and conservation of nearby sensitive natural resources. However, development of this Alternative would not provide any housing units or recreational facilities. As such, the Existing *General Plan* Alternative would not accommodate projected population growth in the Santa Clarita Valley to the extent that the proposed project would. Although this Alternative would generally meet the objectives of the project, it would not provide the amount of housing units as the proposed project and therefore may not be economically feasible. Therefore, most of the project objectives identified Section 3.3, Project Objectives, would be met under the Existing *General Plan* Alternative.

WORK-LIVE UNIT ALTERNATIVE

The Work-Live Unit Alternative would reduce impacts to traffic and circulation, air quality, noise, and public services and utilities. This Alternative would result in impacts comparable to those of the proposed project related to land use; population, housing, and employment; aesthetics and visual resources; and hydrology and water quality. However, significant and unavoidable impacts would still occur with respect to traffic and circulation, air quality, noise, and public services and utilities.

The overall objective of the proposed project is to achieve the development of an economically feasible, high quality mix of residential, commercial, and recreational uses with a strong relationship to natural open space and the surrounding community, and conservation of nearby sensitive natural resources. Development of this Alternative would provide all of the residential, commercial, and recreational uses, including work/live units to foster vehicle trip reduction and other benefits. This Alternative would be economically feasible, foster a strong relationship with open space areas and the surrounding community, and would help conserve sensitive natural resources. Therefore, all of the project objectives identified Section 3.3, Project Objectives, would be met under the Work-Live Unit Alternative.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As noted above, the determination of an environmentally superior alternative is based on the consideration of how the alternative fulfills the project objectives and how the alternative either reduces significant, unavoidable impacts or substantially reduces the impacts to the surrounding environment. In consideration of these factors, the Work-Live Unit Alternative is selected as the Environmentally Superior Alternative to the proposed project.

The Work-Live Unit results in less development, and thus reduces the significant traffic, air quality, noise, and public services and utilities impacts, though these impacts would remain significant and unavoidable. Furthermore, the Work-Live Unit Alternative meets all of the project objectives, as it provides for development of an economically feasible, high quality mix of residential, commercial, and recreational uses with a strong relationship to natural open space and the surrounding community, and conservation of nearby sensitive natural resources.

Table 6-2
Comparison of Alternatives

	No Project/No Development	Reduced Density	Existing General Plan	Work-Live Unit
Land Use	▲	=	▲	=
Population, Housing, Employment	▼	▼	▼	=
Aesthetics and Visual Resources	▲	▲	▼	=
Traffic and Circulation	▲	▲	▼	▲
Air Quality	▲	▲	▼	▲
Noise	▲	▲	▼	▲
Hydrology and Water Quality	▲	=	=	=
Public Services and Utilities	▲	▲	▼	▲

= Indicates an impact that is equal to the proposed projects (neither environmentally superior or inferior).
▼ Indicates an impact that is greater than the proposed projects (environmentally inferior).
▲ Indicates an impact that is less than the proposed projects (environmentally superior).

Section 7.0
LONG-TERM IMPLICATIONS OF PROPOSED PROJECT

7.0 LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

7.1 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTIONS SHOULD THEY BE IMPLEMENTED

Approval of the Soledad Village Project would cause irreversible environmental changes. Implementation of the Soledad Village Project would result in the following changes:

- Permanent commitment of land that would be physically altered to residential and commercial.
- Alteration of the human environment as a consequence of the development process. The proposed project represents a commitment to residential and commercial uses, which intensifies land uses within the project site.
- Utilization of various new raw materials, such as lumber, sand and gravel for construction. The energy consumed in development and maintenance of the project site may be considered a permanent investment.
- Incremental increases in vehicular activity in the surrounding circulation system, resulting in associated increases in air emissions and noise levels.

7.2 GROWTH INDUCING IMPACTS

In accordance with *CEQA Guidelines* Section 15126.2(d), the following discussion addresses ways in which the proposed project could foster employment, housing or population growth, whether directly or indirectly in the surrounding environments. In addition, growth-inducing impacts of the proposed project are assessed in terms of whether the project remove obstacles to development, requires construction of expanded facilities that could serve other future development, or otherwise facilitates or encourage development of other activities that could significantly affect the environment. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

Growth-inducing impacts fall into two general categories: direct and indirect. Direct growth-inducing impacts are generally associated with the provision of urban services to an undeveloped area. The provision of these services to a site and the subsequent development can serve to induce other landowners in the vicinity to convert their property to urban uses. Indirect, or secondary growth-inducing impacts, consist of growth induced in the region by the additional demands for housing, goods and services associated with the population increase caused by, or attracted to, a new project.

