This Draft Environmental Impact Report (DEIR) has been prepared by the City of Morgan Hill, as lead agency, pursuant to applicable provisions of the California Environmental Quality Act (CEQA) and its implementing guidelines, the CEQA Guidelines. The purpose of this DEIR is to evaluate the potential environmental effects associated with development of the Cochrane Road Planned Unit Development (PUD), a proposed 657,250 square foot shopping center at the northeast corner of Cochrane Road and U.S. Highway 101 in the City of Morgan Hill. The proposed shopping center would include 657,250 square feet of commercial uses, including two large anchor stores, retail shops, restaurants (sit-down and fast food), a multi-plex cinema with up to 14 screens, and an optional 12-position fuel station.

This section summarizes the purpose and intended uses of the EIR, the environmental procedures that are to be followed according to state and local law, and the EIR's scope and organization.

1.1 BACKGROUND AND PURPOSE

The City of Morgan Hill (hereinafter "City") has prepared this EIR to provide the public, responsible agencies and trustee agencies with information about the potential environmental effects of the proposed Cochrane Road Planned Unit Development (hereinafter "proposed project"). As described in CEQA Guidelines Section 15121(a), an EIR is a public information document that assesses potential environmental effects of the proposed project and identifies mitigation measures and alternatives to the proposed project that could reduce or avoid adverse environmental impacts. Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development where feasible, and have an obligation to balance a variety of public objectives, including environmental, economic and social factors.

The project applicants, Browman Development Company, Inc., J.P. Di Napoli Companies Inc., and the Guglielmo Family (hereinafter "project applicant") have submitted applications for a zoning amendment; development agreement; site and architectural plan review; conditional use permits; tentative map review; tree removal plan; and grading plan to establish a precise development plan for an approximate 657,250 square foot shopping center on a 66.49-acre site located at the northeast corner of Cochrane Road and U.S. Highway 101. Section 2.7 of this EIR lists the requested actions and required approvals for the proposed project.

The proposed project would include two large anchor stores, retail shops, restaurants (sit-down and fast-food), and a multi-plex cinema with up to 14 screens. The proposed anchor stores could consist of the relocation and expansion of the `Target´ store (currently located at the Cochrane Plaza shopping center) and construction of over 530,000 square feet of additional retail, which could include a home improvement store, wholesale store or

department store; retail shops; restaurants (sit-down and fast food); and a 63,200 square foot multi-plex cinema with up to 14 screens. The proposed project includes an optional 12-position fuel station that would incorporate a 1,600 square foot convenience market and a 600 square foot car wash as a substitution for 6,000 square feet of retail space. The expanded `Target´ will not include a full-size grocery store.

The proposed project also entails a general plan amendment (GPA) for the extension of Mission View Drive north of Cochrane Road instead of extending from De Paul Drive (formerly St. Louise Drive) as designated on the *City of Morgan Hill General Plan* map.

CEQA requires the preparation of an EIR prior to approval of any "project" that may have a significant effect on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has potential to result in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]).

TYPE OF DOCUMENT

CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a project EIR pursuant to CEQA Guidelines Section 15161. A project EIR is the most common type of EIR and evaluates the environmental impacts of a specific development project. This EIR examines all phases of the project including planning, construction, and operation.

1.2 INTENDED USES OF THIS EIR

This EIR provides the environmental information and evaluation necessary for the planning, construction, and operation of the proposed project. This document will be used by the City of Morgan Hill and any other responsible or reviewing agency to identify and evaluate significant environmental issues at the project site. This includes evaluations necessary for approvals identified in this EIR as well as any additional approvals necessary or useful to such planning, construction, and maintenance (e.g., any final construction plans, design reviews, and other development-related approvals). Likewise, this EIR provides the environmental information and evaluation needed by responsible agencies acting on permits relative to the project and project site. **Section 2.0** contains a detailed project description. Actions that would be taken relative to the project evaluated in this EIR are listed under subheading **2.7, Requested Actions and Required Approvals.**

1.3 ENVIRONMENTAL REVIEW PROCESS

The California Environmental Quality Act and the City of Morgan Hill encourage public participation in the planning and environmental review processes. Opportunities will be provided for the public to present comments and concerns regarding the project and this environmental review document through a 45-day CEQA public review and comment period; as well as at public hearings or meetings before the City of Morgan Hill Planning Commission and City Council.

The review and certification process for the EIR involves the following procedural steps:

NOTICE OF PREPARATION

In accordance with Section 15161 of the CEQA Guidelines, the City of Morgan Hill determined that due to potential significant effects resulting from the project, an EIR would be necessary. In accordance with Section 15082(a) of the CEQA Guidelines, the City prepared a Notice of Preparation (NOP) of an EIR. The review period for the NOP ended on December 16, 2004. The NOP was circulated to public, local, state, and federal agencies, and other interested parties for a 30 day comment period to solicit comments on the proposed project. Concerns raised in response to the NOP were considered in the preparation of the DEIR. The NOP for the EIR and the letters received by the City in response to the notice are included in **Appendix A**.

DRAFT EIR

This DEIR contains a description of the project, description of the environmental setting, identification of project impacts and effects found not to be significant, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives. Upon completion of the DEIR, the City of Morgan Hill filed a Notice of Completion (NOC) with the State Office of Planning and Research, in accordance with Section 15085 of the CEQA Guidelines. This began the 45-day public review period (Public Resources Code, Section 21161) for the DEIR.

PUBLIC NOTICE/PUBLIC REVIEW

Concurrent with filing the NOC, the City of Morgan Hill provided a public notice of the availability of the DEIR for public review in accordance with CEQA Guidelines Section 15087(a), and circulated the document to responsible agencies, organizations, and other interested parties inviting written comments on its contents. Written public comments may be submitted to the City of Morgan Hill at any time during the 45-day public review and comment period for the EIR, and written and oral comments may be presented at

scheduled public hearing(s), as advertised.

All comments or questions regarding the DEIR should be addressed to:

Ms. Rebecca Tolentino
Associate Planner
City of Morgan Hill
17555 Peak Avenue
Morgan Hill, California 95037-4128
Phone: (408) 779-7248

RESPONSE TO COMMENTS/FINAL EIR

Following the public review and comment period for the DEIR, a Final EIR (FEIR) will be prepared. The FEIR will respond to written comments received during the public review and comment period and to oral comments made at any public hearings. The Planning Commission and City Council will review and consider the FEIR prior to their decision to approve, revise or reject the proposed project.

CERTIFICATION OF THE EIR

If the City of Morgan Hill finds that the FEIR is "adequate and complete," the City may certify the FEIR. The rule of adequacy generally holds that the EIR can be certified if: 1) it shows a good faith effort at full disclosure of environmental information, and 2) provides sufficient analysis to allow decisions to be made regarding the project in contemplation of environmental considerations.

PROJECT CONSIDERATION

Upon review and consideration of the FEIR, the City may act upon the project. A decision to approve the project would be accompanied by written Findings in accordance with CEQA Guidelines Section 15091 and, if applicable, Section 15093 (Statement of Overriding Considerations).

MITIGATION MONITORING

The City of Morgan Hill must also adopt a Mitigation Monitoring and Reporting Program (MMRP) for mitigation measures that have been incorporated in or imposed upon the project to reduce or avoid significant effects on the environment (Public Resources Code Section 21081.6(a)). This program will be designed to ensure that these measures are carried out during project implementation. The specific reporting or monitoring program required by CEQA is not required to be included in the EIR. Throughout the EIR, however, mitigation measures have been clearly identified and presented in language that will facilitate establishment of a monitoring and reporting program. Any mitigation measures

adopted by the City of Morgan Hill as part of the certified FEIR will be considered as conditions for approval of the project and will be included in the Mitigation Monitoring and Reporting Program to ensure and verify compliance.

1.4 SCOPE AND ORGANIZATION

Sections 15122 through 15132 of the CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include: a description of the environmental setting; an environmental impact analysis; mitigation measures; alternatives to the proposed project; significant irreversible environmental changes; growth-inducing impacts; and cumulative impacts.

The environmental issues addressed in the DEIR were established through the preparation of environmental documentation and supporting technical reports developed for the project, responses to the Notice of Preparation for the DEIR, and comments received. Based upon documentation, technical reports, NOP responses, agency consultation, and review of the project application, the City has determined the scope for this EIR. This Draft EIR is organized in the following manner:

SECTION S - EXECUTIVE SUMMARY

The Executive Summary provides a brief synopsis of the EIR findings. This summary includes a project overview, summary of significant environmental effects, and mitigation measures and alternatives that would reduce or avoid those effects. Impacts are organized in a matrix format that clearly identifies accompanying measures and level of significance after mitigation.

SECTION 1.0 - INTRODUCTION

The Introduction briefly describes the project background, the purpose and intended uses of the EIR, the environmental review process, and the scope and organization of the EIR.

SECTION 2.0 - PROJECT DESCRIPTION

This section provides a detailed account of the proposal and forms the basis of the analysis, as required by CEQA. This section includes the project location and legal description, project objectives, project characteristics, and details of the construction work.

SECTION 3.0 - ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

This section describes the existing project setting, discusses the environmental impacts of the project, describes cumulative impacts, and identifies mitigation measures for the

environmental impacts examined in this EIR. The following major environmental topics shall be addressed in this section:

- ***3.1 Aesthetics and Visual Resources:*** The potential change in character as measured against the existing setting and visual conditions of the project area is discussed within this subsection of the EIR. Project visibility, scale, light and glare, and community character are considered relative to the existing agricultural and residential character of the project site and surrounding land uses. The effects of construction of the proposed project on the northern gateway of the U.S. Highway 101/Cochrane Road intersection is also discussed within this subsection of the EIR.

- ***3.2 Agricultural Resources:*** The agricultural resources subsection of the EIR analyzes the conversion of agricultural land at the project site and the potential conversion of surrounding agricultural properties with implementation of the proposed project. A "Land Evaluation and Site Assessment (LESA)" model was prepared for the project site to evaluate the quality of agricultural resources, as recommended by the California Department of Conservation, Department of Land Resources.

- ***3.3 Air Quality:*** This subsection of the EIR addresses the requirements of the Bay Area Air Quality Management District (BAAQMD) and analyzes local and regional air quality impacts associated with project implementation including short-term construction impacts (e.g. grading, etc.), as well as long-term operational emissions from mobile (e.g. traffic) and stationary sources. This analysis is based on an air quality analysis conducted by Illingworth and Rodkin, Inc. in March 2005.

- ***3.4 Biological Resources:*** Potential impacts upon biological resources in the affected area are analyzed in this subsection of the EIR based on a site reconnaissance of the project site by Pacific Municipal Consultants. This sub-section discusses the removal of trees, the potential degradation or elimination of important species, and the impacts on listed, proposed, and candidate threatened and endangered species.

- ***3.5 Cultural Resources:*** This subsection analyzes the presence or absence of potentially significant archaeological and historic resources at the project site. The results of a records search at the Northwest Information Center at Sonoma State University, Rohnert Park; a sacred lands search conducted by the Native American Heritage Commission; consultation with Native Americans and other interested parties; as well as field surveys by Pacific Municipal Consultants cultural resource staff are presented within this subsection. The project site contains three single-family homes and associated outbuildings that are more than 45-years old. An

evaluation of these homes was conducted by a qualified architectural historian consistent with *City of Morgan Hill General Plan EIR* Mitigation Measure CULT-1a.

- ***3.6 Geology and Soils:*** This subsection examines potential geologic and seismic hazards, as well as any engineering constraints and general soil suitability of the proposed project. The basis of the analysis is a review of the Preliminary Geotechnical Engineering Investigation prepared by Twining Laboratories (November 2004). The analysis includes engineering recommendations for any geologic hazards or soil constraints identified at the project site.

- ***3.7 Hazards and Hazardous Materials:*** This subsection discusses the potential for the proposed project to create a significant hazard through the use, transport, or storage of hazardous materials. The potential for on-site sources of contamination such as agricultural chemicals, fuel tanks, equipment and vehicle maintenance areas, asbestos-containing building materials, and lead-based paint, among other things is discussed within this subsection of the EIR. The basis of the analysis included a review of the Phase I and Phase II Environmental Site Assessment prepared by Twining Laboratories in June 2004 and February 2005, respectively, and an Asbestos and Lead-Based Paint Reconnaissance prepared by Bovee Environmental Management, Inc. in February 2005.

- ***3.8 Surface Water Hydrology and Water Quality:*** The impacts of the proposed project on surface water hydrology, storm drainage, and water quality are discussed within this subsection of the EIR. The analysis identifies existing drainage patterns and estimates storm drainage runoff that would be generated by the conversion of the site from rural residential and agricultural uses to commercial uses. The basis of this analysis included a review of the hydrology report prepared by Schaaf and Wheeler in May 2005.

- ***3.9 Land Use:*** This subsection focuses on the potential impacts on land use that may result from the project, and evaluates the consistency of this project with the *City of Morgan Hill General Plan*, *City of Morgan Hill Planning and Zoning Codes,* and any other applicable plans or documents. Specifically, this subsection addresses the project's interface with the community. This subsection also considers the potential for urban decay due to secondary economic impacts based on a retail market impact analysis prepared by Bay Area Economics (BAE) in June 2005.

- ***3.10 Noise:*** Potential noise impacts associated with the proposed project are discussed within this subsection. The noise analysis is based on a report prepared by Illingworth and Rodkin (March 2005). Long-term operational impacts are identified within this subsection, including noise from traffic generation along roadways where residential or other noise-sensitive receptors are located, and

stationary noise sources from operation of the proposed project. Short-term construction noise impacts associated with the proposed project are also identified.

- ***3.11 Public Services and Facilities:*** This subsection addresses the availability of existing public facilities, calculates demand generated by the proposed project for additional facilities such as schools, parks, police and fire services. It also provides a general assessment of additional system requirements and physical improvements needed to serve the build-out demands of the proposed project. The public facilities and services subsection will address the change in the project site from agricultural uses to commercial/retail uses and the subsequent demand for services.

- ***3.12 Transportation and Circulation:*** This subsection of the EIR is based on a traffic impact analysis that was prepared for the proposed project by Fehr and Peers Associates, Inc. in July 2005. The focus of this subsection is an evaluation of key intersections and roadway segments developed in concert with City staff. The impacts of the proposed project were evaluated following the guidelines of the City of Morgan Hill and the Santa Clara Valley Transportation Authority (VTA), the congestion management agency of Santa Clara County. Site access, on-site circulation, and parking is also evaluated within this subsection of the EIR. The Transportation and Circulation subsection of the EIR also addresses the extension of Mission View Drive north of Cochrane Road, instead of extending from De Paul Drive as designated on the *City of Morgan Hill General Plan* map.

- ***3.13 Utilities and Service Systems:*** The provision of potable water resources, wastewater treatment and disposal, natural gas and electric service and solid waste impacts are addressed in this subsection of the EIR. Impacts are assessed based upon increased demands on these systems and service availability.

SECTION 4.0 – ALTERNATIVES TO THE PROJECT

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project, which could feasibly attain the basic objectives of the project and avoid and/or lessen the environmental effects of the project. The determinations of the City of Morgan Hill concerning the feasibility, acceptance, or rejection of each and all alternatives considered in this EIR will be addressed and resolved in the City's findings, as required by CEQA. The alternatives considered in this EIR consist of the following:

- ***Alternative 1 – No Project/No Development:*** CEQA Guidelines Section 15126.6(e)(3) requires that a "no-project" alternative be evaluated as part of an EIR, proceeding under one of two scenarios: the project site remaining in its current agricultural and rural residential state or, development of the project site under the existing zoning designation. The `No Project/No Development Alternative´ considers the comparative environmental effects of not approving the proposed

project, with the site remaining in its current rural residential and agricultural state, since the underlying General Plan land use designation of `Commercial´ would result in a similar project as is currently proposed.

- ***Alternative 2 – Supermaket Alternative:*** The `Supermarket Alternative' assumes replacement of approximately 50,000 square feet of commercial uses and construction of a 50,000 square foot supermarket at the project site. The intent of the `Supermarket Alternative´ is to meet Policy 9g in the *City of Morgan Hill General Plan*, which plans for a future grocery store east of U.S. Highway 101 along Cochrane Road.

- ***Alternative 3 – Reduced Density Alternative:*** This alternative assumes a 40 percent reduction in the square footage to a 394,350 square foot commercial shopping center on a reduced footprint of approximately 40 acres, which would provide a buffer around the project site.

- ***Alternative 4 – Alternate Location Alternative:*** This alternative includes development of the proposed project at the southeast corner of the Cochrane Road and U.S. Highway 101 intersection, immediately south of the project site. This alternate location is comprised of six parcels and is approximately 58.75 acres.

SECTION 5.0 – CUMULATIVE IMPACT SUMMARY

This section evaluates the cumulative impacts generated by a list of past, present and reasonably foreseeable future projects in proximity to the project area, as identified by the City and in various technical analyses.

SECTION 6.0 – OTHER SECTIONS REQUIRED BY CEQA

This section contains required discussions and analyses of various topical issues mandated by CEQA Guidelines Section 15126.2, including significant and unavoidable environmental effects, irreversible environmental changes, and effects found not to be significant.

SECTION 7.0 - REPORT PREPARERS AND REFERENCES

The purpose of this section is to provide a list of all authors and agencies that assisted in the preparation of the report by name, title, and company or agency affiliation. It also itemizes supporting and reference data used in the preparation of the DEIR and lists all governmental agencies, organizations and other individuals consulted in preparing the DEIR.

APPENDICES

This section includes all notices and other procedural documents pertinent to the EIR, as well as all technical reports prepared in support of the analysis.

1.5 IMPACT TERMINOLOGY

This DEIR uses the following terminology to describe environmental effects of the proposed project:

- ***Standards of Significance:*** A set of criteria used by the lead agency to determine at what level, or "threshold", an impact would be considered significant. Significance criteria used in this EIR include the CEQA Guidelines and Statutes; factual or scientific information; regulatory performance standards of local, state, and federal agencies; and the Goals, Objectives, and Policies of the City of Morgan Hill General Plan.

- ***Less than Significant Impact:*** A less than significant impact would cause no substantial change in the environment and no mitigation is required.

- ***Significant (Potentially Significant) Impact:*** A significant or potentially significant impact may cause a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects using specified standards of significance. Mitigation measures and/or project alternatives are identified to reduce project effects to the environment.

- ***Significant (Potentially Significant) Unavoidable Impact:*** A significant (or potentially significant) and unavoidable impact would result in a substantial change in the environment for which no feasible mitigation is available to reduce the impact to a less than significant level, although mitigation may be available to lessen the degree of the impact.

- ***Cumulative Impact:*** Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

REFERENCES/DOCUMENTATION

Governor's Office of Planning and Research, State of California. *Guidelines for Implementation of the California Environmental Quality Act,* as amended. 2005.

Morgan Hill, City of. *City of Morgan Hill General Plan. General Plan*. July, 25 2001 (Updated July 2004).

Morgan Hill, City of. *Notice of Preparation of a Draft Environmental Impact Report*. November 12, 2004.

Morgan Hill, City of. *City of Morgan Hill Planning and Zoning Codes*. November 2004.

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2.1 Overview of the Proposed Project

The project applicants, Browman Development Company, Inc., J.P. Di Napoli Companies Inc., and the Guglielmo Family (hereinafter "project applicant") have submitted applications for a zoning amendment; development agreement; site and architectural plan review; conditional use permits; tentative map review; tree removal plan; and grading plan to establish a precise development plan for an approximate 657,250 square foot shopping center on a 66.49-acre site located at the northeast corner of Cochrane Road and U.S. Highway 101. Section 2.7 of this EIR lists the requested actions and required approvals for the proposed project.

The proposed project would include two large anchor stores, retail shops, restaurants (sit-down and fast-food), and a multi-plex cinema with up to 14 screens. The proposed anchor stores could consist of the relocation and expansion of the `Target´ store (currently located at the Cochrane Plaza shopping center) and construction of over 530,000 square feet of additional retail, which could include a home improvement store, wholesale store or department store; retail shops; restaurants (sit-down and fast food); and a 63,200 square foot multi-plex cinema with up to 14 screens. The proposed project includes an optional 12-position fuel station that would incorporate a 1,600 square foot convenience market and a 600 square foot car wash as a substitution for 6,000 square feet of retail space. Although a cinema is shown on the site plan, it is speculative at this time. Nonetheless, a cinema was included in the EIR analysis to represent a worst case scenario.

The proposed project also entails a general plan amendment (GPA) for the extension of Mission View Drive north of Cochrane Road instead of extending from De Paul Drive (formerly St. Louise Drive) as designated on the *City of Morgan Hill General Plan* map.

2.2 Project Location

The City of Morgan Hill is located in the southern portion of the County of Santa Clara, approximately 12 miles south of the City of San José and ten miles north of the City of Gilroy. The southern Santa Clara Valley is approximately four miles wide and is surrounded by the Santa Cruz Mountain Range to the west, and the Diablo Mountain Range to the east. The regional project location is shown on **Figure 2-1**.

The project site is located at the northeast corner of the intersection of U.S. Highway 101 and Cochrane Road, on the northern edge of the City of Morgan Hill. The Cochrane Road/U.S. Highway 101 interchange serves as the northern gateway of the City. The project vicinity is shown in **Figure 2-2**. The existing topography and utilities at the project site are shown in **Figure 2-3**.

2.3 Project Site and Surrounding Land Uses

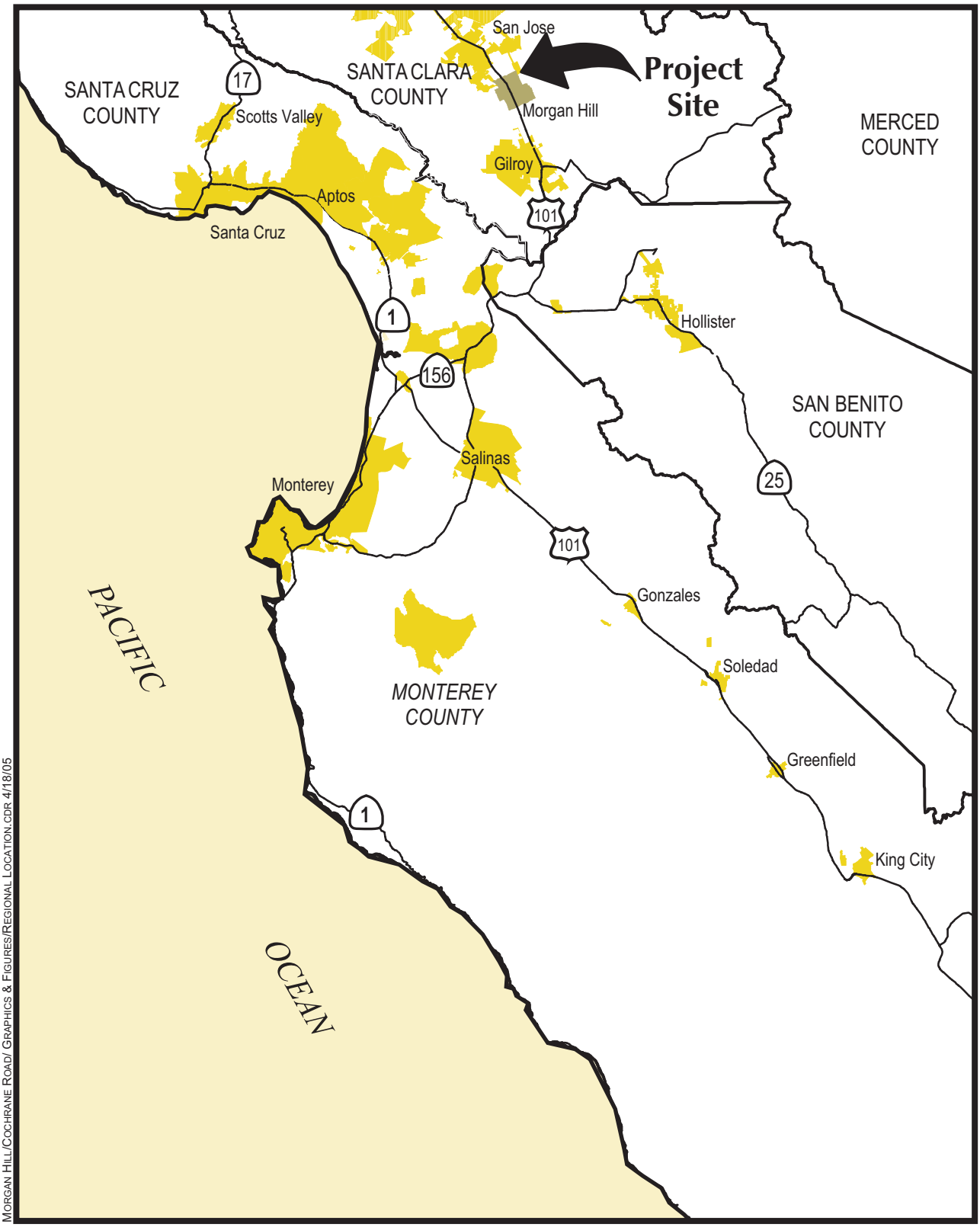
The 66.49-acre project site is generally level and consists of vacant fallow agricultural land, cultivated land (row crops and vineyards), rural residential uses, and an equestrian boarding facility. Approximately 118 trees, comprised primarily of black walnut (*Juglans nigra*), are scattered throughout the project site.

The project site consists of five irregular-shaped parcels under ownership by three separate landowners: the Millerd-Low property (Assessors Parcel Number: 728-37-001), Guglielmo property (Assessors Parcel Numbers: 728-37-002,-005,-007); and Sullivan property (Assessor Parcel Number 728-37-004). An Assessors Parcel Map (APN) of the project site is shown in **Figure 2-4**. Photographs of the project site are shown in **Figures 2-5** and **2-6**.

The Millerd-Low property consists of a 12-acre parcel located at the northeast corner of the project site. The project site is occupied by a horse boarding facility, two residences, and seven out-buildings including a garage, tack rooms, a pump house, a restroom, and a hay barn. The remainder of this parcel consists of fenced pastureland. The Guglielmo property consists of three irregularly-shaped parcels totaling 38 acres in the central and southern portions of the project site. The northern portion of the property is occupied by a small vineyard and the southern part of the property is in cultivation for row crops. A residence and associated barn and pump house are located in the central area of the property. The Sullivan property comprises 16.5 acres located in the western portion of the site. This parcel is currently being dry farmed for wheat and contains no structures or other site improvements.

SURROUNDING LAND USES

Surrounding land uses include vacant land planned for commercial uses and the De Paul Health Center (formerly the St. Louise Hospital) located south of the project site; unincorporated County land located within the City's sphere of influence and vacant land located within the city limits designated 'Single-Family Medium' in the *City of Morgan Hill General Plan* located east of the project site; unincorporated County land located within the City's sphere of influence designated 'Rural County' in the *City of Morgan Hill General Plan* located north of the project site; and U.S. Highway 101 and the SCVWD drainage channel located west of the project site. Although the project site is primarily rural in nature, the area west of the U.S. Highway 101/Cochrane Road interchange is developed primarily with commercial uses, including the Cochrane Plaza shopping center located at the southwest quadrant of this intersection, and a Chevron Station, two hotels, two vacant restaurant pads, and the Madrone Business Park located at the northwest quadrant of this intersection. Surrounding land uses are shown in the aerial photograph presented in **Figure 2-7**.



MORGAN HILL/COCHRANE ROAD/ GRAPHICS & FIGURES/REGIONAL LOCATION.CDR 4/18/05

0 5.5 11.0
SCALE IN MILES

N

FIGURE 2-1
REGIONAL LOCATION

PMC
PACIFIC MUNICIPAL CONSULTANTS

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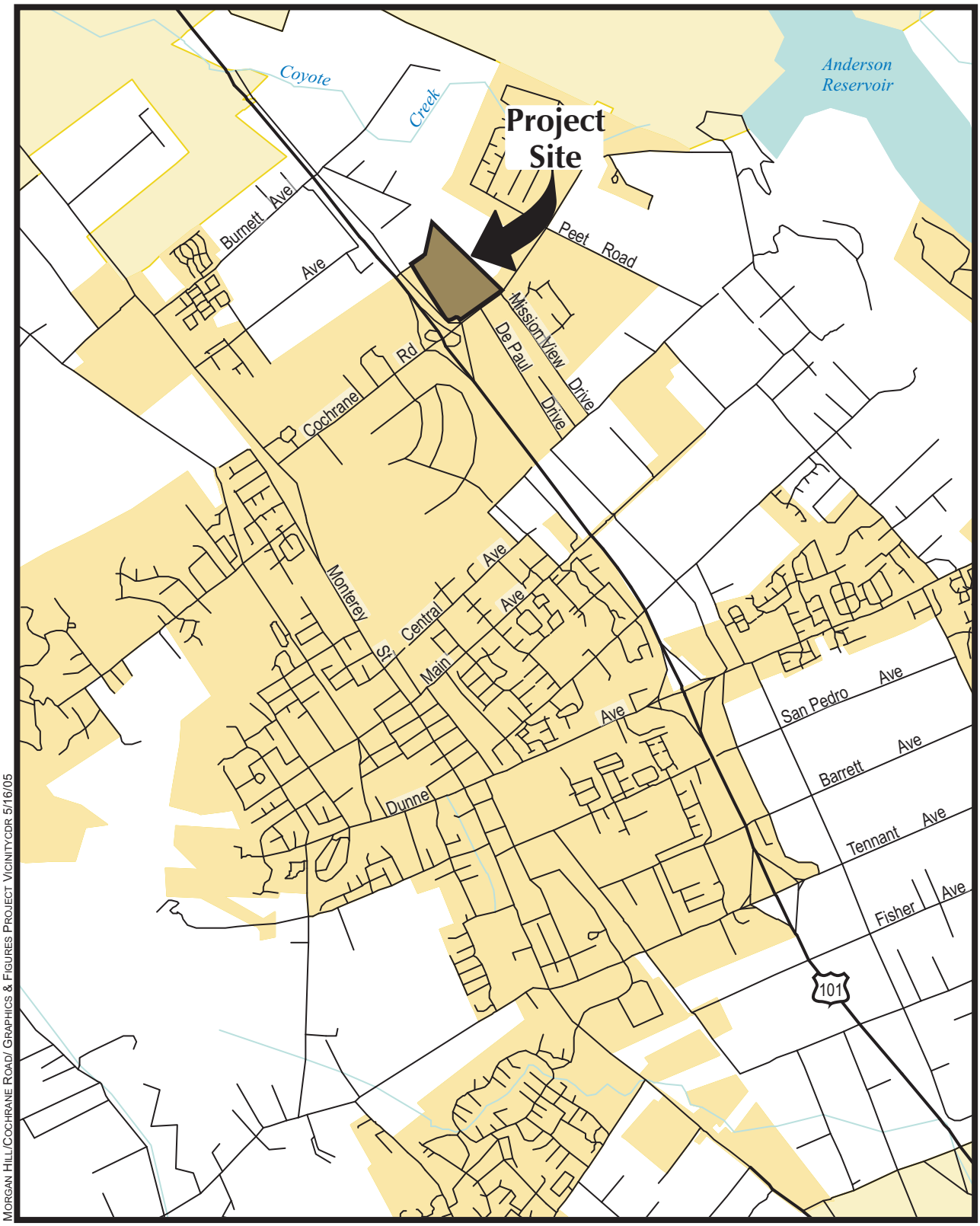

Morgan Hill/Cochrane Road/ Graphics & Figures Project Vicinitycdr 5/16/05

Figure 2-2
Project Vicinity

PMC
Pacific Municipal Consultants

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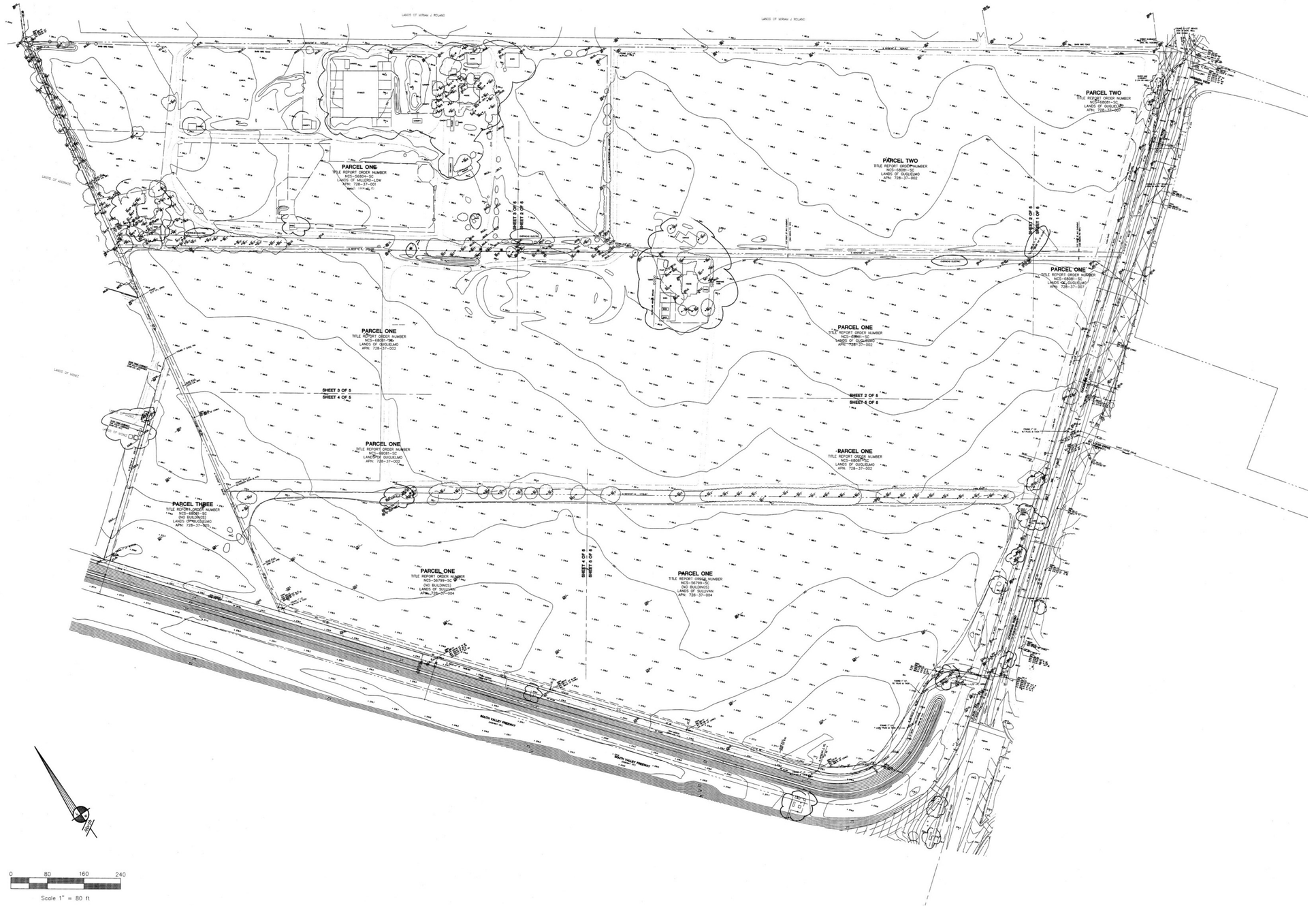

Source: Kier & Wright, Civil Engineers and Surveyors, Inc.

Topographical and Utility Survey, May 2005

FIGURE 2-3
TOPOGRAPHICAL AND UTILITY SURVEY

PMC

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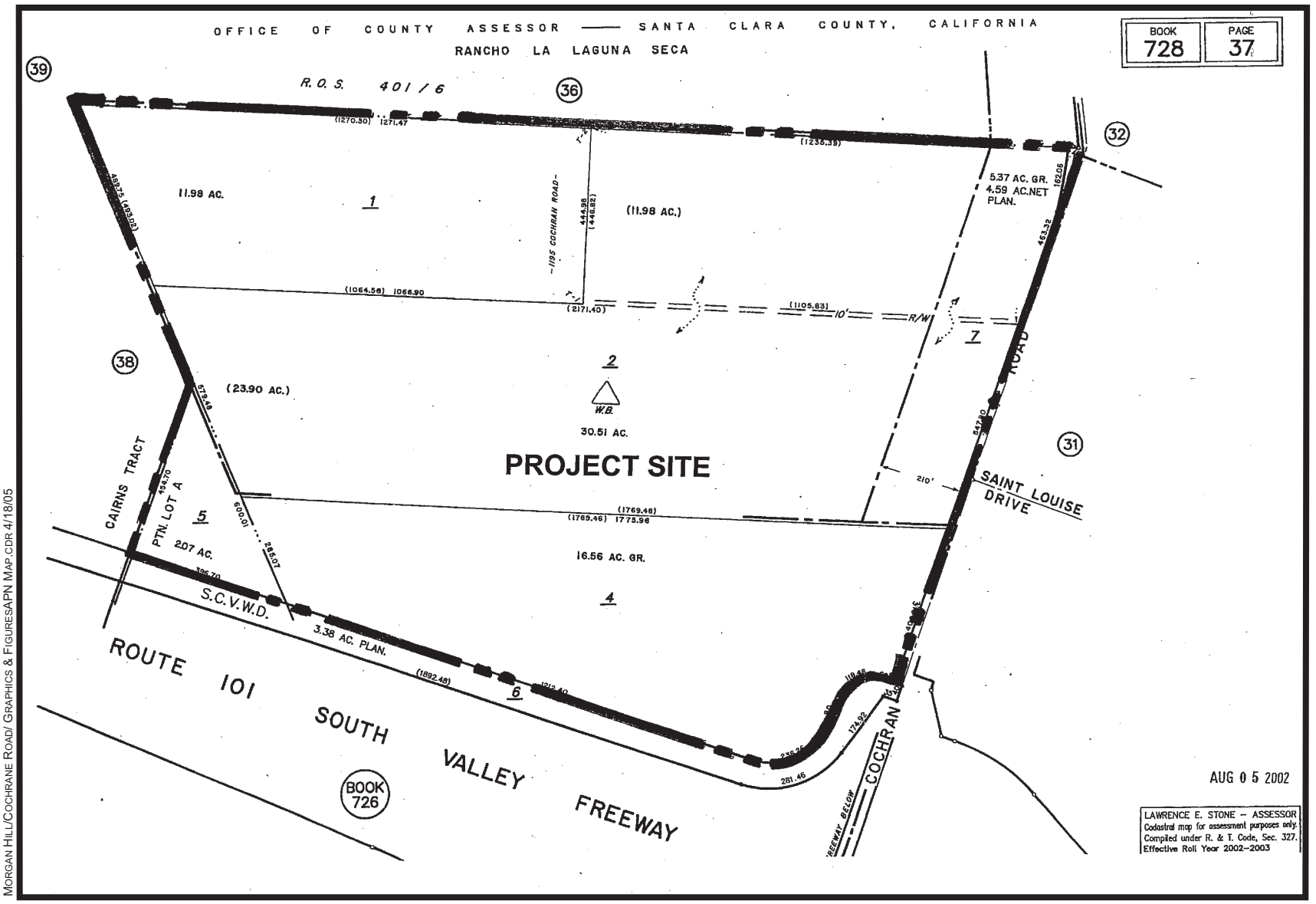

MORGAN HILL/COCHRANE ROAD/ GRAPHICS & FIGURES\APN MAP.CDR 4/18/05

FIGURE 2-4
APN MAP

PMC
PACIFIC MUNICIPAL CONSULTANTS

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View of the horse boarding facility located on the northeast portion of the project site.

View of the vineyards located on the northern portion of the project site.

Site Photos, March 2005

FIGURE 2-5
SITE PHOTOS

PMC

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View of fallow agriclutural land from the western portion of the project site.

View of western portion of the project site from Cochrane Road.

Site Photos, March 2005

FIGURE 2-6
SITE PHOTOS

PMC

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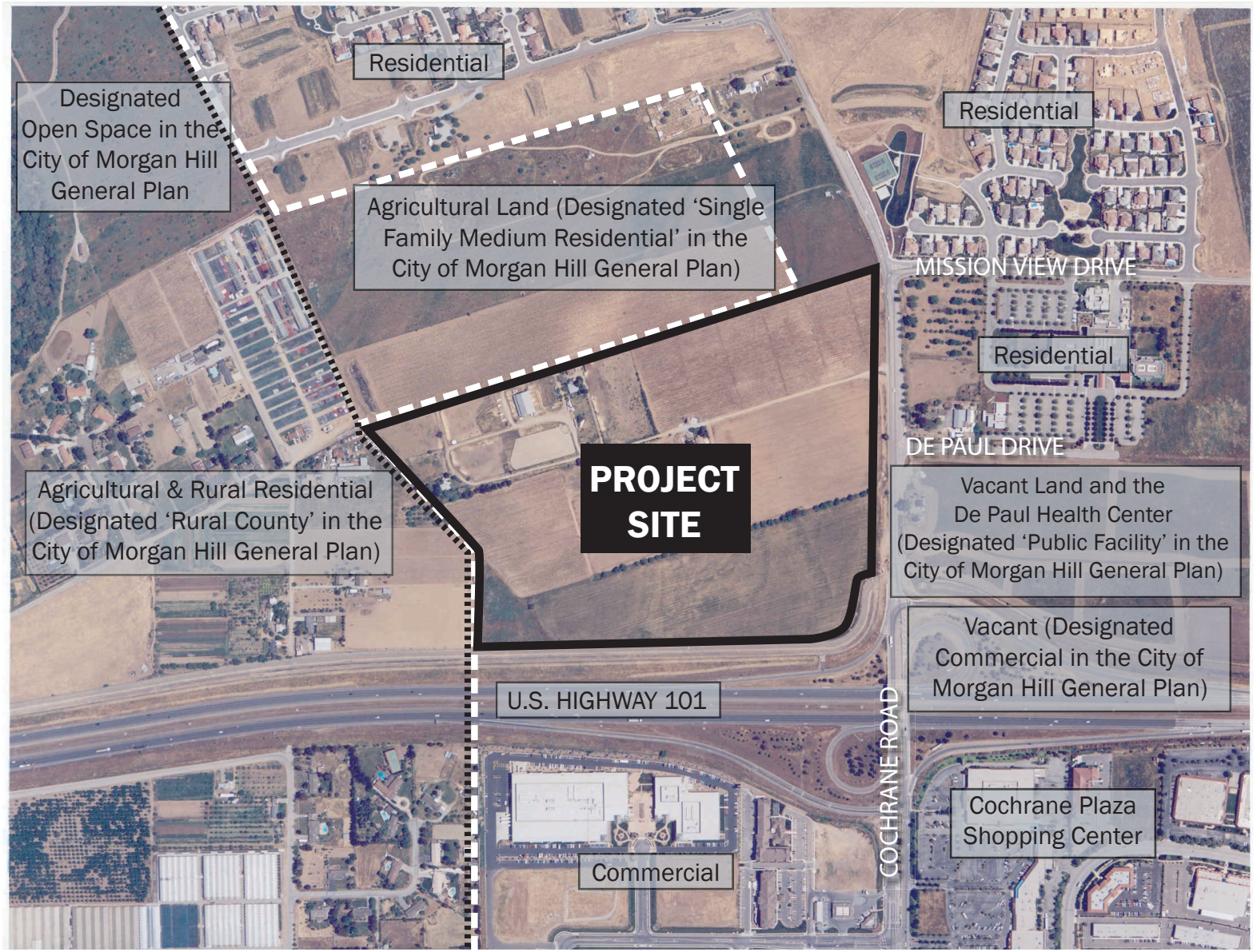

Source: WAC Corporation

Surrounding Land Uses, March 2005

0 250 500
Scale in Miles

N

Figure 2-7
Surrounding Land Uses

PMC

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Project Relationship to Existing Planning Documents

The project site is located within the city limits of Morgan Hill at the border of the urban growth boundary (UGB), which borders the project site to the north. The UGB is an officially adopted and mapped line dividing land to be developed from land to be protected for natural or rural uses, including agriculture. The project site has a General Plan designation of `Commercial´ in the *City of Morgan Hill General Plan* and a zoning designation of Planned Unit Development (Highway Commercial) `PUD (HC)´ in the *City of Morgan Hill Planning and Zoning Codes*. The *City of Morgan Hill General Plan* designates the project site as the location of a sub-regional commercial site. The project site has been designated for urban uses in the City of Morgan Hill General Plan since 1969 (Personal communication with Rebecca Tolentino, Associate Planner. City of Morgan Hill, April 7, 2005). An analysis of the proposed project compared to existing plans and policies is contained within each of the technical sections in Section 3 of this EIR and in Section 3.9, Land Use and Planning.

2.5 Project Objectives

State CEQA Guidelines Section 15124(b), specifies that an EIR should include:

> "A statement of objectives sought by the proposed project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings of a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project."

The objectives of the proposed project, as stated by the applicant, are as follows:

- To provide a retail development that meets the current unmet demand for goods and services and entertainment from consumers residing in the trade area for the City of Morgan Hill and from future residential developments;

- To provide a commercial retail shopping center that serves both the local and regional market area to attract new customers and retailers into the City of Morgan Hill;

- To provide a commercial development that results in a net fiscal benefit to the City of Morgan Hill by generating new sales tax revenue from Morgan Hill residents as well as non-residents attracted to the shopping center, and by increasing property tax revenues;

- To provide a commercial retail shopping center on a large, undeveloped lot in close proximity to an existing highway, near other commercial centers and residential areas, in order to minimize travel lengths and utilize existing infrastructure to the extent possible;

- To provide a commercial center of at least 50 net acres to provide sufficient development area to allow a mixture of uses (including lifestyle and/or entertainment attractions) to create a destination commercial center that will attract various types of customers to the City;

- To create an atmosphere of fun, entertainment, and relaxation for customers in addition to a shopping experience;

- To provide a commercial development that can be adequately served by public services and utilities in a feasible manner;

- To substantially reduce sales dollar leakage out of the City of Morgan Hill;

- To provide a commercial development that creates new jobs for City residents; and

- To complete the development of a large scale retail shopping center on the subject property in a manner substantially consistent with the goals and policies of the City's General Plan Designation as `Commercial – Sub-Regional Commercial Site Overlay´ and its Zoning Designation as `PUD (HC).´

These objectives are critical in the evaluation of the comparative merits of the Project Alternatives in Section 4.0 of this EIR.

2.5 Project Characteristics

This section provides a summary of the primary characteristics of the proposed project based on project plans and information provided by the project applicant.

The proposed project would include demolition of approximately three residential structures and associated outbuildings, removal of approximately 118 trees and vegetation, and construction of a commercial/retail center at the project site. The proposed project would be comprised of a 657,250 square foot major commercial/retail center that consists of two large anchor stores, including the relocation and expansion of the existing `Target´ store (currently located at the Cochrane Plaza Shopping Center at the southwest corner of U.S. Highway 101/Cochrane Road interchange) into a 123,800 square foot store, and construction of a 140,000 square foot large anchor store; ten major commercial/retail stores, which would range in size from 16,000 to 30,000 square feet; 13 retail stores and/or restaurants that would range in size from 4,000 to 12,000 square feet; eight retail/restaurant pads that would range in size from 3,500 to 7,500 square feet; a 63,200

square foot multi-plex cinema with up to 14 screens; and a 10,400 square foot garden center that would be attached to the 140,000 square foot anchor store. **Table 2-1** summarizes the proposed uses for the project site.

TABLE 2-1
PROPOSED LAND USES

Land Use	Number of Structures	Square Footage
Large Anchor Store #1 (Target)	1	123,800*
Large Anchor Store #8	1	140,000
Major Commercial/Retail Stores #2 - #7 and #9 - #12	10	192,950
Shops A to M	13	90,400
Retail/Restaurant Pads #1 to #8	8	36,500**
Cinema (14 screens and 3,000 seats)	1	63,200
Garden Center	1	10,400
Total	**35**	**657,250**

* The proposed Target store will not include a full-size grocery store.

** Pad #2 (6,000 square feet) contains an option for a 12-position fuel station, 1,600 square foot convenience market, and 600 square foot car wash.

The project applicant assumes that there would be a mix of retail uses and restaurants. The proposed site plan illustrates that Pad #2 would either consist of 6,000 square feet of commercial/retail space or a fuel station as an optional use. The optional 12-position fuel station would include a 1,600 square foot convenience store and a 600 square-foot car wash. The site plan for the proposed project is shown in **Figure 2-8**. Although a cinema is proposed on the site plan, it is speculative at this time. Nonetheless, a cinema was included in the EIR analysis to represent a worst-case or conservative analysis.

The height of the majority of the buildings at the project site would be between 28 feet and 36 feet. Elevations and schematic building designs of the proposed structures are shown in **Figure 2-9.**

Landscaping

As shown in the Conceptual Landscape Plan in **Figure 2-10**, the proposed project includes planting approximately 923 trees, as well as shrubs and accent plants within the parking areas and adjacent to the proposed commercial/retail uses. The trees proposed for the project site are listed in **Table 2-2**.