7.2.1 DIRECT GROWTH-INDUCING IMPACTS

Direct growth-inducing impacts are generally associated with the provision of urban services to an undeveloped area, which can serve to induce other landowners in the vicinity to convert their property to urban uses. Currently, the majority of the project site is vacant and therefore the majority of the project site does not contain infrastructure for water, sewer, gas and electricity. The proposed project would result in an increase demand of approximately 175.6 acre-feet per year (AFY) of water.[1] The increase in water demand would require the development of a water system infrastructure in order to accommodate the proposed residential and commercial uses.

The proposed project would generate a total of 234,546 gallons per day (gpd) of wastewater.[2] The proposed project would not exceed wastewater treatment requirements because the applicant would be required to obtain all permits and operate in compliance with all Regional Water Quality Control Board approvals. The project site would be served by the Los Angeles County Sanitation District No. 26, which has adequate capacity to serve the proposed project. Therefore, the proposed project would require the development of sewer lines within the project site.

The proposed project would also increase the demand for electricity and natural gas. The project is projected to result in an increase in demand of 2,567 megawatt-hours (MWh) of electricity per year.[3] The electrical loads of the proposed project are within the parameters of projected load growth, which Southern California Edison (SCE) is planning to meet in the area. All on-site electricity lines would be installed to serve proposed uses, at the expense of the project applicant. No other improvements related to electricity would be necessary. Development of proposed uses would result in the consumption of approximately 1,776 thousand cubic feet (kcf) of natural gas per month, or 21,315 kcf per year.[4] All on-site natural gas distribution pipelines would be installed to serve proposed uses, at the expense of the project applicant. No other improvements related to natural gas are necessary.

In summary, the proposed project would require the extension of natural gas and electric lines into the project site. In addition, on-site water and sewer lines would have to be developed in order to support the increase of demand as a result of the proposed project. However, the extension of these public utilities would not directly induce growth within the area. The area to the north is already proposed for development and development currently exists to the east, west, and south. Thus, the project site and surrounding area are served by

[1] Water consumption is calculated by multiplying the annual consumption factor of 0.4 AFY/dwelling unit and 4.0 AFY/acre of commercial uses.

[2] Based upon a generation factor of 0.012 cubic feet per second (cfs) per acre of multi-family residential uses and 0.015 cfs per acre of commercial uses. Peak wastewater generation (gpm) is calculated by multiplying the acreage by the factor (for cfs), multiplied by 60 seconds per minute, then 7.480519 gallons per cubic foot. Daily generation is calculated by multiplying peak generation (gpm) by 60 minutes per hour, then 24 hours per day to yield gallons per day.

[3] Consumption factors are in kilowatt-hours per dwelling unit or square foot, as applicable, and are from the South Coast Air Quality Management District's *CEQA Air Quality Handbook* (1993), Table A9-11-A.

[4] Consumption factors are in cubic feet per month and are from the South Coast Air Quality Management District's *CEQA Air Quality Handbook* (1993), Table A9-12-A.

existing infrastructure, including roads, electricity and natural gas lines, water, sewer, and storm drains. Therefore, the proposed project would not result in direct growth-inducing impacts.

7.2.2 INDIRECT GROWTH-INDUCING IMPACTS

Overall, project implementation would result in a direct increase in the City's population of approximately 1,372 persons (1,356 persons from additional housing and 16 persons from potential employees relocating to the City). This increase in population is considered minimal (approximately 0.82 percent of the City's 2005 and projected 2010 population estimates) and does not represent a substantial portion of the projected population for the City and would not induce substantial growth or concentration of population.[5] The proposed project would also not exceed Santa Clarita Valley population projections of 243,104 persons by 2010 and 313,290 persons by 2020.[6] Therefore, the proposed project would not result in indirect growth-inducing impacts.