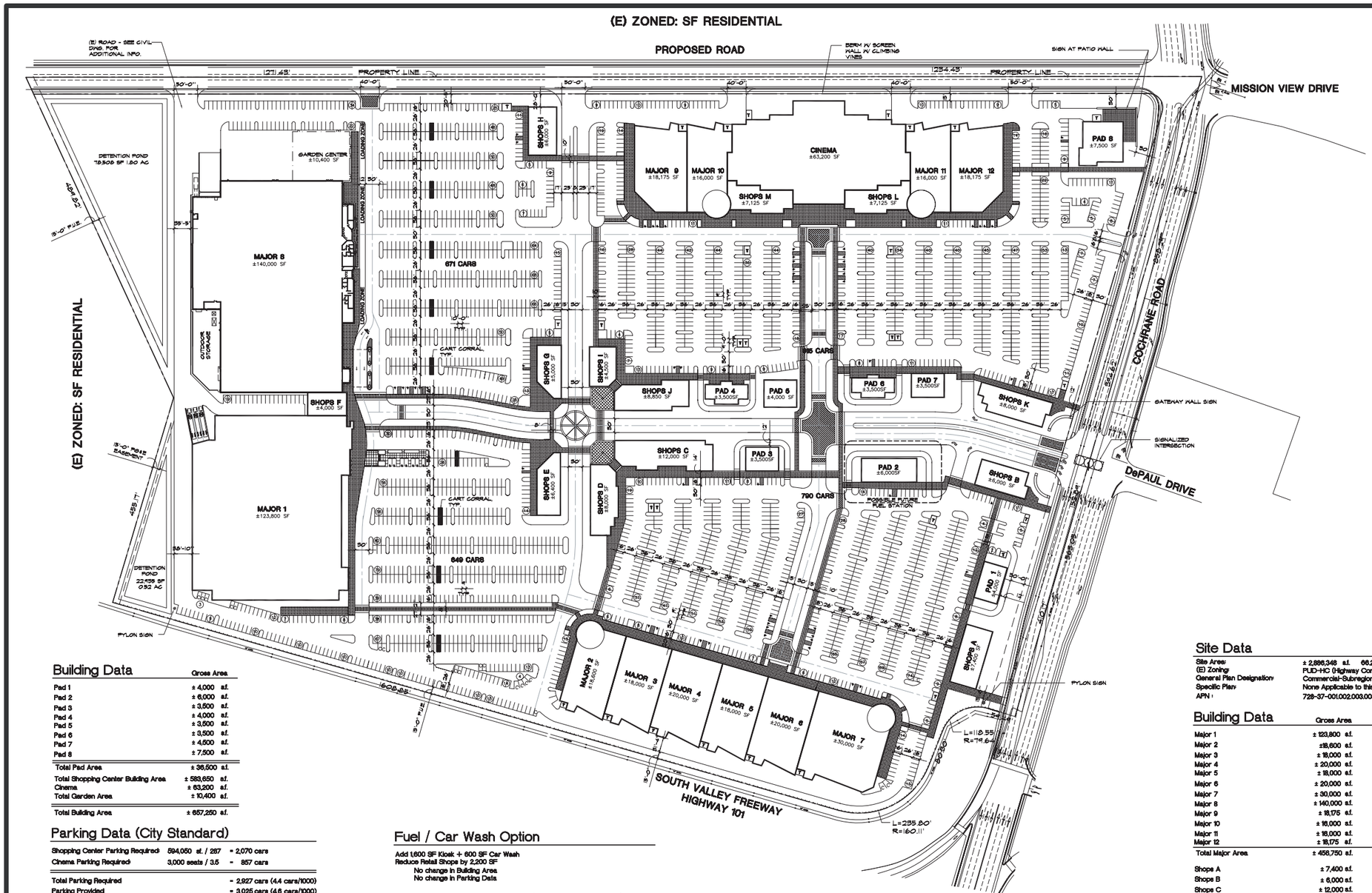
TABLE 2-2
PROPOSED TREE PLANTING

Common Name	Scientific Name	Count
Live Oak (Multi-Trunk)	*Quercas Agrifolia*	23
Coast Redwood	*Sequoia Sempervirens 'Soquel'*	79
Hackberry	*Celtis Occidentalis*	96
White Birch (Multi-Trunk)	*Betula Pendula*	28
Chinese Pistache	*Pistachia Chinesis*	63
Flowering Pear	*Pyrus Calleryana 'Aristocrat'*	156
Evergreen Elm	*Ulmus Parvifolia*	108
Red Oak	*Quercas Rubra*	45
Crape Myrtle	*Lagerstroemia 'Natchez' Tree Form*	79
Crabapple	*Malus Prairiefire*	71
Carrier Hawthorne	*Crataegus Lavallei*	52
Majestic India Hawthorne	*Rhaphiolepis 'Majestic' Tree Form*	123
	TOTAL	**923**

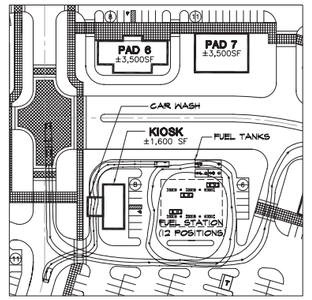
Source: James Fergusen Clabaugh Landscape Architects

Shrubs and accent plants proposed in the Conceptual Landscape Plan include: Varigated Tobria (*Pittosporum Tobira 'Varigata'*), Maiden Grass (*Miscanthus Sinensis 'Gracillimus'*), Pink Indian Hawthorne (*Rhaphiolepis 'Jack Evans'),* White Indian Hawthorne (*Rhaphiolepis* 'Clara'), Dwarf Crape Myrtle (*Lagerstroemia Petite Hybrids*), Dwarf Carolina Laurel Cherry (*Prunus Caroliniana 'Compacta'*), Dwarf Escallonia (*Escallonia 'Terri')*, White Iceberg Rose (*Roas 'Iceberg'*), Red Photinia (*Photinia Fraseri*), Italian Buckthorn (*Rhamnus Alaternus*), Deer Grass (*Muhlenbergia Rigens*), Dwarf Fountain Grass (*Pennisetum Alopercuriodes 'Hamelin'*), and Red Fountain Grass (*Pennisetum Setaceum Rubrum*). Ground covers include: Prostrate Cotoneaster (Cotoneaster 'Lowfast'), Star Jasmine (*Trachelospermum Jasminoides*), Purple Leaf Winter Creeper (*Euonymous Fortunei 'Colorat'*), Prostrate Myoporum (*Myoporum Parvifolium 'Putah Creek')*), White Lantana (*Lantana Montevidensis 'White'*), and Red Fescue Sod Grass (unmowed).

Landscaped setback areas are proposed along all the exterior site boundaries, including installation of four to five-foot evergreen shrubbery, which would be located along the western border of the project site adjacent to U.S. Highway 101; mounded berms of turf grass located along the Cochrane Road frontage of the project site, and a six-foot high split

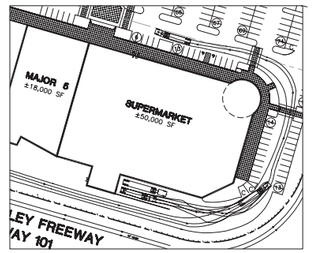


VICINITY MAP



FUEL/CAR WASH OPTION IN LIEU OF PAD 2

SCALE: 1:80



SUPERMARKET IN LIEU OF MAJOR 6 + 7

SCALE: 1:80

Building Data

	Gross Area
Pad 1	± 4,000 s.f.
Pad 2	± 6,000 s.f.
Pad 3	± 3,500 s.f.
Pad 4	± 4,000 s.f.
Pad 5	± 3,500 s.f.
Pad 6	± 3,500 s.f.
Pad 7	± 4,500 s.f.
Pad 8	± 7,500 s.f.
Total Pad Area	± 36,500 s.f.
Total Shopping Center Building Area	± 583,650 s.f.
Cinema	± 63,200 s.f.
Total Garden Area	± 10,400 s.f.
Total Building Area	± 657,250 s.f.

Parking Data (City Standard)

Shopping Center Parking Required:	594,050 sf. / 287	= 2,070 cars
Cinema Parking Required:	3,000 seats / 3.5	= 857 cars
Total Parking Required		= 2,927 cars (4.4 cars/1000)
Parking Provided		= 3,025 cars (4.6 cars/1000)

Supermarket Alternative

Substitute 50,000 SF Supermarket for Majors 6 + 7
No change in Total Building Area

Shopping Center Parking Required:	544,050 sf. / 287	= 1,896 cars
Cinema Parking Required:	3,000 seats / 3.5	= 857 cars
Supermarket Parking Required:	50,000 sf. / 250	= 200 cars
Total Parking Required		= 2,953 cars (4.5 cars/1000)
Parking Provided		= 3,025 cars (4.6 cars/1000)

Fuel / Car Wash Option

Add 1,600 SF Kiosk + 600 SF Car Wash
Reduce Retail Shops by 2,200 SF
No change in Building Area
No change in Parking Data

Parking Requirements (City Standard)

Shopping Center	3.48 cars / 1000 sf.	= 1 car / 287 sf.
Cinema:	.22 cars / seat	= 1 car / 3.5 seats
Supermarket:	5.24 cars / 1000 sf.	= 1 car / 250 sf.

Parking Standards (City Standard)

Standard Parking = (9'x18') w/ 24' Overhang
Compact Parking = (8'x16') w/ 24' Overhang
• Aisle Width = 25'-0"
• 26'-0" Aisles shown on plan

Site Data

Site Area:	± 2,886,348 s.f. 66.26 AC±
(E) Zoning:	PUD-HC (Highway Commercial)
General Plan Designation:	Commercial-Subregional Commercial Site Overlay
Specific Plan:	None Applicable to this Site
APN:	728-37-001,002,003,004,005,007

Building Data

	Gross Area
Major 1	± 123,800 s.f.
Major 2	±18,600 s.f.
Major 3	± 18,000 s.f.
Major 4	± 20,000 s.f.
Major 5	± 18,000 s.f.
Major 6	± 20,000 s.f.
Major 7	± 30,000 s.f.
Major 8	± 140,000 s.f.
Major 9	± 18,175 s.f.
Major 10	± 16,000 s.f.
Major 11	± 16,000 s.f.
Major 12	± 18,175 s.f.
Total Major Area	± 456,750 s.f.
Shops A	± 7,400 s.f.
Shops B	± 6,000 s.f.
Shops C	± 12,000 s.f.
Shops D	± 5,000 s.f.
Shops E	± 6,400 s.f.
Shops F	± 4,000 s.f.
Shops G	± 6,000 s.f.
Shops H	± 6,000 s.f.
Shops I	± 4,500 s.f.
Shops J	± 8,850 s.f.
Shops K	± 8,000 s.f.
Shops L	± 7,125 s.f.
Shops M	± 7,125 s.f.
Total Shops Area	± 90,400 s.f.

Source: Craig & Grant Architects

Site Plan, April 2005

0 40 80 160

FIGURE 2-8
SITE PLAN

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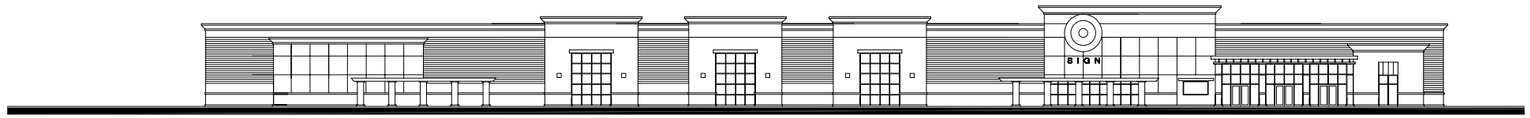
SHOPS
(+/-) 7,125 S.F.

CINEMA FRONT ELEVATION (EAST)
(+/-) 63,200 S.F.

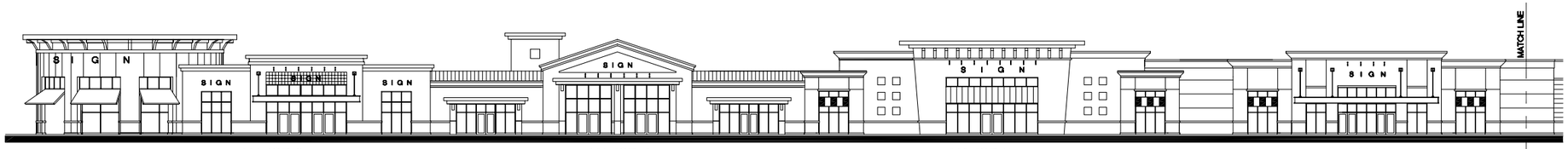
SHOPS
(+/-) 7,125 S.F.

MAJOR 5
(+/-) 16,000 S.F.

MAJOR 6
(+/-) 18,175 S.F.



MAJOR 1 ELEVATION (SOUTH)

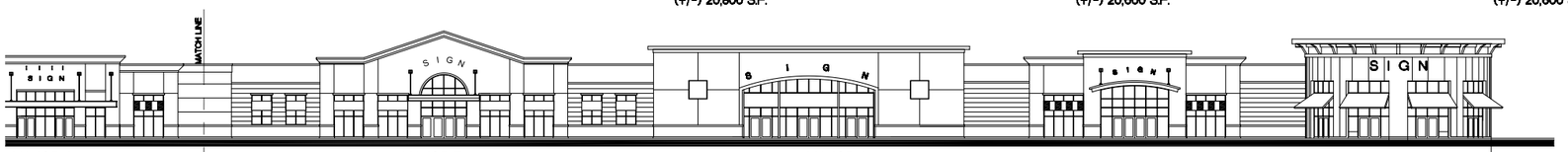


MAJOR 3
(+/-) 20,800 S.F.

MAJOR 4
(+/-) 20,600 S.F.

MAJOR 5
(+/-) 20,600 S.F.

MAJOR 6
(+/-) 20,600 S.F.



MAJOR 6
(+/-) 20,600 S.F.

MAJOR 7
(+/-) 23,400 S.F.

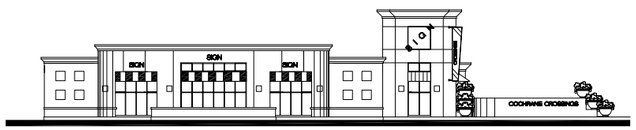
MAJOR 8
(+/-) 17,200 S.F.

MAJOR 9
(+/-) 18,900 S.F.

SHOPS O
(+/-) 9,200 S.F.

SHOP C SOUTH ELEVATION

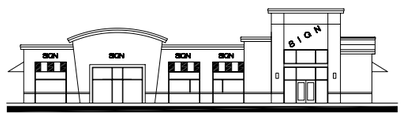
SHOP A SOUTH ELEVATION



SHOP A WEST ELEVATION

ALTERNATIVE SHOPS END ELEVATION

ALTERNATIVE SHOPS END ELEVATION



ALTERNATIVE SHOPS SIDE ELEVATION

Source: Craig & Grant Architects

Conceptual Elevations, April 2005

0 4 8 32

FIGURE 2-9
CONCEPTUAL ELEVATIONS

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SUGGESTED PLANT LIST

TREES:	COUNT
QUERCUS AGRIFOLIA MULTI TRUNK LIVE OAK	23
SEQUOIA SEMPERVIRENS 'SOQUEL' COAST REDWOOD	80
CELTIS OCCIDENTALIS HACKBERRY	96
BETULA PENDULA MULTI TRUNK WHITE BIRCH	30
PISTACHIA CHINENESIS CHINESE PISTACHE	63
PYRUS CALLERYANA 'ARISTOCRAT' FLOWERING PEAR	154
ULMUS PARVIFOLIA EVERGREEN ELM	108
QUERCUS RUBRA RED OAK	43
LAGERSTROEMIA 'NATCHEZ' TREE FORM CRAPE MYRTLE	97
MALUS 'PRAIRIEFIRE' CRABAPPLE	71
CRATAEGUS LAVALLEI CARRIERE HAWTHORNE	52
RHAPHIOLEPIS 'MAJESTIC' TREE FORM MAJESTIC INDIA HAWTHORNE	130
TOTAL COUNT:	947

SHRUBS AND ACCENTS:		GROUND COVERS:
PITTOSPORUM TOBIRA 'VARIGATA' VARIGATED TOBIRA	ROAS 'ICEBERG' WHITE ICEBERG ROSE	COTONEASTER 'LOWFAST' PROSTRATE COTONEASTER
MISCANTHUS SINENSIS 'GRACILLIMUS' MAIDEN GRASS	PHOTINIA FRASERI RED PHOTINIA	TRACHELOSPERMUM JASMINOIDES STAR JASMINE
RHAPHIOLEPIS 'JACK EVANS' PINK INDIA HAWTHORNE	RHAMNUS ALATERNUS ITALIAN BUCKTHORN	EUONYMOUS FORTUNEI 'COLORAT' PURPLE LEAF WINTER CREEPER
RHAPHIOLEPIS 'CLARA' WHITE INDIA HAWTHORNE	MUHLENBERGIA RIGENS DEER GRASS	MYOPORUM PARVIFOLIUM 'PUTAH CREEK' PROSTRATE MYOPORUM
LAGERSTROEMIA PETITE HYBRIDS DWARF CRAPE MYRTLE	PENNISETUM ALOPECURIOIDES 'HAMELIN' DWARF FOUNTAIN GRASS	LANTANA MONTEVIDENSIS 'WHITE' WHITE LANTANA
PRUNUS CAROLINIANA 'COMPACTA' DWARF CAROLINA LAUREL CHERRY	PENNISETUM SETACEUM RUBRUM' RED FOUNTAIN GRASS	RED FESCUE SOD GRASS (UNMOWED)
ESCALLONIA 'TERRI' DWARF ESCALLONIA		

Source: James Ferguson Clabaugh

Conceptual Landscaping Plan, April 2005

FIGURE 2-10
CONCEPTUAL LANDSCAPING PLAN

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fence screen wall and 11-foot high trellis that would be planted with climbing vines, placed on a three to four-foot high berm located along the eastern boundary of the project site adjacent to the proposed Mission View Drive extension. The proposed landscaped berm and screening wall would be located at the back side of the buildings and loading and unloading areas, and would provide for screening of headlight glare from the project site to existing and future residential development located to the east of the project site. The stormwater detention ponds located in the northern portion of the project site would be planted with non-irrigated erosion control grass mix and lined with four to five-foot evergreen shrubs along the perimeter of the ponds. The final landscaping plan would be subject to review and approval by the City of Morgan Hill Architectural Review Board.

Signage

The proposed project includes a gateway wall sign on each side of the main entrance to the project site along Cochrane Road. The proposed project proposes two freeway signs along U.S. Highway 101, one located near Major 1 and the other near Shop A, as shown on the Conceptual Landscaping Plan in **Figure 2-10**. These freeway signs would highlight the major tenants of the proposed commercial center. All project signage would be required to conform to the *City or Morgan Hill Planning and Zoning Codes* and would be subject to review and approval by the City Council and Architectural Review Board.

Operations

Employees. The proposed project would employ approximately 710 to 945 people, only some of whom would be working at the project site at any one time. Employment counts are based on an assumption of 150 and 200 employees at the proposed `Target´ store; between 150 and 200 employees at the other large anchor store; and between 410 and 545 employees in the balance of the proposed uses at the project site.

Hours of Operation. The proposed `Target´ store would operate from 8:00 a.m. to 10:00 p.m. Monday through Saturday, and from 8:00 a.m. to 9:00 p.m. on Sundays. The second large anchor store is anticipated to operate from approximately 6:00 a.m. to 10:00 p.m. Monday through Saturday and from approximately 8:00 a.m. to 6:00 p.m. on Sundays. The proposed cinema would operate from approximately 11:00 a.m to Midnight, seven days a week. A majority of the retail stores and restaurants would not open any earlier than 5:00 a.m. and would close no later than 2:00 a.m. Some 24-hour businesses are anticipated, which could include drugstores, restaurants, and a gas station.

Deliveries. Estimated deliveries for the proposed `Target´ store would occur from 8:00 a.m. to noon for local vendors Monday through Friday, and 4:00 p.m. to 10:00 p.m. for `Target´ deliveries Monday through Sunday. All deliveries to the second large anchor store use are anticipated to occur during store hours and no deliveries are anticipated to occur between 10:00 p.m. and 6:00 a.m.

Infrastructure Components and Off-site Improvements

Site Access and On-Site Circulation

According to the preliminary site plan shown in **Figure 2.8**, the main project driveway on Cochrane Road would form the new north leg of the Cochrane Road/De Paul Drive intersection and provide full access (left and right-turns in and out). The site plan indicates that Mission View Drive would be extended northward and six project driveways on this street would be provided. The southernmost driveway on Mission View Drive would be limited to right-turns in and out. The remaining five driveways would have full access to the project site.

The proposed project includes signalization of the Cochrane Road/De Paul Drive intersection. The proposed project includes the following lane geometry:

- Northbound (De Paul Drive): one shared left/through lane and one right-turn lane.
- Westbound (Cochrane Road): one left-turn lane, two through lanes, and one right-turn lane.
- Southbound (project driveway): one shared left/through lane and two right-turn lanes with a separate overlap phase.
- Eastbound (Cochrane Road): two left-turn lanes, one through lane, and one shared through/right-turn lane.

The proposed project would also construct one-half of the ultimate planned width of the extension of Mission View Drive north of Cochrane Road along the project frontage. The following lane configuration is assumed for the unsignalized intersection at Cochrane Road/Mission View Drive:

- Northbound and Southbound (Mission View): one left-turn lane and one shared through/right-turn lane.
- Westbound (Cochrane Road): one left-turn lane and one shared through/right-turn lane.
- Eastbound (Cochrane Road): one shared left-turn/through lane and one right-turn lane.

Parking

The proposed project includes approximately 3,025 parking spaces, as shown in the site plan in **Figure 2-8**.

Utilities

All project utility lines would be located underground and the seven pole-mounted transformers located throughout the project site would be removed by PG&E prior to site development. The proposed project will connect to existing sanitary sewer and domestic water mains in the vicinity of the project site. The preliminary utility plan is included as **Figure 2-11**.

Water. The proposed project includes capping the four on-site wells that currently service the project site and extending 12-inch water lines westward from the existing 10- and 12-inch water lines located beneath Cochrane Road into the project site. All water lines will be constructed in accordance with city standards and the City of Morgan Hill Water System Master Plan.

Wastewater. The proposed project includes new wastewater infrastructure in and around the project site. Wastewater improvements include the extension and addition of on-site sewer lines and the relocation of the existing Eagle View sub-trunk that would be located within the footprint of proposed structures. On-site sanitary sewer improvements would tie into existing sewer lines at the northern and southwestern edges of the project site, permitting passage of existing flow from the Eagle View sub-trunk, in addition to project generated sewage, through the project site and into the existing Cochrane sub-trunk manhole adjacent to the northbound on-ramp for U.S. Highway 101. Wastewater improvements will be constructed in accordance with city standards and the *City of Morgan Hill Sewer Service Master Plan*.

Stormwater. Stormwater drainage will be directed to catch basins located throughout the project site and will be conveyed via underground storm drain pipes to two stormwater detention ponds planned along the northern project boundary. The storm drain system design will incorporate City standards for pipe sizes, maximum slopes, minimum flow velocities, and pipe material, among other things. The detention basins will be sized in accordance with the City's detention design criteria, which is estimated to require a total detention capacity of 21.4 acre-feet for the proposed project. The larger detention pond planned for the project will have a storage capacity of 18.1 acre-feet, and the smaller pond has a planned capacity of 3.9 acre feet. Both stormwater drainage ponds will be 13-feet deep with gradients of 2:1 (horizontal to vertical). The sideslopes will be planted with non-irrigated turf grass. Stormwater would be temporarily stored in the planned detention ponds and pumped to the adjacent Cochrane Channel at discharge rates which are at or below pre-development levels, as required by the Santa Clara Valley Water District.

To facilitate positive site drainage, the building pads at the project site would be raised to one foot above existing ground elevations, with grades sloping away from the building pads toward the storm drain inlets in the parking areas. The elevated building pads will provide

flood projection from shallow flooding, which may occur on the site during the 100-year event.

During large storms such as the 100-year event, stormwater will back up at the storm drain inlets and be allowed to pond in the project parking areas. Final grades will be designed such that the resulting ponding depths will be less than one foot. In order to facilitate the conveyance of excess flood volumes from the project site, the proposed project will include overland release points to the north and northwest to direct surface flows toward Cochrane Channel.

Site Preparation and Demolition

The project applicant proposes to demolish all the existing buildings at the project site and remove 118 trees, of which five trees fall under the criteria of the City of Morgan Hill Ordinance Section 12.32.070. Grading associated with the proposed project would result in a total raw cut of 73,400 cubic yards of soil that would result in a total cut volume of 53,463 cubic yards after approximately 26 percent shrinkage. The total raw fill would be 53,500 cubic yards of soil. Therefore, there would be an approximate balance of fill at the project site. The grading plan for the proposed project is shown in **Figure 2-12**.

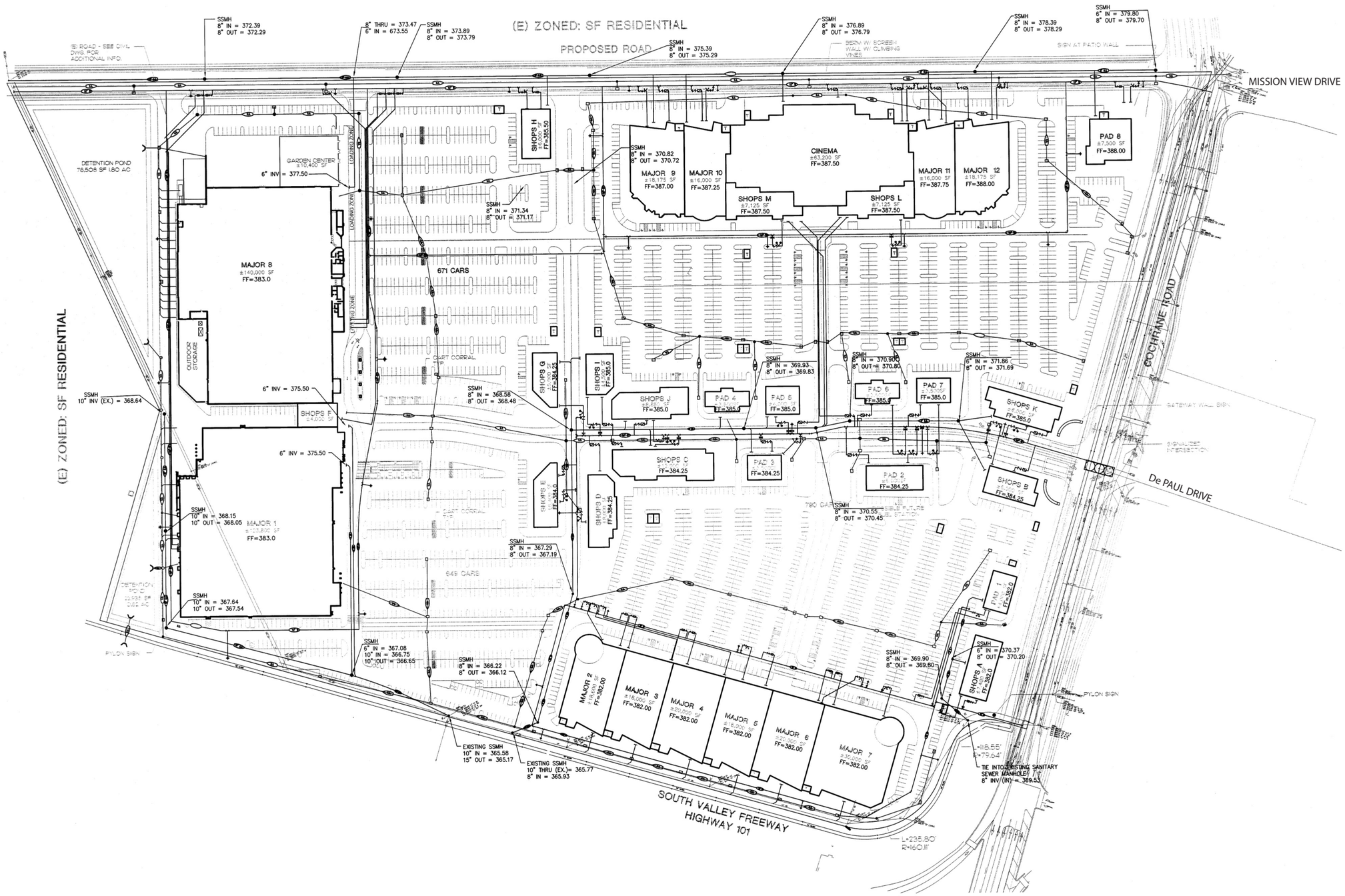
Project Phasing

Construction of the first phase of the proposed project would begin in September 2005 with the first building pad for the 'Target' store completed in November 2006. The first phase of the project would be complete in September 2007, with full build-out of the proposed project by 2010. The remaining building pads would be completed as tenants are secured at the project site.

2.7 Requested Actions and Required Approvals

This EIR provides the environmental information and analysis and primary CEQA documentation necessary for the City to adequately consider the effects of the requested development proposal. The City of Morgan Hill, as lead agency, has approval authority and responsibility for considering the environmental effects of the proposed project as a whole. In order to implement the proposed project, an application has been submitted to the City of Morgan Hill. Actions that would be taken relative to the project evaluated in this EIR include:

- General Plan Amendment;
- Zoning Amendment;
- Conditional Use Permits;
- Tentative Map;
- Architectural and Site Plan Review;



Source: RSC Engineering

Preliminary Utility Plan, April 2005

FIGURE 2-11
PRELIMINARY UTILITY PLAN

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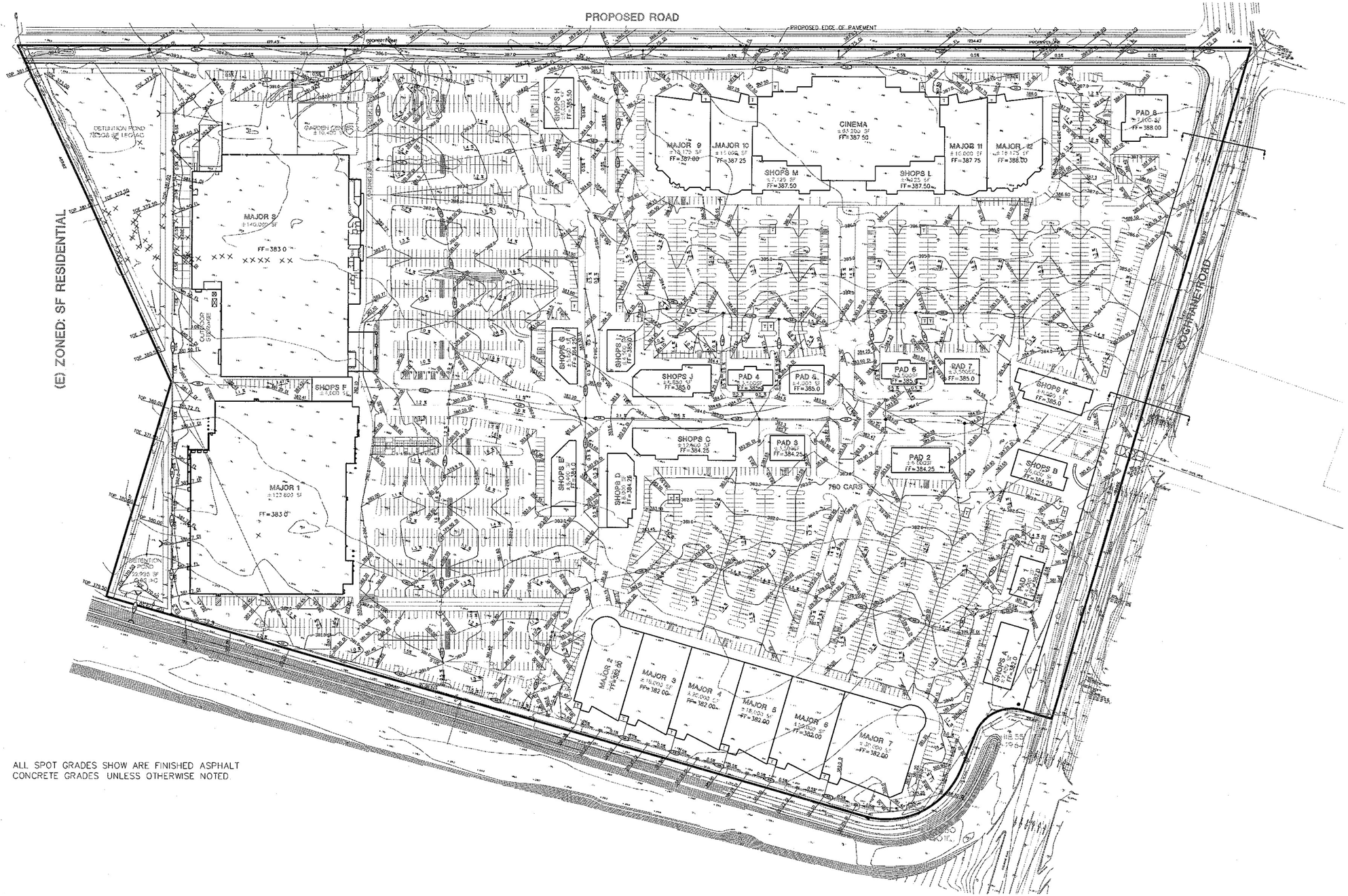

NOTE: ALL SPOT GRADES SHOW ARE FINISHED ASPHALT CONCRETE GRADES UNLESS OTHERWISE NOTED.

Source: RSC Engineering

Preliminary Grading Plan, April 2005

FIGURE 2-12
PRELIMINARY GRADING PLAN

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- Tree Removal Plan;
- All final improvement plans;
- Grading and building permits;
- Development Agreement; and/or
- All related subsequent actions to the greatest extent possible.

REFERENCES/DOCUMENTATION

Governor's Office of Planning and Research, State of California. *Guidelines for Implementation of the California Environmental Quality Act,* as amended. 2005.

Morgan Hill, City of. *Morgan Hill General Plan*. July 25, 2001 (Updated July 2004).

Morgan Hill, City of. *Notice of Preparation of a Draft Environmental Impact Report*. November 12, 2004.

Morgan Hill, City of. *City of Morgan Hill Planning and Zoning Codes*. November 2004.

Tolentino, Rebecca. Associate Planner, City of Morgan Hill. Personal Communication, April 7, 2005.

Twining Laboratories, Inc. *Phase I Environmental Site Assessment, Northeast of Interstate 101 and Cochrane Road, Morgan Hill, Santa Clara County, California*. June 2004.

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This section of the EIR discusses the impacts of the project on aesthetics and visual character of the existing environmental setting, including the aesthetic qualities of the project site and the overall change in character of the project area with implementation of the proposed project. The primary visual and aesthetic concerns include the change in character of the project site from rural residential and agricultural uses to commercial uses, and the potential impacts to views from adjacent viewpoints, including U.S. Highway 101, the Cochrane Road interchange, and surrounding properties. Visual impacts were evaluated using a combination of a site reconnaissance, photo documentation, aerial photographs, and review of existing policy documents, including the *City of Morgan Hill General Plan*.

3.1.1 EXISTING ENVIRONMENTAL SETTING

REGIONAL SETTING

The City of Morgan Hill is located in the southern portion of the County of Santa Clara, approximately 12 miles south of the City of San José and ten miles north of the City of Gilroy. The southern Santa Clara Valley is approximately four miles wide with predominantly flat terrain. Important visual features include the surrounding Santa Cruz Mountain Range to the west and the Diablo Mountain Range to the east.

The City of Morgan Hill has grown into a mid-size city with a small downtown area and high-quality residential neighborhoods. The City has developed relatively slowly over the past 25 years, due to a voter-approved Residential Development Control System which limits residential development to approximately 250 units per year. Therefore, the City is characterized by urbanized areas interspersed with areas designated for development but not which have not yet been developed.

Of the approximately 21,700 acres within the City's sphere of influence, less than 3,400 are developed with residential, commercial, or industrial uses. The *City of Morgan Hill General Plan* provides for an additional 3,400 acres of urban development. In 1996, the City Council adopted a long-term Urban Growth Boundary (UGB), which differentiates land within the Sphere of Influence intended for future urbanization from land intended to remain rural and unincorporated for the next 20 years (Morgan Hill 2004). The UGB in combination with other General Plan policies has resulted in a delineation between rural County land uses and the urban area within the UGB, as well in protection of open space on hillsides. The delineation of urban, rural, and undeveloped hills are key aspects of Morgan Hill's community character.

3.1 AESTHETICS

VISUAL CHARACTER OF THE PROJECT SITE

The project site is located on the northeast corner of the intersection of the U.S. Highway 101 and Cochrane Road interchange at the northern edge of the City of Morgan Hill. The Cochrane Road/U.S. Highway 101 interchange serves as the northern gateway of the City of Morgan Hill. The topography of the project site is relatively flat with a site elevation of approximately 390 feet to 380 feet above mean sea level, from east to west. The project site contains approximately 118 trees, primary black walnut, that are scattered throughout the site.

The 66.49-acre project site is generally level and consists of five irregular-shaped parcels under ownership by three separate landowners: the Millerd-Low property (Assessors Parcel Number: 728-37-001), Guglielmo property (Assessors Parcel Numbers: 728-37-002, -005, -007); and Sullivan property (Assessor Parcel Number 728-37-004). Improvements on the Millerd-Low property consists of a 12-acre parcel located at the northeast corner of the project site. The project site is occupied by a horse boarding facility, two residences, and seven out-buildings including a garage, tack rooms, a pump house, a restroom, and a hay barn. The remainder of this parcel consists of fenced pastureland. The Guglielmo property consists of three irregularly-shaped parcels totaling 38-acres in the central and southern portions of the project site. Existing improvements include a small vineyard located in the northern portion of the property and row crops in the southern part of the property. A residence and associated barn and pump house are located in the central area of the property. The Sullivan property comprises 16.5 acres located in the western portion of the site. This parcel is being dry farmed for wheat and contains no structures or other site improvements. Photographs which show the existing rural residential and agricultural character of the project site are shown in **Figures 2-5** and **2-6** in Section 2, Project Description of this EIR.

Surrounding Land Uses

The project site is located within the city limits of Morgan Hill at the edge of the UGB, which borders the project site to the north. Surrounding land uses include vacant land planned for commercial uses and the De Paul Health Center (formerly the Saint Louise Hospital) located to the south; unincorporated County land currently in agricultural use located within the City's sphere of influence and vacant land located within the city limits designated 'Single-Family Medium' in the *City of Morgan Hill General Plan* located to the east; unincorporated County land, currently in agricultural use located within the City's sphere of influence designated `Rural County´ in the *City of Morgan Hill General Plan* located to the north; and U.S. Highway 101 and the SCVWD drainage channel located west of the project site. Although the project site is undeveloped and currently used for agricultural purposes, the area west of the U.S. Highway 101/Cochrane Road interchange is developed primarily with commercial uses, including the Cochrane Plaza shopping center located at the southwest quadrant of this intersection, and a Chevron Station, two hotels,

two vacant restaurant pads, and the Madrone Business Park, located at the northwest quadrant of this intersection. Surrounding land uses are shown in the aerial photograph presented in **Figure 2-7** in Section 2, Project Description of this EIR.

SCENIC VISTAS, PUBLIC VIEWS, AND SIGNIFICANT VISUAL FEATURES

Scenic vistas, public views, and significant features are visually important aesthetic qualities of value to the community. These may include beaches, waterways, rolling hills, fields or mountains that comprise an overall visual essence of a region.

The Diablo Mountain Range to the east of the project site forms a scenic backdrop to the project site and represents the dominant visual feature in the area. Additional scenic resources in the vicinity of the project site include the southern edge of the Coyote Creek Parkway located approximately 2,000 feet east of the project site and the Anderson Lake Reservoir located approximately 3,000 feet east of the project site. The project site is not designated as the location of a scenic vista in the *City of Morgan Hill General Plan* or the *County of Santa Clara General Plan;* however, Policy 14a in the *City of Morgan Hill General Plan* designates the Cochrane Road/U.S. Highway 101 interchange as a northern gateway to the City of Morgan Hill, defined as a "key location where people enter and leave the City or its distinct districts." As such, the *City of Morgan Hill General Plan* calls for enhancing the visual integrity of the gateways of the City, through public improvements that express a pleasant welcome and through use of specific design standards for private development at the gateways, which address the site, landscaping, architecture, and glass.

The project site is visible from several public vantage points, including both southbound and northbound U.S. Highway 101, Cochrane Road, and surrounding land uses. Views from northbound U.S. Highway 101 are slightly obscured by the Cochrane Road overpass, existing vegetation, and the depressed nature of the freeway. Photographs of the project site from U.S. Highway 101 and the Cochrane Road overpass are presented in **Figures 3.1-1A** and **3.1-1B**. While the project site can be considered a gateway site, subject to careful design review, it is not considered a significant visual resource or component of community character.

LIGHT AND GLARE

The terms "glare" and "skyglow" are used to describe the visual effects of lighting in the project area. For the purposes of this analysis, glare is considered to be direct exposure of bright lights and skyglow is a glow that extends beyond the light source and dominates or partially dominates views above the horizon.

Lighting could be perceived as a nuisance by anyone accustomed to the normal darkness of night in a rural area. In general, nighttime lighting is of special concern to observatories, as it interferes with the ability to see stars and other outer space objects. The Lick

Observatory on Mount Hamilton is located approximately 12 miles northeast of the project site. According to Lick Observatory staff, the observatory prefers that outdoor lighting consist of low-pressure sodium lights, but high-pressure sodium lights with shielded fixtures are also acceptable to the observatory. Lighting in the project area is dominated by surrounding residential uses located east and commercial uses located west of the project site across U.S. Highway 101.

3.2.2 REGULATORY SETTING

The project site has a General Plan designation of `Commercial´ in the *City of Morgan Hill General Plan* and a zoning designation of `PUD (HC)´ in the *City of Morgan Hill Planning and Zoning Codes*. The *City of Morgan Hill General Plan* designates the project site as the location of a sub-regional commercial site. The project site has been designated for urban uses in the City of Morgan Hill General Plan since 1969 (Personal communication with Rebecca Tolentino, Associate Planner, City of Morgan Hill, April 7, 2005).

CITY OF MORGAN HILL GENERAL PLAN

The built environment in the City of Morgan Hill is not dominated by a single theme. The *City of Morgan Hill General Plan* emphasizes that the City's design standards incorporate a variety of styles and fundamental architectural ideas. Such standards can address building envelope, mass and scale, window and door placement, façade, roof shape, landscaping, parking and other issues. The following policies in the *City of Morgan Hill General Plan* are applicable to the proposed project:

Community Development

Goal 12 A visually attractive urban environment.

Policy 12b Discourage the use of "franchise architecture."

Policy 12c Improve the appearance of commercial developments by minimizing the amount of parking fronting the street.

Policy 12e Minimize the use of sound walls.

Policy 12f Landscape medians and public areas along major streets and Highway 101 using plant materials, wherever feasible.

Policy 12h Encourage installation of public art in new and renovated non-residential projects.

View of the project site from the Cochrane Road/U.S. Highway 101 Interchange.

View of the project site from the Northbound U.S. Highway 101 off-ramp to Cochrane Road.

Photographs of the Project Site, April 2005

FIGURE 3.1-1A
PHOTOGRAPHS OF THE PROJECT SITE

PMC

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View of the western portion of the project site from Southbound U.S. Highway 101.

View of the slope along the western edge of the project site on Northbound U.S. Highway 101.

Photographs of the Project Site, April 2005

FIGURE 3.1-1B
PHOTOGRAPHS OF THE PROJECT SITE

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Goal 14 Distinct, attractive gateways to the community.

Policy 14a Enhance the visual integrity of the gateways to the City such as the Madrone area north of Cochrane Road, the Cochrane Road/Monterey Road intersection, Monterey Road south of Watsonville Road, the Cochrane Road, Dunne, and Tennant freeway interchanges, and the railroad station.

Policy 14b Protect the visual integrity of the scenic gateways to the South County (Pacheco Pass, Hecker Pass, Route 101 south of Gilroy, and the Coyote greenbelt area north of Morgan Hill).

Policy 14.1 Develop and implement designs for public improvements at the key gateways to Morgan Hill including: Madrone area north of Cochrane Road, the Cochrane Road/Monterey Road intersection, Monterey Road south of Watsonville Road, the CalTrain station and freeway interchanges at Cochrane, Dunne and Tennant.

Policy 14.2 Develop, adopt and enforce Gateway Design Standards which set forth specific site, landscaping, architectural, and sign design standards for private development at and around the gateways to the community.

City of Morgan Hill Municipal Code

The proposed project would be subject to design review as established in Section 18.74 of the City of Morgan Hill Municipal Code. The purpose of Section 18.74, Design Review, of the City of Morgan Hill Municipal Code is to preserve and enhance the beauty and environmental amenities of the city by:

- Recognizing the interdependence of land values and aesthetics, and to provide a method by which the city may implement this interdependence to the community's benefit;
- Preserving and enhancing the natural beauties of the land and man-made environment, and the enjoyment thereof;
- Maintaining and improving the qualities of and relationships between individual buildings, structures and physical development in such a manner as to best contribute to the amenities and attractiveness of the city;
- Protecting and insuring the adequacy and usefulness of public and private developments as they relate to each other and the neighborhood area;
- Promoting and protecting the safety, convenience, comfort, prosperity and general welfare of the citizens of the city by:

- Stimulating creative design for individual buildings and structures, and other physical improvements;
- Encouraging the innovative use of materials, methods and techniques;
- Preserving balance and harmony within neighborhoods; and
- Integrating the functions, appearance and locations of buildings and improvements so as to best achieve a balance between private prerogatives and preferences and the public interest and welfare.

The standards addressed in design review include, but are not limited to: harmony of design; design theme; site design standards; mechanical equipment and utilities; energy conservation; wall treatments; doors and windows; lighting; grading and drainage; and parking and landscaping. These standards are initially implemented through staff review of project applications. Ultimately the Architectural Review Board (ARB) reviews all proposals for future developments to assure conformance with these design standards.

CALIFORNIA SCENIC HIGHWAY PROGRAM

The State Legislature created the California Scenic Highway Program in 1963. Its purpose is to preserve and protect scenic highway corridors from change, which would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in Section 260 of the Streets and Highways Code. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. U.S. Highway 101 is not designated a scenic highway in the vicinity of the project site.

3.1.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and standards used by the City of Morgan Hill. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

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

- Substantially degrade the existing visual character or quality of the site and its surrounding;
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

METHODOLOGY

The analysis of the potential aesthetic impacts is based upon review of a site visit and photographs taken of the project site and surrounding areas, background documents provided by the City of Morgan Hill including the *City of Morgan Hill General Plan*, City of *Morgan Hill General Plan EIR*, and *City of Morgan Hill Planning and Zoning Codes*. The aesthetic analysis also utilized the proposed site plan and elevations provided by the project applicant to assess potential visual impacts of the proposed project. This information was used in conjunction with forecasting the predicted effects of eventual urban development at this site.

PROJECT IMPACTS AND MITIGATION MEASURES

Degradation of a State Scenic Highway

The project site is located adjacent to U.S. Highway 101. U.S. Highway 101 is not considered a State Scenic Highway in the vicinity of the project site. Therefore, the proposed project would have **no impact** to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. No mitigation measures are necessary.

Substantial Degradation of the Visual Character or Quality of the Project Site and Surroundings

Impact 3.1-1 The proposed project would alter the project site from a rural residential and agricultural use to an urban use with construction of a 657,250 square foot commercial center at the U.S Highway 101/Cochrane Road interchange. This potential change in character at the project site and surrounding area is considered a **less than significant impact**.

The project site is located within the city limits of Morgan Hill at the edge of the UGB, which borders the project site to the north. Existing uses at the project site include rural residential homes and associated agricultural outbuildings; an equestrian facility; and year-round active agricultural land that has been in production since approximately 1917. Until approximately 1970, the project site was part of a larger prune ranch and walnut orchard.

3.1 AESTHETICS

The proposed project would include demolition of approximately three residential structures and associated outbuildings, removal of approximately 118 trees and vegetation, and construction of a commercial/retail center at the project site.

The proposed project would be comprised of a 657,250 square foot major commercial/retail center that consists of two large anchor stores, including the relocation and expansion of the existing `Target´ store (currently located at the Cochrane Plaza Shopping Center at the southwest corner of U.S. Highway 101/Cochrane Road interchange) into a 123,800 square foot store, and construction of a 140,000 square foot large anchor store; ten major commercial/retail stores, which would range in size from 16,000 to 30,000 square feet; 13 retail stores and/or restaurants that would range in size from 4,000 to 12,000 square feet; eight retail/restaurant pads that would range in size from 3,500 to 7,500 square feet; a 63,200 square foot multi-plex cinema with up to 14 screens; and a 10,400 square foot garden center that would be attached to the 140,000 square foot large anchor store. The proposed site plan is shown in **Figure 2-8**. Elevations and schematic building designs of the proposed structures are shown in **Figure 2-9.** According to the schematic elevations and building designs, the height of the majority of the buildings at the project site are anticipated to be between 28 feet and 36 feet. The proposed project includes approximately 3,025 parking spaces, which would be distributed among the commercial uses.

The proposed project includes implementation of a landscaping plan, which includes planting approximately 947 trees and shrubs at the project site. The conceptual landscaping plan is shown in **Figure 2-10**. The final landscaping plan would be subject to review and approval by the City of Morgan Hill Architectural Review Board. Landscaped setback areas are proposed along all the exterior site boundaries, including installation of four to five-foot evergreen shrubs, which would be located along the western border of the project site adjacent to U.S. Highway 101; mounded berms of turf grass located along the frontage of the project site with Cochrane Road; and a six-foot high split fence screen wall and 11-foot high trellis that would be planted with climbing vines, placed on a three to four-foot high berm along the eastern boundary of the project site adjacent to the proposed Mission View Drive extension. The landscaped berm and screening wall would provide for screening of headlight glare at the back side of buildings and loading and unloading areas from the project site to existing and future residential development located to the east of the project site. The stormwater detention ponds located in the northern portion of the project site would be planted with non-irrigated erosion control grass mix and lined with four to five-foot evergreen shrubbery along the perimeter of the ponds.

While the change from existing uses to a shopping center will change the character of the project site, this is not considered a "substantial degredation" because the City design review and project approval process will ensure that the proposed project is an improvement that meets City standards and does not degrade the visual quality of the City.

The proposed project would continue a pattern of contiguous urban development in this portion of the City of Morgan Hill. The project site has a General Plan designation of `Commercial´ in the *City of Morgan Hill General Plan* and a zoning designation of 'PUD (HC)' in the *City of Morgan Hill Planning and Zoning Codes*. Policy 10.1 in the *City of Morgan Hill General Plan* designates the project site as the location of a sub-regional commercial site. The project site has been designated for urban uses in the City of Morgan Hill General Plan since 1969 (Personal communication with Rebecca Tolentino, Associate Planner, City of Morgan Hill. April 7, 2005).

Viewpoints

The primary view of the project site would be from vehicles traveling along U.S. Highway 101 and Cochrane Road. Policy 14a in the *City of Morgan Hill General Plan* identifies the Cochrane Road freeway interchange with the highway as the northern gateway to the City from U.S. Highway 101. Gateway locations in the City of Morgan Hill require a higher level of design and are subject to review and approval by the Architectural Review Board, which would consider the project design, proposed landscaping and visibility of the proposed project from U.S. Highway 101.

Photographs of the project site from U.S. Highway 101 and the Cochrane Road overpass are presented in **Figures 3.1-1A** and **3.1-1B**. Views of the project site from these two viewpoints are described below:

Northbound U.S. Highway 101. Views from Northbound U.S. Highway 101 are obscured by the Cochrane Road overpass, existing vegetation, and the depressed nature of the freeway. The dominant visual feature from this viewpoint is the Diablo Mountain Range, which provides a scenic backdrop to the project site. With implementation of the proposed project, the rural residential uses and agricultural uses would be replaced with the proposed commercial center. The proposed project would further urbanize this area; however, the proposed project would not obscure the scenic backdrop of the Diablo Mountain Range from this viewpoint.