[5] Southern California Association of Governments *2001 RTP Growth Forecast, City Projections*, adopted April 2001.

[6] City of Santa Clarita website, http://www.santa-clarita.com/cityhall/ped/ed/community_profile/demographics.asp.

Section 8.0
SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED ACTION IS IMPLEMENTED

8.0 SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED ACTION IS IMPLEMENTED

Section 15126(b) of the *CEQA Guidelines* requires an EIR to:

> *…describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.*

Section 5.0 of this EIR provides a description of the potential environmental impacts of the proposed Soledad Village Project and recommends mitigation measures to reduce impacts to a less than significant level, where possible. After implementation of the recommended mitigation measures, most of the significant or potentially significant impacts associated with the proposed Soledad Village Project would be reduced to a less than significant level. However, the impacts listed below could not be feasibly mitigated and would result in a significant and unavoidable impact with implementation of the proposed Soledad Village Project.

TRAFFIC AND CIRCULATION

Implementation of the proposed Soledad Village Project, along with other cumulative projects, would result in significant and unavoidable impacts to the northbound approach at the Bouquet Canyon Road/Soledad Canyon Road intersection.

AIR QUALITY

The proposed project would, however, result in criteria pollutants exceeding the SCAQMD daily emissions thresholds for ROC, NO_x, and PM_{10} during construction, and the emissions threshold for ROC during project operation, which would remain a significant unavoidable impact, resulting in significant cumulative air quality impacts.

NOISE

Despite the implementation of recommended mitigation measures, the proposed project would result in unavoidable significant impacts with regard to exposure of persons to noise levels in excess of standards established in the local General Plan or noise ordinance from stationary noise sources in the project area (i.e., the Saugus Speedway facility).

SOLID WASTE

Implementation of the proposed Soledad Village project would result in significant and unavoidable impacts to solid waste services in regards to short-term construction, long-term operations, and cumulative impacts.

Section 9.0
EFFECTS FOUND NOT TO BE SIGNIFICANT

9.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

The City of Santa Clarita conducted an Initial Study in April 2005 to determine significant effects of the proposed project. In the course of this evaluation, certain impacts of the proposed project were found to be less than significant due to the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type. The effects determined not to be significant are not required to be included in primary analysis sections of the Draft EIR. In accordance with *CEQA Guidelines* Section 15128, the following section identifies those impacts determined to be less than significant in the Initial Study. A copy of the Initial Study and the explanation for the less than significant conclusions of the following environmental issue areas are included in Appendix A, Initial Study/Notice of Preparation. This section also summarizes which impacts were found to be less than significant in the EIR.

9.1 INITIAL STUDY CONCLUSIONS

AESTHETICS

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

AGRICULTURE RESOURCES

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

BIOLOGICAL RESOURCES

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

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

- 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 wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Oak trees.

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

- Affect a Significant Ecological Area (SEA) or Significant Natural Area (SNA) as identified on the City of Santa Clarita ESA Delineation Map.

It should be noted that the project site has been graded pursuant to the approval issued for Parcel Map No. 20838. Flood protection and trail improvements along the Santa Clara River have already been installed. In addition, as illustrated on Exhibit OS-1, Generalized Vegetation Map, of the City of Santa Clarita General Plan, the project site does not contain any biological resources. As such, development of the project site would create no new impacts on, any species listed as candidate, sensitive, or special status species, riparian habitat or other sensitive natural community, federally protected wetlands, in any local or regional plans, policies or regulations; movement on any migratory fish or wildlife species or migratory wildlife corridors or impede the use of native wildlife nursery sites; any adopted Habitat Conservation Plan, Natural Community Conservation Plan or other local or regional plans, policies or regulations; thus impacts would be less than significant. Finally, the project would incorporate the following:

- *Pets and other animals shall be restricted with fencing and signage from entering the Santa Clara Rive SEA. Additionally, the project has incorporated fencing along the Santa Clara River corridor to deter humans and domestic animals from entering these areas;*

- *Interpretive signs would be constructed in conjunction with the project and placed in appropriate areas explaining the sensitivity of natural habitats of the Santa Clara River and the need to minimize impacts to these areas; and*

- *All street, residential and parking lot lighting would be downcast luminaries or direction lighting with light patterns directed away from the Santa Clara River.*

Additionally, Covenants, Codes and Restrictions (C,C, and Rs would require the exterior lighting within the residential areas to be low voltage.