Southbound U.S. Highway 101. Due to the height and scale of the proposed project and the depressed nature of the highway, the proposed project would have greater visibility from vehicular traffic traveling on southbound U.S. Highway 101. Views from southbound U.S. Highway 101 include the rural residential and agricultural uses located at the project site and existing commercial and industrial uses located west of the highway. The proposed project would replace the rural residential and agricultural character of the project site with the proposed commercial use. The most dominant visual feature from this viewpoint would be the two large anchor stores located along the northern boundary of the project site, as well as the retail stores located along the western boundary of the project site with U.S. Highway 101. According to the Conceptual Landscaping Plan, four to five-foot evergreen shrubs would be located along the northern and western perimeter of the

project site. This landscaping would partially screen the proposed project from the highway; however, the height and scale of the proposed commercial development would change the visual character of the northeastern gateway to the City.

The *City of Morgan Hill General Plan* anticipated development of the project site with commercial uses and the change in character of the project site is not considered significant because the project site is not considered a key visual resource. Adjacent lands in unincorporated Santa Clara County will continue to provide a sense of rural character beyond the city limit. The City review and approval processes, including review of the proposed project by the Architectural Review Board (ARB) to ensure conformance with the City's design and landscaping standards would ensure that the improvements do not substantially degrade the visual quality of the City from Southbound U.S. Highway 101. Therefore, the proposed project would result in **less than significant impact** on the existing rural character of the area.

Light and Glare

Impact 3.1-2 The proposed project would introduce new sources of lighting that could adversely affect the existing and proposed development in the vicinity of the project site. The increased residual glare and light is considered a **potentially significant impact**.

Construction of the proposed project would result in the introduction of new sources of nighttime lighting. A detailed lighting plan is not available at this stage of development; however, new light sources include, but are not limited to, street and parking lot lighting, interior building lighting for the commercial uses, and security lighting. Stationary light sources have the potential to adversely affect adjacent properties through a "spillover" effect.

New light sources would result in a greater overall level of light at night adjacent to the project area, thus reducing night sky visibility, affecting the Lick Observatory on Mount Hamilton, and affecting the general character of the area. If lighting associated with the proposed project is not consistent with Section 18.74.370 of the City of Morgan Hill Municipal Code and does not include cut-off features and/or shields that would reduce the effects of light and glare on surrounding neighborhoods and the Lick Observatory on Mount Hamilton, this could be considered a **potentially significant impact.**

Mitigation Measure

MM 3.1-1 The project applicant shall prepare and submit a detailed exterior lighting plan that indicates the location and type of lighting that will be used at the project site. The lighting plan shall be consistent with Section 18.74.370 of the City of Morgan Hill Municipal Code. All external

lighting shall be indicated on project improvement plans, subject to review and approval by the City of Morgan Hill.

Preparation and implementation of a detailed exterior lighting plan for the proposed project would reduce this impact to a **less than significant level** by minimizing potential light and glare at the project site and on surrounding areas.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Degradation of Visual Character

Impact 3.1.3 The proposed project in combination with cumulative development would add to the urbanization of the project area, resulting in a visual change within the City of Morgan Hill. This is considered **a less than significant cumulative impact**.

The proposed project in combination with cumulative development would continue to urbanize the City of Morgan Hill. The *City of Morgan Hill General Plan* anticipated the future development of the project site with commercial uses. The overall change in the visual character of the project site from rural residential and agriculture to a 657,250 square foot shopping center would result in a permanent change, but this is not considered a significant impact in that the project site is not considered a significant visual resource in the *City of Morgan Hill General Plan* and the City review and approval processes will ensure that the improvements do not substantially degrade the visual quality of the City. Adjacent County lands would continue to provide the sense of rural character beyond the city limits. Policies in the *City of Morgan Hill General Plan* that emphasize preservation of the rural environment, implemented over time, would address cumulative visual effects resulting from growth in the city limits. Therefore, the proposed project's contribution to the cumulative degradation of visual character in the region would be considered **less than significant.**

REFERENCES/DOCUMENTATION

California Department of Transportation Scenic Highway website: http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm

Morgan Hill, City of. *City of Morgan Hill General Plan*. July 25, 2001 (Updated July 2004).

Morgan Hill, City of. *City of Morgan Hill General Plan EIR*. March 22, 2001.

Morgan Hill, City of. *City of Morgan Hill Planning and Zoning Codes*. November 2004.

Tolentino, Rebecca. Associate Planner, City of Morgan Hill. Personal Communication, April 7, 2005.

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This section describes the agricultural resources at the project site and in the project vicinity, and the subsequent impact to agricultural resources with implementation of the proposed project. The California Department of Conservation's *California Agricultural Land Evaluation and Site Assessment Model* (LESA), as recommended in Appendix G of the CEQA Guidelines, was utilized to assess impacts of the conversion of prime agricultural land. Sources utilized to prepare this section of the EIR include the *City Morgan Hill General Plan*, *City of Morgan Hill General Plan EIR*, the *California Department of Conservation Farmland Conversion Report,* the *California Department of Conservation Important Farmlands Map,* the *Soil Survey of Eastern Santa Clara County, California*, and various other sources noted in the text.

3.2.1 ENVIRONMENTAL SETTING

The project site is comprised of rural residential uses, an equestrian facility, and year-round agricultural land that has been in production since approximately 1917. Agricultural uses at the project site include approximately 16.7 acres of dry-land grain crops; 26.9 acres of irrigated row and field crops; 7.7 acres of pasture; and 6.8 acres of vineyards. The project site has been designated for urban uses since 1969. The project site has a General Plan designation of `Commercial´ in the *City of Morgan Hill General Plan* and a zoning designation of `PUD (HC)´ in the *City of Morgan Hill Planning and Zoning Codes*. The *City of Morgan Hill General Plan* designates the project site as the location of a sub-regional commercial site.

The project site is located within the city limits of Morgan Hill at the edge of the UGB, which borders the project site to the north. Surrounding land uses include vacant land planned for commercial uses and the De Paul Health Center (formerly the Saint Louise Hospital) located to the south; unincorporated County land currently in agricultural use, located within the City's sphere of influence designated 'Single-Family Medium' in the *City of Morgan Hill General Plan* located to the east; unincorporated County land, currently in agricultural use located within the City's sphere of influence and vacant land located within the city limits designated `Rural County´ in the *City of Morgan Hill General Plan* located to the north; and U.S. Highway 101 and the SCVWD drainage channel located west of the project site. Although the project site is primarily rural in nature, the area west of the U.S. Highway 101/Cochrane Road interchange is developed primarily with commercial uses, including the Cochrane Plaza shopping center located at the southwest quadrant of this intersection, and a Chevron Station, two hotels, two vacant restaurant pads, and the Madrone Business Park, located at the northwest quadrant of this intersection.

3.2 AGRICULTURAL RESOURCES

PRIME AGRICULTURAL LAND

Soils

The systems used by the United States Department of Agriculture, Natural Resources Conservation Service (NRCS) to determine a soil's agricultural productivity includes the Land Capability Classification (LCC) and the Storie Index rating system. The prime soil classifications of both the LCC and the Storie Index rating system indicate the absence of soil limitations, which if present, would require the application of management techniques (e.g., drainage, leveling, and special fertilizing practices) to enhance agricultural production.

NRCS Land Capability Classification

The LCC shows, in a general way, the suitability of soils for field crops. Soils are rated from Class I to Class VIII, with soils having the fewest limitations receiving the highest rating (Class I). Within the broad classes are subclasses which signify special limitations such as: erosion (e), excess wetness (w), problems in the rooting zone (s), and climatic limitations (c). A general description of soil classification, as defined by the NRCS, is provided in **Table 3.2-1**.

TABLE 3.2-1
LAND CAPABILITY CLASSIFICATION

Class	Definition
I	Soils have few limitations that restrict their use.
II	Soils have moderate limitations that reduce the choice of plants, or that require special conservation practices.
III	Soils have severe limitations that reduce the choice of plants, require conservation practices, or both.
IV	Soils have very severe limitations that reduce the choice of plants, require very careful management, or both.
V	Soils are not likely to erode but have other limitations; impractical to remove soils that limit their use largely to pasture or range, woodland, or wildlife habitat.
VI	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture, or range, woodland, or wildlife habitat.
VII	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat.
VIII	Soils and landforms have limitations that preclude their use for commercial plant production and restrict their use to recreation, wildlife habitat, or water supply, or to aesthetic purposes.

Source: NRCS, 1974

NRCS Storie Index Rating System

The Storie Index rating system, applied by the NRCS, ranks soil characteristics according to their suitability for agriculture from Grade 1, or prime soils (80 to 100 rating) which have few or no limitations for agricultural production, to Grade 6 soils (less than 10), which are not suitable for agriculture. **Table 3.2-2** defines the grades of the Storie Index rating system. Under this system, soils deemed less than prime can function as prime soils when limitations such as poor drainage, slopes, or soil nutrient deficiencies are partially or entirely removed.

TABLE 3.2-2
STORIE INDEX RATING SYSTEM

Grade	Index Rating	Definition
1 – Excellent	80 - 100	Soils are well suited to intensive use for growing irrigated crops that are climatically suited to the region.
2 – Good	60 - 79	Soils are good agricultural soils, although they may not be so desirable as Grade 1 because of moderately coarse, coarse, or gravelly surface soil texture; somewhat less permeable subsoil; lower plant available water holding capacity, fair fertility; less well drained conditions, or slight to moderate flood hazards, all acting separately or in combination.
3 – Fair	40 - 59	Soils are only fairly well suited to general agricultural use and are limited in their use because of moderate slopes; moderate soil depths; less permeable subsoil; fine, moderately fine or gravelly surface soil textures; poor drainage; moderate flood hazards; or fair to poor fertility levels, all acting alone or in combination.
4 – Poor	20 - 39	Soils are poorly suited. They are severely limited in their agricultural potential because of shallow soil depths; less permeable subsoil; steeper slope; or more clayey or gravelly surface soil textures than Grade 3 soils, as well as poor drainage; greater flood hazards; hummocky micro-relief; salinity; or fair to poor fertility levels, all acting alone or in combination.
5 – Very Poor	10 - 19	Soils are very poorly suited for agriculture, are seldom cultivated and are more commonly used for range, pasture, or woodland.
6 – Nonagricultural	Less than 10	Soils are not suited for agriculture at all due to very severe to extreme physical limitations, or because of urbanization.

Source: USDA Soil Conservation Service, Soil Survey of Eastern Santa Clara County, September 1974

According to the *Soil Survey of Eastern Santa Clara Area, California* approximately 90 percent of the project site is comprised of Arbuckle gravelly loam, 0 to 2 percent slopes (ArA) and approximately ten percent of the project site is comprised of San Ysidro loam, 0

to 2 percent slopes (SdA). The Arbuckle Gravelly loam soil series has an available water holding capacity of approximately five to seven inches and a moderately permeable subsoil. The fertility is moderate and the effective rooting depth is very deep. The Arbuckle gravelly loam soil series has a LCC of IIs and a Storie Index rating of 72. The San Ysidro loam soil series has an available water holding capacity of seven to eight inches and very slow permeable clay subsoil. Due to the clay subsoil, this soil is best suited for shallow-rooted crops. The San Ysidro loam soil series has a LCC rating of IIIs and a Storie Index rating of 51.

Important Farmland Mapping

The Farmland Mapping and Monitoring Program (FMMP) was established in 1982 by the California Department of Conservation, Division of Land Resource Protection to continue the Important Farmland mapping efforts begun in 1975 by the NRCS. The goal of the FMMP is to provide consistent and impartial data to decision makers for use in assessing present status, reviewing trends, and planning for the future of California's agricultural land resources. The FMMP produces *Important Farmland Maps* and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called 'Prime Farmland.'

According to the California Department of Conservation *Santa Clara County Important Farmland Map* (2002), the project site is designated as 'Prime Farmland.' In order to be shown as `Prime Farmland´ it must meet both of the following criteria: 1) the site has been used for irrigated agricultural production at some time during the four years prior to the Important Farmland Map date; irrigated land use is determined by the FMMP staff during examination of current aerial photos, local comment letters and field verification; and 2) the soil must meet the physical and chemical criteria for Prime Farmland or Farmland of Statewide Importance as determined by the NRCS. NRCS compiles lists of which soils in each survey area meet the quality criteria. Factors considered in qualification of a soil by NRCS include: water moisture regimes, available water capacity, and developed irrigation water supply; soil temperature range; acid-alkali balance; water table; soil sodium content; flooding (uncontrolled runoff from natural precipitation); erodibility; permeability rate; rock fragment content; and soil rooting depth (DOC 2005).

Williamson Act

The California Land Conservation Act (Williamson Act) was enacted by the State Legislature in 1965 as a means of preserving California's Prime agricultural lands from urbanization. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land in agriculture or related open space use. In return for entering into this contract, the landowners receive property tax relief on the lands under contract. This relief is provided through the

assessment of the lands based upon their income-producing value rather than their market value, which may be considerably higher. The contracts have a ten-year term, which are automatically renewed each year on a common anniversary date of January 1st unless they are cancelled or a notice of non-renewal is filed. The non-renewal process begins on the following anniversary with nine years remaining. During the remaining term of the contract after notice of non-renewal has been given, the property taxes increase gradually according to a formula that eventually brings them up to the same level as non-Williamson Act lands. Currently, approximately 70 percent of the state's prime agricultural land is protected under the Williamson Act. Currently, there are more than 362,704 acres of land under Williamson Act contracts in Santa Clara County. This constitutes approximately 43 percent of the land area of the County.

None of the parcels at the project site are currently under a Williamson Act contract (Personal conversation with Frank Giordano, County Of Santa Clara Assessors Office, December 2004 and May 2005).

ECONOMIC VALUE

The County of Santa Clara ranked twenty-eighth in agricultural production out of fifty-eight counties in the State in 2002 and remained the same ranking in 2003, with gross revenues from the sales of agricultural commodities totaling approximately $241 million (California Agricultural Statistics Service 2003). In 2003, the leading agricultural resources in the County included nursery crops, mushrooms, peppers, cut flowers, and cattle as seen in **Table 3.2-3**.

TABLE 3.2-3
LEADING COMMODITIES FOR GROSS VALUE OF AGRICULTURAL PRODUCTS
SANTA CLARA COUNTY, 2003

Commodities	Value
Nursery Crops	$103,979,000
Mushrooms	$46,400,000
Peppers, Bell	$10,383,000
Flowers, Cut	$9,479,000
Cattle, Steers and Heifers	$6,674,000
Grapes, Wine	$6,484,000
Peppers, Wax and Chili	$5,002,000
Vegetables, Chinese	$4,510,000
Lettuce, Leaf	$4,299,000
Onions, Dry	$3,807,000

Source: California Agricultural Statistics Service: Summary of County Agricultural Commissioners' Reports, 2002-2003.

3.2.2 REGULATORY SETTING

City of Morgan Hill General Plan

The following *City of Morgan Hill General Plan* goals and policies on agricultural resources are relevant to the proposed project.

Open Space and Conservation Element

Goal 1 Preservation of open space areas and natural features

Policy 1a Work with the County, the Open Space Authority, appropriate land trusts, and owners to preserve large open space areas, such as agricultural lands and outdoor recreation areas to conserve natural resources, and retain the city's unique identity.

Policy 1b Support agricultural uses that can preserve open space.

Goal 3 A viable agricultural industry

Policy 3b Support agricultural activity by encouraging agriculture-related industry, commercial uses, and community events within the urban area.

Policy 3g Continue to support the long-term maintenance of agricultural land uses and agriculture as an economic enterprise in the South County, since it contributes to the local economy, helps to delineate urban boundaries and is a productive use for land which is not immediately planned for urban development.

Policy 3h Take a positive action to encourage agriculture by supporting policies favorable to agriculture.

Policy 3o Plan for further urban growth to occur in areas which will avoid encroachment into agricultural lands with the greatest long-term potential to remain economically viable.

Policy 3p Convert agricultural land that has been designated for urban growth in an orderly manner to retain the stability and viability of remaining agricultural land as long as possible.

IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Standards of significance were based on existing laws and regulations affecting agricultural resources and impacts generally considered to be significant (Appendix G, State CEQA Guidelines). The California Agricultural Land Evaluation and Site Assessment Model (LESA) was used to assess the conversion of agricultural land, as recommended in Appendix G of the CEQA Guidelines. Impacts on agricultural resources were considered significant if implementation of the project would result in any of the following:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the *California Department of Conservation, Division of Land Resources, Santa Clara County Important Farmlands Map*, to non-agricultural use, unless otherwise found to be less than significant through evaluation using the LESA model;
- Conflict with existing zoning for agricultural use;
- Conflict with a Williamson Act contract; and/or
- Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland to non-agricultural use.

METHODOLOGY

Evaluation of potential agricultural impacts of the proposed project are based on review of the *City of Morgan Hill General Plan*, and field review of the project site and surrounding area. The agricultural analysis is based on information gathered from the *City of Morgan Hill General Plan*, the California Department of Conservation *Santa Clara County Important Farmlands Map* (DOC 2002), Santa Clara County Assessor Office, and the *Soil Survey of Eastern Santa Clara, California* (NRCS 1974).

PROJECT IMPACTS AND MITIGATION MEASURES

Prime Farmland Conversion

Impact 3.2-1 The proposed project would result in the conversion of approximately 66.49 acres of `Prime Farmland´ as designated on California Department of Conservation, Division of Land Resources Protection *Santa Clara County Important Farmland Map*. This is considered a **significant impact.**

3.2 AGRICULTURAL RESOURCES

As shown on the *Santa Clara County Important Farmland Map*, prepared by the California Department of Conservation, Division of Land Resources, the project site is designated as `Prime Farmland.´ Prime farmland is defined as "land with the best combination of physical and chemical features able to sustain the long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. The land must have been producing irrigated crops at some time during the four years prior to the mapping date."

According to the *Soil Survey of Eastern Santa Clara Area, California* approximately 90 percent of the project site is comprised of Arbuckle gravelly loam (ArA) and approximately ten percent of the project site is comprised of San Ysidro loam (SdA). The Arbuckle Gravelly loam soil series has an available water holding capacity of approximately five to seven inches and a moderately permeable subsoil. The fertility is moderate and the effective rooting depth is very deep. The Arbuckle gravelly loam soil series has a LCC of IIs and a Storie Index rating of 72. The San Ysidro loam soil series has an available water holding capacity of seven to eight inches and a very slow permeable clay subsoil. Due to the clay subsoil, this soil is best suited for shallow-rooted crops. The San Ysidro loam soil series has a LCC rating of IIIs and a Storie Index rating of 51.

Based on the soils present at the project site and the 'Prime Farmland' designation on the Santa Clara County Important Farmlands Map, an evaluation of the agricultural resources at the project site was conducted using the California Department of Conservation's *California Agricultural Land Evaluation and Site Assessment model* (LESA), as recommended in Appendix G of the CEQA Guidelines, to determine whether or not impacts to agricultural resources at the project site are considered significant. The LESA model is included as Appendix B of this EIR.

The LESA model is a multivariate mathematical method that uses six factors to evaluate the comparative value of agricultural land. The model generates a number between one and 100, which is then compared to certain scoring thresholds to determine the value of the land for agriculture. Half of the points awarded in the LESA model are determined by the `Land Evaluation´ which includes two factors, LCC and the Storie Index rating, both of which are based on composition of soils at the project site, as discussed above. The other half of the points are awarded based on the `Site Assessment´ that includes the site's physical characteristics and the availability of water. According to the LESA methodology, a property cannot be considered significant if either the Land Evaluation or the Site Assessment sub-score is less than 20 points.

Based on the soil types that occur on the project site, the `Land Evaluation´ portion of the LESA model yields a score of 41.62 and the 'Site Assessment' portion yields a score of 21.75. The overall LESA score for the project site is 63.37. Since both the `Land Evaluation´ and `Site Assessment´ sub-score for the project site are greater than 20 points,

conversion of the agricultural land at the project site is considered significant under the LESA model. Development of proposed commercial uses and paved parking areas removes the land from agricultural production, and the affected land cannot be recreated or reproduced elsewhere. There are no feasible mitigation measures available to reduce the impact of agricultural land conversion to a less than significant impact. Therefore, the conversion of the project site to commercial/retail uses is considered a **significant and unavoidable impact.**

The project's significant and unavoidable impact to agricultural resources could be avoided by denying the project or by requiring a reduced project, which would prevent the conversion of all or a part of the project site to urban uses. However, this action would not meet the objective of the project applicant or the City of Morgan Hill of developing the project site for a commercial retail shopping center in conformance with the *City of Morgan Hill General Plan*. In addition, denial of the proposed project would not constitute a "feasible mitigation" and therefore would not be required under Section 15126.4 of the State CEQA Guidelines. The *City of Morgan Hill General Plan* contains no policies or implementation programs which require mitigation or offsets for conversion of prime farmland. Likewise, the *City of Morgan Hill General Plan EIR* does not identify measures to offset the conversion of prime farmland.

Agricultural-Urban Land Use Conflicts

Impact 3.2-2 At build-out, the proposed project would place urban land uses adjacent to agricultural uses, which may impair agricultural production and result in land use compatibility conflicts. This is considered a **less than significant impact.**

The project site is located within the city limits of Morgan Hill at the edge of the UGB, which borders the project site to the north. Limited agricultural uses occur on properties to the north and east of the project site. Potential conflicts from a commercial development located adjacent to agricultural uses includes trespassing onto active agricultural lands where crops and nursery crops are grown and littering. The potential for project impacts to adjacent agricultural operations are reduced in this case because of the urbanized nature of the project vicinity. The project site is located at the northern boundary of the City of Morgan Hill, where the potential for conflicts between urban and rural uses currently exist. Non-rural land uses in the project vicinity include residential development located to the east and southeast, the De Paul Health Center (formerly the Saint Louise Hospital), U.S. Highway 101, and commercial development located west of the highway. Agricultural operations in the area include primarily dry-land farming and greenhouse production, which are less intensive than row crop operations. These agricultural operations have already had to adjust to the intrusion of urban uses and the traffic associated with these uses.

Existing agricultural operations could potentially affect the proposed commercial/retail uses. Potential conflicts from the adjacent agricultural activities to the proposed commercial development may be dust, odors, pesticide or herbicides run-over. Plowing activities would generate dust, which could be carried to the project site. However, the potential for dust generation would occur only occasionally when fields are plowed or when bare soils are exposed under high wind conditions. The northern border of the proposed project would include two stormwater detention ponds and two large anchor stores that would essentially buffer the proposed development from existing agricultural practices to the north of the project site. A berm and screening wall located along the eastern border of the project site would also protect the project site from the effects of dust from agricultural operations located east of the project site. This effect would also be somewhat reduced because of the relative short-term exposure of customers and employees at the commercial uses at the proposed project to agricultural dust generation, pesticides, and odors in the parking lots in comparison to residential uses located to the north and east of the project site. In addition, lands to the east of the project site are located in the sphere of influence and are designated for medium density residential development in the *City of Morgan Hill General Plan*. Urban-agricultural conflicts located to the east would therefore be limited to the duration of time remaining until those lands are developed with urban uses.

Given the proximity of existing residential and commercial development in the project vicinity, aerial application of pesticides on adjacent properties would be limited because the agricultural users have already had to adjust to the intrusion of urban uses. Therefore, the potential for pesticide drift would be minimal. In light of these factors, the potential impacts due to agricultural-urban conflicts associated with the proposed project would be considered **less than significant.** No mitigation measures are necessary.

Agricultural Zoning and Williamson Act Contracts

The 66.49-acre project site is located within the city limits of Morgan Hill at the border of the urban growth boundary (UGB), which borders the project site to the north. The UGB is an officially adopted and mapped line dividing land to be developed from land to be protected for natural or rural uses, including agriculture. The project site has a General Plan designation of `Commercial´ in the *City of Morgan Hill General Plan* and a zoning designation of `PUD (HC)´ in the *City of Morgan Hill Planning and Zoning Code*. The *City of Morgan Hill General Plan* designates the project site as the location of a sub-regional commercial site. The project site has been designated for urban uses in the City of Morgan Hill General Plan since 1969 (Personal communication with Rebecca Tolentino, Associate Planner, City of Morgan Hill, April 7, 2005). Therefore, the proposed project would not conflict with zoning for an agricultural use.

None of the parcels at the project site are currently under a Williamson Act contract. A parcel located north of the project site, currently being used for greenhouse production, is under a Williamson Act contract (Personal conversation with Frank Giordano, County Of Santa Clara Assessors Office, December 2004 and May 2005). However, due to distance and nature of the agricultural use of this property, the proposed project would not conflict with the Williamson Act contract. Therefore, the proposed project would not conflict with an existing Williamson Act contract. No mitigation measures are necessary.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Loss of Farmland

Impact 3.2-3 The proposed project would convert approximately 66.49 acres of agricultural land to urban uses. This loss would contribute to the cumulative loss of farmland in the region. This considered a **less than significant cumulative impact.**

The County of Santa Clara has experienced a ten percent decrease (3,192 acres) in the amount of `Prime Farmland´ between 1998 and 2002 from the conversion of farmland to urban uses (DOC 2002). The proposed project would contribute to the on-going conversion of prime agricultural land in Santa Clara County to urbanized uses by converting approximately 66.49 acres of agricultural land to commercial uses. Based on the California Agricultural LESA model, the conversion of the agricultural land at the project site is considered a significant and unavoidable impact. The proposed project would therefore contribute to the cumulative conversion of farmland to urban uses. However, the majority of agricultural acreage in Santa Clara County is located in unincorporated areas where there are strong land use policies to preserve this unincorporated agricultural land. Therefore, the proposed project's contribution to the cumulative loss of agricultural land in the region would be considered **less than significant.**

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The air quality section of the EIR includes a summary of local and regional air quality conditions and an analysis of the potential air quality impacts associated with the proposed project. This section is largely based on the air quality technical report prepared by Illingworth and Rodkin in March 2005. The air quality analysis is contained in Appendix C of this EIR. Both short-term emissions (e.g. site grading and construction), as well as long-term effects related to the ongoing operation (e.g. mobile source and stationary source emissions) of the proposed project are evaluated. Mitigation measures are recommended as necessary to reduce significant adverse air quality impacts.

3.3.1 Environmental Setting

AIR POLLUTION PROPERTIES, EFFECTS AND SOURCES

Air quality at a given location can be described by the concentrations of various pollutants, or harmful substances, in the atmosphere. Pollutants can be defined as two general types: 1) criteria pollutants and 2) toxic compounds. Criteria pollutants are pollutants for which national and state ambient air quality standards have been set. Toxic compounds, known as hazardous air pollutants by the federal government and as toxic air contaminants by the State of California, are toxic substances that have been determined to present some level of cancer, acute or chronic health risk to the general public.

The most common and widespread air pollutants of concern include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and suspended particulate matter (PM_{10} and $PM_{2.5}$). Sulfur dioxide and nitrous oxides produced by the burning of fossil fuels has contributed to acid rain, haze and smog. The largest source of these pollutants is automobile emissions. The sulfur in diesel fuel is also a major contributor to smog.

Poor air quality can cause health problems, including burning eyes and nose, itchy irritated throat and difficulty breathing. Above certain concentrations and durations, air pollutants can be extremely dangerous and can cause severe injury or death. Air pollution can also damage the environment and property. Plants and animals and their habitats can be harmed by air pollution. Secondary effects such as acid rain can cause damage to buildings, monuments and other structures. Air pollution can also result in haze, which reduces visibility and can sometimes interfere with aviation.

Criteria Air Pollutants and Effects

Air quality studies generally focus on five pollutants that are most commonly measured and regulated: CO, O_3, NO_2, SO_2, and suspended particulates (PM_{10} and $PM_{2.5}$).

Carbon Monoxide

Carbon Monoxide is a colorless and odorless gas that interferes with the transfer of oxygen to the brain. It can cause dizziness and fatigue, and impair central nervous system functions. CO is emitted almost exclusively from the incomplete combustion of fossil fuels. Automobile exhausts release approximately 70 percent of the CO in the Bay Area. A substantial amount also comes from burning wood in fireplaces and wood stoves. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. The highest CO concentrations measured in the Bay Area are typically recorded during the winter.

Ozone

Ozone, a colorless toxic gas, is the chief component of urban smog. Ozone enters the blood stream and interferes with the transfer of oxygen, depriving sensitive tissues in the heart and brain of oxygen. Although O_3 is not directly emitted, it forms in the atmosphere through a chemical reaction between reactive organic gas (ROG) and nitrogen oxides (NO_X) under sunlight. ROG and NO_x are primarily emitted from automobiles and industrial sources. O_3 is present in relatively high concentrations within the Bay Area, and the damaging effects of photochemical smog are generally related to the concentration of O_3. Highest O_3 concentrations occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies.

Nitrogen Dioxide

NO_2, a reddish-brown gas, irritates the lungs. It can cause breathing difficulties at high concentrations. Like O_3, NO_2 is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as nitrogen oxides (NO_x) and are major contributors to O_3 formation. NO_2 also contributes to the formation of PM_{10} (see discussion of PM_{10} below).

Sulfur Oxides

Sulfur oxides, primarily SO_2, are a product of high-sulfur fuel combustion. The main sources of SO_2 are coal and oil used in power stations, in industries, and for domestic heating. SO_2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 concentrations have been reduced to levels well below the state and national standards, but further reductions in emissions are needed to attain compliance with standards for PM_{10}, of which SO_2 is a contributor.

Suspended Particulate Matter

Particulate matter pollution consists of very small liquid and solid particles suspended in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when industry and gaseous pollutants undergo chemical reactions in the atmosphere. Respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$) represent fractions of particulate matter. PM_{10} refers to particulate matter less than 10 microns in diameter and $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter. Major sources of PM_{10} include motor vehicles; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. $PM_{2.5}$ results primarily from diesel fuel combustion (from motor vehicles, power generation, industrial facilities), residential fireplaces, and wood stoves. PM_{10} and $PM_{2.5}$ pose a greater health risk than larger-size particles, because these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract increasing the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Whereas, larger particles tend to collect in the upper portion of the respiratory system, $PM_{2.5}$ are so tiny that they can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

Toxic Air Contaminants

Toxic Air Contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants programs. California has adopted a comprehensive diesel risk reduction program. The U.S. Environmental Protection Agency (U.S. EPA) has adopted low sulfur

diesel fuel standards that will reduce diesel particulate matter substantially. These go into effect in June 2006.

In cooler weather, smoke from residential wood combustion can be a source of TACs. Localized high TAC concentrations can result when cold stagnant air traps smoke near the ground and, with no wind, the pollution can persist for many hours. This occurs in sheltered valleys during the winter. Woodsmoke also contains a significant amount of PM_{10} and $PM_{2.5}$. Woodsmoke is an irritant and is implicated in worsening asthma and other chronic lung problems.

CLIMATE AND TOPOGRAPHY

The climate in the City of Morgan Hill is characterized by warm dry summers with abundant sunshine and cool moist winters with variable cloudiness. The proximity of the Pacific Ocean and San Francisco Bay has a moderating influence on the climate. The City of Morgan Hill lies in the southern portion of the Santa Clara Valley, which is generally oriented from the northwest to the southeast. This valley is bounded to the north by the San Francisco Bay, and by mountains to the east, south, and west. The surrounding terrain greatly influences winds in the valley, resulting in a prevailing wind that follows along the valley's northwest-southeast axis. During the afternoon and early evening, a north-northwesterly sea breeze often flows through the valley, and a light south-southeasterly drainage flow often occurs during the late evening and early morning hours.

Typical summer maximum temperatures for the region are in the 80's, while winter maximum temperatures are in the high 50's or low 60's. Minimum temperatures usually range from the high 50's in the summer to the upper 30's and low 40's in the winter. Rainfall in the valley is approximately 20 to 25 inches per year, occurring mostly in the months of November through March.

Air quality standards for O_3 traditionally are exceeded when relatively stagnant conditions occur for periods of several days during the warmer months of the year. Weak wind flow patterns combined with strong inversions substantially reduces normal atmospheric mixing. Key components of ground-level ozone formation are sunlight and heat; therefore, significant ozone formation only occurs during the months from late spring through early fall. Prevailing winds during the summer and fall can transport and trap ozone precursors from the more urbanized portions of the Bay Area. Meteorological factors make air pollution potential in southern Santa Clara County quite high. The clear skies with relatively warm conditions that are typical in summer combine with transported and localized air pollutant emissions to elevate ozone levels. The up-slope and down-slope flows from the surrounding mountains may also re-circulate pollutants already present, contributing to the buildup of air pollution. Light winds and stable conditions during the late fall and winter contribute to the buildup of particulate matter from motor vehicles, agriculture, and wood burning in fireplaces and stoves.

AIR MONITORING DATA

Air quality in the region is controlled by the rate of pollutant emissions and meteorological conditions. Meteorological conditions such as wind speed, atmospheric stability, and mixing height may all affect the atmosphere's ability to mix and disperse pollutants. Long-term variations in air quality typically result from changes in air pollutant emissions, while frequent, short-term variations result from changes in atmospheric conditions. The San Francisco Bay Area is considered to be one of the cleanest metropolitan areas in the country with respect to air quality.

The project site is located in the San Francisco air basin, which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The BAAQMD monitors air quality conditions at over 30 locations throughout the Bay Area. The closest BAAQMD monitoring stations to the project site are located in San Martin and City of San José. Air pollutant concentrations measured at these stations are shown below in **Table 3.3-1**.

Ozone is the pollutant of most concern in the City of Morgan Hill, since prevailing summertime wind conditions tend to cause a build up in southern Santa Clara County. Ozone levels measured in San Martin, which is close to Morgan Hill, exceeded the state ozone standard from two to eight times between 2000-2003 and twice in 2004. The federal one-hour ozone standard has not been exceeded in the last five years at San Martin, but the eight-hour standard was exceeded from one to five days between 2000-2003, with no exceedances in 2004. Respirable Particulate Matter (PM_{10}) levels measured in San José are probably higher than those that would be measured in Morgan Hill due to the urban nature around the monitoring station. Measured exceedances of the state PM_{10} standard have occurred between two and four times each year in San José; however there were no exceedances in 2004. Exceedances of the federal $PM_{2.5}$ standard were not measured in the City of San José. In the more rural areas near Morgan Hill where PM_{10} is monitored, such as the cities of Watsonville and Hollister, there were no measured exceedances of the federal or state PM_{10} standard. The entire Bay Area, including the City of Morgan Hill, did not experience any exceedances of other air pollutants. **Table 3.3-2** reports the number of days that an ambient air quality standard was exceeded at the San Martin and San José stations located near Morgan Hill and in the entire Bay Area.

SENSITIVE RECEPTORS

Some groups of people are more affected by air pollution than others. CARB has identified the following people who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks.

TABLE 3.3-1
HIGHEST MEASURED AIR POLLUTANT CONCENTRATIONS

Pollutant	Average Time	Measured Air Pollutant Levels				
		2000	2001	2002	2003	2004*
San Martin						
Ozone (O_3)	1-Hour	**0.11 ppm**	**0.12 ppm**	**0.12 ppm**	**0.11 ppm**	0.09 ppm
	8-Hour	**0.10 ppm**	**0.09 ppm**	**0.10 ppm**	**0.09 ppm**	0.08 ppm
Central San José						
Carbon Monoxide (CO)	8-Hour	6.3 ppm	5.1 ppm	4.5 ppm	4.0 ppm	2.9 ppm
Nitrogen Dioxide (NO_2)	1-Hour	0.11 ppm	0.11 ppm	0.08 ppm	0.09 ppm	0.07 ppm
	Annual	0.025ppm	0.024ppm	NA	0.021ppm	NA
San José – Tully Road						
Fine Particulate Matter ($PM_{2.5}$)	1-Hour	**69 ug/m^3**	**75 ug/m^3**	**70 ug/m^3**	**58 ug/m^3**	NA
	Annual	21 ug/m^3	23 ug/m^3	NA	**25 ug/m^3**	NA
Respirable Particulate Matter (PM_{10})	24-Hour	NA	NA	**58 ug/m^3**	**52 ug/m^3**	NA
	Annual	NA	NA	NA	**10 ug/m^3**	NA
Bay Area (Basin Summary)						
Ozone (O_3)	1-Hour	**0.15 ppm**	**0.13 ppm**	**0.16 ppm**	**0.13 ppm**	NA
	8-Hour	**0.11 ppm**	**0.10 ppm**	**0.11 ppm**	**0.10 ppm**	NA
Carbon Monoxide (CO)	8-Hour	6.3 ppm	5.1 ppm	4.5 ppm	4.0 ppm	NA
Nitrogen Dioxide (NO_2)	1-Hour	0.11 ppm	0.11 ppm	0.08 ppm	0.09 ppm	NA
	Annual	0.025ppm	0.024ppm	0.014ppm	0.021ppm	NA
Fine Particulate Matter ($PM_{2.5}$)	1-Hour	NA	NA	77 ug/m^3	56 ug/m^3	NA
	Annual	NA	NA	14 ug/m^3	11.7 ug/m^3	NA
Respirable Particulate Matter (PM_{10})	24-Hour	**76 μg/m^3**	**109 μg/m^3**	**84 μg/m^3**	**60 μg/m^3**	NA
	Annual	**24 ug/m^3**	**26 ug/m^3**	**25 ug/m^3**	**25 ug/m^3**	NA

* Partial data set for some pollutants

Note: ppm = parts per million
Values reported in bold exceed ambient air quality standard
NA = data not available
ug/m^3 = micrograms per cubic meter

Source: California Air Resources Board, 2004

TABLE 3.3-2
SUMMARY OF MEASURED AIR QUALITY EXCEEDANCES

Pollutant	Standard	Monitoring Station	Days Exceeding Standard				
			2000	2001	2002	2003	2004
Ozone (O_3)	NAAQS 1-hr	San Martin	0	0	0	0	0
		BAY AREA	3	1	2	1	--
	NAAQS 8-hr	San Martin	1	2	5	4	0
		BAY AREA	4	7	7	7	--
	CAAQS 1-hr	San Martin	4	7	8	2	2
		BAY AREA	12	15	16	19	--
Fine Particulate Matter (PM_{10})	NAAQS 24-hr	San José	0	0	0	0	0
		BAY AREA	0	0	0	0	0
	CAAQS 24-hr	San José	2	4	2	2	0
		BAY AREA	7	10	6	6	--
Fine Particulate Matter ($PM_{2.5}$)	NAAQS 24-hr	San José	NA	NA	NA	0	0
		BAY AREA	1	5	7	0	--
All Other (CO, NO_2, Lead, SO_2)	All Other	San José (Tully)	0	0	0	0	0
		BAY AREA	0	0	0	0	0

Source: Illingworth and Rodkin, Inc.

Note: NAAQS – National Ambient Air Quality Standard
CAAQS – California Ambient Air Quality Standard
CO – Carbon Monoxide
NO_2 – Nitrogen Dioxide
SO_2 – Sulfur Dioxide

EXISTING STRUCTURES

Bovee Environmental Management, Inc. conducted an asbestos reconnaissance of all the structures at the project site in February 2005. Based on the survey, it was determined that the three residences and associated outbuildings, which were constructed prior to 1978, include materials that contain asbestos, such as flooring materials, plaster, sheetrock/joint compound, insulators, exterior siding materials, and roofing materials.

3.3.2 REGULATORY SETTING

AMBIENT AIR QUALITY STANDARDS

The Federal Clean Air Act (CAA) governs air quality in the United States. In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulations under the California CAA. At the Federal level, the U.S. EPA administers the CAA. The California CAA is administered by the CARB at the State level and by the Air Quality Management Districts at the regional and local levels. The BAAQMD regulates air quality at the regional level, which includes the nine-county Bay Area.

United States Environmental Protection Agency

The U.S. EPA is responsible for enforcing the Federal CAA. The U.S. EPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). The NAAQS are required under the 1977 CAA and subsequent amendments. The U.S. EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by the CARB.

California Air Resources Board

In California, the CARB, which became part of the California Environmental Protection Agency (CalEPA) in 1991, is responsible for meeting the state requirements of the Federal CAA, administering the California CAA, and establishing the California Ambient Air Quality Standards (CAAQS). The California CAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. The CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. The CARB regulates mobile air pollution sources, such as motor vehicles. The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. The CARB established passenger vehicle fuel specifications, which became effective in March 1996. The CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level.

National and State Ambient Air Quality Standards

As required by the Federal CAA, the NAAQS have been established for seven major air pollutants: CO, NO_x, O_3, PM_{10}, $PM_{2.5}$, sulfur oxides, and lead. Pursuant to the California CAA, the State of California has also established ambient air quality standards, known as the CAAQS. These standards are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles.

Both State and Federal standards are summarized in **Table 3.3-3**. The "primary" standards have been established to protect the public health. The "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation and other aspects of the general welfare. The use of the NAAQS or CAAQS is a function of the project approval process. The NAAQS is applicable if the project is federally funded or requires federal action. The proposed project is not federally funded and does not require federal action. Additionally, the CAAQS are more stringent than the NAAQS. Thus, the CAAQS are used as the comparative standard in the analysis contained in this report.

LOCAL AIR QUALITY STANDARDS

Bay Area Air Quality Management District

In 1955, the California Legislature created the BAAQMD. The agency is primarily responsible for assuring that the National and State ambient air quality standards are attained and maintained in the Bay Area. The BAAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, as well as many other activities. The BAAQMD has jurisdiction over much of the nine counties located in the Bay Area.

Attainment Status

Areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant. The Bay Area as a whole does not meet State or Federal ambient air quality standards for ground level O_3 and State standards for fine particulate matter.

Under the Federal CAA, the U.S. EPA has designated the region as moderate non-attainment for ground level O_3. However, the U.S. EPA has recognized that the region has

not violated the 1-hour O_3 standard between 2000 and 2003 and has proposed to re-designate the Bay Area as a maintenance area. This is the first step towards designating the Bay Area as attainment of that standard. However, U.S. EPA has recently classified the region as marginally non-attainment for the newer more stringent 8-hour O_3 standard. The U.S. EPA requires the region to adopt a plan that will bring it into attainment with that standard by 2007. The Bay Area has met the CO standards for over a decade and is classified attainment maintenance by the U.S. EPA. The U.S. EPA grades the region unclassified for all other air pollutants, which include PM_{10} and $PM_{2.5}$.

TABLE 3.3-3
FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards[1]	Federal Standards[2]	
		Concentration[3]	Primary[3,5]	Secondary[3,6]
Ozone (O_3)	1-hour	0.09 ppm (180 $\mu g/m^3$)	0.12 ppm (235 $\mu g/m^3$)	Same as Primary
	8-hour	--	0.08 ppm (157 $\mu g/m^3$)	Same as Primary
Respirable Particulate Matter (PM_{10})	Annual	20 $\mu g/m^3$	50 $\mu g/m^3$	Same as Primary
	24-hour	50 $\mu g/m^3$	150 $\mu g/m^3$	Same as Primary
Fine Particulate Matter ($PM_{2.5}$)	Annual	15 $\mu g/m^3$		Same as Primary
	24-hour	--	65 $\mu g/m^3$	Same as Primary
Carbon monoxide (CO)	8-hour	9.0 ppm (10 mg/m^3)	9.0 ppm (10 mg/m^3)	None
	1-hour	20.0 ppm (23 mg/m^3)	35.0 ppm (40 mg/m^3)	–
Nitrogen dioxide (NO_2)	Annual	--	0.053 ppm (100 $\mu g/m^3$)	Same as Primary
	1-hour	0.25 ppm (655 $\mu g/m^3$)	–	–
Sulfur dioxide (SO_2)	Annual	--	0.03 ppm (80 $\mu g/m^3$)	–
	24-hour	0.04 ppm (105 $\mu g/m^3$)	0.14 ppm (365 $\mu g/m^3$)	–
	3-hour	--	--	0.5 ppm (1,300 $\mu g/m^3$)
	1-hour	0.25 ppm (655 $\mu g/m^3$)	–	–
Lead	30-Day	1.5 $\mu g/m^3$	-	–
	Quarterly	--	1.5 $\mu g/m^3$	Same as Primary
Visibly Reducing Particles	8-hour (10 AM to 6 PM PST)	Extinction coefficient of 0.23 per kilometer – visibility of ten miles or more (0.07 – 30 miles or more for Lake Tahoe) due to particulates when relative humidity is less than 70 percent.	No Federal Standards	

Pollutant	Averaging Time	California Standards[1]	Federal Standards[2]	
		Concentration[3]	Primary[3,5]	Secondary[3,6]
Sulfates	24-hour	25 $\mu g/m^3$		
Hydrogen Sulfide	1-hour	0.03 ppm (42 $\mu g/m^3$)		
Vinyl Chloride	24-Hour	0.01 ppm (26 $\mu g/m^3$)		

Source: CARB, 2004.
ppm = Parts per Million; $\mu g/m^3$ = Micrograms per Cubic Meter

Notes:

1. California Standards for O_3, CO (except Lake Tahoe), SO_2 (1 and 24 hour), NO_2, PM_{10}, $PM_{2.5}$, and visibly reducing particulates, are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards Section 70200 of Title 17 or the California Code of Regulations.
2. National standards (other than O_3, particulate matter, and those based on annual averages or annual arithmetric mean) are not to be exceeded more than once per year. The O_3 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 the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of daily concentrations, averaged over three years, are equal to or less than the standard.
3. Concentration expressed first in units in which it was promulgated. Equivalent units 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 the table refers to ppm by volume or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of 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 pollution.
7. Reference method as described by the U.S. 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 8-hour O_3 and fine particulate matter standards were promulgated by the U.S. EPA on July 18, 1997.
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 implementation of control measures at levels below the ambient concentrations specified for these pollutants.

At the State level, the region is considered serious non-attainment for ground level O_3 and non-attainment for PM_{10}. CAAQS are more stringent than the NAAQS. The region is required to adopt plans on a triennial basis that show progress towards meeting the State O_3 standard. The area is considered attainment or unclassified for all other pollutants.

Bay Area Clean Air Plan

The BAAQMD along with the other regional agencies (i.e., Association of Bay Area Governments and the Metropolitan Transportation Commission) has prepared the *2001 Ozone Attainment Plan* to address the NAAQS for O_3. A *Carbon Monoxide Maintenance Plan* was also prepared in 1994 to demonstrate how the NAAQS for the CO standard will be maintained. Another plan, the *Bay Area Clean Air Plan*, was prepared to address the more stringent requirements of the California CAA with respect to O_3. This plan includes a

comprehensive strategy to reduce emissions from stationary, area, and mobile sources. The plan objective is to indicate how the region would make progress toward attaining the stricter state air quality standards, as mandated by the California CAA. The plan is designed to achieve a region-wide reduction of O_3 precursor pollutants through the expeditious implementation of all feasible measures. Air quality plans addressing the California CAA are developed about every three years. The latest plan, the *Bay Area 2000 Clean Air Plan*, proposes implementation of transportation control measures and programs such as *Spare the Air*. *Spare the* Air is a public outreach program designed to educate the public about air pollution in the Bay Area and promote individual behavior changes that improve air quality. Some of these measures or programs rely on local governments for implementation. The 2001 Ozone Plan included the strategy to attain the national ambient air quality standard for O_3. In 2004, U.S. EPA made a finding that the Bay Area has attained the national 1-hour O_3 standard. Because of this finding, the previous planning commitments in the *2001 Ozone Attainment Plan* are no longer required. The finding of attainment does not mean the Bay Area has been reclassified as an attainment area for the 1-hour standard. The region must submit a re-designation request to U.S. EPA in order to be reclassified as an attainment area. To address both the national and California ambient air quality standards, the BAAQMD is preparing an updated ozone strategy. In 2004, the BAAQMD held community meetings throughout the Bay Area to describe the draft control measures proposed for the Ozone Strategy and to invite public input. The draft Ozone Strategy, including proposed control measures, will be released for public review in the Summer of 2005.

A key element in air quality planning is to make reasonably accurate projections of future human activities that are related to air pollutant emissions. Most important is vehicle activity. The BAAQMD uses population projections made by the Association of Bay Area Governments and vehicle use trends made by the Metropolitan Transportation Commission to formulate future air pollutant emission inventories. The basis for these projections comes from cities and counties. In order to provide the best plan to reduce air pollution in the Bay Area, accurate projections from local governments are necessary. In general, when a General Plan is not consistent with these projections, they cumulatively reduce the effectiveness of air quality planning in the region. In the case of the proposed project, the project site has a General Plan designation of 'Commercial' in the *City of Morgan Hill General Plan* and a zoning designation of 'PUD (HC)' in the *City of Morgan Hill Planning and Zoning Codes*. The *City of Morgan Hill General Plan* designates the project site as the location of a sub-regional commercial site and the proposed project is consistent with the *City of Morgan Hill General Plan* designation. 3.3.3 Impacts and Mitigation Measures

STANDARDS OF SIGNIFICANCE

Section 15064.7 of the CEQA Guidelines provides that, when available, the significance criteria established by the applicable air quality management district or air pollution

control district may be relied upon to make determinations of significance. The following are the significance criteria that the BAAQMD has established to determine project impacts:

Construction

The BAAQMD's approach to the CEQA analysis of construction impacts is to emphasize the implementation of effective and comprehensive control measures rather than detailed quantification of emissions. PM_{10} is the pollutant of greatest concern from construction activities. The *BAAQMD CEQA Guidelines* provide feasible control measures for construction emissions of PM_{10}. If the appropriate construction controls are implemented, air pollutant emissions for construction activities would be considered less than significant.

Operation

The proposed project would cause a significant air quality impact if it were to result in:

- Ozone precursor emissions (ROG and NO_x) and PM_{10} emissions from direct and indirect sources (non typical construction) that exceed the thresholds recommended by the BAAQMD. The BAAQMD recommends a threshold of 80 pounds per day or 15 tons per year for direct and indirect sources of ROG, NO_x, and PM_{10}.
- Emissions of CO cause a projected exceedance of the ambient CO state standard of 9.0 ppm for 8-hour averaging period.

METHODOLOGY

The impact analysis for this section relied on an air quality analysis prepared by Illingworth and Rodkin, Inc. (March 2005) and supplemented with information included in the traffic impact analysis prepared for the proposed project by Fehr and Peers Associates (May 2005). Using URBEMIS-2002, an air quality-modeling program released by CARB, quantities of ROG, NO_x, PM_{10}, and CO emissions were estimated by Ilingworth and Rodkin, Inc. Localized CO emissions were modeled using screening methods recommended by the BAAQMD that are based on the Caline4 Line-Source dispersion model.

PROJECT IMPACTS AND MITIGATION MEASURES

Short-Term Construction Emissions – Demolition of Existing Buildings

Impact 3.3-1 The proposed project would require the demolition of three residences and associated outbuildings (e.g. barns, sheds, and a water tower). Based on a site reconnaissance performed by Bovee Environmental Management Inc., asbestos is detectable in hazardous concentrations in

the structures at the project site. Therefore, demolition of these buildings has the potential to result in short-term air quality emissions, including the release of asbestos. This is considered a **potentially significant impact.**

Bovee Environmental Management, Inc. conducted an asbestos reconnaissance of all the structures at the project site in February 2005. Based on the survey, it was determined that structures on the project site which were constructed prior to 1978 include materials that contain asbestos, such as flooring materials, plaster, sheetrock/joint compound, insulators, exterior siding materials, and roofing materials. The release of asbestos containing materials during construction is considered a potentially significant impact.

The California Health and Safety Code requires that local agencies not issue demolition permits until an applicant has demonstrated compliance with notification requirements under applicable federal requirements regarding asbestos, lead-based paints and other potentially hazardous building materials.

The BAAQMD is vested by the California Legislature with authority to regulate airborne pollutants through both inspection and law enforcement. Regulation 11, Rule 2 of the BAAQMD requires that for every demolition (even when no asbestos is present), a notification must be made to the BAAQMD at least ten working days prior to commencement of either demolition or renovation of a building. This advance notification affords inspectors an opportunity to ensure that correct procedures are followed even if there is not any asbestos containing material present. This is to ensure that the structural part being demolished has been surveyed for asbestos containing material, which must be removed prior to demolition.

The proposed project must also comply with the California Occupational Safety and Health Administration (Cal/OSHA) regulations, standards and procedures and California Department of Health Services Lead Work Practice Standards. These regulations are designed to minimize worker and general public exposure to hazardous building materials. In addition, implementation of the following mitigation measures, which would require the project applicant to conduct a full site assessment and removal of asbestos-containing material prior to demolition, would reduce this impact to a **less than significant level.**

Mitigation Measure

MM 3.3-1 Prior to demolition of any on-site structures, the project applicant shall conduct a full site assessment for asbestos-containing materials (ACM) by a California Certified Asbestos Consultant for all structures proposed for demolition. Prior to demolition and site clearing activity, all identified ACM shall be removed by a licensed asbestos abatement contractor and clearance shall be obtained from the BAAQMD before proceeding with the

demolition. All ACM shall be transported to a disposal site approved to accept non-friable asbestos-containing waste.

Implementation of **Mitigation Measure 3.3-1** would reduce the effects of airborne asbestos to a **less than significant** level by requiring the project applicant to conduct a full-site assessment for asbestos-containing material prior to demolition of these buildings.

Short-Term Construction Emissions – Grading and Site Preparation

Impact 3.3-2 Construction activity during build-out of the proposed project would generate air pollutant emissions that could expose sensitive receptors to substantial pollutant concentrations. This is considered a **potentially significant impact.**

Build-out of the proposed project would involve construction that would be phased over several years. Construction would likely include initial grading of the project site and subsequent construction projects that could result in varying degrees of air quality emissions based on the size of the building, duration of construction, and proximity to sensitive receptors. Construction activities would generate pollutant emissions from the following construction activities: grading, construction worker commute trips to and from project sites, delivery and hauling of construction supplies and debris to and from the project site, and fuel combustion by on-site construction equipment. These construction activities would temporarily create emissions of dust, fumes, equipment exhaust, and other air contaminants.

During construction, various diesel powered vehicles and equipment would be in use on the project site. In 1998, the CARB identified diesel exhaust as a Toxic Air Contaminant (TAC). Health risks from TAC are a function of both concentration and duration of exposure. Construction diesel emissions are temporary, affecting an area for a period of days or perhaps weeks. Additionally, construction related sources are mobile and transient in nature and the bulk of the emissions occurring within the project site would be between approximately 100 to 1,300 feet to the nearest sensitive receptors. Because of the short duration, potential health risks from construction emissions of diesel exhaust would represent a less than significant impact.

Suspended particulate matter (PM_{10}) is typically the most significant source of air pollution from construction, particularly during site preparation and grading. PM_{10} emissions from construction can vary daily, depending on various factors, such as the level of activity, type of construction activity taking place, the equipment being operated, weather conditions, and soil conditions. Typically, the BAAQMD does not require quantitative analysis for construction emissions. Rather the analysis is focused on identifying the most appropriate control measures. The BAAQMD has identified a set of feasible PM_{10} control measures for

construction activities. According to the *BAAQMD CEQA Guidelines,* if all of these control measures are implemented, a less than significant impact is expected for PM_{10} emissions.

Mitigation Measure

MM 3.3-2 The project applicant shall implement the following recommended BAAQMD dust control measures for construction emissions of PM_{10}. These dust control measures shall be implemented during construction for all phases of the proposed project:

- Sprinkle water to all active construction areas at least twice daily and more often when conditions warrant;
- Cover all trucks hauling soil, sand and other loose materials or require all trucks to maintain at least two feet of freeboard;
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites;
- Sweep daily all paved access roads, parking areas, and staging areas at construction sites;
- Sweep streets daily if visible soil material is carried onto adjacent public streets;
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas;
- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.);
- Limit traffic speeds on unpaved roads to 15 miles per hour;
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways;
- Replant vegetation in disturbed areas as quickly as possible;
- Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site;
- Suspend grading activities when winds exceed 25 miles per hour (mph) and visible dust clouds cannot be prevented from extending beyond active construction areas; and
- Limit the area subject to excavation, grading and other construction activity at any one time.

Implementation of **Mitigation Measure 3.3-2** would reduce short-term construction impacts to a **less than significant** level by requiring implementation of a dust abatement program.

Long-Term Operational Emissions – Mobile Source Emissions

Impact 3.3-3 The proposed project would generate operational emissions that would affect long-term air quality. This would be a **significant impact.**

The proposed project would produce new automobile trips, generating emissions of criteria air pollutants, which could affect both regional and local air quality. The traffic study prepared by Fehr and Peers Associates, Inc (March 2005) estimates that the proposed project would generate approximately 22,009 daily weekday automobile trips at full build-out.

To evaluate the effects of the proposed project on regional air quality, emissions of ozone precursor pollutants, and PM_{10} were predicted using the URBEMIS-2002 Model, released by the CARB. The URBEMIS-2002 model is used to predict air pollutant emissions associated with mobile source emissions (e.g. automobile use). The methodologies used for these analyses along with modeling output are contained in Appendix C. The URBEMIS model combines assumptions for automobile activity (e.g., number of trips, vehicle mix, vehicle miles traveled, etc.) with vehicle emission factors. Project trip generation data provided by Fehr and Peers Associates, Inc. was used to input into the model. Potential emissions of ROG from a possible gas station were predicted and are added to the URBEMIS-2002 modeling results, as a worst-case analysis. Daily emissions of regional air pollutants from build-out of the proposed project are shown in **Table 3.3-4**.

TABLE 3.3-4
DAILY REGIONAL AIR POLLUTANT EMISSIONS

Description	Reactive Organic Gases (ROG) (lbs/day)	Nitrogen Oxides (NO_x) (lbs/day)	Particulate Matter (PM_{10}) (lbs/day)
Weekday Emissions	149*	135	110
Weekend Emissions	189*	177	146
BAAQMD Significance Thresholds	**80 lbs/day**	**80 lbs/day**	**80 lbs/day**

**Includes estimated 19 pounds per day of Reactive Organic Gas emissions associated with the optional gas station.*

The proposed project would result in worse case emissions of 189 lbs/day or ROG, 177 lbs/day of NO_x, and 146 lbs/day of PM_{10} during the weekend, which is considered a worst-case scenario. Project direct and indirect emissions of ozone precursor pollutants (i.e., ROG and NO_x) would exceed the thresholds established by the BAAQMD, of 80 lbs/day

for criteria pollutants, ROG, NO_x, and PM_{10}. PM_{10} emissions, which could lead to both regional and local air quality impacts, would also exceed the significance thresholds.

The proposed project generates more traffic on weekend days (i.e., Saturdays) and would result in greater emissions than on weekdays. In fact, emissions of ozone precursor pollutants and PM_{10}, which are significant on weekdays, would be over 30 percent higher on peak Saturdays. Emissions associated with the proposed project are estimated to be above the significance thresholds established by the BAAQMD, and therefore, would be considered significant. Implementation of the following mitigation measure would reduce operational emissions.

Mitigation Measure

MM 3.3-3 A facilities 'trip reduction plan' shall be implemented by the project applicant to reduce single occupant vehicle commute trips by employees and promote non-auto travel by both employees and patrons. The facilities trip reduction plan shall include, but not be limited to elements that would reduce traffic, and thus air pollutant emissions as described below:

- Provide one bus stop/shelter with pedestrian access to the project site. Implementation of this measure could reduce project emissions by approximately two percent.
- Bicycle amenities should be provided at the project site once the proposed project is in operation. Bicycle amenities could include secure bicycle parking for employees, bicycle racks for customers, and bike lane connections. This vehicle trip reduction measure may reduce emissions associated with the proposed project by approximately two percent.
- Pedestrian facilities should link the future transit stop and access roadways to the major sites uses. This trip reduction measure may reduce emissions by approximately one percent.
- Designate a portion of the parking lot for weekday 'park-and-ride' parking spaces (the excess between weekday peak and weekend peak) which would reduce emissions from traffic to the project site by allowing commuters to park their car and carpool or take transit.
- Require employers at the project site to post transit rates and scheduling information on bulletin boards. This vehicle trip reduction measure may reduce emissions by one percent.

Preparation and implementation of a trip reduction plan designed to reduce traffic congestion in the project area could result in lower emissions from vehicle travel. The

amount of congestion relief and related total emission reduction is unknown. Therefore long-term operational emissions associated with the proposed project would remain **significant and unavoidable**, even with full effectiveness of the mitigation measure.

Long-Term Operational Emissions - Localized Emissions of Carbon Monoxide

Impact 3.3-4 The proposed project would result in an increase in carbon monoxide concentrations at land uses near roadways and intersections. This is considered a **less than significant impact**.

The primary mobile source pollutant of local concern is Carbon Monoxide (CO). Localized concentrations of CO are a direct function of vehicle idling time and thus, traffic flow conditions. Carbon Monoxide concentrations close to congested roadways or intersections may reach unhealthy levels, affecting local sensitive receptors (e.g. residents, school children, hospital patients, the elderly). Sensitive receptors in the vicinity of the project site include primarily residential uses, which are located between 100 and 1,300 feet from the project site. Under normal meteorological conditions, CO transport is extremely limited and disperses rapidly from the source. Typically, areas of high CO concentrations or "hot spots" are associated with signalized intersections operating at poor levels of service (LOS E or worse).

The traffic impact analysis prepared by Fehr and Peers Associates (March 2005) examined project and cumulative impacts associated with the implementation of the proposed project. Intersections along Cochrane Road would be most affected by the proposed project, including the Cochrane Road/Northbound U.S. Highway 101 intersection, the Cochrane Road/Southbound U.S. Highway 101 intersection, and the Cochrane Road/Butterfield Boulevard intersection. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of CO.

Carbon monoxide concentrations were predicted for intersections along Cochrane Road. There are one and eight-hour standards for CO. The eight-hour standard is the most stringent and is always used if the one-hour standard is exceeded. Therefore, the proposed project was evaluated against the eight-hour standard.

Carbon Monoxide concentrations were modeled using screening methods recommended by the BAAQMD that are based on the Caline4 Line-Source dispersion model. This method uses traffic volumes, emissions, meteorology, and the roadway/receptor geometry. For this assessment, meteorological conditions most conducive for high CO concentrations in the Bay Area, peak-hour traffic conditions (i.e. evening period), slow traffic speeds and emission factors generated by the CARB emission factor model (i.e., EMFAC2002) were used as input to the model. Modeled concentrations were added to background levels to predict total CO concentrations. This assessment was conducted for existing conditions, project conditions (full build out expected in 2007), and under cumulative conditions that

would occur beyond 2010. The screening method is designed to be a conservative method of determining whether or not a project may cause an exceedance of the CO air quality standard. If the screening method predicts significant levels, then a more-refined analysis may be conducted that would more accurately predict CO levels, which would likely be lower. Results of the predicted eight-hour CO levels at the three intersections are shown in **Table 3.3-5.**

TABLE 3.3-5
PREDICTED 8-HOUR WORST CASE CARBON MONOXIDE LEVELS

Description	2005 Existing	Project Conditions 2007 (ppm)	Cumulative with Project 2010 (ppm)	General Plan Buildout 2025 (ppm)
Cochrane Road/ U.S. Highway 101 Northbound	5.7	6.8*	6.0*	4.2
Cochrane Road/U.S. Highway 101 Southbound	6.8	7.4*	6.4 *	4.3
Cochrane Road/Butterfield Boulevard	5.1	5.6*	5.1 *	4.2
Significance Thresholds (CAAQS)	**9.0 ppm for eight hour exposure**			

* Future CO concentrations are anticipated to decrease over time due to reductions in emission factors associated with cleaner less polluting vehicles.

Source: Illingworth and Rodkin, Inc.

As shown in **Table 3.3-5**, the screening analysis indicates that modeled existing eight-hour CO concentrations are currently below CAAQS. Predicted eight-hour CO concentrations with the project are predicted to remain below CAAQS. Although traffic will increase under cumulative conditions, CO concentrations are anticipated to decrease because of cleaner less-polluting vehicles using the roadways. This impact on local air quality resulting from the proposed project is considered a **less than significant** impact.

Long-term Operational Emissions – Stationary Sources

Impact 3.3-5 The proposed project includes a possible fuel station, which could result in the emission of toxic air contaminants, including benzene. This is considered a **less than significant** impact.

As shown on the project site plan in Figure 2-8, the proposed project may include a 12-pump fuel station as an alternative to a retail pad near the southern portion of the project site, which would be a source of toxic air contaminants, primarily in the form of gasoline vapor emissions from the storage and dispensing of gasoline.

The BAAQMD rules and regulations, which apply to fueling stations, control gasoline vapor emissions from gasoline dispensing facilities. This includes a requirement that the operator obtain an 'Authority to Construct' permit from the BAAQMD. This permit requirement

ensures that the required Vapor Recovery Systems are installed and are operating effectively and that and the project would not result in adverse air quality impacts to the public. Once installed, the BAAQMD will issue a temporary use permit while it conducts tests to certify that the systems are 95 percent efficient as required by the CARB. The BAAQMD will then issue a Permit to Operate, and will continue to conduct periodic tests to make sure the systems are continuing to meet the mandated performance standards.

Gasoline vapors are released during the filling of both underground storage tanks and the transfer of fuel from those tanks to individual vehicles. These vapors contain TACs such as benzene. The project applicant would be required to obtain an air quality permit for the fuel station from the BAAQMD, which would ensure that the required Vapor Recovery Systems are installed and are operating effectively. The BAAQMD will only issue permits to construct and operate a fuel station if analyses conducted during the permit phase of the project demonstrate that the associated cancer risks are negligible. Therefore, if the proposed project includes a 12-pump fuel station as an alternate to a retail pad in the southern portion of the project site, the appropriate permits from the BAAQMD would ensure that that proposed project would result in a **less than significant impact**. No mitigation measures are necessary.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Air Quality Emissions

Impact 3.3-6 Project development, combined with other reasonably foreseeable projects in the project vicinity, would contribute to increased air quality emissions in the air basin. This cumulative impact is considered a **significant impact.**

Cumulative air quality impacts are evaluated based on both a quantification of the project-related air quality impacts and the consistency of the proposed project with local and regional air quality plans (i.e., the *Morgan Hill General Plan* and the *BAAQMD 2000 Bay Area Clean Air Plan*). The proposed project would result in a significant cumulative air quality impact if project impacts are significant and/or the proposed project is found to be inconsistent with the *City of Morgan Hill General Plan* and/or the *BAAQMD Clean Air Plan*. In addition to the above significance criteria, the BAAQMD has established thresholds of significance for construction and operational emissions associated with development projects.

At the local level, future cumulative traffic conditions would not result in any violation of a CO standard. As a result, there would not be a cumulative impact to localized air quality emissions. At the regional level, long term operational emissions associated with traffic generated by the proposed project are predicted to be above the significance thresholds established by the BAAQMD as shown in **Table 3.3-4**, and therefore, would result in a

cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard.

The BAAQMD is the regional agency responsible for overseeing compliance with State and Federal laws, regulations, and programs within the San Francisco Bay Area Air Basin. The BAAQMD, with assistance from the Association of Bay Area Governments and the Metropolitan Transportation Commission, has prepared and implements specific plans to meet the applicable laws, regulations, and programs. Among them are the *Carbon Monoxide Maintenance Plan* (1994), *Bay Area Clean Air Plan* (2000), and the *2001 Ozone Attainment Plan* (currently under review for approval by EPA). The BAAQMD has also developed CEQA guidelines to assist lead agencies in evaluating the significance of air quality impacts. In formulating compliance strategies, the BAAQMD relies on planned land uses established by local general plans. When a project proposes to change planned uses, by requesting a general plan amendment, the project may depart from the assumptions used to formulate BAAQMD in such a way that the cumulative result of incremental changes may hamper or prevent the BAAQMD from achieving its goals. This is because land use patterns influence transportation needs, and motor vehicles are the primary source of air pollution.

The project site has a General Plan designation of 'Commercial' in the *City of Morgan Hill General Plan* and a zoning designation of 'PUD (HC)' in the *City of Morgan Hill Planning and Zoning Codes*. The *City of Morgan Hill General Plan* designates the project site as the location of a sub-regional commercial site and the proposed project is consistent with the *City of Morgan Hill General Plan* designation. The proposed project would include a General Plan Amendment (GPA) for the relocation of a future collector street extending from Mission View Drive north of Cochrane Road instead of extending from De Paul Drive (formerly St. Louise Drive) as designated on the *City of Morgan Hill General Plan* map. This amendment is not likely to interfere with population projections or change vehicle miles traveled in Morgan Hill. The project is proposing a retail center that would serve the needs of the population. It is unlikely to interfere with region-wide population or vehicle miles traveled projections that are used in Clean Air planning efforts. However, because the proposed project results in significant emissions of air pollutants that affect regional air quality, it is considered to result in a **significant cumulative unavoidable impact** that cannot be mitigated to a less than significant level.

REFERENCES/DOCUMENTATION

Bovee Environmental Management, Inc. *Asbestos and Lead-Based Paint Reconnaissance, 66 Acre Property: NEC Hwy 101 & Cochrane Road, Morgan Hill, California*. February 2005.

Illingworth and Rodkin, Inc. *Cochrane Road Retail Development Air Quality Assessment, Morgan Hill, California*. March 15, 2005.

Morgan Hill, City of. *Morgan Hill General Plan*. July 25, 2001 (Updated July 2004).

Morgan Hill, City of. *Morgan Hill General Plan, Draft Master Environmental Impact Report*. March 22, 2001.

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This section evaluates individual resource and cumulative impact to biological resources with implementation of the proposed project. The analysis of biological resources presented in this section is based on a review of the most current project description as well as data collected from onsite surveys, maps, and available literature by PMC's biological resource staff.

3.4.1 ENVIRONMENTAL SETTING

The following section describes conditions at the project location with emphasis on biological resources.

REGIONAL SETTING

The project site is located on the Morgan Hill U.S. Geological Survey (USGS) 7.5-minute topographical quadrangle map (Township 1 South, Range 1 East, Ojo de Agua Lands) and is shown on Figure 3.4-1. As defined by the California Department of Fish and Game (DFG) Wildlife and Habitat Data Analysis Branch, wildlife habitat within Santa Clara County consists of (but is not limited to) 31 different classifications, including annual grassland, coastal scrub, irrigated row and field crop, urban, and valley foothill riparian (DFG 2004). **Table 3.4-1**, presented in Appendix D of this EIR, presents wildlife commonly observed within the county.

LOCAL SETTING

The project site consists mostly of continuous (year round) active agricultural land and has since at least 1917 (Twining Laboratories 2005). Habitat within the project area consists of approximately 1.7-acres of annual grassland, 0.7-acres of barren area, 16.7-acres of dryland grain crop, 26.9-acres of irrigated row and field crop, 7.7-acres of pasture, 6.0-acres of urban area, and 6.8-acres of vineyard (see **Figure 3.4-1**). According to the project arborist report and inventory summary, a total of 118 trees, predominantly black walnut (*Juglans nigra*) occur within the project boundaries (PMC 2005). Approximately 108 trees have been recommended for removal and ten trees have been recommended for relocation and protection as part of the proposed project. The arborist report is included in Appendix D of this EIR.

The surrounding areas are predominantly agricultural as well as urban. The Santa Clara Valley Water District (SCVWD) Cochrane Channel is located immediately west of the site and borders the project site. The channel includes an approximately 7.9-acre sloped concrete (or barren) ditch (see **Figure 3.4-1**) that receives seasonal drainage from Highway 101 and a few adjacent areas such as the project site (SCVWD 2004). Cochrane Channel is a tributary of Coyote Creek, which is located approximately 0.5-miles north of the project area. Additionally, Anderson Lake is located about 1.25-miles northeast of the project site. **Figure 3.4-2** shows the project location, surrounding areas, and proximity to

permanent water features. See Section 3.8, Surface Water Hydrology and Water Quality for more information regarding this drainage facility.

BIOLOGICAL COMMUNITIES

A site inspection was conducted by PMC on December 15, 2004, to evaluate the existing habitat and resources at the project location. Habitat occurring on the project site is discussed below. Special status wildlife species, sensitive plants, and critical habitat expected or known to occur within the general project area are also addressed in this section.

Annual Grassland (1.7 Acres)

In California, annual grassland generally occurs on flat plains to gently rolling foothills throughout the Central Valley, in the coastal mountain ranges to Mendocino County, and in scattered locations in the south portion of the state. Dominant species found within this habitat include introduced grasses such as, brome (*Bromus sp.*), soft chess (*Bromus mollis*), and wild oat (*Avena fatua*). Common forbs associated with annual grassland include clover (*Medicago sp.*), filaree (*Erodium sp.*), and turkey mullein (*Eremocarpus setigerus*) (DFG 2002).

The structure of this habitat varies from year to year based largely on precipitation, season, and presence of livestock. Annual plant seeds are germinated by rain in the fall months. Following these rains, plants grow slowly throughout the winter remaining relatively small until the spring when rising temperature stimulates rapid growth (DFG 2002). Most annuals mature between April and June, although some species, such as tarweed (*Madia sativa*) and turkey mullein, continue to grow into the summer (Heady 1977). Grazing by livestock typically supports a greater abundance of shorter grass (less than 12 inches tall), such as filaree and turkey mullein. Without the presence of livestock, annual grassland generally grows tall (greater than 12 inches) and dense with species such as, ripgut brome (*Bromus rigidus*) and wild oat (Freckman et al. 1979). Annual grassland noted during the site inspection consisted of shorter invasive or ruderal species scattered along the perimeter as well as one section of taller grasses in the northwest portion of the site (see **Figure 3.4-1**). Infrequent grazing most likely occurs from horses, which are corralled onsite.

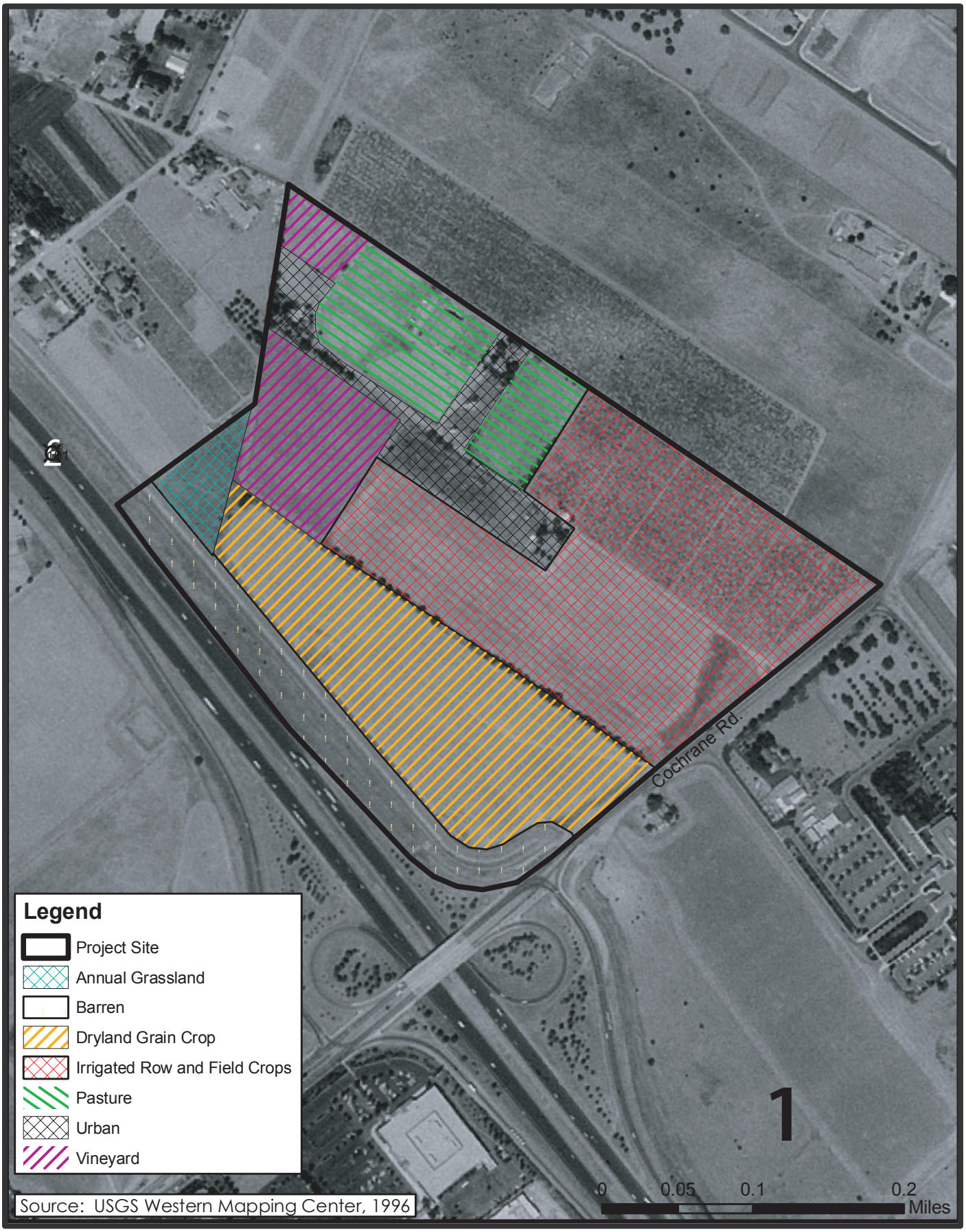

FIGURE 3.4-1
HABITAT MAP

PMC

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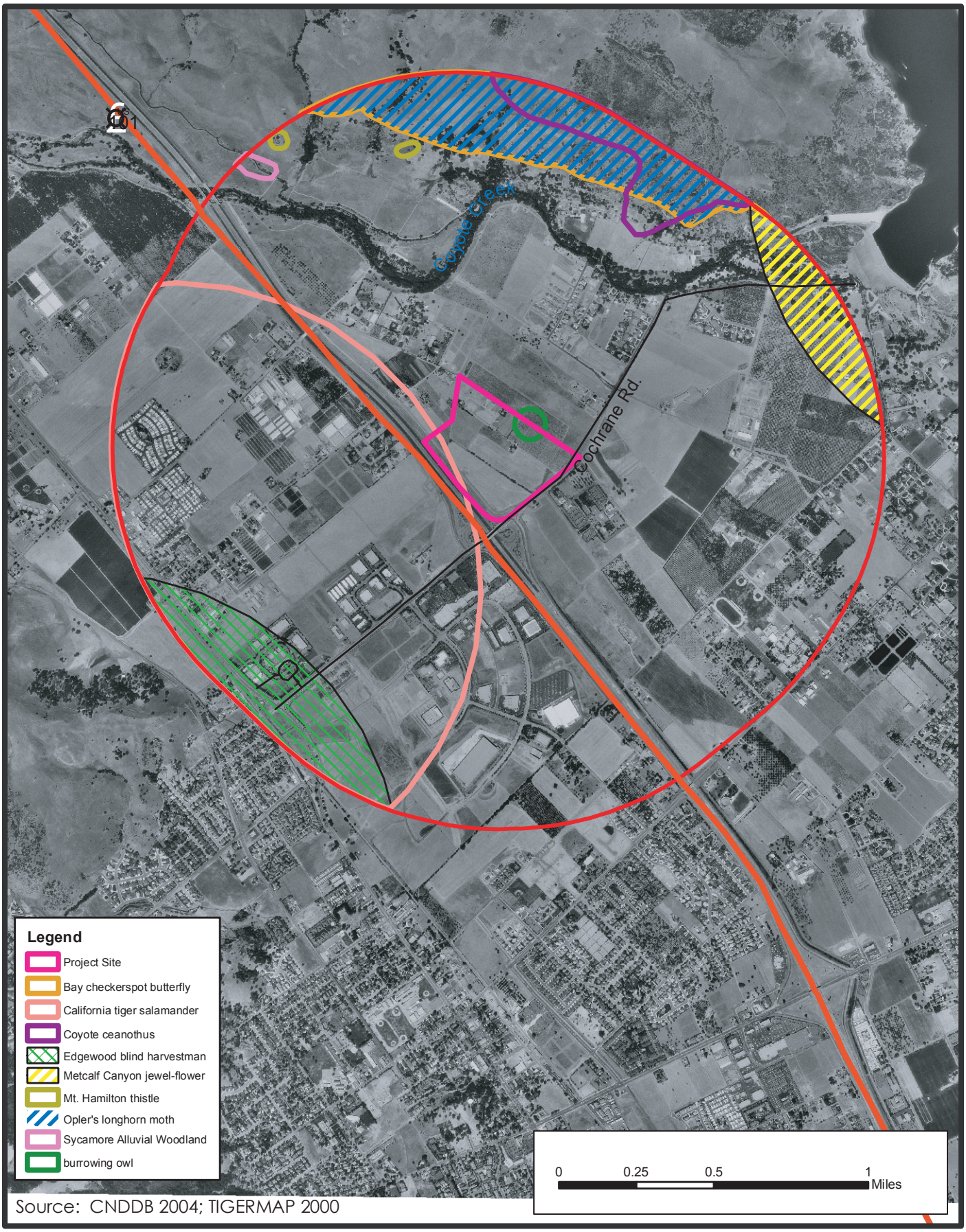

CNDDB 1 Mile Radius Map, April 2005

FIGURE 3.4-2
CNDDB 1 MILE RADIUS MAP

PMC

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Barren (0.7 Acres)

The DFG defines barren habitat as "the absence of vegetation;" specifically, any area with less than two percent cover by herbaceous, desert, or non-wildland species as well as less than ten percent cover by trees or shrubs (DFG 2002). Examples of barren habitat include, rocky outcroppings, sandy beaches (or dunes), mudflats, river banks, canyon walls, infertile desert, talus slopes, glaciers, and paved urban areas. Some habitats may be barren seasonally (i.e., snow-covered meadows, plowed fields, or suburban development sites), while other areas (i.e., talus slopes) are generally barren year round. Typically, barren habitat is found closely associated with other nearby habitats that vary depending on geographic location. Even though barren areas lack dense vegetation, many species of wildlife utilize them for nesting, foraging, and even cover, as is the case for species that roost on rocky cliff faces. At the project site, barren habitat consists primarily of a concrete and gravel area associated with the Cochrane Channel, which receives runoff from the adjacent project area. The channel has approximately four-foot high bare concrete banks and abuts the western section of the site. Less significant barren areas at the project location include rural driveways and agricultural access roads whose patterns change seasonally.

Dryland Grain Crop (16.7 Acres)

Dryland grain crop habitat refers to planted annual grasses (i.e., barley [*Hordeum vulgare*], cereal rye [*Poa sp.*], oats [*Avena sp.*], and wheat [*Agropyron sp.*]), generally located on flat to gently rolling terrain (DFG 2002). The type of crops found in this habitat is largely dependant upon geography, climate, and soils. Dryland grain crop is typically planted in spring months and harvested in the fall, but can also be used other times of year as part of a crop rotation system. Depending on the season and local farming practices, this habitat can range in appearance from uniform rows of stubble to 100 percent canopy of mature grasses. In many areas, fields of grain are harvested and then left fallow for one or more years to be grazed by livestock. Many small mammal and bird species have adapted to these croplands, but are threatened by changes in crop patterns, chemicals for controlling disease and pests, as well as fencing, trapping, and poisoning to prevent crop losses (California Department of Food and Agriculture 1975). Wheat is harvested annually on the western portion of the project site. During the site inspection, the area did not appear to be used for grazing of livestock.

Irrigated Row and Field Crop (26.9 Acres)

Row and field crop typically occurs on flat terrain, which is leveled to facilitate irrigation. Types of crops within this habitat largely depend on local soil types, climate, and farm management practices. Row and field crops in California frequently are annuals managed in a crop rotation system, although perennials such as alfalfa (*Medicago sativa*) are also often used to fix nitrogen in the soil. Crop rotation systems are implemented to maintain

soil productivity throughout the year and break crop pest life cycles (DFG 2002). At the project site, rows of peppers (*Solanaceae* family) were noted during the site inspection and appeared to be mid-way through their life cycle.

Irrigated row and field crop generally provides low habitat suitability for reproduction and cover of wildlife species, due to consistent disturbance of the area and crop loss prevention methods employed by farmers (e.g., fencing and insecticide use). However, many species of birds and mammals use cropland as foraging habitat. In addition, many other wildlife species can benefit from the typical availability of irrigation water during drier months (DFG 2002).

Pasture (7.7 Acres)

Classic pasture habitat consists of perennial grasses and legumes that provide 100 percent canopy cover planted on flat and gently rolling terrain (DFG 2002). However, pasture varies depending on management practices, soil type, irrigation, weed control, type of livestock, and geographic location. Poor pasture habitat consists predominantly of sparse ruderal vegetation. Pastures often occur in association with other agricultural habitats, typically established on soils not suitable for other crops or as part of a rotation system. A variety of wildlife utilize pasture for nesting, foraging, and cover. In many areas throughout California, pastures are flooded in fall and winter for migrating waterfowl and drained for grazing by livestock in the summer (DFG 2002). Horses that appeared to be boarded onsite graze in pasture habitat at the project location. Habitat quality is poor as much of the area consists of sparse ruderal vegetation or lacks ground cover completely.

Urban (6 Acres)

Urban habitat is distinguished by the presence of both native and exotic species maintained in a relatively static composition within a downtown, residential, or suburban setting. Species richness in these areas depends greatly upon community design (i.e., open space considerations) and proximity to the natural environment (DFG 2002).

The California Wildlife Habitat Relationships (CWHR) system classifies urban habitat into five different vegetation types: tree grove, street strip, shade tree/lawn, lawn, and shrub cover (DFG 2002). Tree groves refer to conditions typically found in city parks, green belts, and cemeteries. These areas vary in tree height, spacing, crown shape, and understory conditions; however, they have a continuous canopy. Street strip vegetation, located roadside, varies with species type, but typically includes a ground cover of grass. Shade trees and lawns refer to characteristic residential landscape, which is reminiscent of natural savannas. Lawns are composed of a variety of grasses, maintained at a uniform height with continuous ground cover through irrigation and fertilization. Shrub cover refers to areas commonly landscaped and maintained with hedges, as typically found in commercial districts. All five types of urban habitat are generally found in combination

creating considerable edge effect, which can be more valuable to wildlife than any one individual unit (DFG 2002).

The project area includes, shade tree/lawn, lawn, and shrub cover associated with rural residences located onsite.

Vineyard (6.8 Acres)

Vineyard habitat refers to irrigated rows of vine crops (i.e., boysenberries [*Rubus sp.*], raspberries [*Rubus sp.*], and grapes [*Vitis sp.*]), usually planted on wood or wire trellises (DFG 2002). The understory is generally managed with chemicals to prevent growth of herbaceous plants, but may also support a low growing cover crop purposely planted for erosion control. This habitat is commonly associated with other nearby agricultural areas, as is the situation at the project site. Vineyard is found in California on flat alluvial soils in valley floors, rolling foothills, and steep slopes. Soils in areas with vineyards are typically deep and fertile, which once supported a diverse natural habitat and associated wildlife. Some of this wildlife has adapted to vineyard habitat utilizing the area for forage, cover, and even nesting (i.e. mourning doves [*Zenaida macroura*]). These species are either viewed as agricultural pests, such as deer (*Odocoileus sp.*) and rabbit (*Lepus sp.*) because they forage on the vines, or natural pest control, such as raptors that prey on rodents and other vermin. A vineyard with an herbaceous understory occurs at the project site.

TREES

On December 13, 2004, Kevin Grant (ISA Certified Arborist #23090/WE-4192A) visited the project site to conduct a field inspection and collect field data in order to prepare a Preliminary Arborist Report in compliance with the City of Morgan Hill Ordinance Section 12.32 'Restrictions on Removal of Significant Trees' which requires an inventory and field identification of any single-trunked non-indigenous species with a circumference of 40-inches or more and 18-inches or more for indigenous species measured at four and one-half feet vertically above the ground. The trees were identified (GPS locations) and tagged in the field with round, blue metal numbered tags. The arborist report is included as Appendix D.

The project site contains 118 trees, five (5) of which fall within the criteria of the City of Morgan Hill Ordinance Section 12.32.070. Due to the nature of the proposed project, all trees were accounted for during the field survey. Species composition includes forty-six (46) Black Walnut (*Juglans nigra*), eleven (11) Pepper (*Shinus molle*), ten (10) Monterey Pine *(Pinus radiata),* nine (9) White Ash *(Fraxinus americana),* ten (10) Palm *(Trachycarpus spp.),* four (4) Gum *(Eucalyptus spp.),* three (3) Valley Oak (*Quercus lobata*), three (3) Olive (*Olea uropea*), three (3) Strawberry (*Arbutus unedo*), three (3) Paper Mulberry *(Broussonetia papyrifera)*, two (2) Japanese Loquat *(Eriobotrya japonica),* two (2) Deodar (*Cedrus deodara*), two (2) Live Oak (*Quercus wizlizenii),* two (2) Privet (*Ligustrum spp.*),

two (2) Pecan (*Carya illinoinensis*), two (2) Juniper (*Juniperus californica*), one (1) California Redwood *(Sequoia sempervirens),*one (1) Willow *(Salix alba),* one (1) White Fir (*Abies concolor*), one (1) Sycamore (*Acer pseudoplatanus*), and one (1) unknown tree totaling 1,868 aggregate diameter inches.

SPECIAL STATUS SPECIES

In general, special status species include plants and wildlife that are:

- Listed and protected under the Federal and/or California Endangered Species Acts;
- Listed and protected under other federal and/or state regulations;
- Sufficiently rare to qualify for listing or protection under federal and/or state regulations; or
- Considered unique or in decline by the scientific community.

Table 3.4-2 in Appendix D lists special status species identified by the U.S. Fish and Wildlife Service (USFWS) that may be affected by projects in Santa Clara County as well as species listed in the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) inventory within a nine USGS topographical quadrangle search range (USFWS 2004, CNDDB 2003, CNPS 2004). Quadrangles included in the data search were Gilroy, Isabel Valley, Lick Observatory, Loma Prieta, Morgan Hill, Mt. Madonna, Mt. Sizer, San Jose East, and Santa Teresa Hills. Species listed as being unlikely to occur within the project area are considered to be beyond their known range or to have low habitat suitability for reproduction, cover, and/or foraging. **Figure 3.4-2** shows occurrences of special status species listed in the CNDDB within a one-mile radius of the project area.

Species that possibly or will likely occur within the project area and therefore potentially need further study are listed in **Table 3.4-3** in Appendix D of this EIR. These species are also addressed in the following pages.

LISTED AND SPECIAL STATUS PLANTS

As shown on **Figure 3.4-2**, three special status plant species (Coyote ceanothus [*Ceanothus ferrisiae*], Metcalf Canyon jewel-flower [*Streptanthus albidus ssp. albidus*], and Mt. Hamilton thistle [*Cirsium fontinale var. campylon*]) occur within one mile of the project area. All of these species are associated with serpentine areas located east of the project site along Coyote Ridge. Based on literature review (e.g., CNPS Inventory of Rare and Endangered Plants), soil survey analysis, onsite survey observations, species' range information, and the agricultural history of the site, none of these special status plant species have the potential for occurrence within the project area.

LISTED AND SPECIAL STATUS WILDLIFE

Based on USFWS and CNDDB information, several special status animals have a potential for occurrence within the project vicinity (see **Table 3.4-2**). However, habitat at the project location (see descriptions above) provides low suitability for many of these species; therefore, they are not expected to be adversely affected by the project. After further review of species' life history and habitat suitability data, 23 species (see **Table 3.4-3**) have a potential for occurrence at the project site. In addition, many transient or foraging raptor and migratory bird species have a potential for occurrence within the project area. These special status species are discussed below.

Bay Checkerspot Butterfly

The Bay checkerspot butterfly is a federally listed threatened species. It occurs in three types of habitats: 1) on continuous native grasslands with very large serpentine outcrops; 2) on smaller serpentine outcrops (with native grasslands); and 3) where host plants occur on soils not derived from serpentine, but show serpentine characteristics (USFWS 1987). There are currently five core occurrence areas for this species: one in San Mateo County (Edgewood County Park), and four (dubbed Kirby, Metcalf, San Felipe, and Silver Creek Hills by the USFWS) in Santa Clara County along Coyote Ridge located east of the Santa Clara Valley, between San José and Morgan Hill (USFWS 1998a). The four areas within Santa Clara County are separated by discontinuities in the soil and unsuitable vegetation, such as riparian; however, all four are within documented butterfly flight distances, so dispersal among them is likely frequent (USFWS 1998a).

The project area is centrally located between three critical habitat areas for the Bay checkerspot butterfly (one each to the northeast, northwest, and southwest). All three areas are within 2 miles of each other, which is well within the adult dispersal range (up to 4.7 miles has been documented) for this species (USFWS 1998a). Therefore, it is likely that Bay checkerspot butterfly would be transients through the project site. However, due to ongoing agricultural activities and the lack of host plants at the site, it is unlikely Bay checkerspot butterfly are residents at the project location.

California Tiger Salamander

The California tiger salamander is a federally listed threatened species and a California species of concern. This salamander is restricted to grasslands and low foothill regions where ephemeral pools or sag ponds are available for breeding (USFWS 2005a). Adults spend the majority of the year in underground borrows, especially those provided by California ground squirrels (*Spermophilus beecheyi*) and occasional man-made structures (Stebbins 1972, Shaffer et al. 1993). Eggs are laid primarily in vernal pools or other temporary ponds from November to February (Shaffer and Fisher 1991). Larvae transform during late spring and early summer then rapidly disperse from pond margins (DFG 2002).

The primary threat to the continued existence of the California tiger salamander is fragmentation and loss of habitat from urban development. Predation by frogs (*Rana sp.*), reduction in ground squirrels from agricultural rodent control, competition or hybridization with introduced (nonnative) salamanders, and automobile kills also contribute to the decline of this species (USFWS 2005a).

The dispersal range of the California tiger salamander, as recorded on the CNDDB, includes the northwest corner of the project site. This territory is bisected by Highway 101, which separates the project area (east of the highway) from the majority of the salamander range (west of the highway). Because of this separation, the lack of suitable breeding pools, and ongoing agricultural activities, it is unlikely that California tiger salamander are residents at the project site.

Raptors and Migratory Birds

Raptor nests and migratory birds are protected under the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the DFG Code. Trees within and adjacent to the project location provide potential nest sites for raptors that could also forage within the area. Migratory birds forage and nest in a variety of habitats, including urban and agricultural regions. Active migratory bird nests are also protected under the MTBA, which outlaws their destruction.

Trees (primarily *Juglans nigra*) within the project area provide potential nest sites for raptors. Also, foraging or transient migratory and resident birds have a potential for occurrence in the project area.

Allen's Hummingbird

Allen's hummingbird is a federal species of concern. This hummingbird hovers to collect nectar from a wide variety of herbaceous and woody flowering plants as well as feeds on insects. Shrubs and trees near foraging areas provide cover. This hummingbird breeds from mid-February to early August with peak activity in April. Hawks, small mammals, and snakes predate Allen's hummingbird, but sudden cold periods that kill food sources contribute to the majority of this species' decline (DFG 2002).

In addition to foraging on nectar and insects, this hummingbird also occurs at man-made feeders. Allen's hummingbird uses sprinklers, birdbaths, and other water sources provided by humans for drinking and bathing. This species mostly winters in Mexico, but migrates north to nest from mid-February through early August in California. Therefore, Allen's hummingbird is a likely migratory visitor of areas within and/or surrounding the project site.

Black Swift

Black swift is a federal and California species of concern. This swift forages predominantly on flying insects caught during sustained, long-distance flights typically at a high altitude over a wide variety of habitats. Black swifts nest and find cover on steep, rocky, moist cliffs. They are rarely seen perching in any other environment (Bent 1940). Breeding lasts from early June to late August. Nests are usually positioned on ledges, sea cliffs, or mountain crevices, often behind a waterfall, where it is inaccessible to predators and most human disturbance (Stokes 1996, DFG 2002). Black swifts migrate south during winter months and are absent from California from October through April.

Black swifts nest on steep, rocky cliffs, but will forage long-distances over many habitats for flying insects. This species is present within the project vicinity from May through September. Therefore, it is possible black swifts forage on insects that occur at the project location.

California Thrasher

California thrasher is a federal species of concern. This bird forages primarily on the ground for insects, spiders, terrestrial invertebrates, fruits, acorns, and seeds. California thrasher require a dense cover of chaparral or riparian vegetation. Reproduction occurs from early December into August, with peak periods from mid-May to mid-June. Predation by hawks, feral cats, and domestic cats have contributed to this species' decline (DFG 2002).

In addition to foraging on the ground for insects, small lizards, fruits and berries, California thrasher often use bird feeders and birdbaths provided by humans in urban areas. These birds nest and take cover in riparian thickets, supported by local waterways, such as those found along Coyote Creek. Therefore, it is possible California thrashers reside in the vicinity of the project site and forage within the project boundaries.

Costa's Hummingbird

Costa's hummingbird is a federal species of concern that occurs primarily in arid scrub and chaparral habitats as well as riparian edge (DFG 2002). This hummingbird forages on various herbaceous and woody plants for flower nectar, preys on small insects and spiders, plus visits man-made bird feeders (Stokes 1996). Cover is found mostly in shrubs, but also occasionally in trees. Desert populations of this species breed from March through May; coastal populations reproduce from April through July. Most Costa's hummingbird winter in Mexico; desert populations occur in southern California typically from January through May while coastal or interior populations occur from mid-March through late September.

Costa's hummingbird arrives in the project vicinity mid-March and stays until late September when it migrates south. This species prefers dry environments, but is found in valley foothill riparian areas like those along local waterways (i.e., Coyote Creek). Since Costa's hummingbird eats nectar, spiders, insects, and visits man-made feeders, it is possible birds nesting in areas surrounding the project site forage within the project area from March through September.

Ferruginous Hawk

Ferruginous hawk is a federal and California species of concern. This hawk glides low over open areas to intercept prey on the ground or hunts from high mound perches. Prey mainly consists of lagomorphs, ground squirrel, and mice, but also includes birds, reptiles, and amphibians. Lagomorph population cycles may have a direct relation to ferruginous hawk population trends. This species roosts in open areas, such as a single trees or utility poles, and breeds from Oregon to Canada with egg-laying beginning in April. Competition for prey as well as urban development and loss of suitable wintering habitat in California contributes to the decline of this species (DFG 2002).

Ferruginous hawks are fairly common residents of grasslands and agricultural areas in California from September through mid-April. Therefore, it is likely Ferruginous hawks utilize the project area during this timeframe.

Great Blue Heron

The great blue heron is fairly common yearlong throughout most of California, including Santa Clara County. This species typically hunts by standing motionless, or walking slowly, in shallow water (less than 12 inches) or less commonly in open fields. Fish makes up nearly 75 percent of this species' diet, which also includes small rodents, amphibians, snakes, lizards, insects, crustaceans, and occasionally small birds. Great blue heron will perch and roost in secluded tall trees as well as perch on offshore kelp beds. In early February, this heron begins courtship and nest building, followed by egg laying in late February or March. Great blue heron are sensitive to human disturbance near nest sites and are probably also sensitive to pesticides and herbicides in nesting and foraging areas (DFG 2002).

Great blue heron prefer habitats near wetland areas, such as marshes, swamps, and river or lake edges. They forage in shallow water on a variety of prey, such as fish, amphibians, and insects, but also hunt in open fields (like those found at the project site) for small mammals. Since Coyote Creek and Anderson Lake are in the vicinity of the project site, it is possible that great blue heron occasionally forage and/or find cover at the project location.

Lawrence's Goldfinch

Lawrence's goldfinch is a federal species of concern. This bird feeds mostly on seeds and an occasional insect. Trees, especially oaks, and shrubs are used for nesting, escape, and cover. Reproduction typically occurs in March and April. Competition with other avian species for nest sites has contributed to the decline of this species (DFG 2002).

Since Lawrence's goldfinch forages in low grasses for seeds and insects as well as at bird feeders for sunflower and thistle seeds, it is likely this species occurs within and surrounding the project area.

Lewis' Woodpecker

Lewis' woodpecker is a federal species of concern. This bird feeds primarily on insects during the spring and summer, and fruits and berries in the fall and winter. Lewis' woodpecker uses cavities and foliage of trees and shrubs for cover. Reproduction occurs from early May through July, with a peak in late May and early June. Competition and loss of habitat have contributed to the decline of this species (DFG 2002).

Since Lewis' woodpecker forages on insects as well as acorns, nuts, fruits, and seed from bird feeders, it is possible this species occurs within and surrounding the project area.