As such, development of this property as proposed would create no new impacts on the SEA or SNA, thus impacts would be less than significant.

CULTURAL RESOURCES

- Cause a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5.
- Directly or indirectly destroy or impact a unique paleontological resource or site or unique geologic feature.
- Disturb any human remains, including those interred outside of formal cemeteries.

GEOLOGY AND SOILS

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.
- Strong seismic ground shaking.
- Seismic-related ground failure, including liquefaction.
- Landslides.
- Result in substantial wind or water soil erosion or the loss of topsoil, either on or off site.
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.
- Change in topography or ground surface relief features.

- Earth movement (cut and/or fill) of 10,000 cubic yards or more.
- Development and/or grading on a slope greater than 10 percent natural grade.
- The destruction, covering or modification of any unique geologic or physical feature.
- Other -- Fill existing wash with soil from project site.

HAZARDS AND HAZARDOUS MATERIALS

- 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 explosion or the release of hazardous materials into the environment (including, but not limited to oil, pesticides, chemicals, fuels, or radiation).
- 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 it 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, would the project result in a safety hazard for people residing or working in the project area.
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- 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.
- Exposure of people to existing sources of potential health hazards (e.g. electrical transmission lines, gas lines, oil pipelines).

HYDROLOGY AND 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, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

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

- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

- Inundation by seiche, tsunami, or mudflow.

- Changes in the rate of flow, currents, or the course and direction of surface water and/or groundwater.

- Other modification of a wash, channel creek or river.

- Potential discharges from areas for materials storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas.

- Significant environmentally harmful increase in the flow velocity or volume of storm water runoff.

LAND USE AND PLANNING

- Disrupt or physically divide an established community (including a low-income or minority community).

- Conflict with any applicable habitat conservation plan, natural community conservation plan, and/or policies by agencies with jurisdiction over the project.

MINERAL RESOURCES

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.
- Use nonrenewable resources in a wasteful and inefficient manner.

NOISE

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

POPULATION AND HOUSING

- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere (especially affordable housing).
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

PUBLIC SERVICES

- Fire Protection
- Police Protection

RECREATION

- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

TRANSPORTATION/TRAFFIC

- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

- Result in inadequate emergency access.
- Result in inadequate parking capacity.
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).
- Hazards or barriers for pedestrians or bicyclists.

UTILITIES AND SERVICE SYSTEMS

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- 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.
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

9.2 EIR CONCLUSIONS

LAND USE AND RELEVANT PLANNING

- The proposed project would be consistent with the applicable goals and policies of the City of Santa Clarita *General Plan*.
- The proposed project would not conflict with the standards and requirement of the City of Santa Clarita *Unified Development Code*.
- The proposed project would not conflict with applicable policies of the Southern California Association of Governments' *Regional Comprehensive Plan and Guide.*
- The proposed project would be consistent with the principles and strategies of the Southern California Association of Governments' Southern California *Compass Growth Visioning Program.*
- Development associated with the proposed project and other related cumulative projects would not result in cumulatively considerable land use and planning impacts.

POPULATION, EMPLOYMENT, AND HOUSING

- Project implementation includes the development of a maximum of 437 residential units.
- Project implementation would include development of a maximum of 8,000 square feet of commercial uses.
- Project implementation could induce population growth in the City of Santa Clarita.
- Implementation of the proposed project, in conjunction with related projects in the City of Santa Clarita, would not result in significant cumulative population, employment, and housing impacts.

AESTHETICS

- Development of the proposed project would result in grading and construction activities that would temporarily alter the existing visual character of the project site and the surrounding area and introduce new sources of light and glare.
- Development of the proposed project would alter the existing visual character and viewshed from surrounding locations.
- Development of the proposed project would introduce new sources of light and glare into the project area.
- Implementation of the proposed project, in conjunction with related cumulative projects in the City of Santa Clarita, could result in significant cumulative aesthetic, light, and glare impacts.