Loggerhead Shrike

Loggerhead shrike is a California species of concern. This bird preys mostly on large insects, which it frequently skewers on thorns, sharp twigs, or barbwire to feed on or cache for a later feeding. Loggerhead shrike use shrubs and small trees for cover. Reproduction occurs from March through May, but young remain in nests until July or August. Nest predation and possible eggshell thinning due to contamination has contributed to the decline of this species (DFG 2002).

Loggerhead shrike is a common resident of California that is often found foraging in open cropland. Therefore, it is likely loggerhead shrike would occur within the grassland and agricultural areas of the project site.

Long-billed Curlew

Long-billed curlew is a federal and California species of concern. This species uses its long bill to probe into the substrate or to grab prey from mud surfaces. Inland prey includes insects, worms, spiders, berries, crayfish, snails, and small crustaceans. This bird typically roosts in coastal estuaries, but uses high salt marsh, pastures, and salt ponds during high tide periods. Breeding season for long-billed curlew occurs from mid-April to September.

Reduction in breeding range and increased agriculture contributes to the decline of this species (DFG 2002).

Long-billed curlew occurs in central California from late-June through mid-April. This species is commonly found in coastal estuaries, but also forages on grasslands and fields for prey such as insects, worms, spiders, berries, and snails. Therefore, grassland and dryland grain crop at the project location may provide forage and occasional cover for the long-billed curlew.

Red-breasted Sapsucker

Red-breasted sapsucker is a federal species of concern. This bird feeds on insects, primarily ants, as well as sap and soft tissues of trees. Red-breasted sapsucker nest and roost in aspen, willow, birch, and orchard trees near streams. Reproduction season for this species peaks from early June to early July. Loss of habitat contributes to the decline of this species (DFG 2002).

Red-breasted sapsucker occurs most frequently in moist woodlands, such as those found along Coyote Creek. Since this species nests and roosts in tree cavities and forages on the soft tissues of trees as well as insects, it is possible that red-breasted sapsucker forage, find cover, or nest within and surrounding the project site.

Rufous Hummingbird

Rufous hummingbird is a federal species of concern. This bird takes nectar from a variety of flowering plants, but also eats insects, spiders, and tree sap. Trees and shrubs in several different habitats, including riparian, provide cover for this hummingbird. Reproduction occurs from late April through July. Predation and unseasonable cold weather that kills food sources contribute to the decline of this species (DFG 2002).

Rufous hummingbird is a common migrant species throughout California. This species forages on nectar, insects, spiders, and sap from holes drilled by sapsuckers as well as visits hummingbird feeders. Therefore, it is likely rufous hummingbirds would forage and find cover within the project site as it migrates through the area.

Vaux's Swift

Vaux's swift is a federal and California species of concern. This swift occurs in northern California during the summer, where it roosts in tall hollow trees, snags, or burned stubs. In addition, large flocks of this species are known to roost in chimneys and buildings (Bent 1940). Vaux's swift typically forage on flying insects while soaring at high altitude during long, continuous flights, but can also forage at lower elevation woodland openings especially above rivers and lakes (Terres 1980). Breeding occurs from early May to mid-

August. One documented threat to the Vaux's swift population is heavy lice infestation, which increases mortality (Bent 1940).

Vaux's swift is a common summer resident of northern California. This species forages for insects over most terrains and habitats, especially near rivers. Due to the proximity of the project site to Coyote Creek, it is likely Vaux's swift forage within the area.

Western Burrowing Owl

Western burrowing owl is a federal and California species of concern. Found commonly in fallow agricultural fields and low-growing grassland, this gregarious owl also frequents habitats such as airport fields, highway shoulders, golf courses, and vacant lots. As a subterranean nester, the burrowing owl is dependant on ground squirrels or other small mammals for ideal nest sites and tends to reuse the same burrows year after year. Man-made structures such as cement culverts, debris piles, or openings beneath pavement can also provide suitable nest areas. Burrowing owls can often be seen in the daytime perching near their burrow (DFG 2002).

Nesting season begins as early as February 1 and continues through August 31, peaking between April 15 and July 15. An average nest consists of 6 to 11 white eggs that need to be incubated for 21 to 28 days (Stokes 1996). The young are initially dependent on their parents for food and warmth and generally leave the nest about 28 days from hatching. Disturbance of nest sites (harassment within 160 feet of the burrow) and habitat loss contribute to the decline of this species (The California Burrowing Owl Consortium 1993).

Small mammal burrows noted onsite during the site inspection provide suitable cover and nest areas for this owl. The CNDDB records previous sightings of this species at the project location. Therefore, it is likely western burrowing owls are utilizing the project area.

Whimbrel

The whimbrel is a federal species of concern that summers on northern tundra and winters in California along the coast and on agricultural fields (Stokes 1996). This curlew forages on a variety of prey depending on location; in coastal areas whimbrel probe the substrate for crabs, crayfish, and marine worms, while inland populations eat grasshoppers, beetles, spiders, and berries (Bent 1929). This species typically roosts on undisturbed areas above the high tidal zone and may travel long distances to forage (DFG 2002, Stokes 1996). Whimbrel nest in arctic regions generally in early June and July. Threats include loss of wetland habitat, cadmium contamination, and hunting practices in South America (Audubon 2002).

Whimbrel winter mainly along fresh or marine wetlands, where they forage for crustaceans and mollusks. However, whimbrel also forage on adjacent agricultural fields for insects

and spiders. Therefore, it is possible whimbrel forage within and near the project location during the winter.

White-tailed Kite

White-tailed kite is a federal species of concern. This raptor preys primarily on voles and small mammals, but also eats other birds, insects, reptiles, and amphibians. Broad-leafed deciduous trees with dense canopies provide cover for this species. Reproduction occurs from February to October, with peak activity from May to August. Nest predation and loss of habitat contribute to the decline of this species (DFG 2002).

White-tailed kite is a common yearlong resident of coastal and valley California. This species most often occurs near agricultural areas, such as those found at the project site. Therefore, it is likely white-tailed kite would utilize the project area for forage, cover, and/or as a nest site.

American Badger

The American badger is a California species of concern that is found throughout most of the state. This species occupies grasslands, sagebrush, open juniper woodland, and pine woodland (Alden et. al. 1998). American badgers are most abundant in drier open stages of shrub, forest, and herbaceous habitats with friable soils. Badgers are carnivorous, feeding typically on rodents and the occasional reptile or bird. They dig burrows in friable soil for cover and are somewhat tolerant of human activities (DFG 2002).

Agricultural areas, such as those at the project site, provide moderate habitat suitability for foraging of this species (DFG 2002). However, due to frequent and consistent farming within the project location, the potential for American badger to occur onsite is possible but doubtful.

Long-earred Myotis Bat

Long-eared myotis bat is a federal species of concern. This bat forages among trees, over shrubs, and over water for insects and beetles, which it eats more of than any other *Myotis* species. Buildings, crevices, spaces under bark, snags, and caves provide roost sites. Mating most likely occurs in the fall, but the young are born from May to July with peak activity in June. Disturbance of roost sites contributes to the decline of this species (DFG 2002).

Long-eared myotis bats forage along habitat edges, in open habitats, and over water. Therefore, due to the proximity of water features (i.e., Coyote Creek and Anderson Lake) as well as site characteristics (open, agricultural land), it is possible long-eared myotis forage over the project location.

San Joaquin Kit Fox

The San Joaquin kit fox is a mostly nocturnal federal endangered and California threatened listed species. San Joaquin kit fox are believed to have ranged historically from southern Kern County to Contra Costa and Stanislaus Counties in the San Joaquin Valley (DFG 2002). They inhabit several San Joaquin Valley vegetation communities, including annual grassland and a variety of scrub habitats. Today, San Joaquin kit fox populations are extremely fragmented. In their northern range, kit fox are found primarily in foothill grassland, oak savannah, and adjacent agricultural areas. In the southern range, kit fox inhabit grassland and scrubland communities, including those that have been modified by development, such as with oil exploration, wind turbines, agricultural and grazing (USFWS 2005b).

San Joaquin kit fox are found in a variety of habitats, including row crop, vineyard, pasture, and grasslands. Distributional records for this species show the presence of kit fox near Anderson Lake about 10 miles from the project site. Home ranges of up to 12 miles have been recorded for this species of fox (USFWS 1998b). However, residential areas situated between the project site and Anderson Lake may prohibit distribution of the fox to the project site. In addition, the City of Morgan Hill General Plan states that breeding habitat for San Joaquin kit fox is generally absent from their planning area (Morgan Hill 2001). Therefore, it is unlikely that San Joaquin kit fox ever occur at the project site.

Small-footed Myotis Bat

Small-footed myotis bat is a federal species of concern. This bat forages among trees and over water for flying insects, including moths, flies, beetles, and other bugs. Caves, buildings, mines, crevices, bridges, and bark provide roost sites. Mating occurs in the fall, but the young are born from May through June with peak activity in late May. Disturbance of roost sites contributes to the decline of this species (DFG 2002).

Small-footed myotis bats occur in a wide variety of habitats, usually near water. This species often forages among trees and over water sources, such as streams, ponds, springs, and stock tanks. With the proximity of the project location to water (i.e., Coyote Creek and Anderson Lake), small-footed myotis is likely to be foraging over the project site and/or possibly roosting in old wooden structures located onsite.

Yuma Myotis Bat

Yuma myotis bat is a federal species of concern. This bat forages over water on a variety of insects, including moths, midges, flies, termites, ants, and caddisflies. The Yuma myotis bat roosts in buildings, mines, caves, crevices, swallow nests, and under bridges. Mating occurs in the fall, but young are born from late May to July with peak activity in early June. Disturbance of roost sites contributes to the decline of this species (DFG 2002).

Yuma myotis bats are common throughout most of California, especially near water sources over which they can feed. The current project setting is moderately suitable as foraging habitat for this species, especially considering the project's proximity to Coyote Creek (approximately 0.5-miles north of the site). Additionally, abandoned wooden buildings on the property could provide roost and/or cover sites for this species. Therefore, it is possible Yuma myotis would be present within and/or foraging over the project location.

SENSITIVE HABITATS

Sensitive habitats includes: a) areas of special concern to resource agencies, b) areas protected under CEQA, c) areas designated as sensitive natural communities by DFG, d) areas outlined in Section 1600 of the California Fish and Game Code, e) areas regulated under Section 404 of the federal Clean Water Act (CWA), and f) areas protected under local regulations and policies. No sensitive habitats are documented at the project site on the CNDDB or were noted during the site inspection. However, sycamore alluvial woodland, a sensitive community, is documented within one mile northeast of the project location along Coyote Ridge. Considering the residential and geographic features (i.e., Coyote Creek) situated between this habitat and the project site, it is unlikely implementation of the proposed project would significantly adversely affect the woodland.

JURISDICTIONAL WATERS

The SCVWD Cochrane Channel borders the western edge of the project location. This channel is a tributary of Coyote Creek, a jurisdictional water of the United States, located north of the project site. Current construction plans do not include any fill, alteration, or disturbance of either the channel or the creek. In addition, the preliminary landscape plan includes a vegetation buffer area between development and the channel as well as two detention ponds for water run-off, so that implementation of the project does not increase flows into Cochrane Channel, which could ultimately contribute to erosion of Coyote Creek. Section 3.8 of this document further discusses hydrology and water use within the area.

WILDLIFE CORRIDORS

Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Corridors are present in a variety of habitats and link otherwise fragmented acres of undisturbed area. Maintaining the continuity of established wildlife corridors is important to: a) sustain species with specific foraging requirements, b) preserve a species' distribution potential, and c) retain diversity among many wildlife populations. Therefore, resource agencies consider wildlife corridors to be a sensitive resource. No known wildlife migration routes

or corridors occur within the project site or would be significantly adversely affected by implementation of the proposed project.

3.4.2 REGULATORY SETTING

Biological resources are protected under a variety of federal, state, and local regulations. These are discussed in the following sections.

FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) was enacted in 1973 to protect species that are endangered or threatened with extinction. FESA prohibits the "take" of a listed (endangered or threatened) species and defines "take" as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (16 USC 1531 et seq.; 50 CFR 17.1 et seq.). Section 7 of FESA directs all Federal agencies to conserve endangered and threatened species and, in consultation with the USFWS, to ensure that their actions (or actions under their jurisdiction) do not jeopardize listed species or adversely modify critical habitat. Section 10 of FESA directs non-Federal applicants to develop a Habitat Conservation Plan (HCP) and obtain an incidental take permit from USFWS before conducting any activity on their land that potentially may harm (or "take") a listed species.

Migratory Bird Treaty Act

The MBTA prohibits the taking, killing, possessing, or trading of migratory birds or their nests except in accordance with regulations prescribed by the USFWS and DFG (16 USC 703-711).

Clean Water Act

The Clean Water Act, as amended in 1977, established the basic structure for regulating discharges of pollutants into waters of the United States. Section 404 of the Clean Water Act requires the Army Corps of Engineers (Corps) authorization for the discharge of dredged or fill material into all waters of the United States, including adjacent and isolated wetlands. Discharge of fill material includes, but is not limited to: placement of fill that is necessary for the construction of any other structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; dams and dikes; artificial islands; property protection or reclamation devices such as riprap, groins, seawalls, breakwaters, and revetments; beach nourishment; levees; fill for intake and outfall pipes and subaqueous utility lines; fill associated with creation of ponds; dewatering of dredged

material prior to final disposal; fills for access roadways, cofferdams, storage and work areas; and any other work involving the discharge of fill or dredged material (33 CFR 26). A Corps issued permit is required for both permanent and temporary discharges to jurisdictional waters. Section 401 of the Clean Water Act requires any federally permitted activity that may result in a discharge of a pollutant into waters of the United States comply with applicable regulatory water quality standards. The San Francisco Bay Regional Water Quality Control Board administers Section 401 Water Quality Certifications for these activities in the project area.

STATE

California Endangered Species Act

The California Endangered Species Act (CESA) was enacted in 1984 to ensure that actions under state agency jurisdiction do not jeopardize the existence of state-listed endangered or threatened species. Similar to the FESA, the CESA prohibits taking of state-listed endangered or threatened plants and vertebrate wildlife. CESA requires state agencies to consult with the DFG when preparing California Environmental Quality Act (CEQA) documents for projects or actions potentially impacting listed species or special habitats. DFG determines whether jeopardy of a state-listed species may occur and offers reasonable project alternatives or guidance for mitigation planning.

California Code of Regulations

In addition to formally listed species, many other species in California have regulatory protection under various sections of the California Code of Regulations enforced by the DFG. Species that may be considered for listing, due to declining numbers or threatened habitat, are protected as "rare." Certain species are also designated as "fully protected," which prevents take of an individual or their habitat unless for scientific purposes. In addition, the California Code of Regulations protects avian species by making it unlawful to take or possess migratory non-game birds, raptors, or the nest or eggs of any bird species.

Natural areas to be protected are also designated in the California Code of Regulations, including significant wildlife habitat, refuges, natural sloughs, riparian areas, and vernal pools. Waterways in particular are protected, such that, any project that may divert or obstruct the natural flow or substantially alter the bed, channel, or bank of any waterway is subject to regulatory review by the DFG.

California Native Plant Society

Although not a regulatory agency, the California Native Plant Society (CNPS) maintains and publishes an Inventory of Rare and Endangered Vascular Plants of California. The Inventory presents information regarding native California plant species that show a

declining population, limited distribution, or are considered by the scientific community to be threatened with extinction. Projects under CEQA review are required to address potential impact to CNPS-listed plants. CNPS definitions for listed plants are as follows:

- List 1A: Plants believed extinct.
- List 1B: Plants rare, endangered, or threatened in California and elsewhere.
- List 2: Plants rare, endangered, or threatened in California, but more numerous elsewhere.
- List 3: Plants about which we need more information.
- List 4: Plants of limited distribution.

LOCAL

City of Morgan Hill General Plan

The *City of Morgan Hill General Plan* identifies specific goals, policies, and programs regarding biological resources. Conservation and open space goals that are applicable to the proposed project are as follows:

Goal 1 Preservation of open space areas and natural features;

Goal 2 A stable, long-term city boundary reinforced by a greenbelt;

Goal 3 A viable agricultural industry;

Goal 5 Preservation and reclamation of streams and riparian areas as open space;

Goal 6 Protection of native plants and animals; and

Goal 7 Conservation of natural resources.

City of Morgan Hill Burrowing Owl Habitat Mitigation Plan

In 2003, the City of Morgan Hill prepared a *Citywide Burrowing Owl Habitat Mitigation Plan* in order to evaluate impacts to burrowing owls from development within the city limits and present a comprehensive program to mitigate those impacts. The *Citywide Burrowing Owl Habitat Mitigation Plan* is intended to comply with the requirements of CEQA by evaluating the effects of development, to burrowing owls, including direct, indirect, and cumulative effects. The plan also contains a program of habitat maintenance to mitigate those effects. As part of the *Citywide Burrowing Owl Habitat Mitigation Plan,*

all projects are required to perform preconstruction surveys prior to initial ground clearing to avoid "take" of burrowing owls and pay impact fees. The plan is intended to satisfy the requirements of CEQA by avoiding certain impacts and compensating for the effects of others by providing substitute environments.

Chapter 12.32.030 through 12.32.080 of the City of Morgan Hill Municipal Code, Restrictions on Removal of Significant Trees

Chapter 12.32.030 through 12.32.080 of the City of Morgan Hill Municipal Code, Restrictions on Removal of Significant Trees, states that "It is unlawful for any person to cut down, remove, poison or otherwise kill or destroy, or cause to be removed any tree or community of trees on any city or private property without first securing a permit." The permit approval process requires an inventory of the non-indigenous trees species with a circumference of 40-inches or more and 18-inches or more for indigenous tree species measured at four and one-half feet vertically above the ground.

The City of Morgan Hill may approve a permit only if one or more of the following findings are applicable to the proposed tree removal: the trees are 1) diseased, 2) could adversely affect the general public health and safety, 3) could cause substantial damage, 4) is a public nuisance, 5) is in danger of falling, 6) is too closely located to existing structures, 7) interferes with utility service, 8) acts as a host for a plant which is parasitic to another species of tree which is in danger of being infested or exterminated by the parasite, 9) is a substantial fire hazard, 10) removal is necessary for the continuing agricultural use of the property, and/or 11) will be replaced by plantings approved by the Community Development Director. A tree removal permit may also be issued if the action is required in order to utilize the property in a manner that is of greater public value than any environmental degradation caused by the action, or to allow reasonable economic or other enjoyment of the property.

3.4.3 IMPACTS AND MITIGATION MEASURES

A discussion of potential impacts and an evaluation of their significance to biological resources related to the proposed project are included in the following sections.

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines (Appendix G) and previous standards used by the City. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, endangered, threatened, or other

special status in local or regional plans, policies and regulations, or by the DFG or USFWS;

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies and regulations, or by the DFG or USFWS;

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, coastal, riverine, stream, marsh, vernal pool, 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 polices or ordinances protecting biological resources, such as a tree preservation policy;

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

- Substantially reduce the habitat of a fish, wildlife, or plant species or cause a species to drop below self-sustaining levels;

- Directly affect species protected under provisions of the Migratory Bird Treaty Act.

An evaluation of the significance of potential impact on biological resources must consider both direct effects to the resource as well as indirect effect in a local or regional context. Potentially significant impacts would generally result in the loss of a biological resource or obviously conflict with local, state, or federal agency conservation plans, goals, policies, or regulations. Actions that would potentially result in a significant impact locally may not be considered significant under CEQA if the action would not substantially effect the resource on a population-wide or region-wide basis.

METHODOLOGY

Available information pertaining to biological resources within the project action area, which refers to the area directly or indirectly affected by the proposed action, was reviewed during this analysis, including (but not limited to):

- City of Morgan Hill General Plan (2001);

- City of Morgan Hill Municipal Code Chapter 12.32, Restrictions on Removal of Significant Trees;
- Citywide Burrowing Owl Habitat Mitigation Plan for the City of Morgan Hill (2003);
- CNPS, Inventory of Rare and Endangered Plants for the Gilroy, Isabel Valley, Lick Observatory, Loma Prieta, Morgan Hill, Mt. Madonna, Mt. Sizer, San Jose East, and Santa Teresa Hills topographic quadrangles (2004);
- DFG, California Natural Diversity Database records for the Gilroy, Isabel Valley, Lick Observatory, Loma Prieta, Morgan Hill, Mt. Madonna, Mt. Sizer, San Jose East, and Santa Teresa Hills topographic quadrangles (2003);
- DFG, California Wildlife Habitat Relationships database (2002);
- The Jepson Manual: Higher Plants of California (Hickman 1993);
- National Audubon Society, Field Guide to California (Alden et.al. 1998);
- Phase I Environmental Site Assessment Northeast of Interstate 101 and Cochrane Road (Twining Laboratories 2004);
- Sierra Club Online Database for the California Bay-Delta Area, Including Santa Clara County, Winter (2004);
- Tigermap aerial of the project location (2000);
- USFWS, list of Federal Endangered and Threatened Species that occur in or may be affected by projects in Santa Clara County (December 22, 2004);
- USGS, 7.5 minute Morgan Hill topographic quadrangle (2003);
- Cochrane Road Planned Unit Development Arborist Report and Inventory Summary (2005).

SITE RECONNAISSANCE

Pacific Municipal Consultant's biologists surveyed the project area on December 15, 2004. Field investigations included a general inspection of the project site to adequately characterize existing habitat with emphasis on areas with the potential to support special status species or critical habitats. A pedestrian survey was also conducted for general plant and wildlife species. Plant species noted during the site inspection included (but are not limited to): alkali sida (*Sida hederacea*), black walnut, bull thistle (*Cirsium vulgare*), California brome (*Bromus carinaus*), common mallow (*Malva neglecta*), coyote brush

(*Baccharis pilularis*), crops (grape, pepper [*Piper sp.*], and wheat), horehound (*Marrubium vulgare*), milk thistle (*Silybum marianum*), prickly lettuce (*Lactuca serriola*), prostrate vervain (*Verbena bracteata*), purslane (*Portulaca oleracea*), radish (*Raphanus sativus*), redstem filaree (*Erodium cicutarium*), Russian thistle (*Salsola iberica*), wild oat (*Avena fatua*), yellow starthistle (*Centaurea solstitialis*), and various unidentified ornamentals. Wildlife species observed included, black phoebe (*Sayornis nigricans*), black-tailed jackrabbit, common raven (*Corvus corax*), domestic dog (*Canis familiaris*), feral cat (*Felis silvestris catus*), horse (*Equus sp.*), house sparrow (*Passer domesticus*), mourning dove (*Zenaida macroura*), song sparrow (*Melospiza melodia*), and various insects. Several burrows ranging in size from about one-inch to five-inch diameter were also observed throughout the site, especially in the western dryland grain crop area (see **Figure 3.4-1**). These burrows are presumably occupied by common small mammals, such as black-tailed jackrabbit or California vole (*Microtus californicus*).

PROJECT IMPACTS AND MITIGATION MEASURES

Project components were considered to evaluate and assess potential impact to biological resources within the vicinity of the proposed development. The project has the potential to directly affect, indirectly affect, and/or contribute to cumulative impacts of biological resources. Potential impact can be temporary, long-term, or permanent depending on the affect of project activities on an individual resource.

Potential Disturbance of Bay Checkerspot Butterfly

Impact 3.4-1 Development of the proposed project would result in temporary disturbance and permanent alteration of a site, which could be a dispersal area for Bay checkerspot butterfly. This would be considered a **less than significant** impact.

Bay checkerspot butterfly are known to occur within one mile of the project location. In addition, the project area is centrally located between three critical habitat areas for this species (one each to the northeast, northwest, and southwest). All three areas are within two miles of each other, which is well within the adult dispersal range (up to 4.7 miles has been documented) for the Bay checkerspot butterfly (USFWS 1998a). Therefore, direct (incidental) loss from transient butterfly colliding with vehicles (road kill) could occur with additional development of the area. Indirect disturbance would occur from increased nitrogen (affecting local host plant populations) due to additional vehicle exhaust within the proposed retail center. Special status invertebrates are considered to be a sensitive resource by federal and state resource agencies. However, given the absence of host plants and habitat, the occurrence of Bay checkerspot butterfly would be at most incidental. Therefore, this impact would be considered **less than significant.**

Potential Disturbance of Burrowing Owl Habitat

Impact 3.4-2 Implementation of the proposed project would result in temporary and direct alteration of site conditions that could support burrowing owl, a special status wildlife species. This would be considered a **potentially significant impact.**

Burrowing owl, a special status wildlife species, has been historically known to occur on the project site. Habitat at the project location provides a high potential of suitability for reproduction, cover, and foraging of this species. While no burrowing owls were observed during the site inspection, several burrows that could be potential nest sites for this species were noted within the project area. Therefore, implementation and construction of the proposed project could impact burrowing owl, both directly (removal of habitat) and indirectly (increased human activity). Special status wildlife species are considered to be a sensitive resource by federal and state resource agencies, so alteration of the project site is considered a **potentially significant impact**.

Mitigation Measures

MM 3.4-1a The project applicant shall retain a qualified biologist approved by the City of Morgan Hill to conduct a preconstruction survey for nesting burrowing owls at the project site no more than 30 days prior to ground disturbance. Depending on whether construction will begin during the nesting season (typically February 1st through August 30th), any owls inhabiting the site shall either: (a) during the nesting season be protected from disturbance through establishment of avoidance areas where no personnel or equipment are allowed to enter within a certain distance of the occupied burrow (distance determined by the biologist onsite following Burrowing Owl Consortium recommendations) or (b) outside of the nesting season be excluded and/or passively relocated by the biologist. Also, the qualified biologist shall be present during all phases of initial ground clearing to monitor for the presence of burrowing owl. Should a previously undetected owl emerge during clearing, all activity within the vicinity of the burrow (distance to be determined by the biologist) shall cease until the proper avoidance/exclusion measures are implemented and the biologist deems disturbance potential to be minimal.

MM 3.4-1b The project applicant shall compensate for loss of burrowing owl habitat located at the site by complying with the Citywide Burrowing Owl Habitat Mitigation Plan and fee program (Morgan Hill 2003).

Implementation of the above mitigation measures would reduce impacts to burrowing owl to a **less than significant** level.

Potential Disturbance of Raptors and Migratory Birds

Impact 3.4-3 Implementation of the proposed project would result in temporary and direct disturbance to nesting raptors and migratory birds (excluding burrowing owl). This would be considered a **potentially significant** impact.

According to the arborist report, 118 various tree species (i.e., black walnut, eucalyptus, etc.) occur within the project area, which provide nesting habitat for raptors and migratory birds (PMC 2005). Habitat at the site also provides suitable foraging opportunities for many avian species, including some raptors and migratory birds. Raptors and raptor nests are considered to be a special resource by federal and state agencies and are protected under the MBTA and California Code of Regulations. All migratory birds are also protected under the MBTA. Project implementation would impact the area that provides suitable habitat for these avian species.

Construction activities that require disturbance of trees or other vegetation containing active nests could cause direct impact to nesting raptor and migratory birds. Disturbance of active nests at the project site would be considered a direct and significant impact if take of a sensitive bird species occurred through nest abandonment. Construction could also result in noise, dust, increased human activity, and other indirect impacts to nesting raptors or migratory bird species in the project vicinity. Potential nest abandonment, mortality to eggs and chicks, as well as stress from loss of foraging areas would also be considered **potentially significant impact.**

Mitigation Measure

MM 3.4-2 If proposed construction activities are planned to occur during the nesting seasons for local avian species (typically February 1st through August 31st), the project applicant shall retain a qualified biologist approved by the City to conduct a focused survey for active nests of raptors and migratory birds within and in the vicinity (i.e., any suitable breeding habitat in accessible parcels adjacent to the project area that the biologist deems could be disturbed by construction activities) of the construction area no more than 30 days prior to ground disturbance. If active nests are located during preconstruction surveys, construction activities shall be restricted as deemed necessary by the qualified biologist to avoid disturbance of the nest until it is abandoned or the biologist deems disturbance potential to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 250-feet around the nest) or alteration of the construction schedule. No action is necessary if construction will occur during the nonbreeding season (generally September 1st through January 31st).

Implementation of the above mitigation measure would reduce impacts to raptors and migratory birds to a **less than significant** level.

Potential Disturbance of San Joaquin Kit Fox Habitat

Impact 3.4-4 Implementation of the proposed project would result in temporary and direct alteration of site conditions that could support San Joaquin kit fox, a special status wildlife species. This would be considered a **less than significant impact.**

San Joaquin kit fox, a special status wildlife species, could occur on the project site. Habitat at the project location provides a moderate potential of suitability for reproduction, cover, and foraging of this species. While several habitat elements (i.e., burrows, small mammals, friable soils) preferred by this species were noted within the project area during the site inspection, kit fox breeding habitat is not expected to occur within the City of Morgan Hill planning area (Morgan Hill 2001). Therefore, implementation and construction of the proposed project is not anticipated to affect the San Joaquin kit fox. Therefore, this impact is considered **less than significant.** No mitigation measures are required.

Potential Disturbance of Special Status Bat Species

Impact 3.4-5 Implementation of the proposed project would result in temporary and direct alteration of site conditions that could support special status bat species and/or their roosting habitat. This would be considered a **potentially significant impact.**

Special status bat species, including long-eared myotis bat, small-footed myotis bat, and Yuma myotis bat, could occur at the project site. Bats roost in a wide variety of habitats including buildings, mines, under bridges, rock crevices, caves, under bark, and in snags. Potential habitat for roosting bats at the project location occurs within rural structures (i.e., barns and horse corral), as well as, the various trees onsite. No bats were observed during field reconnaissance, but they could utilize the area seasonally or for day and/or night roosts. These species of bat are considered species of concern to the USFWS and/or CDFG. As a result, impact to these bats is considered potentially significant and is subject to mitigation.

Mitigation Measure

MM 3.4-3 The project applicant shall retain a qualified biologist approved by the City of Morgan Hill to conduct a focused preconstruction survey for possible roost sites of special status bat species within the project area. The survey shall be conducted no more than 45 days prior to the onset of

ground disturbance or major construction activities. If bat species or roosts are identified within the project area during preconstruction surveys, the biologist in coordination with the applicant shall (at a minimum):

a) Identify species present within the roost (this may require the assistance of a biologist who specializes in bat ecology);

b) Install bat boxes at a location determined through obtaining technical guidance from the USFWS and/or DFG (box specifications and number to be determined based on the size of the roost and type of species present); and

c) Install one-way bat doors at the roost to prohibit bat re-entry once the bat boxes are available.

Additionally, the applicant shall postpone any project-related activity that would damage or disturb the roost site until the biologist deems no bat species to be in jeopardy. The project applicant, to the extent possible, shall also implement USFWS and/or DFG recommendations (obtained through technical guidance) for minimizing the potential to take bat species during construction. If bat species are not identified onsite during the preconstruction survey, no further action is necessary.

Implementation of the above mitigation measure would reduce impacts to special status bat species to a **less than significant** level.

Removal of Protected Trees

Impact 3.4-6 Implementation of the proposed project would result in potential removal of 118 various tree species, five of which fall within the criteria of the City of Morgan Hill Ordinance Section 12.32.070 due to their size and species. This would be considered a **potentially significant impact.**

The *City of Morgan Hill General Plan* identifies preservation of native and/or historically significant trees as a conservation policy (Morgan Hill 2001). The project applicant is proposing removal of approximately 118 trees, five of which fall within the criteria of City of Morgan Hill Ordinance Section 12.32.070 due to their size and species, with implementation of the proposed project. According to the Arborist Report prepared for the proposed project by Pacific Municipal Consultants (Appendix D), 108 trees have been recommended for removal due to structural defects and invasive unhealthy qualities including the five trees discussed above. Ten palm (*Trachycarpus spp.)* trees have been

recommended to be transplanted/protected at the project site as these trees are in good health and are easily preserved and transplanted on-site.

In accordance with Section 12.32.070 of the Morgan Hill Municipal Code, the City may approve the removal of trees if these trees are: 1) diseased, 2) could adversely affect the general public health and safety, 3) could cause substantial damage, 4) is a public nuisance, 5) is in danger of falling, 6) is too closely located to existing structures, 7) interferes with utility service, 8) acts as a host for a plant which is parasitic to another species of tree which is in danger of being infested or exterminated by the parasite, 9) is a substantial fire hazard, 10) removal is necessary for the continuing agricultural use of the property, and/or 11) will be replaced by plantings approved by the Community Development Director. A tree removal permit may also be issued if the action is required in order to utilize the property in a manner that is of greater public value than any environmental degradation caused by the action, or to allow reasonable economic or other enjoyment of the property. Loss of protected trees at the project site is considered a potentially significant impact. Implementation of the following mitigation measure would reduce this impact to **a less than significant level.**

Mitigation Measure

MM-3.4-4 Removal and/or relocation of trees at the project site shall be in compliance with Sections 12.32.030 through 12.32.080 of the City of Morgan Hill Municipal Code, Restrictions on Removal of Significant Trees. Should the City of Morgan Hill require the project applicant to preserve any existing trees in place and/or transplant any trees at the project site, the following tree protection standards shall be implemented during construction and demolition activities at the project site.

> Prior to commencement of construction activities, to the greatest extent feasible, the critical root zone (measurement of the dripline radius taken from the tree trunk to the tip of the farthest reaching branch as determined by a Certified Arborist or Registered Professional Forrester) of any tree to be retained shall be fenced with a four-foot high brightly colored synthetic fence at the outermost edge of the critical root zone to prevent injury to the trees prior to grading and during construction activities within the project area. The fencing shall remain in place until all construction activities are complete. Trenching, grading, soil compaction, parking of vehicles or heavy equipment, stockpiling of construction materials, and/or dumping of materials shall not be allowed within the critical root zone.

Implementation of this mitigation measure would reduce impacts from the removal and or preservation of trees at the project site to a **less than significant level**.

Potential for Increased Erosion and Non-Point Pollution in Coyote Creek

Impact 3.4-7 The proposed project would potentially result in increased runoff entering the SCVWD Cochrane Channel, which is a tributary of Coyote Creek. This would be considered a **potentially significant impact.**

Cochrane Channel borders the western boundary of the proposed project area. The channel currently accepts drainage from U.S. Highway 101 as well as some tributary areas, such as the project site. Development of the proposed project would increase impervious area resulting in additional storm runoff entering the channel. An increase in non-point source pollution could affect Coyote Creek, which supports multiple sensitive resources, as well as increase erosion. **Mitigation Measure MM 3.8-5** in Section 3.8, Surface Water Hydrology and Water Quality would require implementation of structural and non-structural stormwater controls, in order to reduce non-point source pollutant loads. Implementation of this mitigation measure would reduce the long-term potential of increased non-point source pollution in Coyote Creek to a **less than significant** level.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts to Special Status Species, Critical Habitats and Wildlife Movement

Impact 3.4-8 The proposed project, in addition to anticipated cumulative development in the project vicinity, may disturb special status species, critical habitats, and wildlife movement throughout the region. These impacts would be considered **potentially significant cumulative impacts.**

As presented in the impact discussions above (see Impacts 3.4.1 through 3.4.7), implementation of the proposed project would result in a loss of habitat and contribute to biological resource impacts, including disturbance of special status species. Anticipated development within the City of Morgan Hill is expected to further contribute to these impacts and is considered a **potentially cumulative significant** for impact to biological resources.

Implementation of mitigation measures incorporated herein, would reduce the overall contribution to cumulative biological resource impacts resulting from completion of the proposed project. Therefore, the project contributions to the potential loss and/or restriction of biological resources in the region are considered **less than significant.**

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This section of the EIR discusses the existing historical and cultural resources present at the project site and evaluates the potential impacts to those resources that could result from implementation of the proposed project. This analysis is based upon an archaeological and historical investigation, completed in December 2004 by John Nadolski, M.A., a Cultural Resource Specialist with Pacific Municipal Consultants, and Andrea Galvin, M.A. an architectural historian with Galvin & Associates. The archaeological and historical investigation is included as Appendix E of this EIR.

3.5.1 ENVIRONMENTAL SETTING

REGIONAL SETTING

There has been limited research conducted on the cultural resources within the vicinity of the project site until recently, as interior areas tended to be overlooked in favor of coastal areas. However, most of the research that has focused on the Monterey Bay, San Francisco Bay and along the coast is relevant to the prehistory of the Santa Clara Valley due to geography and interrelationships between the groups.

Ethnography

At the time of Euroamerican contact, Native American groups of the Costanoan language family occupied the area from San Francisco Bay to southern Monterey Bay and the lower Salinas River. This language family consists of approximately eight separate and distinct languages, and approximately 50 tribelets. The tribelets that occupied the area of Morgan Hill were Matalan, Pitac, and Chitactac. The Costanoan culture was dramatically affected by missionization by the Spanish, and information regarding its pre-contact organization is incomplete and inconsistent. The Costanoan languages were probably extinct by 1935, and in the 1971 the remaining Costanoan descendants united as a corporate entity identified as the Ohlone group of Native Americans.

Euroamerican Contact

Gaspar de Portola led an expedition to the area in 1769. Subsequent expeditions of the area included an expedition by Juan Bautista de Anza in 1776 along the route, which became known as El Camino Real. This was the beginning of euroamerican contact with the Native Americans in the area. The establishment of the missions by Padre Junipero Serra, beginning in 1770 with Mission San Carlos de Borromeo, Mission Santa Clara de Asis in 1777, and Mission San Juan Baustista in 1797, had a dramatic effect on the Native American populations. The Spanish attempted to convert the Native American population to Catholicism and incorporate them into the "mission system." This process disrupted traditional Costanoan cultural practices, and they were generally slow to adapt to the mission system. However, by 1810 most Native Americans in the area were either incorporated or relocated into local missions.

The Mexican period (1821-1848) in California was an outgrowth of the Mexican Revolution, and its accompanying social and political views affecting the mission system. In 1833, the missions were secularized and their lands divided into land grants called ranchos. Consequently, Costanoans, and other Native American groups across California, were forced into a marginalized existence working as 'vaqueros,' or cowboys, on the ranchos.

In the latter half of the nineteenth century, there was an ongoing and growing immigration of Euroamericans into the area, which was also accompanied by regional cultural and economic changes. Dispersed farmsteads slowly replaced the immense Mexican ranchos, and various crops replaced cattle ranching as the primary economic activity in the region. With the advent of the railroad in the late 1880s and the mechanization of farming, various groups immigrated to the area, including the Chinese and Japanese.

City of Morgan Hill

The Spanish established settlements in the cities of San José and Monterey by the late 1700s. Monterey Road was the primary route that connected these two settlements and ran through what is now known as Morgan Hill. The earliest settlements in the Santa Clara Valley were established along Monterey Road and included Madrone. The growth of Madrone and the Santa Clara Valley in general was accelerated by the construction of a railroad line between the cities of San José and Gilroy.

In 1835 Martin Murphy Sr., the grandfather of Diana Murphy, purchased the Mexican land grant known as Rancho Ojo de Agua de la Coche. Diana Murphy married Hiram Morgan Hill and took up residence on the property, which later became known as Morgan Hill Ranch. The railroad created a train stop called Morgan Hill and the town grew around this depot.

The town expanded rapidly in the late 1800s and was incorporated in 1906. During the 1970s-1980s, development dramatically increased with the opening of U.S. Highway 101. The population and economic development in the City of Morgan Hill and the surrounding area has continued to the present and it is changing from an agricultural area to a suburban residential area.

Native American archaeological sites in the Morgan Hill area tend to be situated on the Santa Clara Valley floor, in proximity of fresh watercourses, the base of hills, and on mid-slope terraces. The Morgan Hill planning area has a high potential for the presence of Native American archaeological sites, since it encompasses a variety of these types of environmental settings. There is no known Native American village found within the City of Morgan Hill or its sphere of influence. However, there are a total of twelve formally recorded sites within the City, including a probable major prehistoric trail, but none are within the project site.

There are twelve properties in Morgan Hill that have been identified as designated cultural resources by the City. In addition, there are 42 additional properties identified for potential historical significance. A majority of the known archaeological resources in the City of Morgan Hill and the Morgan Hill Sphere of Influence have not been formally evaluated for either the National Register of Historic Place (NRHP) or the California Register of Historic Places (CRHR) or listed on county or local inventories.

PROJECT SETTING

There were four previous surveys performed within the project area of potential effects (APE) and two previous surveys completed within one-quarter mile of the APE. None of the previous surveys identified any prehistoric sites, historic sites, or historic buildings on or within the APE. The cultural resources staff of PMC conducted a pedestrian surface survey across the project site using 20 meter transects, because three residential structures and associated outbuildings greater than 45 years old are located on the project site.

Surface visibility was generally good across approximately 75 percent of the project site (i.e., this area is in agricultural production and was recently disced prior to archaeological survey). Surface visibility, however, across the remaining approximate 25 percent of the project site was limited by vegetation and other impediments (i.e., this area is planted in vineyards, used for equestrian boarding, and includes private residences and other structures used for storage). Despite the existing vegetation (e.g., vineyards and grasses) in parts of the project site, there were open spaces, which provided sufficient surface visibility for adequate survey of the proposed project site.

Current archaeological and historical investigations for the proposed project did not identify any prehistoric sites, historic sites, or any isolated artifacts within the APE. However, these investigations did identify three private residences and associated structures (e.g. tank houses, barns, and other storage facilities) within the project site that were constructed over 45 years ago. This investigation identified the primary structures' style of architecture, age, primary use, and the significance to the City of Morgan Hill. All of the primary structures are located at 1195 Cochrane Road (APN: 728-37-001) and each building's specific findings are discussed in detail below.

1195 Cochrane Road A

The primary structure is a single story, Craftsman Style residence constructed in 1930. This style of architecture was popular between 1905-1930 and is characterized by gabled, shingled roofs, front porch centered on the building with a matching roofline, and usually an abundance of woodwork on the interior.

There are two structures, including a woodshed and tank house, associated with this primary structure. **Figure 3.5-1** shows the residence and tank house located at 1195

Cochrane Road A. The wood shed is at the rear of the building and is used for storage and a kennel for dogs. The two-story tank house was built the same year as the primary residence and is located opposite of the front entrance. Tank houses were commonly built in the 1900s when wells were the source of water. These tank structures provided a high platform to increase water pressure and facilitate distribution of water, and provided an open space below for animal shelter, tool storage or a spare room. The construction materials used on this structure are typical and include clapboard and wood siding with a metal roof.

1195 Cochrane Road B

The primary structure is similar to the previously mentioned primary residence, however, it was built in 1912 and has a side entrance and square bay window in the rear. There are six structures associated with this residence, including two wood-sided barns, a wood-sided shed, a metal-framed hay barn, a pump house and a restroom. The hay barn and restroom were constructed in the 1970's or 1980's when the property was an equestrian boarding facility. The age of the other structures is uncertain and did not consist of any unique design or construction. All buildings lacked maintenance. Photographs of this residence and associated outbuildings are shown in **Figures 2.5-2A**, **2.5-2B,** and **2.5-2C**.

1195 Cochrane Road C

This primary structure located at 1195 Cochrane Road C is a single story, 'Ranch Style' residence constructed in 1940. This style of architecture was popular between 1935-1970 and is characterized by low-pitched hipped-roofs, stucco exterior and attached garages. Records show this building was moved to its current location from Santa Clara in 1977. The structure has been remodeled, which has compromised the overall integrity. There are no other structures associated with this structure except for a full-length shed addition at the side of the building. Photographs of this residence are shown in **Figure 2.5-3**.

3.5.2 REGULATORY SETTING

CEQA GUIDELINES

CEQA establishes guidelines at Section 15064.5 for the identification of historical resources and determining their historical significance. CEQA Section 15064.5(a)(3) presents the following eligibility criteria for inclusion of historical resources in the California Register of Historic Resources (CRHR). A resource is considered significant if it:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

Residence at 1195 Cochrane Road A

Tank House at 1195 Cochrane Road A

Photographs of Residence & Tank House Located at 1195 Cochrane Road A, April 2005

FIGURE 3.5-1

PHOTOGRAPHS OF RESIDENCE AND TANK HOUSE LOCATED AT 1195 COCHRANE ROAD A

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Front entrance to residence at 1195 Cochrane Road B

Rear of residence at 1195 Cochrane Road B

Photographs of residence at 1195 Cochrane Road B, April 2005

FIGURE 3.5-2A
PHOTOGRAPHS OF RESIDENCE AT 1195 COCHRANE ROAD B

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Barn at 1195 Cochrane Road B

Barn at 1195 Cochrane Road B

Photographs of Barn Located at 1195 Cochrane Road B, April 2005

FIGURE 3.5-2B

PHOTOGRAPHS OF BARN LOCATED AT 1195 COCHRANE ROAD B

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Wood Shed at 1195 Cochrane Road B

Pump House at 1195 Cochrane Road B

Photographs of Wood Shed & Pump House at 1195 Cochrane Road B, April 2005

FIGURE 3.5-2C

PHOTOGRAPHS OF WOOD SHED & PUMP HOUSE LOCATED AT 1195 COCHRANE ROAD B

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Residence at 1195 Cochrane Road C

Residence at 1195 Cochrane Road C

Photographs of Residence at 1195 Cochrane Road C, April 2005

FIGURE 3.5-3
PHOTOGRAPHS OF RESIDENCE LOCATED AT 1195 COCHRANE ROAD C

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- Is associated with lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; and/or
- Has yielded, or may be likely to yield, information important in prehistory or history.

CEQA also presents criteria for the identification of unique archaeological resources at Section 21083.2(g). A resource is considered significant if it:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; and/or
- Is directly associated with a scientifically recognized important prehistoric or historic event.

In addition to the eligibility criteria at CEQA Section 15064.5(a)(3), the California Code of Regulations (CCR), Title 14, Division 3, Chapter 11.5 § 4852 (c) also states that integrity of historical resources should be considered when addressing their eligibility for inclusion in the CRHR. This section of the CCR describes integrity as the

> *…authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Historical resources eligible for listing in the California Register must…retain enough of their historic character to be recognizable as historical resources and to convey the reasons for their significance.*
>
> *Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association.*

Therefore, eligible historic resources must not only meet one of the above listed criteria, but also they must retain enough of their historic character or appearance to convey the reasons for their importance, or retain the potential to yield significant scientific or historical information or specific data. Most often, historical resources eligible for the California Register will be 50 years old or older. However, the regulations stipulate "a resource less than fifty (50) years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance."

CALIFORNIA OFFICE OF HISTORIC PRESERVATION, REGIONAL INFORMATION CENTERS

The California Office of Historic Preservation established the Regional Information Centers as local repositories for all archaeological reports prepared under cultural resource management regulations. State guidelines and current professional standards require a background search at the appropriate Regional Information Center. Following the completion of a project, a copy of the report must be deposited at the appropriate Regional Information Center to assist with future background searches.

CITY OF MORGAN HILL GENERAL PLAN

The following goals and policies in the *City of Morgan Hill General Plan* are applicable to the proposed project.

Open Space and Conservation Element

Goal 8 Preservation of the city's historic identity

Policy 8a Encourage the preservation and rehabilitation of the city's historic structures

Action 8.1 Review and update the inventory of historic resources, as appropriate.

Action 8.2 Identify and protect heritage resources from loss and destruction.

Action 8.3 Prior to approving demolition of historically significant buildings, evaluate alternatives, including structural preservation, relocation or other mitigation, and demonstrate that financing has been secured for replacement use.

Action 8.4 Designate historically significant structures or sites as cultural resources, and offer said properties rehabilitation loans or grants.

CITY OF MORGAN HILL GENERAL PLAN EIR

The following mitigation measure in the *City of Morgan Hill General Plan EIR* is applicable to the proposed project.

Mitigation Measure CULT-1a

Until the historic resource inventory is updated as recommended in the General Plan, no building permit for alteration or demolition shall be approved for any property over 45-years old. Buildings over 45 years old should be reviewed by a qualified architectural historian prior to project approval.

3.5.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and other performance standards recognized by the City of Morgan Hill. For the purposes of this EIR, a significant impact will occur if the project will result in one or more of the following:

- Cause a substantial adverse change in the significance of an historical or archaeological resource as defined in CEQA Guidelines Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; and/or
- Disturb any human remains, including those interred outside of formal cemeteries.

METHODOLOGY

Archaeological and historical investigations for the project were conducted to comply with regulations and criteria presented in CEQA and its guidelines at Section 15064.5. Archaeological and historical investigations included: a records search at the Northwest Information Center at Sonoma State University, Rohnert Park; a sacred lands search conducted by the Native American Heritage Commission; consultation with the Native American community and other interested parties (e.g., local historical societies); pedestrian surface survey of the area of potential effect; and completion of a report documenting the results of archeological and historical investigations that is included as Appendix E of this EIR. Research was conducted to determine if there are any previously recorded archaeological resources within the project site and whether or not the project area has been included within any prior archaeological research or field surveys. Architectural historian, Andrea Galvin, M.A., reviewed the investigation site records and findings for the existing structures for accuracy of historical importance. Archaeological and historical investigations for the proposed project were completed in January 2005.

PROJECT IMPACTS AND MITIGATION MEASURES

Archaeological and Cultural Resources

Impact 3.5-1 The project site does not contain any recorded or anticipated resources of archaeological, cultural, or pre-historic significance. However, site preparation and grading could disrupt undiscovered archaeological and

cultural resources of importance under CEQA and/or eligible for listing on the California Register. This is a **potentially significant impact.**

Field inspections and review of maps and records on file at the Northwest Information Center at Sonoma State University, Rohnert Park did not reveal any archaeological resource on or within the vicinity of the project site. These investigations did not identify any historical resources or unique archaeological resources within or in the vicinity of the project site. The project site has historically been used for agriculture and is heavily disturbed due to discing, tilling, and planting, which could destroy or cover resources if they were present at one time. Regardless of theses findings, it is always possible to inadvertently uncover cultural resources or human remains during ground disturbing project activity (e.g. grading activities during construction). Any destruction or disturbance of undiscovered archaeological resources, whether planned or inadvertent, is considered a **potentially significant impact**. Implementation of the following mitigation measures would reduce this impact to a **less than significant level.**

Mitigation Measures

MM 3.5-1a Should any previously undisturbed cultural, historic, or archaeological resources be uncovered in the course of site preparation, clearing or grading activities, all operations within 150 feet of the discovery shall be halted until such time as a qualified professional archaeologist can be consulted to evaluate the find and recommend appropriate action. If the find is determined to be significant, appropriate mitigation measures shall be formulated by the City of Morgan Hill and implemented by the project applicant.

MM 3.5-1b In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of Santa Clara County has determined whether the remains are subject to the coroner's authority. This is in accordance with Section 7050.5 of the California Health and Safety Code. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of identification. Pursuant to Section 5097.98 of the Public Resource Code, the Native American Heritage Commission will identify a "Native American Most Likely Descendent" to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods.

Implementation of the above mitigation measures will reduce the potential impact to undiscovered archaeological resources to a **less than significant impact** by halting operations in the event of a discovery and assessing the find in accordance with Section 7050.5 of the California Health and Safety Code.

Demolition of Potentially Historic Resources

Impact 3.5-2 Implementation of the proposed project would demolish three private residences and associated structures (e.g., tank houses, barns, and other storage facilities) that were constructed over 45 years ago. Based on the archaeological and historic investigation completed for the proposed project, none of the buildings/structures within the project site appear to meet the eligibility criteria for inclusion in the California Register of Historic Resources (CRHR) or for consideration as unique archaeological resources. Therefore, demolition of these structures would be considered a **less than significant impact.**

The proposed project site includes three private residences and associated structures (e.g., tank houses, barns, and other storage facilities) that were constructed over 45 years ago. The residences include 1195 Cochrane Road A, built in 1930; 1196 Cochrane Road B, built in 1912; and 1195 Cochrane Road C, built in 1940. Field and archival research performed by PMC and Galvin & Associates did not identify information to suggest that the residences and/or structures are in any way associated with events that made a broad contribution to the history of California, or any important individual important in our past. These structures do not embody any distinctive elements of design or methods of construction that are representative of a particular type or period of construction and remodeling and/or reconstruction has comprised the integrity of these structures.

The residences and structures on the project site are adequately recorded in the archaeological and historical investigation included as Appendix E, and additional research regarding these structures is not anticipated to yield additional information about the historical significance. Therefore, these structures are not considered historically significant and demolition of these structures would be considered a **less than significant impact.** No mitigation is required.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts to Archaeological and Cultural Resources

Impact 3.5-3 Implementation of the proposed project, in combination with cumulative development activity in the region, would increase the potential to

disturb or contribute to the loss of known and undiscovered cultural resources. This is considered a **potentially significant impact.**

Implementation of **Mitigation Measures MM 3.5-1a** and **MM 3.5-1b** would ensure that the project's contribution to this cumulative impact will be reduced to a **less than significant** level by addressing impacts on a case by case basis, thus avoiding compounding of cumulative development.

REFERENCES/DOCUMENTATION

California, State of. Governor's Office of Planning and Research. *Guidelines for Implementation of the California Environmental Quality Act,* as amended. 2005.

Morgan Hill, City of. *Morgan Hill General Plan*. July 25, 2001 (Updated July 2004).

Morgan Hill, City of. *Morgan Hill General Plan, Draft Master Environmental Impact Report*. March 22, 2001.

Morgan Hill, City of. *Morgan Hill General Plan, Final Master Environmental Impact Report*. July 6, 2001.

Pacific Municipal Consultants. *Archaeological and Historical Investigations for the Cochrane Road PUD, Morgan Hill*. January 2005.

Twining Laboratories, Inc. *Phase I Environmental Site Assessment, Northeast of Interstate 101 and Cochrane Road, Morgan Hill, Santa Clara County, California*. June 2004.

The following discussion is primarily based on the geotechnical investigation of the project site conducted by Twining Laboratories in August 2004. A copy of the geotechnical report is included in Appendix F of this EIR.

3.6.1 ENVIRONMENTAL SETTING

REGIONAL GEOLOGY

The project site is located at the narrow part of south Santa Clara Valley, which is underlain by thick accumulations of alluvial sediments. The valley is flanked by the Santa Cruz Mountains to the west and the Diablo Range to the east. The underlying bedrock consists mainly of Franciscan Complex or the Santa Clara Formation, although smaller deposits of other rock units are found in the area. The predominant material is the Franciscan Complex, which includes various forms of sandstone, shale, greenstone and chert. These rocks are part of the northwest-trending belt of material that lies along the east side of the San Andreas Fault System. In certain areas this formation is intruded with large masses of serpentinite, as occurs along the hillsides on the east side of the Coyote Valley just north of the project site. The Santa Clara Formation, which underlies the adjacent ridge between Anderson Reservoir and the valley floor, consists of poorly consolidated sedimentary rocks such as sandstone, siltstone and claystone, and volcanic rocks such as basalt, tuff, scoria and obsidian.

SOILS

According to information provided by the Natural Resources Conservation Service (NRCS), the soils covering most of the project site consist of Arbuckle gravelly loam (ArA) with a small area of San Ysidro loam (SdA) located in the southwestern corner of the site near Cochrane Road and U.S. Highway 101.

The Arbuckle gravelly loam has a moderate shrink-swell potential, moderate subsoil permeability, and low erosion potential. It has a land capability classification of Class II for agriculture. See Section *3.2. Agricultural Resources* for further discussion.

San Ysidro loam is characterized as having a high shrink-swell potential, very slow permeability (due to claypan subsoil), and low erosion potential. It has a land capability classification of Class III for agriculture. See Section *3.2. Agricultural Resources* for further discussion or soil characteristics.

The geotechnical investigation conducted by Twining Laboratories included a detailed characterization of on-site soils. In general, the soils were found to consist of hard and dense silts, sands, and clays, which included gravel and cobbles below a depth of about three feet. The near surface soils exhibited high compressibility and high collapse potential, high shear strength, and poor to fair pavement support characteristics. The near surface sandy clay to sandy silt soils exhibited a very low to low potential for expansion. The geotechnical

investigation found that the soils exhibit a mild corrosion potential to buried metal objects. In addition, it was reported by one of the property owners, during preparation of the geotechnical investigation, that fill soils had been imported to the site as part of a nearby pipeline project; although, the fill material was not identified during the course of Twining's investigation.

GROUNDWATER CONDITIONS

No groundwater was encountered to depths of over 50 feet in any of the soil borings for the geotechnical investigation. A review of available data sources by Twining Laboratories indicated that historically high groundwater depth is about 40 feet below the ground surface at the site. However, water tables are subject to fluctuation over time, depending on seasonal precipitation, irrigation, land use, climatic conditions and other factors.

FAULTS AND SEISMICITY

The project site is located in a seismically active region, with numerous active and potentially active faults associated with the San Andreas Fault System which runs through the area. The most significant local faults are the Calaveras Fault, which is a major branch of the San Andreas located about three miles east of the project site, and the Sargent Fault located about eight miles west of the site. There are also three smaller faults, all of which appear to be connected to the Calaveras Fault, including the Silver Creek Fault, the Coyote Creek Thrust Fault, and the Range Front Thrust Fault, which are all located from one half mile to one mile east of the site.

SEISMIC HAZARDS

The potential seismic hazards of concern to the project include groundshaking, ground rupture, liquefaction, and seismic settlement. These are discussed in turn below.

Ground Shaking

The two active faults within ten miles of the site (the Calaveras and Sargent faults) would result in the greatest potential groundshaking at the project site. Based on a magnitude 7.9 earthquake, the peak horizontal ground acceleration with a ten percent probability of occurring in 50 years was determined to be 0.83g (g is defined as the force of gravity). The California Building Code (CBC) specifies design criteria applicable to new construction based on predicted ground shaking.

Ground Rupture

Damage resulting from fault rupture occurs only where structures are located astride fault traces that move during earthquakes. The project site is not located in a state-designated fault

rupture zone under the Alquist-Priolo Earthquake Fault Zoning Act. Therefore, the potential for surface rupture at the site is considered low.

Liquefaction

Liquefaction is the phenomenon in which a saturated, cohesionless soil loses structural strength during an earthquake as a result of excessive pore water pressure induced by shearing strains, which essentially transforms the soil to a liquid state resulting in ground failure or surface deformation. Conditions required for liquefaction include fine, well-sorted, loose sandy soil, high groundwater, higher intensity earthquakes, and particularly long duration of ground shaking. Ground accelerations of at least 0.10g and ground shaking durations of at least 30 seconds are needed to initiate liquefaction.

The northern portion of the site (approximately one-fourth of the site area) lies within a Seismic Hazard Zone for liquefaction hazards as designated by the State of California (Seismic Hazard Mapping Act of 1990). However, based on Twining's laboratory analysis of soil samples taken from the site, the risk of liquefaction throughout the project site was found to be low. The soils at the project site are very dense and hard, and groundwater is at least 40 feet below the ground surface. These subsurface conditions are not indicative of liquefaction potential. However, due to the potential variability of subsurface soils and depth to groundwater across the site, Twining Laboratories recommended that the proposed structures be evaluated for liquefaction potential on a case-by-case basis as part of future design-level geotechnical engineering investigations.

Seismic Settlement

Seismic settlement can occur in both saturated and unsaturated granular soils, and results from the rearrangement of granular soils during cyclic loading induced by ground shaking, resulting in volume reduction and surface deformation. The soils at the project site are susceptible to seismic settlements of one quarter of an inch. However, combined seismic and static settlements of up to 1.25 inches are anticipated.

Landslides

Due to the relatively level topography of the site, the potential for landslides at the project site is considered low. The project site is not located within a Seismic Hazard Zone for seismically-induced landslides as designated under the state Seismic Hazard Mapping Act of 1990.

Lateral Spreading or Slumping

Lateral spreading is the lateral displacement of flat-lying alluvial material toward an open area or a free face such as a steep bank of a stream channel. It can occur with seismic

ground shaking on slopes with saturated soils. Since the project is virtually flat, the potential for lateral spreading is considered low.

MINERAL RESOURCES

There are no known sources of mineral resources on the project site or in the vicinity. In the past, extraction of sand and gravel occurred along the reach of Coyote Creek between Morgan Hill and San José, with the materials primarily used in the construction of U.S. Highway 101 through the Coyote Valley in the early 1980s. This mining activity ceased operation in 1995, and the quarry has since been reclaimed and incorporated into the County's Coyote Creek Parkway.

3.6.2 REGULATORY SETTING

GENERAL PLAN

The following *City of Morgan Hill General Plan* goal and policy related to geologic hazards are relevant to the proposed project:

Public Health and Safety

Goal 1 Reduction of potential harm to persons or property from geologic/seismic hazards.

Policy 1g New development should avoid hazardous or sensitive areas, and should occur only where it can be built without risking health and safety. New habitable structures should not be allowed in areas of highest hazard such as floodways, active landslides, active fault traces, and airport safety zones. In areas of less risk, development should be limited and designed to reduce risks to an acceptable level.

3.6.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and previous standards used by the City. For purposes of this EIR, the geologic and soils impacts associated with the project are considered to be significant if the following would result from implementation of the proposed project:

- Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving:

i) 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;

ii) Strong seismic ground shaking;

iii) Seismic-related ground failure, including liquefaction;

iv) Landslides.

- Result in substantial soil erosion or the loss of topsoil.
- 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, creating substantial risks to life or property.
- Expose people or property to major geologic hazards that cannot be mitigated through the use of standard engineering design and seismic safety design techniques.

METHODOLOGY

The following impact evaluation is largely based on the findings and recommendations contained in the preliminary geotechnical report by Twining Laboratories, which is included in Appendix F of this EIR. The geotechnical investigation included soil borings at 12 locations throughout the site, focusing on proposed building locations. The soils were tested for a range of engineering properties to determine their suitability for the proposed development. The geotechnical report includes recommendations for grading and special treatment of soils to overcome identified deficiencies. The findings and recommendations of the geotechnical investigation form the basis of the following discussion of impacts and mitigations.

PROJECT IMPACTS AND MITIGATION MEASURES

Seismic Ground Shaking

Impact 3.6-1 Strong ground shaking occurring on the site during a major earthquake event could cause severe damage to project buildings and structures. This is considered a **significant impact**.

Historically, major earthquakes centered on area faults, have resulted in moderate to severe ground shaking at the project site. It is expected that a major earthquake will result in severe ground shaking at the site during the life of the project.

Ground shaking will cause dynamic loading, which will result in stress to buildings and structures. However, structures designed and built in accordance with the applicable criteria of the 2001 California Building Code, as required by the City of Morgan Hill, should respond well except during the most severe potential ground shaking.

According to Twining Laboratories, from a geotechnical engineering standpoint, the project site is considered suitable for development provided that the recommendations contained within the geotechnical evaluation are implemented in the design and construction of the proposed project. Implementation of the following mitigation measure, which would require that proposed project is designed in accordance with the requirements of the current edition of the California Building Code, and recommendations contained in the geotechnical report approved by the City of Morgan Hill, would ensure that potential impacts to residents and structures from seismic ground shaking would be reduced to a **less than significant level.**

Mitigation Measure

MM 3.6-1 Structural damage to buildings resulting from ground shaking shall be minimized by following the requirements of the California Building Code, and implementing the recommendations of the project geotechnical engineer.

Structures at the site shall be designed and constructed to withstand anticipated earthquake loads. A structural engineer, experienced in the design and construction of commercial structures within areas of high seismicity, shall be retained by the project applicant to provide design and construction recommendations, as required by the City of Morgan Hill. Any such recommendations shall be made in conjunction with Final Map submittals.

Liquefaction

Impact 3.6-2 There is a low, but not necessarily insignificant, potential for liquefaction at the project site, which could result in differential settlements and damage to project structures and improvements. This is considered a **potentially significant impact.**

The northern portion of the project site (approximately one-fourth of the site area) lies within a Seismic Hazard Zone for liquefaction hazards as designated by the State of California

(Seismic Hazard Mapping Act of 1990). However, based on Twining's laboratory analysis of soil samples taken from the site, the risk of liquefaction throughout the project site was found to be low. Soils at the project site are very dense and hard, and groundwater is at least 40 feet below the ground surface. These subsurface conditions are not indicative of liquefaction potential. However, due to the potential variability of subsurface soils and depth to groundwater across the site, there is some potential for liquefaction at the site. This is considered a significant impact. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

Mitigation Measure

MM 3.6-2 All proposed structures at the project site shall be evaluated for liquefaction potential on a case-by-case basis as part of subsequent design-level geotechnical engineering investigations. If there is determined to be a potential for liquefaction, mitigation will be accomplished through compliance with the recommendations contained in the design-level geotechnical engineering reports with recommendations included as specifications in the construction contract documents.

Seismic Settlement

Impact 3.6-3 There is a potential for seismically-induced ground settlements at the site, which could result in damage to project foundations and structures. This is considered a **potentially significant impact.**

The geotechnical investigation determined that maximum seismic settlements of one quarter of an inch could be expected at the project site. However, combined seismic and static settlements of up to 1.25 inches are anticipated. These settlements would exceed the tolerances for conventional shallow spread foundations and slabs on grade planned for the project. This is considered a significant impact. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

Mitigation Measure

MM 3.6-3 Near-surface soils beneath buildings, exterior slabs, and pavements shall be overexcavated and recompacted, in accordance with the specifications to be recommended by the project geotechnical engineer.

The depth of required overexcavation will vary depending on whether the improvements to be supported consist of building pads or foundations, exterior slabs on grade, or pavement areas.

Soil Compressibility and Collapse Potential

Impact 3.6-4 Soils present on the site exhibit high compressibility and high collapse potential, which could result in damage to structures. This considered a **potentially significant impact.**

Testing conducted by Twining Labs indicated that due to the compressible nature of the near surface soils, they would not provide adequate support for the proposed improvements in their present condition. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

Mitigation Measure

MM 3.6-4 The effects of soil compressibility and collapse potential shall be mitigated through over-excavation and compaction of soil beneath proposed structures, in accordance with the specifications to be recommended by the project geotechnical engineer.

The depth of required over-excavation will vary depending on whether the improvements to be supported consist of building pads or foundations, exterior slabs on grade, or pavement areas.

Implementation of the above mitigation measures would reduce impacts to soil compressibility and collapse potential to a **less than significant** level.

Expansive Soils

Impact 3.6-5 There is a low, but not necessarily insignificant, potential for soils expansion at the site, which could result in differential subgrade movements and cracking of foundations. This is considered a **potentially significant impact.**

Expansive soils are subject to shrinking and swelling during seasonal wetting and drying cycles. The resulting changes in soil volume can cause cracking of foundations and floor slabs. According to the *Soil Survey of Eastern Santa Clara Area, California* (NRCS 1974), the Arbuckle soils underlying most of the project site have a low shrink-swell potential and the San Ysidro soils in the southwest corner of the site have a high shrink-swell potential. Twining's soil borings indicated that expansion potential is variable, and localized pockets of expansive soils may be present on the site. **Mitigation Measure MM 3.6-1** would require that the proposed project be designed to comply with the most recent State California Uniform Building Code and would incorporate recommendations from the geotechnical investigation into the building design. In addition, implementation of the following

mitigation measure would reduce the effects of expansive soils at the project site to a **less than significant level.**

Mitigation Measure

MM 3.6-5 All final design specifications to be recommended by the project geotechnical engineer shall be incorporated into the project design, including placement of non-expansive engineered fill below foundation slabs, and other measures to prevent saturation of soils beneath structures to be specified by the geotechnical report.

The geotechnical report contains preliminary recommendations for keeping runoff away from foundations and floor slabs, including directing roof drainage directly into the storm drain system; providing positive drainage away from buildings; planting landscaping at least 10 feet from structures; minimizing landscape irrigation requirements through selection of plants with low water requirements; irrigation with low-volume drip, bubblers or mist type emitters, among other things.

Soil Corrosivity

Impact 3.6-6 The project soils are mildly corrosive to buried metal objects, and could result in damage to buried utilities. This is considered a **potentially significant impact**.

The preliminary geotechnical investigation found the site soils to be mildly corrosive to ferrous alloy pipes, although the soils were found not to be corrosive to concrete. Implementation of the following mitigation measure would reduce this potentially significant impact to a **less than significant level.**

Mitigation Measure

MM 3.6-6 The proposed project shall utilize corrosion-resistant materials in construction. Buried metal objects would be protected by selecting materials resistant to mild corrosion per manufacturers' specifications.

Stormwater Basin Bank Instability

Impact 3.6-7 There is a potential for bank instability along the banks of the proposed detention basins for the project. This is considered a **potentially significant impact.**

The potential for bank instability would be investigated as part of a design-level geotechnical study for the project. The study could result in a recommended establishment of a setback zone from the basin.

The project site plan indicates that the nearest buildings in the proposed project would be located approximately 60 feet and 75 feet from the basins, which should represent adequate setback distances. Implementation of the following mitigation measure would reduce this significant impact to a **less than significant level**.

Mitigation Measure

MM 3.6-7 Design-level geotechnical studies shall investigate the potential of bank instability at the proposed stormwater detention basins and recommend appropriate setbacks, if warranted. Final design recommendations to be recommended by the project geotechnical engineer shall be included as specifications in the construction contract documents.

Implementation of the above mitigation measure would reduce impacts to storm basin bank instability to a **less than significant** level.

[Note: Erosion and siltation impacts are addressed in Section *3.8. Surface Water Hydrology and Water Quality*.]

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts from Geologic Hazards

The proposed project and project impacts will not combine with any other factors or projects and, thus, is not significant due to the localized, site-specific nature of geotechnical and seismic impacts. No significant cumulative impacts are predicted relative to geology or geologic hazards. Cumulative development would result in **no cumulative impacts**.

REFERENCES/DOCUMENTATION

Morgan Hill, City of. *Morgan Hill General Plan*. July 25, 2001 (Updated July 2004).

Morgan Hill, City of. *Morgan Hill General Plan, Draft Master Environmental Impact Report*. March 22, 2001.

Santa Clara, County of. *Santa Clara County General Plan*. Adopted December 20, 1994.

Twining Laboratories, Inc. *Preliminary Geotechnical Investigation, Proposed Retail Shopping Center, Northeast Corner of State Highway 101 and Cochrane Road, Morgan Hill, California*. November 1, 2004.

U.S. Department of Agriculture, Soil Conservation Service. *Soils of Santa Clara County*. August 1968.

West, Jim and Keith Severson. *Granite Rock Develops Its Sand and Gravel Operation as Part of Santa Clara County's Park System*. Retrieved on February 25, 2005 from http://www.baldridgeplus.com/Exhibits.

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The discussion in this section is largely based on the following reports: *Phase I Environmental Site Assessment, Northeast of Interstate 101 and Cochrane Road, Morgan Hill, Santa Clara County, California (*Twining Laboratories, Inc. 2004); *Results of Phase II Assessment, Northeast of Interstate 101 and Cochrane Road, Morgan Hill, Santa Clara County, California (*Twining Laboratories, Inc. 2005); *Supplemental Letter Regarding Morgan Hill Site (*Twining Laboratories, Inc. 2005); and the *Asbestos and Lead-Based Paint Reconnaissance (*Bovee Environmental Management, Inc. 2005). The above reports are contained in Appendix G of this EIR.

3.7.1 ENVIRONMENTAL SETTING

The Phase I Environmental Site Assessment (ESA) conducted by Twining Labs consisted of the following: visual inspections of the site and surrounding areas; reviews of historic aerial photographs and other property data sources; reviews of existing inventories maintained by federal, state and local agencies; and interviews with owners of the property. The Phase I ESA was followed by a limited Phase II ESA, which included soil sampling and testing to determine the potential presence of contaminated soils on the site. The findings of the Phase I and Phase II ESA's are summarized below.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

The following is a summary of the information and conclusions contained in the Phase I ESA prepared by Twining Labs in June 2004.

On-Site Conditions

General Site Conditions

The 66.49-acre project site consists of five irregularly-shaped parcels under three separate ownerships. The following discussion of on-site conditions references the parcels by ownership as follows: Millerd-Low (APN 728-37-001); Guglielmo (APNs 728-37-002,-005,-007); and Sullivan (APN 728-37-004).

> **Millerd-Low** property consists of a 12-acre parcel located at the northeast corner of the project site. The property is occupied by a horse boarding facility, two residences, and seven out-buildings including a garage, tack rooms, a pump house, a restroom, and a hay barn. The remainder of this parcel consists of fenced pasture land.
>
> **Guglielmo** property consists of three irregularly-shaped parcels totaling 38 acres in the central and southern portions of the project site. The northern portion of the property is occupied by a small vineyard and the southern part of the property is in

cultivation for row crops. A residence and associated barn and pumphouse are located in the central area of the property.

Sullivan property comprises 16.5 acres located in the western portion of the site. This parcel is being dry farmed for wheat and contains no structures or other site improvements.

Above-Ground Storage Tanks

There are four 400-gallon above-ground storage tanks (ASTs) located adjacent to the residence on the Guglielmo property in the central area of the project site. The contents of the tanks were labeled as AN-20, Briphlo acid, Thioal, and KTS. The tanks are located on pallets on an unpaved surface, and no visible contamination was observed beneath the tanks. In addition, there is one 1,000-gallon AST containing water for fire safety located adjacent to the barn on the Millerd-Low parcel in the northeast corner of the project site.

Underground Storage Tanks

No evidence of underground storage tanks (USTs) was observed on the project site and no current or former USTs were known to exist by the current landowners. However, the possibility exists that buried heating oil tanks may be present at the 1912 residence on the Millerd-Low parcel, or that USTs related to past agricultural activities may also be present.

Transformers/PCBs

There are seven pole-mounted transformers located throughout the project site, which are owned and operated by PG&E. These transformers have the potential to contain Polychlorinated biphenyl (PCB), although there is no evidence of leakage or staining.

Septic Systems

According to the property owners, there are currently four septic tanks on the project site (three on the Millerd-Low parcel and one on the Guglielmo property). However, no surface evidence of these septic systems was found and the owners were unable to identify the locations of the septic systems.

Water Wells

There are four water wells on the project site. These include two domestic water wells located on the Millerd-Low and Guglielmo properties, one operational irrigation well on the Millerd-Low property, and one abandoned irrigation well located on or near the property line between the Millerd-Low and Guglielmo properties.

Agricultural Chemicals

There is evidence that agricultural chemicals have been formulated and stored at the project site and applied to portions of the site. As such, there is a potential for environmentally persistent agricultural chemicals to be present in the soils at the project site.

Animal Waste from Horse Boarding Operation

There is an existing horse boarding operation on the 12-acre Millerd-Low property. The facility has been in operation for the past 25 years and accommodates approximately 30 horses. Animal waste is managed by spreading it on-site, which allows volatilization due to exposure to air and sunlight. No wastewater ponds have been utilized at the facility. In addition, vegetation such as trees, shrubs and herbaceous plants on the project site provide nitrogen uptake, which reduces the potential for nitrogen migration to the groundwater. Given that the depth to groundwater beneath the site is at least 35 feet, it is unlikely that groundwater has been adversely affected by the horse operation. As such, Twining Labs has no environmental concerns with respect to the horse facility.

Imported Fill Soil

According to Twining's telephone interview with Ms. Millerd-Low, fill soil was placed throughout the Millerd-Low parcel. The imported soil was generated by the Santa Clara Valley Water District pipeline which was installed about one mile north of the project site. Twining found no available analytical information on the imported fill soil, although the fill was reportedly derived from agricultural land and rangeland.

Asbestos-Containing Building Materials

Based on a site reconnaissance conducted by Bovee Environmental Management in February 2005, it was determined that buildings on the site which were constructed prior to 1978 were constructed with building materials that contain asbestos, such as flooring materials, plaster, sheetrock/joint compound, insulators, exterior siding materials, and roofing materials.

Lead-Based Paint

The site reconnaissance by Bovee Environmental Management also observed that the painted surfaces of structures on the property were in a deteriorated condition (e.g., chipping, flaking, and peeling paint). This paint was determined to contain lead in detectable amounts.

Other On-Site Conditions

The site reconnaissance conducted by Twining Labs did not observe any other evidence of hazardous substances or wastes, solid waste, sumps or pits, ponds or lagoons, pipes of unknown origin, surface indications of contamination (e.g., stressed vegetation, degraded pavement, substantial staining), or any other potential source of contamination.

Off-Site Conditions

A review of regulatory lists by Twining indicated that there is one hazardous waste generator located within one-half mile of the site. This generator is identified as Madrone Land Corporation, San José Trap and Skeet, located at 645 Cochrane Road, approximately 0.44 miles southwest of the project site. Based on distance and direction relative to the project site, this facility is not considered to pose an environmental threat to the project site.

PHASE II ASSESSMENT

The following is a summary of the findings and conclusions of the limited Phase II assessment conducted by Twining Labs in February 2005.

The Phase II investigation included a total of 20 soil samples taken from 12 locations distributed throughout the project site (at selected locations, samples were taken from the surface and from a depth of one or two feet). Four samples were collected at the horse ranch on the Millerd-Low parcel, four samples (at two locations) were taken at the chemical mixing and storage area on the Guglielmo property, and the remaining samples were collected from the farmed areas of the project site. The soil samples collected from the horse ranch were analyzed for the presence of metals (arsenic, cadmium, chromium, lead, nickel, zinc), and petroleum hydrocarbons. Samples collected at the remaining locations were analyzed for metals (copper, lead, arsenic, zinc), organophosphate pesticides, organochlorine pesticides, chlorinated phenoxy acid herbicides, and petroleum hydrocarbons.

Laboratory testing of the soil samples indicated the presence of the pesticides and metals analyzed, but only in concentrations which were below hazardous levels and/or the applicable Preliminary Remediation Goals (PRGs) established by the US Environmental Protection Agency (EPA). The pesticide 4,4-DDE was detected in the two surface samples collected at the chemical mixing and storage area at concentrations of 0.092 milligrams per kilogram (mg/kg) and 0.07 mg/kg, respectively. These concentrations are below EPA's applicable Total Threshold Limit Concentration (TTLC) and Soluble Threshold Limit Concentration (STLC) values established for this constituent, i.e., 1 mg/kg and 0.1 milligrams per liter (mg/l), respectively. These concentrations are also below EPA's PRG of 1.7 mg/kg. One sample taken from the row crop area of the Guglielmo property indicated a low concentration of the pesticide Diazinon (at 0.97 mg/kg), well below the applicable PRG of 55 mg/kg. Chromium was detected in several samples at non-hazardous concentrations

ranging from 43 mg/kg to 75 mg/kg, well below the applicable TTLC, and appears to be naturally-occurring.

3.7.2 REGULATORY SETTING

GENERAL PLAN

The following *City of Morgan Hill General Plan* goal and policies on hazardous materials are relevant to the proposed project.

Public Health and Safety

Goal 3 Avoidance of exposure to hazardous substances.

Policy 3d Continue to inspect regularly activities that store and/or use hazardous materials, including above-ground and underground storage tanks and related equipment, to ensure compliance with the City's Hazardous Materials Storage Ordinance (HMSO).

Policy 3s Continue to allow Small Quantity Generators such as photo laboratories and dry cleaners to locate in appropriate commercial and industrial zones without requiring additional hazardous materials permits, providing that such uses comply with other Federal, State and local hazardous materials laws and regulations and providing that the site does not accept hazardous waste from off-site for processing.

Policy 3t rovide mitigation to remedy the effects of new or expanding development over areas with environmental contamination of any and all unauthorized discharges.

HAZARDOUS MATERIALS STORAGE ORDINANCE

Under California Health and Safety Code Section 25503.5, any activity involving the handling of hazardous materials requires the establishment and implementation of a Hazardous Materials Business Response Plan. This state law requirement is implemented locally by the City of Morgan Hill's Hazardous Materials Storage Ordinance and administered for the City of Morgan Hill by the Santa Clara County Fire Department. The ordinance requires that any entity which engages in the storage of hazardous materials, as defined in the ordinance, must obtain a Hazardous Materials Storage Permit. The ordinance also requires preparation of a Hazardous Materials Management Plan (HMMP), which is to include: a Hazardous Materials Inventory Statement (HMIS), provisions for emergency response planning, double containment, monitoring, and financial responsibility, among

other things. The City also requires a separate permit for underground storage tank installation.

3.7.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and previous standards used by the City. For purposes of this EIR, the hazards and hazardous materials impacts associated with the proposed project would be considered to be significant if the following would result from implementation of the proposed project:

- Create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- Expose people to a significant risk associated with the storage, use, production or disposal of hazardous material on the site or from existing hazardous materials contamination on the site;
- 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; and/or

- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

METHODOLOGY

The following impact evaluation is largely based on the Phase I and Phase II ESAs prepared by Twining Laboratories, which are contained in Appendix G of this EIR. The Phase I assessment consisted of the following: visual inspections of the site and surrounding areas; reviews of historic aerial photographs and other property data sources; reviews of existing federal, state and local regulatory inventories of hazardous waste generators and sites; and interviews with owners of the properties. The limited Phase II assessment included soil sampling and testing to determine the potential presence of contaminated soils on the site, as defined by the federal and state regulatory agencies. The mitigation measures identified herein are primarily based on standard federal, state, and local requirements.

PROJECT IMPACTS AND MITIGATION MEASURES

Soils Contaminated with Agricultural Chemicals

Impact 3.7-1 Residual pesticides and metals are present in the soils on the project site; however, the concentrations are low and are not considered hazardous. This is considered a **less than significant impact.**

Laboratory testing of the soil samples indicated the presence of the pesticides such as DDE and Diazinon, and metals such as chromium, but in concentrations which were below hazardous levels. Therefore this impact is considered **less than significant**. No mitigation measures are necessary.

Asbestos-Containing Building Materials and Lead-Based Paint

Impact 3.7-2 The project site includes three residences and associated outbuildings that are proposed for demolition with implementation of the proposed project. According to an asbestos and lead-based paint reconnaissance performed by Bovee Environmental Management, Inc., these existing structures contain asbestos and lead-based paint in hazardous concentrations. This is considered a **significant impact.**

Based on a site reconnaissance conducted by Bovee Environmental Management, it was determined that buildings at the project site, which were constructed prior to 1978, include materials that contain asbestos, such as flooring materials, plaster, sheetrock/joint compound, insulators, exterior siding materials, and roofing materials. This is considered a potentially significant health and safety impact. Implementation of **MM 3.3-1** in Section 3.3, Air Quality, would require the project applicant to conduct a full site assessment and

removal of asbestos-containing material prior to demolition of these buildings. This mitigation measure would reduce the health and safety impacts associated with the removal of asbestos containing material to a less than significant level.

Bovee Environmental Management also noted that the painted surfaces of the structures on the property were in deteriorated condition, including chipping, flaking, and peeling paint. This paint was determined to contain lead in detectable amounts. This is considered a significant impact. Implementation of the following mitigation measure would reduce the effects of lead-based paint to a **less than significant level**.

Mitigation Measure

MM 3.7-1 Prior to demolition of any on-site structures, a full site assessment for lead-based paint shall be conducted by a California Department of Health Services approved Lead Inspector/Assessor. Prior to general demolition and site clearing activity, all identified deteriorating lead-based paint shall be removed by a licensed lead paint abatement contractor and properly disposed of in accordance with Title 22 of the California Code of Regulations.

Septic Systems

Impact 3.7-3 There are four septic tanks reportedly present on the project site, although their locations were not identified during the Phase I site reconnaissance. This is considered a **significant impact.**

Septic tanks could be considered a source of residual contamination at the project site. If these septic systems are not removed, this could be considered a potential safety and health impact. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

Mitigation Measure

MM 3.7-2 Septic systems at the project site shall be properly removed in accordance with state regulations and the requirements of the Santa Clara County Environmental Health Department.

Water Wells

Impact 3.7-4 Unless the four existing wells on the site are properly destroyed, they could act as conduits for groundwater contamination. This is considered a **significant impact.**

Implementation of the following would reduce this impact to a **less than significant** level.

Mitigation Measure

MM 3.7-3 Prior to commencement of site clearing and general demolition activities, the existing wells on the site shall be destroyed in accordance with state regulations and the requirements of the Santa Clara County Environmental Health Department and the Santa Clara Valley Water District (Ordinance 90-1).

PCBs in Pole-Mounted Transformers

Impact 3.7-5 The potential presence of PCBs in the existing transformers on the project site poses a potential health hazard; however, the transformers would be properly removed from the site by PG&E prior to site development. This is considered a **less than significant impact.**

The seven pole-mounted transformers located throughout the site would be removed by PG&E prior to site development in conjunction with undergrounding of project utilities. This would remove any potential hazard from PCBs, which may be contained in the transformers. This is considered a **less than significant impact**. No mitigation measures are necessary.

Planned Fuel Station

Impact 3.7-6 The proposed project includes a possible fuel station, which would involve potentially hazardous storage and handling of gasoline. This is considered a **significant impact.**

As shown on the project site plan in Figure 2-8, the proposed project may include a 12-position fuel station as an alternative to a retail pad near the southern portion of the project site. The fuel station would likely include several large underground fuel storage tanks, which would be potentially subject to leaks and spills, which could result in soil and groundwater contamination.

Under California Health and Safety Code Section 25503.5, any activity involving the handling of hazardous materials requires the establishment and implementation of a Hazardous Materials Business Response Plan. This state law requirement is implemented locally by the City of Morgan Hill's Hazardous Materials Storage Ordinance, which is administered for the City by the Santa Clara County Fire Department. The ordinance requires that the gasoline operator obtain a Hazardous Materials Storage Permit, which includes preparation of a Hazardous Materials Management Plan (HMMP), which is to include a Hazardous Materials Inventory Statement (HMIS), provisions for emergency response planning, double containment, monitoring, and financial responsibility. The City also requires a separate permit for underground storage tank installation, and the County Fire Department will conduct a series of inspections at various stages of tank installation and construction to ensure compliance with all standards and requirements.

The Bay Area Air Quality Management District (BAAQMD) has stringent requirements for the control of gasoline vapor emissions from gasoline dispensing facilities. This includes a requirement that the operator obtain an Authority to Construct permit from the BAAQMD. This permit requirement is intended to ensure that the required Vapor Recovery Systems are installed and are operating effectively. Once installed, the BAAQMD will issue a temporary use permit while it conducts tests to certify that the systems are 95 percent efficient as required by the California Air Resources Board. The BAAQMD will then issue a Permit to Operate, and will continue to conduct periodic tests to make sure the systems are continuing to meet the mandated performance standards.

Gasoline vapors are released during the filling of both underground storage tanks and the transfer of fuel from those tanks to individual vehicles. These vapors contain Toxic Air Contaminants (TACs) such as benzene. For a full discussion of TACs see Section 3.3, Air Quality. The release of these hazardous materials at the project site is considered a significant impact. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

Mitigation Measure

MM 3.7-4 The gasoline station operator shall obtain a Hazardous Materials Storage Permit from the Santa Clara County Fire Department for the proper handling and storage of gasoline and any other hazardous materials. In addition, air quality permits shall be required for the fuel station from the BAAQMD.

Emergency Response Plan/Emergency Evacuation Plan

The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plant and **no impact** is anticipated.

Wildland Fire

Wildland fire impact may be considered significant if the project would 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. However, the project site consists of rural residential uses and agricultural land and is not located in an area prone to wildland fire or excessive fuel loading. Therefore the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires and **no impact** is anticipated.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Risk of Exposure to Hazardous Waste or Materials

Impact 3.7-7 New development resulting from cumulative development in the City of Morgan Hill could expose people, property, and the environment to hazardous materials. This cumulative impact is considered **less than significant**.

Implementation of the proposed project would result in the potential risks associated with exposure to hazardous substances such as pesticides, asbestos containing materials, and lead associated with previous land uses. However, hazardous materials impacts would be site-specific and are generally not affected by cumulative development in the region. No significant hazardous waste generators were identified within a half-mile of the project site that pose a significant environmental threat to the project site. In addition, implementation of the proposed project would not contribute to an increase in the potential for soil or groundwater contamination. Therefore, the proposed project itself is not anticipated to contribute to a health or hazard-related impact that would cumulatively affect the environment and the cumulative impact is considered **less than significant**. No mitigation measures are necessary.

REFERENCES/DOCUMENTATION

Bovee Environmental Management, Inc. *Asbestos and Lead-Based Paint Reconnaissance, 66 Acre Property: NEC Hwy 101 & Cochrane Road, Morgan Hill, California*. February 2005.

Morgan Hill, City of. *Morgan Hill General Plan*. July 25, 2001 (Updated July 2004).

Morgan Hill, City of. *Morgan Hill General Plan, Draft Master Environmental Impact Report*. March 22, 2001.

Morgan Hill, City of. *Morgan Hill Municipal Code, Title 8 – Health and Safety, Chapter 8.40 – Hazardous Materials*. As updated through December 2004.

Twining Laboratories, Inc. *Phase I Environmental Site Assessment, Northeast of Interstate 101 and Cochrane Road, Morgan Hill, Santa Clara County, California*. June 2004.

Twining Laboratories, Inc. *Results of Phase II Assessment at Site Located Northeast of the Intersection of Interstate 101 and Cochrane Road, Morgan Hill, California*. February 2005.

Twining Laboratories, Inc. *Supplemental Letter Regarding Morgan Hill Site*. February 2005.

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The following discussion is largely based on the hydrology technical report prepared by Schaaf & Wheeler in May 2005. The hydrology report is contained in Appendix H of this EIR.

3.8.1 ENVIRONMENTAL SETTING

DRAINAGE

On-site Drainage

The project site is located within the Coyote Creek watershed which encompasses approximately 420 square miles, approximately half of which is located above Anderson Reservoir to the east of the project site. Coyote Creek is located about 1,500 feet north of the site at its nearest point and flows in a general northwesterly direction to San Francisco Bay about 25 miles downstream.

The project site contains no natural drainage channels or human-made drainage facilities. Under current conditions, stormwater runoff from the site is minimal due to the flat topography and the well-drained and permeable nature of the site soils. Thus precipitation from shorter duration and more frequent storms infiltrates into the ground without generating appreciable runoff. Less frequent storms of longer duration generate enough precipitation to saturate the soils and produce on-site ponding and excess stormwater runoff. All surface water leaving the site does so in the form of overland flow, which travels with the topography in a general north and northwest direction.

Cochrane Channel

The Cochrane Channel is a concrete-lined trapezoidal drainage channel, which commences adjacent to the southwest corner of the project site and runs along the westerly site boundary (adjacent to the freeway right-of-way) and continues for about one mile northwesterly to Coyote Creek. The channel is owned and operated by the Santa Clara Valley Water District (hereinafter "SCVWD") and was constructed in the early 1980s as part of the U.S. Highway 101 extension project, which completed the freeway link between Morgan Hill and San José. The channel was constructed to intercept surface runoff from the east as well as drainage from the freeway right-of-way via multiple Caltrans storm drainage pump stations located along the length of the channel. The channel empties into Coyote Creek approximately ½ mile north of the Burnett Avenue overpass at U.S. Highway 101.

FLOODING POTENTIAL

100-year Flood

According to the Flood Insurance Rate Map (FIRM) covering the project area, the project site lies within a Special Flood Hazard Area (SFHA) designated as Zone X. Lands with the Zone X designation are located outside the 100-year floodplain, but are subject to 100-year flooding with average depths less than one foot, and also include areas subject to 100-year flooding where the drainage area is less than one (1) square mile, or areas protected from the 100-year flood by levees. The nearest 100-year floodplain area is associated with Coyote Creek, located about 1,500 feet north of the project site. The floodprone lands are confined to the near-channel areas.

Dam Failure Inundation

The project site is located approximately one mile southwest of Anderson Reservoir, which is retained by an earth and rock dam, built in 1950. Owned and operated by the SCVWD, the reservoir has a water surface area of 1,271 acres and has a storage capacity of 90,373 acre-feet. Areas affected by potential inundation due to total catastrophic dam failure have been mapped by the SCVWD. (Although the SCVWD maps are not posted on their website, generalized versions of the SCVWD's's inundation maps are posted on the website of the Association of Bay Area Governments (ABAG). According to ABAG's generalized version of the inundation map for the project area, a catastrophic failure of the dam would result in inundation of most of the valley floor in Morgan Hill, including the project site. Dam failure may occur suddenly, such as in the event of major earthquake, releasing thousands of acre-feet of water with the force to create major life and property losses in the area immediately downstream from the dam. Flooding can also occur due to overtopping of the dam structure during periods of intense precipitation. In addition, landslide-induced splash waves and seiches (seismically-induced oscillatory waves) within enclosed water bodies such as Anderson Reservoir may pose a danger to the impoundment structure.

Historically, dam failure has not occurred in Santa Clara County. In general, impoundments of compacted earthfill construction, such as Anderson Dam, should withstand the impact of a moderate earthquake. The SCVWD is engaged in ongoing efforts to strengthen dams and spillways in order to ensure the structural safety of its reservoirs. The SCVWD staff indicated that studies have shown that Anderson Reservoir is capable of withstanding large magnitude earthquakes and meets the seismic safety requirements of the California Division of the Safety of Dams (DSOD). Thus, while minor damage as a result of a seismic event is possible, sudden catastrophic dam failure would not be expected to occur. Most likely, the dam would only be structurally compromised and sufficient time

would be allowed to issue warnings and evacuate areas of potential flooding until a damage assessment of the impoundment structure could be conducted.

WATER QUALITY

Coyote Creek is identified by the State Water Resources Control Board as not meeting applicable water quality standards for the pesticide Diazinon. Concentrations of Diazinon in Coyote Creek are higher in the southern Santa Clara County primarily due to its use in agriculture. In addition to pesticides, other pollutants in urban storm runoff which would be expected to enter Coyote Creek watershed include bacteria (animal wastes), nutrients (fertilizers, animal wastes), heavy metals (vehicles), petroleum products (vehicles), and litter.

The San Francisco Bay Water Quality Control Plan, prepared by the San Francisco Bay Regional Water Quality Control Board (Regional Board, Region 2), defines the existing and potential beneficial uses of Coyote Creek as: cold freshwater habitat, fish migration, preservation of rare and endangered species, contact and non-contact water recreation, fish spawning, warm freshwater habitat, and wildlife habitat. These beneficial uses must be protected from pollution and nuisance as a result of waste discharge, as discussed below.

3.8.2 REGULATORY SETTING

SAN FRANCISCO BAY WATER QUALITY CONTROL PLAN ('BASIN PLAN')

The California State Water Resources Control Board (SWRCB or State Board) and the nine Regional Water Quality Control Boards (RWQCB or Regional Board) have the authority in California to protect and enhance water quality, both through their designation as the lead agencies in implementing the Section 319 non-point source program of the federal Clean Water Act, and under the state's primary water-pollution control legislation, the Porter-Cologne Act. The RWQCB Region 2 office guides and regulates water quality in streams and aquifers of the San Francisco Bay Area (which includes the Coyote Creek watershed) through designation of beneficial uses, establishment of water-quality objectives, administration of the National Pollutant Discharge Elimination System (NPDES) permit program for stormwater and construction site runoff, and Section 401 water-quality certification where development results in fill of jurisdictional wetlands or waters of the U.S. under Section 404 of the Clean Water Act.

NPDES MUNICIPAL STORMWATER PERMIT

The 1987 amendments to the Clean Water Act [Section 402(p)] provided for U.S. Environmental Protection Agency (U.S. EPA) regulation of several new categories of non-point pollution sources within the existing NPDES. In Phase 1, NPDES permits were issued

for urban runoff discharges from municipalities of over 100,000 people, from plants in industries recognized by the EPA as being likely sources of stormwater pollutants, and from construction activities which disturb more than five acres. The U.S. EPA has delegated management of California's NPDES Municipal Stormwater Permit program to the State and Regional Boards. Phase 2 implementation (effective March 10, 2003) extended NPDES urban runoff discharge permitting to all Municipal Separate Storm Sewer Systems ("MS4s") not covered in Phase I, and to construction sites that disturb between one and five acres.

On March 23, 2005, the City of Morgan Hill received notification from the Central Coast RWQCB (Region 3) that its Storm Water Management Plan (SWMP) is in compliance with the NPDES General Permit for MS4s. However, since the northern portion of Morgan Hill, including the project site, drains north to Coyote Creek and San Francisco Bay, it lies within the jurisdictional area of the San Francisco Bay RWQCB (Region 2). As such, the project may be subject to the Santa Clara Valley Urban Runoff Pollution Prevention Program's (SCVURPPP) NPDES Permit for stormwater discharges to South San Francisco Bay and its tributaries. The SCVURPPP is an association of thirteen cities and towns in the Santa Clara Valley, together with Santa Clara County and the SCVWD. Program participants share a common NPDES permit issued by the San Francisco Bay RWQCB to discharge stormwater to South San Francisco Bay and its tributaries. Although the City of Morgan Hill is not a member of SCVURPPP, the proposed project will require a permit to outfall to Cochrane Channel and Coyote Creek, both of which are SCVWD facilities. Therefore, the project may be held to the provisions contained in the NPDES discharge permit issued by Region 2 to the 13 SCVURPPP participants.

In October 2001, the San Francisco Bay RWQCB amended Provision C.3 of the NPDES permit to promote improved treatment of runoff from new development and significant redevelopment projects by requiring numeric criteria for flow- and volume-based treatment control measures to limit pollutant discharges, consistent with requirements imposed in other jurisdictions throughout the state. As discussed above, the proposed project may be held to the provisions of the SCVURPPP NPDES discharge permit, including its C.3 Provisions. The NPDES Phase 2 Permit requires that stormwater runoff from a development site be treated to the Maximum Extent Practicable (MEP). Section C.3 of the Phase 2 NPDES Permit requires that permittees implement (Best Management Practices (BMPs) that reduce pollutants in storm water to the technology-based standard of MEP. The MEP of treatment is considered to be achieved with capture and infiltration of the 85th percentile annual runoff volume from the development area.

NPDES General Permit for Discharges of Storm Water Associated with Construction Activity

Since the proposed project would disturb more than one acre of land, the proposed project will be subject to the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity. Administration of these permits has not been delegated to cities, counties, or Regional Boards but remains with the State Board. Enforcement of permit conditions, however, is the responsibility of Regional Board staff, assisted by local municipal or county staff. Prior to construction grading for the project, the applicant will be required to file a "Notice of Intent" (NOI) with the State Board to comply with the General Permit, and to prepare a Storm Water Pollution Prevention Plan (SWPPP) which addresses measures to be included in the proposed project to minimize and control construction and post-construction runoff. The SWPPP details the site-specific BMPs to control erosion and sedimentation and maintain water quality during the construction phase. The SWPPP is to be kept on-site during construction, and is to be updated each year as site development proceeds.

CITY OF MORGAN HILL GENERAL PLAN

The following *City of Morgan Hill General Plan* goal and policies on hydrology and water quality are relevant to the proposed project:

Public Health and Safety Element

Goal 4 The least possible damage to persons and property from flooding.

Policy 4a Prepare for impacts associated with potential failure of Anderson Dam.

Policy 4k Require developers whose proposed projects would induce downstream flooding to provide mitigation to eliminate the flood-inducing impacts of their projects.

Policy 4l If development is to be allowed in flood-prone areas, provide flood control facilities or appropriate flood-proofing prior to or in conjunction with development at the developers' expense.

Policy 4m Where other mitigation measures do not solve the flooding problem, permit raising individual foundations (padding up structures) in appropriate situations;

however, its use must be restricted in order to minimize the cumulative effect on adjacent areas.

Policy 4n Require mitigation of any storm water runoff produced by development that occurs beyond that described in the General Plans of the City and County as of 1982.

Policy 4o Require all local development to provide appropriate mitigation of off-site flooding impacts, including limiting runoff to pre-development levels and/or complete solutions to flooding and local drainage problems in the vicinity of the development, using such methods as detention and retention.

Action 4.7 Establish an early warning protocol to alert persons within the dam failure inundation zone.

3.8.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and standards used by the City of Morgan Hill. For purposes of this EIR, the hydrology and water quality impacts associated with the proposed project are considered to be significant if the following would result from implementation of the proposed project:

- Substantially alter the existing drainage pattern of the site 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;

- 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; and/or

- Be subject to inundation by seiche, tsunami, or mudflow.

METHODOLOGY

The following impact evaluation is largely based on the hydrology technical report prepared by Schaaf & Wheeler, which is contained in Appendix H of this EIR. The hydrology report includes detailed analyses of potential project impacts associated with increased stormwater runoff, potential flooding, potential inundation due to the failure of Anderson Dam, and degradation of surface water quality during and after project construction. The analysis and conclusions are supported by detailed engineering calculations, as is the adequacy of proposed structural mitigations. The technical analysis and discussion contained in the hydrology technical report are summarized below in a fashion that is responsive to CEQA requirements for the identification of significant impacts and feasible mitigation measures, in language which is succinct and comprehensible to the lay reader.