TRAFFIC AND CIRCULATION

- Development associated with Phase I of the proposed project could result in adverse impacts to the function of intersections in the project area for short-range traffic conditions.
- Development associated with the buildout of the proposed project and other related cumulative projects could result in adverse impacts to the function of intersections in the project area for the interim year (2015) traffic conditions.

AIR QUALITY

- Development associated the proposed project would result in conflicts with the SCAQMD's adopted air quality management plan.
- Development associated with the proposed project and other related projects could result in cumulatively considerable air quality impacts.

NOISE

- Project-related grading and construction activities could result in temporary noise impacts on nearby noise-sensitive receptors.
- Development associated with Phase I of the proposed project could permanently increase traffic-related noise in the project area.
- Development associated with buildout of the proposed project could permanently increase traffic-related noise in the project area.
- Railroad-related noise could result in adverse noise impacts on sensitive receptors in the project area.
- Development associated with the proposed project and other related cumulative projects could result in cumulatively considerable noise impacts.

HYDROLOGY AND WATER QUALITY

- Development associated with the proposed project could result in adverse hydrology and drainage impacts.
- Development associated with the proposed project could result in adverse groundwater recharge impacts.
- Operation of development associated with the proposed project could result in adverse surface water quality impacts.
- Construction activities associated with implementation of the proposed project could result in adverse impacts to surface water quality.
- Development associated with the proposed project could result in adverse groundwater quality impacts.
- Development associated with the proposed project and other related cumulative projects would contribute to cumulative hydrology and water quality impacts.

WATER SUPPLY

- Development of the Soledad Village project could create demand for water that exceeds available supplies.
- Development associated with the proposed project and other related projects would increase demand for water supplies.

SCHOOLS

- Development associated with the proposed project would increase student enrollment within the Saugus Union School District.
- Development associated with the proposed project would increase student enrollment within the Hart District.
- Development associated with the proposed project and other related cumulative projects would increase the demand for school facilities within the Saugus and Hart school districts.
- Development associated with the proposed project and other related cumulative projects would increase the demand for school facilities within the Saugus and Hart School Districts.

PARKS AND RECREATION

- Development of the proposed project would increase usage of neighborhood and community parks.
- Development of the proposed project would increase usage of regional parks.
- Development of the proposed project would increase usage of State and Federal recreation/forests.
- Development of the proposed project would increase usage of local trails.
- Development associated with the proposed project and related cumulative projects would increase demands for parks and recreational facilities in the Santa Clarita Valley.

Section 10.0
ORGANIZATIONS AND PERSONS CONSULTED

10.0 ORGANIZATIONS AND PERSONS CONSULTED

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Section 11.0
BIBLIOGRAPHY

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2001 RTP Growth Forecast, City Projections, Southern California Association of Governments, April 2001.

Air Quality Impact Analysis, LSA Associates, Inc., June 2005.

CEQA Air Quality Handbook, South Coast Air Quality Management District, April 1993.

City/County Population and Housing Estimates, 2005, Revised 2001-2004, with 2000 DRU Benchmark, State of California, Department of Finance, Sacramento, California, May 2004.

City of Santa Clarita General Plan and Environmental Impact Report, City of Santa Clarita, June 1991.

County Profile, California Department of Finance, Updated March 12, 2002.

DP-3, Profile of Selected Economic Characteristics: 2000, U.S. Census 2000, American Factfinder.

Soledad Townhomes Traffic Impact Analysis, Austin-Foust Associates, Inc., June 2005.

Soledad Townhomes Water Quality Technical Report (with Appendices), Geosyntec Consultants, June 2005.

Noise Impact Analysis, LSA Associates, Inc., August 2005.

Riverpark Draft Environmental Impact Report, Impact Sciences, Inc., March 2004.

Santa Clarita Municipal Code, City of Santa Clarita, updated through March 2005.

Santa Clarita Subregional Analysis. South Coast Air Quality Management District.. Located on the World Wide Web: http://www.aqmd.gov/ej/pdf/santaclaritasubregional_analysis.pdf. November 2004.

South Coast Air Quality Management Plan, South Coast Air Quality Management District, August 2004.

Southern California Association of Governments Regional Transportation Plan, Southern California Association of Governments, April 2004.

Southern California Association of Governments Regional Plan and Guide, Southern California Association of Governments, 2002.