IMPACTS AND MITIGATION MEASURES

Increased Stormwater Runoff

Impact 3.8-1 The proposed project would result in a substantial increase in stormwater runoff generated at the project site compared to existing conditions; however, the project includes detention ponds which have been designed to provide temporary storage of increased runoff in order to prevent increased flooding downstream. This is considered a **less than significant impact.**

The proposed project would result in the coverage of approximately 80 percent of the project site with impervious surfaces, and would result in a corresponding loss of on-site infiltration. Therefore, the volume and velocity of peak runoff leaving the project site would increase substantially with implementation of the proposed project. According to calculations by Schaaf & Wheeler, peak runoff rates for the two-year event would increase from 5.9 cubic feet per second (cfs) under current conditions to 43.3 cfs under project conditions, an increase of about 634 percent. Peak flow rates for the 10-year design storm would increase 647 percent, from 9.3 cfs to 69.5 cfs. Peak runoff rates for the 25-year event would increase from 10.9 cfs under current conditions to 82.0 cfs under project conditions, an increase of about 652 percent. Peak flow rates for the 100-year design storm would increase 656 percent, from 13.2 cfs to 99.8 cfs. (For detailed runoff calculations, see Schaaf & Wheeler's hydrology report contained in Appendix H.)

Under project conditions, site drainage will be directed to catch basins located throughout the project site and will be conveyed via underground storm drain pipes to two stormwater detention ponds planned along the northern project boundary. The storm drain system design will incorporate City standards for pipe size, maximum and minimum slopes, minimum flow velocities, and pipe material, among other things. The detention basins shall satisfy the SCVWD requirements and the City's detention design criteria, which is estimated to require a total detention capacity of 21.4 acre-feet for the proposed project. The larger detention pond planned for the project will have a storage capacity of 18.1 acre-feet, and the smaller pond has a planned capacity of 3.9 acre feet. Both ponds will be 13 feet deep and will have turfed sideslopes with gradients of 2:1 (horizontal: vertical). The planned storage capacity of 22.0 acre-feet will satisfy the requirement for 21.4 acre-feet of detention storage under the City's design criteria. (See the hydrology report in Appendix H for details on City's design criteria and a summary of the pond volume calculations.)

The stormwater to be temporarily stored in the planned detention ponds will be pumped to the adjacent Cochrane Channel at discharge rates which are at or below pre-development levels, as required by the SCVWD. No mitigation measure is required.

Flooding

Impact 3.8-2 During the 100-year storm event, the project site may be subject to shallow flooding to depths of less than one foot; however, all finished floors will be on raised pads at least one foot above existing ground elevations to prevent flooding of the project buildings. This considered a **less than significant impact.**

To facilitate positive site drainage, the building pads will be raised to one foot above existing ground elevations, with grades sloping away from the building pads toward storm drain inlets in the parking areas. The elevated building pads will provide flood projection from shallow flooding, which may occur on the site during the 100-year event.

During large storms such as the 100-year event, stormwater will back up at the storm drain inlets and be allowed to pond in the project parking areas. Final grades will be designed such that the resulting ponding depths will be less than one foot. In order to facilitate the conveyance of excess flood volumes from the project site, the proposed project will include overland release points to the north and northwest to direct surface flows toward Cochrane Channel. Incorporation of these features as part of the project design, as proposed, would ensure that the proposed project would have a **less than significant impact** on flooding. No mitigation is required.

Dam Failure Inundation

Impact 3.8-3 Since the project site is located within the dam failure inundation area for Anderson Reservoir, development of the proposed project would increase the number of people and structures exposed to dam failure risk and the potential for associated loss of life and property. This is considered a **significant impact.**

As discussed above, studies have shown that Anderson Dam is capable of withstanding a large magnitude seismic event to the satisfaction of the California Division of Safety of Dams. Thus, the risk of total catastrophic dam failure is low; however, there remains the potential for the containment dam to be structurally compromised resulting in a leak, which could result in downstream flooding. This could pose a public safety hazard to people who are at the project site during and immediately following such an event. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

Mitigation Measure

MM 3.8-1 Prior to occupancy of the structures, the project applicant shall prepare an emergency evacuation plan for the proposed project. The emergency evacuation plan procedures shall be developed jointly with the project owner, City public safety staff, and potential tenants/users to identify appropriate emergency procedures in order to ensure the efficient and safe evacuation of employees and customers.

The emergency evacuation plan would also be beneficial in the event of a major seismic event, which results in structural damage and potential safety hazards at the project.

In this context, it should be noted that the City General Plan Action Item 4.7 ("Establish an early warning protocol to alert persons within the dam failure inundation zone") is in the early stages of implementation. According to Morgan Hill Police Department staff, the City is working with the County of Santa Clara to formulate an emergency notification and public information procedure to be followed in the event of major public emergencies. Such a system may consist of a series of sirens, which would provide public alert, with evacuation instructions and updates to be provided on the radio and local cable TV. In the meantime, the City's normal emergency procedures would apply, i.e., depending on the nature of the dam breach, the Police Department would coordinate with the SCVWD to identify which areas to notify and evacuate.

Construction-Related Impacts to Water Quality

Impact 3.8-4 During grading and construction, erosion of exposed soils and pollutants generated by site development activities may result in water quality

impacts to downstream water bodies. This is considered a **potentially significant impact.**

Development of the proposed project would involve site clearing, mass grading, excavation, trenching, and final grading for roads, utilities, and building pads. Once vegetation is removed at the project site, the exposed and disturbed soil would be susceptible to high rates of erosion from wind and rain, resulting in sediment transport from the project site. Sediment impact on water quality includes interference with photosynthesis, oxygen exchange, and respiration, growth, and reproduction of aquatic species. After the proposed project has been constructed and the landscaping has been installed, the erosion potential would be minimal.

Delivery, handling and storage of construction materials and wastes, as well as use of construction equipment on-site during the construction phase of the project, will introduce a risk for stormwater contamination, which could impact water quality. Spills or leaks from heavy equipment and machinery can result in oil and grease contamination of stormwater. Some hydrocarbon compound pollution associated with oil and grease can be toxic to aquatic organisms at low concentrations. Staging areas, or building sites can be the source of pollution due to paints, solvents, cleaning agents, and metals contained in the surface of equipment and materials. The impacts associated with metal pollution of stormwater include toxicity to aquatic organisms, bioaccumulation of metals in aquatic animals, and potential contamination of drinking supplies. Pesticide use (including herbicides, fungicides, and rodenticides) associated with site preparation work is another potential source of stormwater contamination. Pesticide impact to water quality includes toxicity to aquatic species and bioaccumulation in larger species through the food chain. Gross pollutants such as trash, debris, and organic matter are additional potential pollutants associated with the construction phase of the project. Potential impacts include health hazards and aquatic ecosystem damage associated with bacteria, viruses and vectors, which can be harbored by pollutants. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

Mitigation Measure

MM 3.8-2 The project applicant shall prepare a comprehensive erosion control and water pollution prevention program, subject to review and approval by the City of Morgan Hill Public Works Department. This erosion and water pollution prevention program shall be implemented during grading and construction activities at the project site.

The proposed project will require a Storm Water Pollution Prevention Plan (SWPPP), in accordance with the NPDES Construction Activities general permit. The SWPPP will detail the treatment measures and best management practices (BMPs) to control pollutants that

would be implemented during the construction and post-construction phases of project development. As part of the SWPPP, an Erosion and Sedimentation Control Plan shall be prepared for the proposed project prior to grading. The erosion and sediment control plan shall demonstrate how the proposed project would effectively minimize soil erosion and sedimentation from the project site and must also provide for the control of runoff from the site. The erosion control plan for the project might include such components as: designation of restricted-entry zones, sediment tracking control practices, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, and provision for revegetation or mulching for soil stabilization. The plan would also prescribe treatment measures to trap sediment once it has been mobilized, at a scale and density appropriate to the size and slope of the catchment. These measures typically include: inlet protection, straw bale barriers, straw mulching, straw wattles, silt fencing, check dams, terracing, and siltation or sediment ponds.

In addition to the erosion and sediment-control measures, the SWPPP shall include construction-phase housekeeping measures for control of contaminants such as petroleum products, paints and solvents, detergents, fertilizers, and pesticides, as well as vehicle and equipment fueling and maintenance practices, and waste management and disposal control practices, among other things. The SWPPP will also set forth the BMP monitoring and maintenance schedule and responsible entities during the construction and post-construction phases.

Urban Non-point Source Pollution

Impact 3.8-5 The proposed project would generate urban non-point contaminants, which may be carried in stormwater runoff from paved surfaces to downstream water bodies. This is considered a **significant impact.**

Once the project buildings and parking lots have been constructed and the landscaping is installed, typical urban runoff contaminants would include: petroleum products, heavy metals, and sediments from vehicles; pesticides, fertilizers and plant debris from landscaped areas; and litter. These pollutants would be flushed by storm runoff into the storm drainage system and ultimately to Coyote Creek and San Francisco Bay where they would contribute to cumulative non-point contaminant loads and result in incremental deterioration of water quality. Excess nutrients from fertilizers can affect water quality by promoting excessive and/or rapid growth of aquatic vegetation reducing water clarity, and causing oxygen depletion. Pesticides also may enter into stormwater after application on landscaping areas of the project. Pesticides impact water quality because they are toxic to aquatic organisms and can bioaccumulate in larger species such as birds and fish. Implementation of the following mitigation measure would reduce this significant impact to a **less than significant level**.

Mitigation Measure

MM 3.8-3 The proposed project shall include structural and non-structural stormwater controls, in order to reduce non-point source pollutant loads.

Specifically, the detention ponds planned at the northern end of the project site to temporarily store post-development runoff shall be designed to provide water quality treatment through settling of sediments prior to the discharge of the stormwater to Cochrane Channel. These dual-purpose ponds will provide both stormwater detention and water quality treatment, to a sufficient level to comply with the amended Provision C.3 of the SCVURPPP NPDES Phase 2 Permit requirements, if those requirements are deemed to be applicable to the proposed project (see Section 3.8.2 Regulatory Setting, above, for a full discussion)..

Additional post-construction Best Management Practices (BMPs) to be implemented will include, but not be limited to the following:

- Impervious surfaces such as roads, parking lots, and driveways shall be routinely cleaned during both the "wet" and "dry" seasons to limit the accumulation of "first flush" contaminants;
- Features such as detention ponds shall be utilized to capture pollutants before the stormwater runoff enters the storm drainage system;
- Engineered products, such as storm drain inlet filters, oil/water separators, etc., shall be utilized to capture pollutants before the stormwater runoff enters the storm drainage system;
- The developer shall distribute educational materials to the first tenants of properties included in the project development. These materials shall address good housekeeping practices relating to stormwater quality, prohibited discharges, and proper disposal of hazardous materials;
- Common landscaped areas shall be subject to a program of efficient irrigation and proper maintenance including minimizing use of fertilizer, herbicides and pesticides;
- The project tenants and users shall implement a trash management and litter control program to mitigate the impacts of gross pollutants

on storm water quality. This program shall include litter patrol, emptying trash receptacles in common areas, and reporting and investigating trash disposal violations;

- Storm drain inlets shall be labeled with the phrase "No dumping – flows to Bay," or a similar phrase to mitigate the impact of potential for discharges of pollutants to the storm drain system;

- Restaurants within the development shall be designed to include contained areas for cleaning mats, containers and sinks connected to the sanitary sewers. Grease shall be collected and stored in a contained area and shall be removed regularly by a disposal recycling service. To this end, sinks shall be equipped with grease traps to provide for its collection.

The portion of the project SWPPP that addresses post-construction practices shall itemize these and any additional pollution control measures required for the proposed project.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Surface Runoff and Contamination

Impact 3.8-6 New development, combined with other reasonably foreseeable projects in the City of Morgan Hill, would contribute to increased surface runoff and greater runoff contamination in an area that historically was used for agriculture. This cumulative impact is considered **less than significant.**

Ultimate development of the project site would contribute to cumulative drainage flows and surface water quality impacts when combined with other growth and development. However, the City of Morgan Hill requires that all new projects follow the City's detention design criteria, which requires all new developments to design and construct facilities such as stormwater detention basins adequate to limit flow to pre-development levels, and best management practices for control of surface water contaminants (see MM 3.8-5) The application of these standards and practices at each development site would result in minimization of the combined impact. Therefore, the cumulative storm water runoff and contamination impact is considered **less than significant**.

REFERENCES/DOCUMENTATION

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This section of the EIR describes the existing land uses at the project site and in the vicinity; discusses the proposed project within the context of the policies included in the *City of Morgan Hill General Plan* and the *City of Morgan Hill Planning and Zoning Codes*. Potential impacts focus on adopted environmental plans and policies and compatibility of future commercial uses with surrounding agricultural and residential land use patterns.

3.9.1 ENVIRONMENTAL SETTING

REGIONAL SETTING

The City of Morgan Hill is located in the southern portion of the County of Santa Clara, approximately 12 miles south of the City of San José and ten miles north of the City of Gilroy. The southern Santa Clara Valley is approximately four miles wide with predominantly flat terrain. Important visual features include the surrounding Santa Cruz Mountain Range to the west and the Diablo Mountain Range to the east. The City of Morgan Hill has grown into a mid-sized city with a small downtown area and high-quality residential neighborhoods. Open hillside areas, numerous creeks, and surrounding agriculture create a feeling of rural open space within the city.

Of the approximately 21,700 acres within the City's sphere of influence, less than 3,400 are developed with residential, commercial, or industrial uses. In 1996, the City Council adopted a long-term Urban Growth Boundary (UGB), which differentiates land within the Sphere of Influence intended for future urbanization from land intended to remain rural and unincorporated for the next 20 years. The *City of Morgan Hill General Plan* provides for an additional 3,400 acres of urban development within the urban growth boundary. According to the *City of Morgan Hill General Plan,* the 'Commercial' designation accounts for approximately 454 acres primarily along the arterial roadways west of U.S. Highway 101 and along the eastern freeway frontage. This land use designation is intended to allow for a wide range of retail businesses, office uses, and professional services. The largest concentrations are found along Monterey Road and at the freeway interchanges, where retail stores are emphasized.

SITE SETTING AND EXISTING USES

The 66.49-acre project site consists of five irregular-shaped parcels under ownership by three separate landowners: the Millerd-Low property (Assessors Parcel Number: 728-37-001), Guglielmo property (Assessors Parcel Numbers: 728-37-002, -005, -007); and Sullivan property (Assessor Parcel Number 728-37-004). Improvements on the Millerd-Low property consists of a 12-acre parcel located at the northeast corner of the project site. The project site is occupied by a horse boarding facility, two residences, and seven out-buildings including a garage, tack rooms, a pump house, a restroom, and a hay barn. The remainder of this parcel consists of fenced pastureland. The Guglielmo property consists of

three irregularly-shaped parcels totaling 38-acres in the central and southern portions of the project site. Existing improvements include a small vineyard located in the northern portion of the property and row crops in the southern part of the property. A residence and associated barn and pump house are located in the central area of the property. The Sullivan property comprises 16.5 acres located in the western portion of the site. This parcel is being dry-farmed for wheat and contains no structures or other site improvements.

Surrounding Land Uses

The project site is located within the city limits of Morgan Hill at the edge of the UGB, which borders the project site to the north. Surrounding land uses include vacant land planned for commercial uses and the De Paul Health Center (formerly the Saint Louise Hospital) located to the south; unincorporated County land currently in agricultural use located within the City's sphere of influence and vacant land located within the city limits designated 'Single-Family Medium' in the *City of Morgan Hill General Plan* located to the east; unincorporated County land, currently in agricultural use, located within the City's sphere of influence designated 'Rural County' in the *City of Morgan Hill General Plan* located to the north; and U.S. Highway 101 and the SCVWD drainage channel located west of the project site. Although the project site is primarily rural in nature, the area west of the U.S. Highway 101/Cochrane Road interchange is developed primarily with commercial uses, including the Cochrane Plaza shopping center located at the southwest quadrant of this intersection, and a Chevron Station, two hotels, two vacant restaurant pads, and the Madrone Business park located at the northwest quadrant of the intersection. Surrounding land uses are shown in the aerial photograph presented in **Figure 2-7** in Section 2, Project Description of this EIR.

3.9.2 REGULATORY SETTING

The purpose of this section is to evaluate the proposed project for land use consistency with relevant adopted plans and policies. These include policies of the *City of Morgan Hill General Plan* and the *City of Morgan Hill Planning and Zoning Codes*.

CITY OF MORGAN HILL LAND USE POLICY

The City of Morgan Hill uses the General Plan, Planning and Zoning Codes and permit process to regulate land development within the City's incorporated boundaries. The City may exercise its rights in the sphere of influence, which include annexation and pre-zoning, but is not required to do so.

The City of Morgan Hill regulates land development within the City through the permitting process. The Morgan Hill Community Development Department (Planning and Building Divisions) issues and monitors all appropriate permits for development within the city

limits. Approval of the proposed project including the proposed zoning amendment, tentative map, conditional use permits, development agreement, tree removal, and general plan amendment application is subject to review by the Planning Commission, which provides a recommendation on the proposed action to the City Council. The Architectural Review Board is responsible for architectural and site review of the proposed project.

The City's Residential Development Control System (RDCS) regulates residential development within the City's incorporated boundaries. The RDCS regulates growth by limiting the number of new homes approved each year, and directs that the City shall not apply to LAFCO to expand the City's Urban Service Area (except for projects determined by LAFCO to be "desirable infill") until less than a five year supply of buildable residential land remains, nor shall the City grant new extensions of urban services for residents beyond the Urban Service Area. The Planning and Zoning Code allows some exceptions in cases where denial of services would have a direct adverse impact on public health and safety.

City of Morgan Hill General Plan

The project site has a General Plan designation of `Commercial´ in the *City of Morgan Hill General Plan* and designates the project site as the location of a sub-regional commercial site. *According to the City of Morgan Hill General Plan*, most of the roughly 550 acres designated for commercial development lie along Monterey Road and U.S. Highway 101. About half of that land is vacant. According to the City of Morgan Hill General Plan, market projections indicate that during the next 20 years Morgan Hill will need another major grocery store and could support centers for sub-regional and tourist-oriented uses, which together could utilize 50 or more acres. It is important in retaining the city's identity to ensure that commercial uses are located where they can best serve target markets and least impact residential neighborhoods (City of Morgan Hill 2004).

According to the *City of Morgan Hill General Plan*, the General Plan concentrates retail uses on Monterey Road around the Dunne and Tennant Avenue intersections, where higher traffic volumes can be better accommodated. Encouraging and maintaining non-retail uses along the intervening stretches is intended to help limit "strip commercial" appearance, reduce the potential for unacceptable traffic conditions, and contribute to the vitality of existing shopping centers. Hotel and other traveler and regional-servicing commercial uses are proposed to be located along the U.S. Highway 101 corridor. An additional grocery store is expected to be built in the northern part of Morgan Hill to serve the growing population in the area (City of Morgan Hill 2004).

The following policies in the *City of Morgan Hill General Plan* are applicable to the proposed project:

Community Development

Goal 9 Sufficient and concentrated commercial uses.

Policy 9a Encourage a variety of commercial and office development to meet the needs of city residents.

Policy 9b Ensure the viability of downtown and other recognized shopping areas and discourage isolated and sprawling commercial activities along major roads.

Policy 9c Encourage retail sales use at major intersections as the focus of clustered commercial development.

Policy 9g Plan for a future grocery east of 101 along Cochrane Road.

Goal 10 Sub-regional retail at freeway interchanges.

Policy 10a Encourage tourist-oriented and sub-regional retail uses at the northeast Cochrane and southeast Tennant freeway interchanges.

Policy 10b Limit repetitive ancillary commercial uses such as fast-food restaurants and service stations, on lands around interchanges.

Policy 10c Zone all commercial areas at freeway interchanges PUD, to ensure they develop in a coordinated manner addressing such issues as design, signage and circulation.

Goal 12 A visually attractive urban environment.

Policy 12b Discourage the use of "franchise architecture."

Policy 12c Improve the appearance of commercial developments by minimizing the amount of parking fronting the street.

Goal 14 Distinct, attractive gateways to the community.

Policy 14a Enhance the visual integrity of the gateways to the city, such as the Madrone area north of Cochrane Road, the Cochrane Road/Monterey Road intersection, Monterey Road south of Watsonville Road, the Cochrane, Dunne, and Tennant freeway intersections.

Economic Development

Goal 1 A strong, stable and diverse economic base.

Policy 1a Designate sufficient areas of land to promote the development of a balanced community containing adequate jobs, retail services, and commercial activity.

Policy 1b Encourage retention and expansion of existing businesses, and attract new businesses that: generate revenue to the City General Fund (such as retail and point-of-sale manufacturing; help provide greater revenue to the City General Fund (such as retail and point-of-sale manufacturing); help provide greater fiscal strength and stability in the City; add diversity to the local economy; stimulate other businesses to develop in the area; augment or provide a service/amenity presently needed or lacking in the community; offer higher-paying quality jobs for local residents.

Policy 1c Promote the overlap between visitor and resident serving uses and encouraging retail goods and services that serve both market segments.

Policy 1d Promote businesses with manageable impacts on the City's water, storm water, and wastewater system.

City of Morgan Hill Planning and Zoning Codes

The project site has a zoning designation of Planned Unit Development (PUD) Highway Commercial (HC) `PUD (HC).´ As set forth in Section 18.30.010 of the *City of Morgan Hill Planning and Zoning Codes*, the purpose of a PUD is to: "…facilitate and promote coordination of design, access, use, and other features associated with development of multiple adjacent properties or single properties. The district is also intended to allow diversification in the relationship of various buildings, structures and open spaces in planned building groups, and the allowable height of the buildings and structures, while insuring substantial compliance to the district regulations and other provisions of the Planning and Zoning Codes. Adequate standards related to the public health, safety and general welfare shall be observed without unduly inhibiting the advantages of large-scale site planning for residential, commercial or industrial purposes." All commercial developments designated in a PUD are required to follow standards set in Chapter 18.30.090 Commercial Development Standards, of the *City of Morgan Hill Planning and Zoning Codes***.** The Commercial development standards include, but are not limited to: architectural/site planning standards; easements; lighting; parking and circulation; and signage and displays.

Section 18.26.010 of the *City of Morgan Hill Planning and Zoning Codes* defines the Highway Commercial (HC) district as providing areas adjacent to the freeway that can accommodate highway and tourist oriented uses, and uses which require the high visibility of thoroughfare locations. Restaurants, wine tasting, retail uses (excluding grocery,

supermarket and drug stores), motel and hotels, arts and crafts galleries, and motor vehicle sales and services are permitted uses in the Highway Commercial district.

Section 18.26.040 of the *City of Morgan Hill Planning and Zoning Codes* contains the site development standards for the `HC´ District. These standards include: minimum lot area of 20,000 square feet with a minimum lot width of 70 feet; minimum lot depth of 125 feet, and maximum building coverage of 40 percent; minimum setbacks include 40 feet in the front, and 20 feet in the rear unless located adjacent to U.S. Highway 101, whereby a minimum 30 foot setback is required. As part of the PUD process, the City Council can approve flexibility in the site development standards; the PUD will establish the zoning for the project site.

Design Review

The proposed project would be subject to design review as established in Section 18.74 of the *City of Morgan Municipal Code*. The purpose of Section 18.74, Design Review is to preserve and enhance the beauty and environmental amenities of the city by:

- Recognizing the interdependence of land values and aesthetics, and to provide a method by which the city may implement this interdependence to the community's benefit;
- Preserving and enhancing the natural beauties of the land and man-made environment, and the enjoyment thereof,
- Maintaining and improving the qualities of and relationships between individual buildings, structures and physical development in such a manner as to best contribute to the amenities and attractiveness of the city,
- Protecting and insuring the adequacy and usefulness of public and private developments as they relate to each other and the neighborhood area;
- Promoting and protecting the safety, convenience, comfort, prosperity and general welfare of the citizens of the city by:
- Stimulating creative design for individual buildings and structures, and other physical improvements,
- Encouraging the innovative use of materials, methods and techniques,
- Preserving balance and harmony within neighborhoods,

- Integrating the functions, appearance and locations of buildings and improvements so as to best achieve a balance between private prerogatives and preferences and the public interest and welfare.

The standards addressed in design review include, but are not limited to: harmony of design; design theme; site design standards; mechanical equipment and utilities; energy conservation; wall treatments; doors and windows; lighting; grading and drainage; and parking and landscaping. These standards are initially implemented through staff review of project applications. Ultimately the Architectural Review Board (ARB) reviews all proposals for future developments to assure conformance with these design standards.

3.9.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and other performance standards recognized by the City of Morgan Hill. For the purposes of this EIR, impacts are considered significant if the following would result from implementation of the proposed project:

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

METHODOLOGY

The evaluation of potential land use impacts are based on field reconnaissance and several documents including the *City of Morgan Hill General Plan, City of Morgan Hill Planning and Zoning Codes*, and the applicant's project description.

PROJECT IMPACTS AND MITIGATION MEASURES

Disruption of an Established Community

Impact 3.9-1 The proposed project would not disrupt or divide an established community. Therefore, this impact is considered **less than significant**.

The project site is located within the city limits of Morgan Hill at the border of the urban growth boundary (UGB), which borders the project site to the north. The UGB is an officially adopted and mapped line dividing land to be developed from land to be protected for natural or rural uses, including agriculture. The project site has a General Plan designation of 'Commercial' in the *City of Morgan Hill General Plan* and a zoning designation of `PUD (HC)´ in the *City of Morgan Hill Planning and Zoning Codes*. The *City of Morgan Hill General Plan* designates the project site as the location of a sub-regional commercial site. The project site has been designated for urban uses in the City of Morgan Hill General Plan since 1969.

As the project site is located at the northern boundary of the City of Morgan Hill, surrounding land uses are both urban and rural in nature. Surrounding land uses include vacant land planned for commercial uses and the De Paul Health Center (formerly the St. Louise Hospital) located south of the project site; unincorporated County land located within the City's sphere of influence and vacant land located within the city limits designated `Single-Family Medium´ in the *City of Morgan Hill General Plan* located east of the project site; unincorporated County land located within the City's sphere of influence designated 'Rural County' in the *City of Morgan Hill General Plan* located north of the project site; and U.S. Highway 101 and the SCVWD drainage channel located west of the project site. Although the project site is primarily rural in nature, the area west of the U.S. Highway 101/Cochrane Road interchange is developed primarily with commercial uses, including the Cochrane Plaza shopping center located at the southwest quadrant of this intersection, and a Chevron Station, two hotels, two vacant restaurant pads, and the Madrone Business Park located at the northwest quadrant of the intersection.

The project area is not considered a cohesive established community that will be divided by the proposed commercial uses. Therefore, the proposed project will not disrupt or divide an established community and the impact is considered **less than significant**.

Conflicts with the Applicable Land Use Plan, Policy, or Regulations

Impact 3.9-2 The proposed project would not conflict with existing polices adopted to avoid or mitigate environmental impact. This is considered a **less than significant impact.**

The proposed project includes a zoning amendment and general plan amendment (GPA) application to establish a precise development plan for an approximate 657,250 square foot shopping center. The proposed zoning amendment application would establish a precise development plan and development guidelines for the proposed project. The general plan amendment would provide for the relocation of a future collector street extending from Mission View Drive north of Cochrane Road instead of extending from De Paul Drive (formerly St. Louise Drive) as designated on the *City of Morgan Hill General Plan* map.

The proposed project meets the *City of Morgan Hill General Plan* goals and policies, which seek to encourage retail sales at major intersections, a sub-regional retail use at the northeast freeway interchange, and a variety of commercial uses to meet the needs of city residents. The proposed project would be subject to design review, which will ensure that the proposed project meets the General Plan goals and policies for high quality commercial development at the northern gateway to the City of Morgan Hill.

Throughout the EIR, the applicable General Plan goals and policies are listed in each of the individual topic areas. With the implementation of mitigation measures identified within this EIR, the proposed project would be consistent with applicable General Plan goals and policies.

Section 18.26.010 of the *City of Morgan Hill Planning and Zoning Codes* defines the 'HC' district as providing areas adjacent to the freeway that can accommodate highway and tourist oriented uses, and uses which require the high visibility of thoroughfare locations, such as the proposed project. The proposed zoning amendment application would establish a precise development plan and development guidelines for the proposed project. The proposed project would be required to undergo design review in compliance with Section 18.74, Design Review, of the *City of Morgan Hill Planning and Zoning Codes*. In summary, the proposed project would be consistent with the General Plan and zoning provisions applicable to the project site.

Conflicts with Applicable Habitat Conservation Plan

The project site is not located within the boundaries of a habitat conservation plan. Therefore, **no impact** would occur.

Potential for Urban Decay Due to Secondary Economic Impacts

Impact 3.9-3a The proposed project would construct a 657,250 square-foot retail center that would could consist of the relocation and expansion of the `Target´ store (currently located at the Cochrane Plaza shopping center) and construction of over 530,000 square feet of additional retail, which could include a home improvement store, wholesale store or department store; retail shops; restaurants (sit-down and fast food); and a 63,200 square foot multi-plex cinema with up to 14 screens. These retail uses would compete with existing businesses in the City of Morgan Hill. This increased competition could potentially result in or contribute to closure of existing businesses in the City of Morgan Hill and there is a high likelihood that the Cochrane Plaza would be subject to a causal chain ultimately resulting in urban decay. This is considered a **significant impact.**

Background Discussion

Under CEQA, only direct and indirect physical effects of projects are to be considered in the preparation of an EIR. Section 15064(d) of the state CEQA Guidelines provides: 'In evaluating the significance of the environmental effect of a project, the lead agency shall consider direct physical changes in the environment which is caused by and immediately related to the project." Section 15064(d)(3) further states: "An indirect physical impact is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable." In addition, CEQA requires that a determination that a project may have a significant environmental effect must be based on substantial evidence (CEQA Guidelines §15064(f)).

With respect to secondary socioeconomic effects of projects, Section 15131(a) of the CEQA Guidelines states: "Economic and social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes." In other words, economic and social changes are not, in themselves, considered under CEQA to be significant effects on the environment.

Since only physical effects are to be considered under CEQA, economic and social changes resulting from a project may be considered if they in turn produce changes in the physical environment. To fully satisfy the requirements of an EIR, an economic analysis must start with the economic impacts, but also follow the causal chain to assess the likelihood of new retail space causing long-term vacancies in existing retail space and ultimately leading to urban decay and physical deterioration of existing retail centers and nodes. In the words of *Bakersfield Citizens for Local Control v. City of Bakersfield, Panama 99 Properties LLC, and Castle & Cooke Commercial-CA, Inc.,* the analysis is required to assess whether a new retail development "could cause a ripple of store closures and consequent long-term vacancies that would eventually result in general deterioration and decay within and outside the market area" of the proposed development. Further, "[t]hese effects include, but are not limited to, physical decay and deterioration resulting from store closures in the same market area or in established areas of the community (i.e., the 'traditional downtown area') due to competitive pressures, followed by an inability to easily re-lease the vacated premises." One concern is that large retailers that dominate sales in their merchandise lines "will displace older, smaller retail stores and shopping centers, leaving long-term vacancies that deteriorate and encourage graffiti and other unsightly conditions." An EIR "must analyze the cumulative impacts resulting from construction and operation of the proposed shopping center in conjunction with all other past, present or reasonably

foreseeable retail projects that are or will be located within the proposed project's market area" and determine the likelihood that a project "individually and/or cumulatively, indirectly could trigger the downward spiral of retail closures and consequent long-term vacancies that ultimately result in decay." In light of the above, even if it could be shown that the proposed project would likely result in the failure of an existing competing business or businesses, the resulting building vacancy alone would not meet the above definition of blight. As such, a building vacancy alone would not meet the CEQA threshold of significance for a physical change to the environment. To cause a significant physical impact, other contributing factors would need to occur such as lack of effort on the part of property owners to maintain or improve their properties to a condition suitable for leasing, combined with the failure of surrounding businesses and physical deterioration of those properties. To reach a condition recognized as a physical impact under CEQA would require total neglect or abandonment of these properties by their owners for an extended period such that substantial physical deterioration, or urban decay, would ensue. As stated above, such an indirect physical impact must be a reasonably foreseeable result of the project, requiring a showing of cause and effect, with the finding of such an impact supported by substantial evidence.

Although CEQA does not require analysis of economic impacts of the project, the following analysis is presented as supporting evidence for subsequent conclusions on the likelihood that the project would indirectly result in or contribute to potentially significant adverse physical changes due to negative economic effects on businesses in the City of Morgan Hill.

Retail Market Impact Analysis

In order to determine the potential economic impacts of the proposed project upon existing competing businesses in the City of Morgan Hill and the larger market area, a retail market impact analysis was undertaken by Bay Area Economics (BAE). The BAE report is contained in Appendix I of this EIR, and its main findings and conclusions are discussed below.

The project applicant has expressed an interest in developing the proposed project as a "lifestyle center," with an emphasis on higher-end stores, dining, and entertainment, creating a destination retail experience that might draw shoppers and movie-goers from outside the City of Morgan Hill.

The proposed project represents a significant increase in the amount of retail space in Morgan Hill, with a center size larger than any of the existing centers in the City. The most apparent immediate impact will be the creation of a large vacant space in the Cochrane Plaza shopping center due to the relocation of Target to the proposed project. Among other retail categories, the opening of a new home improvement style store similar to but larger than Home Depot may lead to market saturation in Morgan Hill and the Target Trade Area, which does not have a sufficient customer base to support two such stores at industry average performance levels. The opening of a major multiplex will create overcapacity in

both Morgan Hill and the Cinema Trade Area, with the impacts likely to be greatest in Morgan Hill. Additional restaurant retail might be supportable, and the overall performance at the local supermarkets is strong enough that another competitor might enter the market, especially if it has a more region-serving focus.

The impacts would be lessened to some degree if the proposed project is successfully positioned as a lifestyle center and serves a broader market area. However, market areas for the two largest users of the proposed project (general merchandise and home improvement) face significant competition outside Morgan Hill from existing and planned general merchandise stores and home improvement warehouses in the cities of Gilroy and San José. Movie theaters might draw from a larger area due to their convenient highway location and large number of offerings available due to the number of screens. However, the proposed project adds more screens than are supportable in a larger area, doubling the number of screens in the Cinema Trade Area.

The most obvious local impact will be at Cochrane Plaza, where the Target anchor will be relocating to the proposed project and vacating the center. The loss of Target is likely to lead to reduced traffic at the other stores in the center, many of which are complementary to the Target, offering similar apparel and household items. Some of these tenants may choose to move to the new center to remain close to the Target and the customer traffic it generates. The restaurants such as McDonald's in Cochrane Plaza will also face new nearby competition from restaurants at the proposed project, which is likely to capture some of their share of pass-by highway traffic looking for convenient dining or takeout even as it captures new pass-by traffic and regional business generated by a movie theater complex.

The Lawrence Oaks Center shopping center could be significantly affected if the proposed project includes a large home improvement store as planned. As discussed above, the local trade area is not capable of supporting two large home improvement stores performing at industry average sales levels. However, this center's two anchors, Safeway and Home Depot, are not particularly complementary and thus the loss of either is not likely to significantly affect the other. In fact, the Safeway and an adjacent Longs Drugs continued to operate successfully after the Kmart previously occupying the Home Depot space closed. Furthermore, since this center is not as focused as Cochrane Plaza, re-tenanting may not prove as difficult, with one possibility being an office supply store, a category for which Morgan Hill shows significant additional capturable sales.

The Tennant Station shopping center could ultimately see the loss of the Cinelux movie theater complex if the new multiplex opens as proposed, since the Cinema Trade Area's population base does not support additional screens. The major anchors, Safeway and Rosso's Furniture, however, report strong sales, and the loss of a movie theater would not

likely impact their sales significantly; nor are these two anchors at risk from the proposed project.

The analysis indicates that the other retail nodes in Morgan Hill are not likely to lose major tenants or stores and thus will not be impacted in a way that might lead to urban decay or physical deterioration. With respect to downtown, the proposed project serves a different niche for both consumers and retailers in Morgan Hill, and as such, should not see major impacts from the proposed project.

Urban Decay Analysis

The analysis considered the potential for urban decay and physical deterioration for each of the competing Morgan Hill retail nodes, taking into account the impacts of the proposed project and possible cumulative impacts due to other retail development in Morgan Hill, South San José, and Gilroy. No large anchor retail spaces are currently vacant in Morgan Hill and the existing centers show no current evidence of urban decay or physical deterioration resulting from vacancy, deferred maintenance, or disinvestment. None of the existing centers could be seen as being at risk of urban decay if the proposed project is not built.

The proposed project would lead to the loss of one of two large anchors at Cochrane Plaza. This center and its other large anchor, Mervyn's, face strong new competition from Gilroy Crossing and its new Target and Kohl's. Mervyn's faces an uncertain future following its sale in 2004 by the Target Corporation, with some indications that the underlying value is in its real estate holdings rather than in its operations. At this time, however, the new ownership has continued with existing management and has not announced any major changes such as store closures. A representative of Cochrane Plaza indicated that other stores in the center are faring poorly even with the existing Target in place, with prospective tenants for a vacant space reportedly requesting a cancellation clause if the Target closes. Other tenants may close entirely or relocate to the proposed project seeking the continued synergy of locating near a Target. Cochrane Plaza is further constrained by land use regulations that do not allow re-tenanting of the Target space as a grocery store without voter approval. Re-leasing of the Target space might also require a subdivision or redevelopment of the existing store, as the market analysis indicates no support for a space of that size for any category of retail outlet. One possible reuse for at least part of the space is as an office supply store; the analysis indicates support for a sizable store in this category in Morgan Hill. However, this use does not complement the remaining tenant base nearly as well as Target, would not fill the entire vacant Target space, and might be more suitable for another location in Morgan Hill; if the proposed project seeks additional tenants outside the lifestyle retail niche, an office supply store could even be located there. Another factor to consider is the multiple ownership of this center; any attempt to redevelop the entire center must be approved by the separate owners of the vacated Target space (currently

owned by Target), Mervyn's, and the owner of the remainder of the center. Given the lack of viable large-scale tenants for the Target space, the loss of synergy with the remaining tenants if the Target closes, and an uncertain future for Mervyn's, the center is likely to undergo secondary closures of smaller businesses. Therefore, Cochrane Plaza faces the possibility of entering a cycle leading to urban decay and physical deterioration resulting from long-term vacancies, secondary business closures, and the inability to re-tenant existing stores.

The actual potential for physical deterioration to occur will be dependent on the commitment from the current property owners to maintain the property, which will be made more challenging due to the multiple ownerships. Although it may be reasonable to assume that the owners would maintain the plaza in a condition suitable for re-tenanting, there is no evidence or indication that such upkeep would continue indefinitely in the face of long-term vacancies under oversaturated market conditions if the prospect of significant re-tenanting of the existing spaces is remote. Therefore, it is concluded that there is a high likelihood that the Cochrane Plaza would be subject to a causal chain ultimately resulting in urban decay. This is considered a **significant impact.**

Mitigation Measures

MM 3.9-1 As a condition of approval for the proposed project, the Target Corporation will make a written commitment, using a mechanism such as a restriction or notice on their deed to the existing store property, to maintain their vacated existing store per the guidelines set out in the BAE report regarding abatement of physical decay and deterioration of buildings per the City of Morgan Hill Municipal Code. This maintenance will include but not be limited to prompt removal of trash and graffiti and upkeep of the vacant building to leasable standards for a modern community shopping center. This commitment will extend to successors in ownership if the Target Corporation sells the property prior to re-tenanting. This commitment will extend until a majority of the space in the vacant store is re-occupied for a period of at least 12 consecutive months.

MM 3.9-2 As an additional measure to assure proper maintenance of the vacated store, the Target Corporation will provide the City of Morgan Hill with a façade easement on the existing Target space. The facade easement will make it easier for the City and its Redevelopment Agency to step in and clean up the site and lien the property for reimbursement, if needed. The easement language can establish the maintenance standards to be followed. For this property, the easement language should give the City of Morgan Hill the right to enter onto the property and perform any deferred maintenance thereon as may be necessary to keep the property in good condition and repair, if the Target Corporation or successor in ownership (the "owner")

does not perform such maintenance itself within a set period of time after receiving notice of the need for maintenance. Such notice shall identify each item of maintenance and repair required to restore the landscaping and exterior facade on the property to good condition and repair. All costs of maintenance performed by the City of Morgan Hill shall be paid directly by the owner or be reimbursed to the City by the owner. The owner's obligation to reimburse the City shall be secured by a lien encumbering the property, which lien shall be enforceable in accordance with the provisions of California Civil Code Section 2924 et seq., as amended. This façade easement will be granted for a period not to exceed five years, or until a majority of the space is re-occupied for a period of at least 12 consecutive months.

MM 3.9-3 The Target Corporation shall provide the City of Morgan Hill with a written re-tenanting plan for the vacant store. Every six months until the majority of the space is leased to a tenant(s) with a lease commitment of at least 12 months, or sold to another independent party, the Target Corporation shall provide to the City of Morgan Hill a progress report on efforts to re-lease the vacant space. The Target Corporation shall not put restrictions on the types of retailers permitted, e.g., they will not refuse to lease to a Target competitor. Permitted activities and land uses shall be solely governed by the City of Morgan Hill General Plan and the *City of Morgan Hill Planning and Zoning Codes*.

Based on the analysis conducted by BAE, it cannot be stated with any degree of certainty that the mitigation measures would prevent urban decay in the Cochrane Plaza shopping center. Therefore, the proposed project would likely lead to a **significant and unavoidable impact** with respect to urban decay and physical deterioration at the Cochrane Plaza shopping center.

Impact 3.9-3b The proposed project would increase competition that could result in closure for major tenants in the Lawrence Oaks and Tennant Station shopping centers. This is considered a **potentially significant impact**.

In addition to potential closures at the Cochrane Plaza shopping center, based on the retail market impact analysis performed by BAE, there is a likelihood of closure for major tenants in Lawrence Oaks (Home Depot) and the Tennant Station (Cinelux theater complex) shopping centers. If the proposed project includes a home improvement center, it could result in market saturation in this retail sector, leading ultimately to closure of Home Depot at the Lawrence Oaks shopping center. However, Home Depot and its largest competitor, Lowe's, are currently in a phase of opening stores in proximity to one another to gather additional market share. Any consolidation and elimination of unprofitable stores may be several years away. The Lawrence Oaks shopping center survived the closure of the Kmart

store as the other two anchor stores, Safeway and Longs Drugs are sustained by a customer base that was not driven by those going to the Home Depot store. As a result, the Lawrence Oaks shopping center is unlikely to enter a cycle of additional vacancy leading to urban decay, even if the Home Depot is closed in a future consolidation of stores by its parent company.

The main occupant at risk in Tennant Station is the Cinelux theatre complex, since the market area does not appear to be able to support additional screens in Morgan Hill. However, the two primary anchors of this center are a Safeway and a furniture store, neither of them at significant risk of closure due to the proposed project or other known future retail development. Additionally, the bowling alley is now slated for reopening later this year. This center has undergone major changes over the last several years, including the departure and reopening of Safeway, that indicate that vacant spaces will see reuse rather than long-term vacancy and decay.

For the other major retail nodes including Vineyard Town Center, Morgan Hill Plaza, the Nob Hill Center, and Downtown, the analysis conducted by BAE does not indicate significant economic impacts related to the proposed project. As a result the urban decay and physical deterioration are also not indicated as secondary impacts.

Implementation of the following mitigation measures would ensure the proposed project would have a **less than significant impact** on potential store closures at the Lawrence Oaks and Tennant Station shopping centers.

Mitigation Measures

MM 3.9-4 There is a likelihood of closure for major tenants in the Lawrence Oaks (Home Depot), Tennant Station (Cinelux Theatres), and Cochrane Plaza (Target with the likelihood of other tenants following) If these centers (or others) face vacancies following the opening of the proposed project, the City of Morgan Hill will monitor maintenance of the vacated spaces and their centers for the first signs of disinvestment or deterioration, and require that these properties continue to be maintained to standards as stated in Section 15.56.020 of the Morgan Hill Municipal Code, such that the building will not endanger life, limb, health, property, safety, or welfare of the general public or its occupants. These standards are based on the International Conference of Building Officials "Uniform Code of the Abatement of Dangerous Buildings, 1997 Edition," except where otherwise noted in the Section 15.56.020 of the Morgan Hill Municipal Code. The property shall be maintained in accordance with Morgan Hill Municipal Code Section 8 regarding Health and Safety, including but not limited to keeping premises free of litter, weeds, graffiti, and abandoned vehicles.

MM 3.9-5 To help small local businesses compete with likely national chain retailers in the proposed project, the City of Morgan Hill will fund programs aimed at assisting locally-owned small retailers. This could take the form of a business seminar sponsored by Target and the project developers to educate local retailers, or other programs geared toward small retail business assistance, such as a kiosk at the Proposed Project providing information on shopping opportunities in Downtown Morgan Hill or other centers. Such a program could be funded by the City of Morgan Hill committing a percentage of the sales tax revenue generated by the Proposed Project.

MM 3.9-6 City of Morgan Hill will ensure the Target Corporation, the other owners of Cochrane Plaza, and the owners of Tennant Station, Vineyard Town Center, and the Lawrence Oaks Shopping Center are aware that their centers are in the City's Redevelopment Area, and as a result they are eligible to apply for programs administered by the City's Business Assistance Division, including the Facade Improvement Program, Impact Fee Financing Programs, and Business Assistance Guidelines.

Implementation of the above mitigation measures including monitoring of any potential vacated spaces and their centers for the first signs of disinvestments or deterioration; funding of programs aimed at assisting locally-owned small retailers; and ensuring that owners of the shopping centers are aware that their centers are in the City's Redevelopment Area and are eligible for assistance programs would ensure that the proposed project would have a **less than significant** impact on the Lawrence Oaks and Vineyard Town Center shopping centers.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Conflicts with the Applicable Land Use Plan, Policy, or Regulations

Impact 3.9-4 The proposed project, combined with other foreseeable projects in the City of Morgan Hill may result in cumulative land use impacts to the project area. This is considered a **less than significant** impact.

The proposed project meets the *City of Morgan Hill General Plan* goals and policies, which seek to encourage retail sales at major intersections, a sub-regional retail use at the northeast freeway interchange, and a variety of commercial uses to meet the needs of city residents. The proposed project would be subject to design review, which will ensure that the proposed project meets the goals and policies in the *City of Morgan Hill General Plan* for high quality commercial development at the northern gateway to the City of Morgan Hill. The proposed project would be consistent with the *City of Morgan Hill General Plan* and zoning provisions applicable to the project site and therefore would result in a less than significant land use impact. In addition, cumulative development would be subject to

the City's development review process through which any potentially significant land use impacts would be reduced to a **less than significant level**.

Potential for Urban Decay Due to Secondary Cumulative Economic Impacts

Impact 3.9-5 The proposed project, combined with other foreseeable projects in the City of Morgan Hill may result in urban decay due to secondary cumulative land use impacts. This is considered a **less than significant** impact.

The retail market impact analysis (Appendix I) conducted by BAE assessed the impacts of the proposed project in the context of other likely retail developments in the market area or affecting the market area. In Morgan Hill, there are several sites zoned for future retail development, but most are neighborhood centers. The only one besides the proposed project in the development process in the vicinity of the project site is located to the west of U.S. Highway 101 on Cochrane Road at Madrone Parkway, across from Cochrane Plaza. This development involves the rezoning of an eight-acre parcel for a neighborhood commercial center totaling 72,000 square feet. This project is currently not in architectural and site review, but the rezone has been approved has been approved by the City. Current plans call for a number of smaller pads and one 50,000 square-foot store. No tenants are committed to this project at this time. As a neighborhood center, the uses are not likely to compete directly with the planned region-serving uses at the proposed project. A project of uncertainty in Morgan Hill is the expansion of the Cinelux movie theatre which would add three more screens to their existing eight at Tennant Station. This would lead to even more oversaturation of movie screens in Morgan Hill and the Cinema Trade Area, but how this would impact the viability of the existing multiplex and Tennant Station are unclear. It could make it more competitive and lead to lower movie attendance at the proposed project, but also might further erode the profitability of Cinelux's multiplex as it operates more screens but fails to gain enough additional patrons due to the competition from the proposed project. The proposed expansion may add to Cinelux's market share thus discouraging competitors entering the market.

The one under-construction, planned, or proposed development of significance with respect to potential cumulative impacts is the Wal-Mart Supercenter in Gilroy, slated for opening later this year. The addition of a full grocery department to the store will capture supermarket sales going to competitors in Gilroy, Morgan Hill, and elsewhere, with stores in Gilroy bearing the brunt of the impact due to their proximity. The additional sales likely to be captured from Morgan Hill stores in combination with a grocery store at the proposed project would not be likely to lead to closures, as each of the major supermarkets is performing at levels capable of sustaining this level of additional sales loss, assuming the losses are shared somewhat equally. The vacancy created by Wal-Mart's closure of their existing store is another significant retail real estate event related to the opening of the

Supercenter. As an older existing space designed for a certain user, it is unlikely to attract the kinds of prime tenants seeking new space in a center such as the proposed project. However, mitigation measures required as part of the approvals for the Supercenter require the demolition of this space if it is not re-leased within a certain period of time.

BAE research found one other proposed project in Gilroy with a potential region-serving focus, Gilroy Commons, a 117,000 square foot center on slightly over 10 acres adjacent to Gilroy Crossing. According to Gilroy planning staff, one major store in this space will be occupied by an electronics store such as Circuit City, and another potential tenant was a store such as Marshall's or TJ Maxx. The analysis in this report uses the Target Trade Area for these store types, and thus already excludes Gilroy, and assumes that the proposed project will not capture from the Gilroy area. If the proposed project has competitors to the stores in this center, it is assumed already only to capture leakage out of Morgan Hill, and the presence of this new center will not present any new cumulative impacts in combination with the proposed project. This finding is reinforced by the fact that the center is configured as an in-line center rather than with the more pedestrian-oriented lifestyle center design of the proposed project.

In San José, the development currently in process that may result in cumulative impacts is the development at the IBM site of a Lowe's home improvement center in a 222,000 square foot center with other tenants not currently known. This development would make it much less likely that San Jose shoppers would frequent a similar store in Morgan Hill, since most of them would drive by this center to get to Morgan Hill. This development is currently working its way through the EIR process, albeit with some difficulty and controversy due to the potential loss of historic structures at the site. Moreover, the San Jose Lowe's project lies outside the Target Trade Area (used also for the potential home improvement center), and as such would result in little if any additional loss of business (at the Morgan Hill Home Depot), and therefore would result in a **less than significant** cumulative project impact.

REFERENCES/DOCUMENTATION

Bay Area Economics. *Retail Impact Analysis for Proposed Retail Shopping Center, Morgan Hill, CA*. June 2005.

Morgan Hill, City of. *Morgan Hill General Plan*. July 25, 2001 (Updated July 2004).

Morgan Hill, City of. *Morgan Hill General Plan, Draft Master Environmental Impact Report*. March 22, 2001.

Morgan Hill, City of. *City of Morgan Hill Planning and Zoning Codes*. November 2004

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This section of the EIR discusses the existing noise environment of the area and identifies predicted changes that may result with implementation of the proposed project. The analysis quantifies noise levels caused by project-generated traffic at the nearest sensitive land uses in the vicinity of the project site, and compares those levels to City of Morgan Hill standards. The analysis is based upon the environmental noise analysis prepared by Illingworth and Rodkin, Inc., under contract to Pacific Municipal Consultants in May 2005. This report is included within Appendix J of this EIR.

3.10.1 EXISTING SETTING

BACKGROUND

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its pitch or its loudness. Pitch is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. Loudness is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales, which are used to describe noise in a particular location. A decibel (dB) is a unit of measurement, which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10-decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in **Table 3.10-1**.

Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1

dBA. Various computer models are used to predict environmental noise levels from sources such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night – because excessive noise interferes with the ability to sleep – 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Community Noise Equivalent Level (CNEL) is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 p.m. - 10:00 p.m.) and a 10 dB addition to nocturnal (10:00 p.m. - 7:00 a.m.) noise levels. The Day/Night Average Sound Level, L_{dn}, is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

TABLE 3.10-1
ACOUSTICAL TERMINOLOGY

Term	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, HZ	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dB	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. 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_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 p.m. and 7:00 a.m.

Term	Definition
Day/Night Noise Level, L_{dn}	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 p.m. and 7:00 a.m.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, HZ	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dB	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. 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_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.

Source: Illingworth and Rodkin, Inc.

PROJECT VICINITY

Existing Noise Sensitive Land Uses

Some groups of people are more affected by noise than others. These groups of people are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks.

Sensitive receptors in the vicinity of the project site include two single-family homes located south of the project site along Cochrane Road; single family homes at the corner of Cochrane Road and Mission View Drive located approximately 100 feet from the southeast corner of the project site; several rural residential homes located approximately 1,000 feet north of the project site on Peebles Avenue; and residential homes located 1,300 feet east of the project site along Peet Road.

Existing Noise Environment

The existing ambient noise environment in the project vicinity is dominated by vehicular traffic on U.S. Highway 101 and Cochrane Road. To evaluate the existing noise environment on and adjacent to the project site, Illingworth and Rodkin, Inc. conducted one 24-hour and two short-term 'spot' noise measurements between 11 a.m., Thursday, January 19th and 11 a.m., Friday, January 20th, 2005. The noise measurement locations are shown in **Figure 3.10-1.** The long-term measurement was conducted at a utility pole 130 feet south of the Cochrane Road centerline and west of the existing single family home located at the corner of DePaul Drive (formerly St. Louise Drive) and Cochrane Road. The average (L_{eq}) noise levels ranged from 58 to 65 dBA daytime and 51 to 61 dBA nighttime. The overall average daytime and nighttime L_{eq} levels were found to be 62 and 56 dBA, respectively. The L_{dn} measured at this location was calculated to be 64 dBA.

The first short-term noise measurement (ST-1) was conducted simultaneously with the long-term measurement in the southwest portion of the project site approximately 200 feet west of the U.S. Highway 101 right-of-way line and 200 feet from the centerline of Cochrane Road. The results of this measurement show that due to the shielding provided by the existing terrain of U.S. Highway 101 traffic noise, (i.e. U.S. Highway 101 is below the site grade for the entirety of the project site) the average noise levels at this location were 3 dBA below those at the long term position. The estimated L_{dn} at this location is therefore 61 dBA.

The second short term noise measurement (ST-2) was conducted in the rural residential area along Peebles Avenue north of the project site. The results of this measurement show that the average daytime sound levels away from major sources of the noise such as U.S. Highway 101 and Cochrane Road range from 52 to 56 dBA, yielding an estimated L_{dn} of 56 dBA.

3.10.2 REGULATORY SETTING

In order to limit population exposure to physically and/or psychologically damaging noise levels, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. The *City of Morgan Hill*

Source: WAC Corporation and Illingworth and Rodkin

Noise Measurement Locations, May 2005

0 250 500
Scale in Miles

N

Figure 3.10-1
Noise Measurement Locations

PMC

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General Plan (2001) Noise Element and CEQA Guidelines provide regulations regarding noise levels for uses relevant to the proposed project. The following provides a general overview of the existing regulations established by the federal government, the State of California and the City of Morgan Hill.

STATE OF CALIFORNIA

California Building Standards Code

The State Building Code addresses noise intrusion in new hotels, motels, dormitories, apartment houses and dwellings other than detached single-family dwellings. Appendix Chapter 12, Section 1208A.8, Exterior Sound Transmission Control, states that indoor noise levels attributable to exterior sources shall not exceed an L_{dn} of 45 dBA in any habitable room if outdoor levels are in excess of an L_{dn} of 60 dBA. Furthermore, if windows must be closed to meet the goal, then an alternate means of providing fresh air such as mechanical ventilation or air-conditioning must be included in the design. The ventilation system must not compromise the noise reduction provided by the facade. Evidence of compliance consists of an acoustical analysis report that is submitted with the application for building permit.

California Environmental Quality Act

CEQA requires the analysis of potential noise impacts from certain projects. The noise impacts are to be assessed with respect to applicable standards and significant noise increases. The state and city noise standards can be used as thresholds of significance in the CEQA impact analysis. Policy 7e in the *City of Morgan Hill General Plan* states that noise level increases resulting from traffic associated with new projects shall be considered significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn} or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.

MORGAN HILL GENERAL PLAN

The Noise Element in the *City of Morgan Hill General Plan* contains Noise and Land use Compatibility Guidelines. These guidelines consider an exterior Day/Night Average Sound Level (L_{dn}) or CNEL, dBA of up to 70 dBA to be "normally acceptable" for commercial development and an L_{dn} of 60 dBA for single-family residential development. An L_{dn} of up to 75 dBA is considered "conditionally acceptable" for commercial development and an Ldn of up to 70 dBA for single-family residential development. If new construction is proposed in an area that is exposed to noise levels that are greater than "normally acceptable," a detailed analysis of the noise reduction requirements must be made and the needed noise insulation features included in the project design.

The following policies from the Noise Element in the *City of Morgan Hill General Plan* are relevant to the proposed project.

Goal 7 Prevention of noise from interfering with human activities or causing health problems.

Policy 7a New development projects shall be designed and constructed to meet acceptable exterior noise level standards (see Table 9) as follows:

- The maximum exterior noise level of 60 dBA L_{dn} shall be applied in residential areas where outdoor use is a major consideration (e.g. backyards in single family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing an L_{dn} of 60 dBA or lower cannot be achieved after application of reasonable and feasible mitigation measures, an L_{dn} of 65 dBA may be permitted.

- Indoor noise levels should not exceed an L_{dn} of 45 dBA in new residential housing units.

- Noise levels in new residential development exposed to an exterior L_{dn} of 60 dBA or greater should be limited to a maximum instantaneous noise level (e.g. trucks on busy streets, train warning whistles) in bedrooms of 50 dBA. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA. The maximum outdoor noise level for new residences near the railroad shall be 70 dBA L_{dn}, recognizing that train noise is characterized by relatively few loud events.

Policy 7b The impact of a proposed development project on existing land uses should be evaluated in terms of the potential for adverse community response based on significant increase in existing noise levels, regardless of compatibility guidelines.

Policy 7c Appropriate interior noise levels in commercial and industrial structures are a function of the use of the space and should be evaluated on a case-by-case basis.

Policy 7d Interior noise levels in office buildings should be maintained at 45 dBA.

Policy 7e Noise level increases resulting from traffic associated with new projects shall be considered significant if: a) the noise level increase is 5dBA L_{dn} or greater,

with a future noise level of less than 60 dBA L_{dn} or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.

Policy 7f Noise levels produced by stationary noise sources associated with new projects shall be considered significant if they substantially exceed ambient noise levels.

Action 7.1 Assess and track noise levels when specific projects are proposed to determine the continued accuracy of the Noise Contour map. If necessary, based on these assessments, update the future noise contour map to reflect changed conditions.

Action 7.2 The Noise Contour map shall be used to screen projects to determine if acoustical studies shall be required.

Action 7.3 Require attention to site planning and design techniques other than sound walls to reduce noise impacts, including: a) installing earth berms, b) increasing the distance between the noise source and the receiver; c) using non-sensitive structures such as parking lots, utility areas, and garages to shield noise-sensitive areas; d) orienting buildings to shield outdoor spaces from the noise source; and e) minimizing the noise at its source.

Action 7.4 Amend the Zoning Ordinance to reflect noise limits intended to protect noise sensitive land uses from intrusion by stationary noise sources.

Goal 8 Protection from noise associated with motor vehicles and railroad activities.

Policy 8a Roadway design, traffic signalization and other traffic planning techniques (such as limiting truck traffic in residential areas) shall be used to reduce noise caused by speed or acceleration of vehicles.

Policy 8b If noise barriers are deemed the only effective mitigation for development along major transportation corridors, an acoustical analysis shall be conducted to determine necessary dimensions.

Policy 8c The maximum height of sound walls shall be eight feet. Residential projects adjacent to the freeway shall be designed to minimize sound wall height through location of a frontage road, use of two sound walls or other applicable measures. Sound wall design and location shall be coordinated for an entire project area and shall meet Caltrans noise attenuation criteria for a projected eight-lane freeway condition. If two sound walls are used, the first shall be located immediately adjacent to the freeway right-of-way and the second shall be located as necessary to meet Caltrans noise requirements

for primary outdoor areas. The minimum rear yard setback to the second wall shall be 20 feet.

Policy 8d Ensure that sound barriers do not become targets for vandalism.

Action 8.1 Allow and encourage earth berms in new development projects as an alternative to sound walls if adequate space is available.

Action 8.2 Require non-earthen sound barriers to be landscaped, vegetated, and otherwise designed and/or obscured to improve aesthetics and discourage graffiti and other vandalism.

3.10.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels at the project site. In practice, more specific professional standards have been developed, as discussed previously in the Regulatory Setting section. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local planning criteria or ordinances, or substantially increase noise levels at noise-sensitive land uses.

For the EIR, noise impacts associated with the proposed project would be considered significant if the following were to occur:

- Exposure of persons to or generation of noise levels in excess of standards established in a local general plan or noise ordinance, or applicable standards of other agencies;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- For a project located within an airport land use plan or where such a plan; and/or
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the area to excessive noise levels.

METHODOLOGY

The project analysis is based on the Environmental Noise Analysis prepared by Illingworth and Rodkin, Inc. (May 2005). A combination of existing literature, existing ambient noise level measurements, and application of accepted noise prediction and sound propagation algorithms were used to predict changes in ambient noise levels with implementation of the proposed project. Project-related noise components that were identified include both short-term construction noise and long-term operational impacts, including traffic and stationary sources (e.g. delivery truck traffic, loading dock activity, outdoor garden centers, rooftop mounted mechanical equipment, etc.). Sensitive receptors (e.g. residential homes) in the vicinity of the project site were identified. Noise impacts of each of these noise sources are described below.

PROJECT IMPACTS AND MITIGATION MEASURES

Short-term Construction Noise

Impact 3.10-1 Construction activities at the project site would result in elevated noise levels, with maximum noise levels ranging from 85-88 dB at 50 feet. This is considered a **less than significant impact** impact.

During the construction phases of the proposed project, noise from construction activities would add to the noise environment in the project area affecting the single family homes located at the southeast corner of the Cochrane Road/Mission View Drive intersection and the two single family homes located south of Cochrane Road, as well as residential uses located approximately 1,000 feet to the north and 1,300 feet east of the project site. Activities involved in construction could generate maximum noise levels, as indicated in **Table 3.10-2**, ranging from 71 to 89 dB at a distance of 50 feet for standard commercial construction. Noise would also be generated during the construction phase by increased truck traffic and commute trips on area roadways. A significant project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from the construction site.

Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. The proposed project would be required to comply with Section 8.28.040 of the *City of Morgan Hill Municipal Code*, which would require that construction at the project site is limited to 7:00 a.m. to 8:00 p.m., Monday through Friday; between the hours of 9:00 a.m. to 6:00 p.m. on Saturdays; and prohibited on Sundays or federal holidays. Implementation of this standard condition of approval would ensure that construction activities take place only during specified times and that standard construction practices attenuate the affects of noise as much as possible in order to ensure that sensitive receptors in the vicinity of the project site are not adversely affected by the proposed project. No mitigation measures are necessary.

TABLE 3.10-2
TYPICAL RANGES OF EQUIVALENT NOISE LEVELS AT 50 FEET, L_{EQ} IN DBA, AT CONSTRUCTION SITES

Construction Activity	Land Uses					
	Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II
Ground Clearing	84	84	84	83	84	84
Excavation	89	79	89	71	88	78
Foundations	78	78	77	77	88	88
Erection	87	75	84	72	79	78
Finishing	89	75	89	74	84	84

I - All pertinent equipment present at site.
II - Minimum required equipment present at site.

Source: U.S.EPA Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

Operational Noise Impacts - Increase in Traffic Noise

Impact 3.10-2 The proposed project will result in an increase of approximately 22,009 daily weekday automobile trips on the existing roadway network, which will result in traffic noise level increases greater than 5 dBA L_{dn} over background conditions. This is considered a **significant impact.**

The proposed project would result in an increase of approximately 22,009 daily weekday trips, including 533 trips during the a.m. peak hour, 1,869 trips during the p.m. peak hour, and 2,415 trips during the Saturday peak hour on the existing roadway system according to the traffic distribution presented in Section 3.12, Transportation and Circulation. Traffic generated by the proposed project would cause an increase in traffic noise levels on the local roadway network, especially along Cochrane Road and Mission View Drive in the vicinity of the project site. The extent to which existing land uses would be affected by noise levels caused by an increase in traffic will depend on the proximity of these uses to the roadways in question, as well as their individual sensitivity to noise. To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels were predicted based on an increase in the amount of traffic, specifically along Cochrane Road and Mission View Drive. This increase in noise levels would primarily affect two existing sensitive receptors (e.g. residential uses) located immediately south of the proposed project, as well as homes located at the southeast corner of the Cochrane Road/Mission View Drive intersection.

The increased traffic associated with the proposed project would result in a subsequent increase in noise levels along Cochrane Road that would range between two and six decibels from U.S. Highway 101 to Mission View Drive. The two residences located on the south side of Cochrane Road would experience an increase of 4 dBA with implementation of the proposed project. Traffic generated by the proposed project would increase the L_{dn} at these homes from 64 dBA to 68 dBA.

Noise levels at the residential uses located east of Mission View Drive and north of the project site would be expected to remain relatively constant since these areas would be removed from the major traffic noise sources. Single family homes located at the southeast corner of the Cochrane Road/Mission View Drive intersection would experience a 1 dBA increase along the Cochrane Road frontage and a 4 dBA increase along Mission View Drive frontage with implementation of the proposed project. Illingworth and Rodkin, Inc. estimated that the current L_{dn} at the frontage of the homes along Cochrane Road and Mission View Drive southeast of the Cochrane Road/Mission View Drive intersection is 60 dBA. Considering these homes include a typical six-foot high noise attenuation barrier, the L_{dn} at the homes is estimated at 54 dBA. Traffic generated by the proposed project would increase the L_{dn} at the homes along the Cochrane Road frontage to 55 dBA and to 58 dBA at the homes along Mission View Drive.

According to the Noise Element in the *City of Morgan Hill General Plan*, exterior noise levels up to 60 dBA L_{dn} are considered 'normally acceptable' for single family residential development. Noise levels up to 70 dBA are considered 'conditionally acceptable' and noise levels between 70 and 75 dBA are considered 'normally unacceptable.' Policy 7e in the *City of Morgan Hill General Plan states* that noise level increases resulting from traffic associated with new projects shall be considered significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn}, or b) the noise level increase is 3 dBA L_{dn} or greater, with future noise level of 60 dBA L_{dn} or greater.

Existing exterior noise levels at the two residences located south of Cochrane Road currently exceed the City of Morgan Hill's maximum "normally acceptable exterior noise level of 60 dBA L_{dn} for residential uses at an L_{dn} of 64 dBA. With the addition of traffic from the proposed project, exterior noise levels at these residences would increase by approximately 4 dBA to 68 dBA L_{dn}.

To reduce the proposed project's contribution to the existing and projected traffic noise levels in excess of 60 dBA L_{dn} at these existing residences, a noise barrier fronting these uses (e.g. wall or a berm, or combination of the two) would attenuate the noise sufficiently to meet the City of Morgan Hill standards for residential uses. However, it would not be feasible to construct an effective noise attenuation barrier along Cochrane Road because driveways and De Paul Drive would require openings in the barrier that would not effectively block the noise. In addition, such a barrier would create a subsequent traffic safety hazard related to inadequate sight distances for vehicle ingress and egress at the

openings for the driveways. Therefore, construction of a noise attenuation barrier is therefore considered infeasible. According to the *City of Morgan Hill General Plan*, the property where these two single-family residences are located is designated for commercial uses and one of the single family homes has been vacated. Due to the urbanization in the project vicinity, it is likely that these homes may be developed for commercial uses in the future. Therefore, this impact would be considered a **short-term significant and unavoidable impact** in the interim until these properties are developed for commercial uses. Future development on these properties would likely occur after build out of the proposed project.

Operational Noise Impacts – Stationary Noise Sources

Impact 3.10-3 Noise generated by activity associated with the proposed project would elevate off-site noise at sensitive receptors in the project vicinity. This is considered a **less than significant impact.**

On-site noise sources associated with the proposed project would include: 1) delivery truck traffic; 2) loading dock activity; 3) activity at the outdoor garden center; 4) noise generated by fixed mechanical equipment typically located on the rooftop of large and small retail stores; 5) trash compactors associated with trash service; 6) parking lot cleaning; and 7) parking lot activity.

Based on noise measurement data collected from operations at similar completed projects, the noise levels generated by each of these project activities were determined along with the associated environmental impacts.

Delivery Truck Traffic

Noise generated by delivery trucks depends primarily on the truck. Maximum noise levels generated by diesel trucks pulling in and out of loading docks ranges from 73 to 80 dBA measured at a distance of 50 feet. The maximum instantaneous A-weighted noise levels generated by step vans and smaller gasoline-powered delivery trucks ranges from 60 to 69 dBA at a distance of 50 feet. Estimated deliveries for the proposed `Target´ store would occur from 8:00 a.m. to noon for local vendors Monday through Friday, and from 4:00 p.m. to 10:00 p.m. for `Target´ deliveries Monday through Sunday. All deliveries to the second large anchor store are anticipated to occur during store hours and no deliveries are anticipated to occur between 10:00 p.m. and 6:00 a.m.

Loading Dock Activity

In addition to the truck movements to and from the project loading docks, loading activities at the docks themselves could also generate adverse noise impacts. Loading docks for the proposed large anchor stores would be located in the rear of the project site adjacent to the

stormwater drainage ponds in the northern portion of the project site. Maximum noise levels generated at loading docks typically reach 80 dBA at a distance of 50 feet. These maximum noise levels were generated by banging and clanging of metal containers and loud voices. However, the loading docks for large anchor stores are typically designed so that large delivery trucks must back up to a rubber gasket against the opening of the building, with all unloading done directly into the building. The rubber gasket type of loading dock provides a tight connection between the truck and the building specifically for the noise abatement purposes. Field observations made at similar facilities indicate that noise from this loading dock type is generally not audible or measurable from surrounding off-site locations.

Outdoor Garden Centers

Noise source associated with the outdoor garden center include a public address (PA) system. The typical noise level of a garden center PA is about 50 dBA at a distance of 50 feet (this level may need to be increased to around 60 dBA at 50 feet due to the higher existing ambient noise). Forklifts typically generate a level of 60 to 70 dBA at a distance of 50 feet. Carts and voices typically generate noise levels of 50 to 55 dBA at a distance of 50 feet.

Rooftop-Mounted Mechanical Equipment

Noise generated by rooftop-mounted mechanical equipment varies significantly depending on the type of equipment and the size. Mechanical equipment typically includes heating, ventilation, air conditioning, and refrigeration equipment. Based on measurements made at similar stores, a noise level of 60 to 70 dBA at a distance of 50 feet from the mechanical equipment would be typical.

Trash Service

Trash compactors associated with trash service typically generate maximum noise levels of 45 to 50 dBA at 150 feet, depending on the power rating and enclosure characteristics.

Parking Lot Cleaning

Typically, the parking area surface at a shopping center is periodically cleaned using small mechanical parking lot sweepers and handheld back-mounted leaf blowers. Noise measurements conducted of this type of operation at a distance of 150 feet determined that the noise levels generated by the parking lot sweepers was not measurable, but that the noise levels generated by leaf blowers ranged from 60 to 70 dBA at a distance of 150 feet.

Parking Lot Activity

Major noise sources in parking lots will include: the starting of engines, car horns, door slams, low speed moving vehicles, car alarms, unauthorized overnight parking of delivery trucks with compressors running, and human voices. Noise measurements conducted at parking lots indicate that at a distance of 150 feet, maximum noise levels generated by cars or trucks passing by, doors slams, car alarms, and engines starting range from about 47 to 52 dBA.

Based on the layout of the proposed retail development, the relative distances from surrounding noise sensitive land-uses, and the use of line source (for truck passbys) and point source (for loading and unloading trucks, mechanical equipment, trash compactors, and parking lot noises) sound attenuation models, the noise levels generated by the operation of the proposed project would be at or below the existing average (L_{eq}) noise levels at the residential uses, located north and east of the project site, and the residential uses located south of Cochrane Road. Therefore, the proposed project would have a **less than significant impact** from stationary noise sources at the project site. No mitigation measures are necessary.

Operational Noise Impacts -- Proposed Commercial Uses at the Project Site

Impact 3.10-4 The proposed project would be exposed to noise from existing and future traffic on U.S. Highway 101 and Cochrane Road. This is considered a **less than significant impact.**

The proposed site plan would buffer future noise levels at the project site from vehicular traffic along U.S. Highway 101 due to the placement of retail buildings along the western edge of the project site. Based on the results of the noise analysis conducted by Illingworth and Rodkin, Inc., the facades of the retail development closest to U.S. Highway 101 and Cochrane Road would be exposed to an L_{dn} of 70 dBA or less. According to Table 9, Acceptable Noise Levels, in the Noise Element in the *City of Morgan Hill General Plan*, exterior noise levels at the project site would therefore be considered 'normally acceptable' for commercial uses. Standard commercial construction in accordance with the Uniform Building Code, would reduce interior noise levels to within standards for commercial uses. Therefore, this would be considered a **less than significant impact.**

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Traffic Noise

Impact 3.10-5 The proposed project would contribute to cumulative traffic on the roadway network over existing conditions, which would contribute to

cumulative traffic noise at sensitive receptors along Cochrane Road. This is considered a **significant impact**.

Project generated traffic and traffic associated with cumulative development would increase the L_{dn} at the homes located southeast and east of the Cochrane Road/Mission View Drive intersection to 57 dBA along the Cochrane Road frontage and to 59 dBA at the homes located along Mission View Drive, which is considered `normally acceptable´ under the City of Morgan noise standards for residential uses. Therefore, the subsequent noise level increases at these homes under cumulative conditions would be considered less than significant. The combination of project-generated traffic and traffic associated with cumulative development in the area will increase traffic noise levels between 4 to 9 dBA from U.S. Highway 101 and Mission View Drive, with an increase of 6 dBA at the two homes located south of Cochrane Road. This would increase the L_{dn} at these homes to 70 dBA under cumulative conditions with project-generated traffic.

The only effective mitigation measure that would reduce the exterior noise levels at the two single family homes locates south of Cochrane Road, under cumulative conditions, would be construction of an effective noise attenuation barrier along Cochrane Road. Construction of a noise attenuation barrier at this location is considered infeasible as discussed in Impact 3.10-2. In addition, according to the *City of Morgan Hill General Plan*, the property in which these two residences are currently located is designated for commercial uses in the *City of Morgan Hill General Plan*. Therefore, it is likely that these properties may be developed for commercial uses in the future. Therefore, this impact would be considered a **short-term significant and unavoidable cumulative impact** in the interim until these properties are developed. Development of these properties would likely occur after build out of the proposed project.

REFERENCES/DOCUMENTATION

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This section of the EIR discusses the public services in the City of Morgan Hill and evaluates the potential impacts to these services with implementation of the proposed project. Potential impacts focus on impacts to police and fire service, parks and recreation, and schools. This analysis is based in part on the *City of Morgan Hill General Plan* and *City of Morgan Hill Planning & Zoning Codes*.

3.11.1 ENVIRONMENTAL SETTING

POLICE

The project site is located within the Urban Service Area and is served by the City of Morgan Hill Police Department (hereinafter "Police Department"). The Police Department provides a variety of public safety services including patrol, traffic safety, crime investigation, community crime prevention, anti-gang enforcement, animal control, and plan-check services. The Police Department currently employs 33 sworn police officers, 20 full-time and five part-time civilian employees, five volunteer police officers, and 11 volunteers. Operations are based out of a new Police Station located at 16200 Vineyard Boulevard, just north of Tennant Avenue. The Police Station opened in June 2004 as a replacement for the overcrowded downtown station.

The patrol division of the Police Department assigns officers to teams working 12 hour shifts. This yields a differential patrol deployment system with a minimum of a supervisor and three officers. In 2004 the Department responded to 30,198 calls for service (17,102 dispatched and 13,096 self-initiated) with 31 sworn officers, for an average of about 1,000 calls per sworn officer per year, or a total of 83 calls per day. The existing officer-to-population ratio is approximately 0.85 officers for every 1,000 residents (assuming a 2005 population of 36,423 as estimated by the State of California, Department of Finance). However, the City of Morgan Hill maintains acceptable response times, comparable to communities with higher officer-to-population ratios. Average response times are five minutes for 'priority 1' calls (reports of a crime in progress or where an injury has occurred), nineteen minutes for 'priority 2' calls (reports on felonies and other major calls), and 27 minutes for 'priority 3' calls (all other responses). Incremental costs associated with new development are captured in part by development impact fees imposed on all new development by the City of Morgan Hill. These fees include funds for law enforcement facilities, equipment and training.

FIRE

Fire protection and suppression, emergency medical response, and fire plan-check services are provided by the Santa Clara County Fire Department (hereinafter "Fire Department") under contract to the City of Morgan Hill. This contract expires in September 2007. The Fire Department is composed of approximately 265 employees, 40 volunteers, 16 fire

stations, six support facilities, and more than 100 vehicles. The majority of communities served by the Fire Department enjoy a Class 2 Insurance Services office, Inc. (ISO) rating on a scale of one through ten, with one being the highest and best.

There are presently two stations, the El Toro Station and the Dunne-Hill Station, within the boundaries of the City of Morgan Hill that respond to approximately 1,787 calls per year. In addition to full-time firefighters at each station, the Department staffs a full-time Battalion Chief Monday through Friday. The 5,000 square foot El Toro Fire Station is located at 18300 Old Monterey Road on the north side of town. Built in 1975, the station is staffed by three on-duty firefighters and is equipped with an engine, brush/patrol truck, battalion vehicle (command center), a reserve engine, and an aerial truck. The Dunne-Hill station is located at 2100 E. Dunne Avenue on the eastern side of town. The Dunne Hill Station was constructed in 1978 and is 4,200 square-feet. It is regularly staffed by three on-duty firefighters. Equipment at the station includes an engine and patrol truck. The community is also served by two engines and a bulldozer owned and operated by the California Department of Forestry and Fire Protection (CDF) located at the CDF Station at 15670 S. Monterey Road in the City of Morgan Hill, under a mutual aid agreement with the City of Morgan Hill.

Previous assessments by the Fire Department indicate that increased staffing and the construction of a third station may be necessary to address existing service problems and accommodate future community growth. The new station would be located next to the new County Courthouse soon to be built on Butterfield Boulevard. A precise construction date has yet to be determined for construction of the fire station. Action 17.8 of the *City of Morgan Hill General Plan* calls for the City to develop and adopt a Public Safety Master Plan including Fire, Police, and Emergency Medical Services Elements. This plan is still under development.

The standards of the Uniform Fire Code help to ensure that water fire flows are adequate, that roads are adequate to provide emergency access, and that clearances around structures are of adequate width. The fire code also requires measures such as fire sprinklers and emergency egress requirements to mitigate potentially hazardous situations. Incremental costs associated with new development are captured in part by development impact fees imposed on all new development by the City of Morgan Hill. These fees include funds for fire protection services.

SCHOOLS

Both public and private schools serve the City of Morgan Hill. The Morgan Hill Unified School District (MHUSD) includes the City of Morgan Hill, southern portions of the City of San José, and unincorporated areas including the community of San Martin. Numerous private schools also serve the project area including the Carden Academy, Country School, Montessori Learning for Living, St. Catherine's Catholic, and South Valley Christian.

Gavilan Community College offers higher learning opportunities at their main campus near Gilroy and their satellite campus at the new Community and Cultural Center on Monterey Road.

The nearest education facilities to the project site are Nordstrom Elementary School located at 1425 East Dunne Avenue, and Live Oak High School at 1505 East Main Avenue, approximately 2.4 and 3.4 miles south of the project site, respectively.

Incremental costs associated with new development are captured in part by development impact fees imposed on all new development by the MHUSD. These fees are assessed on all new residential and commercial construction.

PARKS AND RECREATION

The City of Morgan Hill provides recreational opportunities through direct public investment in facilities such as the Community Park, Aquatic Center and soon to be built Indoor Recreation Center; and more indirect means such as providing incentives for the establishment of privately owned and maintained neighborhood parks through the City's Residential Development Control System competitions. Most of the larger open spaces and recreational trails are provided outside of city limits. County-owned parks in the region include Anderson Reservoir, Coyote River Parkway, Uvas Canyon County Park, Mount Madonna Park and Silvera Park. Henry Coe State Park is located 14 miles east of the city and provides approximately 87,000 acres of passive recreational opportunities.

3.11.2 REGULATORY SETTING

CITY OF MORGAN HILL CODES AND ORDINANCES

Provision of public services and construction and maintenance of infrastructure and utilities in the City of Morgan Hill is generally enabled and regulated by the City of Morgan Hill Municipal Code and *City of Morgan Hill General Plan*.

CITY OF MORGAN HILL GENERAL PLAN

The following goals and policies of the *City of Morgan Hill General Plan* are relevant in guiding consideration of this project:

Community Development

Goal 2 An orderly and efficient pattern of development.

Policy 2b Ensure that facility/service standards can be met for new development by the time of occupancy.

Goal 16 An urban level of services and facilities.

Policy 16c Identify public facility and service needs, and coordinate their development to minimize costs and support achievement of community goals.

Action 16.1 Require all development that may result in a substantial impact on City infrastructure and/or services to be analyzed to determine the extent of that fiscal burden.

Action 16.4 Fully utilize existing strategies to achieve an urban level of public services throughout the city, including a) require that the timing and location of future urban development be based upon the availability of public services and facilities; b) require new development to pay all the incremental public service costs which it generates; and c) require developers to dedicate land and/or pay to offset the costs relating to the provision and expansion of public services and facilities.

Goal 17 Efficient police, fire and emergency medical response and services.

Policy 17a Ensure police and fire staffing and facilities as necessary to provide adequate public safety protection.

Policy 17b Promote police and fire security considerations in all structures by ensuring that crime and fire prevention concepts are considered in development and design.

3.11.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and previous standards used by the City of Morgan Hill. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other objectives for police protection;

- Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the construction of which could cause

significant environmental impacts, in order to maintain acceptable service ratios, response times, or other objectives for fire protection;

- Result in the student capacity of a school district to be exceeded, or result in the need for construction of new school facilities.

- Conflict with an established recreational land use in the area, inhibit the ability to provide recreational opportunities in the future, or create a shortage of park and open space facilities for city residents and workers.

METHODOLOGY

The analysis of potential public service impacts is based upon project plans, the *City of Morgan Hill General Plan* and *City of Morgan Hill General Plan EIR,* and phone conversations with Police and Fire Department Staff.

PROJECT IMPACTS AND MITIGATION MEASURES

Law Enforcement Services

Impact 3.11-1 The proposed project will not result in the need for new or physically altered governmental facilities, but will increase service demands for police patrol and incident response. This impact is considered a **potentially significant impact**.

The proposed project would be required to conform to the applicable provisions of the City's building security ordinance found in Chapter 15.40 of Morgan Hill Municipal Code. This ordinance mandates the incorporation of security features into building design and related site improvements to reduce crime. Implementation of this ordinance would be supplemented with Police Department review of development projects by staff trained in Crime Prevention Through Environmental Design (CPTED) strategies.

The proposed project would result in an increased demand for service due to the type of uses, late hours of operation, and proximity to U.S. Highway 101. Expected calls for service to the new land uses would originate from a wide variety of incidents including domestic violence, lost children, disturbances, automobile theft or theft of items inside of automobiles, shoplifting and fraud, traffic incidents including accidents and drunk driving, loitering and armed robbery. Additionally, the location of the proposed project adjacent to U.S. Highway 101 will attract crime due to the relatively easy and anonymous entry and escape for out of town criminals. According to the Chief of Police, such activities have been observed at similarly located shopping centers across the region (Personal communication with Bruce Cumming, Police Chief, City of Morgan Hill Police Department, on March 21, 2005). However, while an increase in demand upon police

services can be expected, the level of increase is difficult to predict until a precise tenant mix is determined. Determinant factors include hours of operation (particularly after dark), type of merchandise, targeted consumer (e.g. teenagers vs. retirees), and whether the restaurants will serve alcohol and/or contain dedicated bars.

Given information to date, the Police Chief estimates the proposed project would generate an additional eight to twelve additional calls per day (approximately ten percent above existing city-wide demand) and the possible need to hire an additional patrol officer or officers to the police force. The increase in service demand would not require the provision of new or physically altered government facilities as the newly constructed Police Station could accommodate the increased demand. The project applicant would be subject to development impact fees for public safety facilities, equipment, and training collected by the City of Morgan Hill (Section 3.56.030 of the City of Morgan Hill Municipal Code). Payment of standard development impact fees would provide funds for the maintenance of acquisition of equipment such as patrol cars. However, given the existing officer-to-population ratio of approximately 0.85 officers for every 1,000 residents, the use of specific security features to reduce service calls is required to reduce law enforcement impacts to a **less than significant** level.

Mitigation Measure

MM 3.11-1 Subject to review and approval by the City of Morgan Hill Police Department, the project applicant shall install and maintain a video surveillance system throughout the proposed project and shall maintain on-site security personnel during all hours of operation.

The incorporation of a network of video cameras would improve security surveillance and the retention of on-site security personnel would prevent crime and respond to minor incidents such as lost vehicles and minor crimes. These measures would limit police response to major crimes against persons or property and reduce service demands to a **less than significant level.**

Fire Protection Services

Impact 3.11-2 The proposed project will increase the demand for fire protection. However, the proposed project would not result in the need for new or physically altered governmental facilities. This is considered a **less than significant** impact.

The Santa Clara County Fire Department would provide fire protection service to the project site. Emergency response to the project site is dependent upon adequate emergency access and water flows for fire protection services. The nearest station to the project site is the El Toro Station located at 18300 Old Monterey Road, approximately two

miles west of the project site. Additional service would be provided by the Hill Dunne Fire Station located at 2100 East Dunne Avenue, approximately 2.5 miles southeast of the project site. The proposed project includes water infrastructure improvements such as the extension of water mains and the installation of fire hydrants, with precise locations to be negotiated among the project applicant, Fire Department and City of Morgan Hill Public Works Department.

Potable water will be used for fire suppression. Fire flow for the proposed project has not yet been established, as is routine prior to issuance of building permits. However, the proposed project will have to meet all state and local codes for providing adequate fire flows, fire sprinklers, emergency vehicle access, and other fire prevention requirements. The project applicant would also be subject to development impact fees for public safety facilities, equipment, and training collected by the City of Morgan Hill (Section 3.56.030 of the City of Morgan Hill Municipal Code). Therefore, the proposed project would have a **less than significant impact** on fire protection services.

Schools

Impact 3.11-3 The proposed project will generate employment opportunities which may attract additional residents with school-age children to Morgan Hill. This is considered a **less than significant** impact.

The proposed project will not directly result in an increase in residents due to the exclusively commercial nature of the development. However, new jobs created as a result of the proposed project may attract individuals and families with school-age children to the City of Morgan Hill and result in an indirect impact on school facilities. Such migration will be restricted, however, by the growth management policies of the City of Morgan Hill that limits the number of new dwelling units through the Residential Development Control System in place through 2020. As such, the potential increase in children attending schools in the City of Morgan Hill as a result of the proposed project would not be significant enough to exceed the current capacity of the school district or generate the need for additional school facilities. The project applicant would also be subject to development impact fees collected by the MHUSD. Therefore, this impact is considered **less than significant**. No mitigation is required.

Parks and Recreation

Impact 3.11-4 The proposed project will not conflict with an established recreational land use in the area nor inhibit the future provision of recreational opportunities. While the proposed project will generate employment opportunities that may attract a limited number of new residents and with them incremental demand for recreational opportunities, this is considered a **less than significant** impact.

The project site is currently used for residential and agricultural uses and its conversion to a commercial center would not conflict with any established recreational land uses or inhibit the ability to provide recreational opportunities in the future. The proposed project is consistent with the *City of Morgan Hill General Plan* and does not conflict with the *City of Morgan Hill Park and Recreation Master Plan*.

New jobs created as a result of the project may result in the migration of individuals and households to the City of Morgan Hill as residents or commuting workers. Such migration will be severely restricted, however, by the growth management policies of the City of Morgan Hill that limits the number of annual building permits for dwelling units through the Residential Development Control System, known locally as Measure "C." As such, the increase in population is expected to be minimal and should not result in additional demand for parks and recreation facilities. Therefore, the impact is considered **less than significant**. No mitigation is required.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Impacts to Public Services

Impact 3.11-5 The proposed project, in addition to anticipated cumulative development in the project vicinity, may result in the need for increased public facilities for the provision of police and fire protection services, and to a lesser degree parks and educational facilities. These impacts are expected to be **less than significant**.

The cost of these new facilities would be covered in whole or in part by development impact fees assessed on all new construction, as specified and restricted in Chapters 3.44 and 3.56 of Morgan Hill Municipal Code. As a result, the public impacts associated with providing facilities for cumulative development would be considered **less than significant**. No mitigation is required.

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This section is based on the traffic impact report prepared by Fehr and Peers, Inc. Transportation Consultants in July 2005, which is contained in Appendix K of this EIR. The purpose of this section is to present the salient discussions, conclusions, and recommendations contained in the traffic report, in a manner which is succinct and accessible to the lay reader. For detailed supporting analysis, the reader is referred to the traffic report in Appendix K.

3.12.1 Environmental Setting

EXISTING ROADWAY SYSTEM

The project site is served by a circulation system comprised of regional highways, arterials and collector streets, which are illustrated in **Figure 3.12-1**. The main roadways serving the project site are discussed below.

U.S. Highway 101 extends northward through the cities of San José and San Francisco and southward along the California Central Coast. U.S. Highway 101 is a six-lane freeway (three mixed flow lanes in each direction) between Cochrane Road and Monterey Street in the City of Gilroy. North of Cochrane Road to San José, U.S. Highway 101 provides three mixed-flow lanes and one High Occupancy Vehicle (HOV) lane in each direction. The interchange at Cochrane Road provides access to the project site.

Monterey Road provides regional access to the cities of Gilroy and San José and local access within the City of Morgan Hill. North of Cochrane Road, Monterey Road is four-lanes wide. Within Morgan Hill, Monterey Road is a four-lane arterial with on-street parking and left-turn lanes at intersections.

Cochrane Road is a four-lane, divided arterial that extends eastward from its intersection with Monterey Road through a partial-cloverleaf interchange at U.S. Highway 101. East of U.S. Highway 101, Cochrane Road is a two-lane road that extends eastward to Anderson Reservoir and then southward to its terminus at the Main Street/Liberata Drive intersection.

Main Avenue is a two-lane, arterial roadway that intersects Monterey Road and extends eastward over U.S. Highway 101. East of U.S. Highway 101, Main Avenue becomes a two-lane road that intersects Condit Road and Elm Street.

Dunne Avenue is a four-lane divided arterial that intersects Monterey Road, Butterfield Boulevard, Condit Road, and Hill Road. Dunne Avenue includes a partial cloverleaf interchange with U.S. Highway 101, and east of U.S. Highway 101, Dunne Avenue becomes a two-lane roadway at Hill Road.

Murphy Avenue is a north-south roadway that extends between Diana Avenue and Middle Avenue on the east side of U.S. Highway 101. Murphy Avenue currently provides one

travel lane in each direction. The City of Morgan Hill's General Plan designates Murphy Avenue as a four-lane arterial that will be extended to the north and connect with DePaul Drive.

Tennant Road is a four-lane, divided east-west arterial between Monterey Road and U.S. Highway 101. East of U.S. Highway 101, Tennant Road is a two-lane rural road that extends eastward and intersects Condit Road.

Butterfield Boulevard is a four-lane, divided arterial that extends southward from its intersection with Cochrane Road to Tennant Avenue and is a primary corridor through the City. Butterfield Boulevard forms the eastern boundary of downtown Morgan Hill.

De Paul Drive (formerly known as Saint Louise Drive) is a two-lane local street that terminates south of Cochrane Road. The De Paul Medical Center Outpatient Building is the primary use serviced by this street.

Mission View Drive is a two-lane, north-south rural road between Cochrane Road and Half Road.

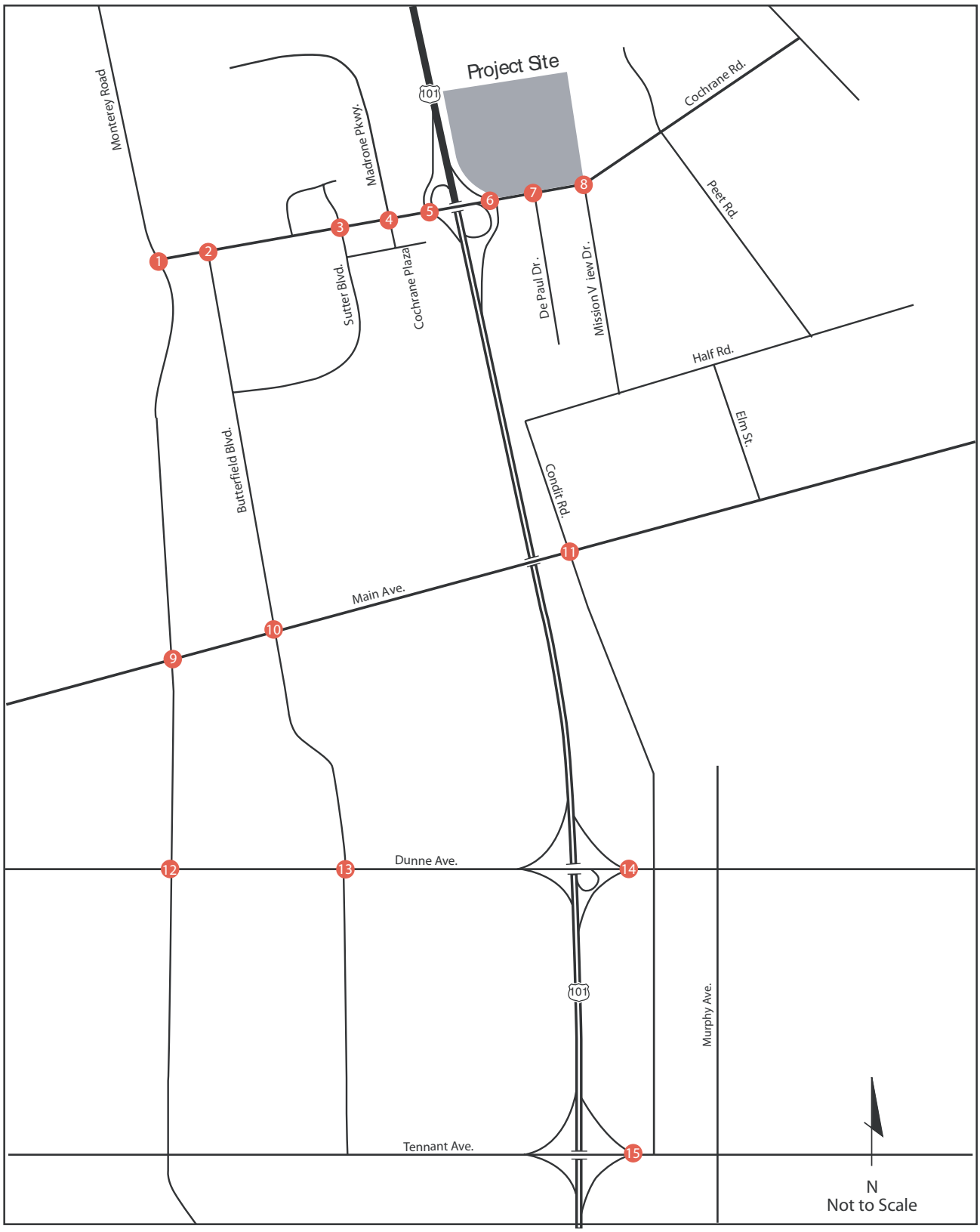
Half Road is a two-lane, east-west rural road between Condit Road and Peet Road. Half Road intersects both Mission View Drive and Elm Road.

Condit Road is a two-lane rural road that extends southward from Half Road to Tennant Road.

INTERSECTION LEVEL OF SERVICE OPERATIONS

The intersections of the study roadways are a key component of the roadway system. These are the "nodes" that connect each segment of the system. Intersections are usually the critical elements of the roadway system in assuring adequate capacity, minimizing delays, maximizing safety, and minimizing level of service impacts. Therefore, the analysis of project impacts on the roadway system focuses on intersection operations.

The operating condition of an intersection is typically described in terms of "Level of Service" (LOS), which is a quantitative measurement of the effect of various factors on traffic operating conditions, including travel speed, travel time, delay, freedom to maneuver, safety, driving comfort, and convenience. LOS is measured on a qualitative scale ranging from LOS A (the best) to LOS F (the worst). The level of service calculation methodology for intersections is dependent on the type of traffic control device: traffic signals or stop signs. The level of service methodology analyzes an intersection's operation based on average control vehicular delay. The methodology applied to a particular intersection depends upon whether it is signalized or unsignalized. The level of service definitions for signalized intersections are presented in Table 3.12-1. The LOS definitions



Circulation and Study Intersections, April 2005

Not to Scale

N

FIGURE 3.12-1
CIRCULATION AND STUDY INTERSECTIONS

PMC

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for unsignalized intersections are provided in the traffic impact analysis included as Appendix K.

TABLE 3.12-1
SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0
B+ B B-	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 12.0 12.1 to 18.0 18.1 to 20.0
C+ C C-	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 23.0 23.1 to 32.0 32.1 to 35.0
D+ D D-	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0 39.1 to 51.0 51.1 to 55.0
E+ E E-	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	55.1 to 60.0 60.1 to 75.0 75.1 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0

Source: VTA's CMP Traffic Level of Service Analysis Guidelines, June 2003, and Transportation Research Board, Highway Capacity Manual, 2000

For purposes of the traffic impact analysis, the following 15 intersections were evaluated for potential impacts. These intersections are shown in **Figure 3.12-1**, with the intersection locations on the figure keyed to the numbering assigned below. All intersections are signalized except where noted.

1. Cochrane Road/Monterey Road
2. Cochrane Road/Butterfield Boulevard
3. Cochrane Road/Sutter Boulevard
4. Cochrane Road/Cochrane Plaza
5. Cochrane Road/Southbound US 101 Ramp
6. Cochrane Road/Northbound US 101 Ramp (unsignalized)
7. Cochrane Road/De Paul Drive (unsignalized)
8. Cochrane Road/Mission View Drive
9. Main Avenue/Monterey Road
10. Main Avenue/Butterfield Boulevard
11. Main Avenue/Condit Road
12. Dunne Avenue/Monterey Road
13. Dunne Avenue/Butterfield Boulevard
14. Dunne Avenue/ Northbound US 101 Ramp
15. Tennant Avenue /Northbound US 101 Ramp

The operations of key intersections were evaluated during the morning (AM), evening (PM), and Saturday mid-day peak hours for the following scenarios:

- Existing Conditions - Existing volumes obtained from traffic counts.
- Background Conditions - Existing peak-hour traffic volumes plus traffic generated from approved, but not yet constructed developments in the area.
- Project Conditions – Background peak-hour traffic volumes plus traffic generated by the proposed project.
- Cumulative No Project Conditions – Existing peak hour volumes plus traffic generated by approved and pending projects.
- Cumulative Plus Project Conditions – Cumulative No Project volumes plus traffic generated by the proposed project.
- General Plan 2025 Conditions – Volumes predicted for the Year 2025 with the currently approved General Plan plus traffic generated for the proposed project.

The City of Morgan Hill applies operating standards of LOS E at freeway ramp intersections and LOS D+ for all other signalized and unsignalized intersections, except Madrone Parkway/Monterey Road, Tennant Avenue/Butterfield Boulevard, and Watsonville Road/Monterey Road where LOS D is considered acceptable (See Section 3.12.3 below for detailed Standards of Significance).

As shown in **Table 3.12-2,** the Level of Service calculations indicate that all of the study intersections operate at acceptable LOS D+ or better under existing conditions.

FREEWAY OPERATIONS

The level of service for freeway segments is evaluated based on density of flow as expressed in passenger cars per mile per lane. The freeway LOS evaluation by Fehr & Peers found that the existing levels of service on the adjacent segments of U.S. Highway 101 are LOS D or better during the AM, PM, and Saturday peak hours. (See the traffic report in Appendix K for detailed analysis and tables).

TABLE 3.12-2
EXISTING INTERSECTION LEVELS OF SERVICE

Intersection	Intersection Control	Peak Hour[1]	Delay[2]	LOS[3]
1. Cochrane Road/Monterey Road	Signal	AM	20.2	C+
		PM	25.0	C
		SAT	23.5	C
2. Cochrane Road/Butterfield Boulevard	Signal	AM	12.8	B
		PM	11.8	B+
		SAT	10.0	A
3. Cochrane Road/Sutter Boulevard	Signal	AM	20.4	C+
		PM	15.2	B
		SAT	13.6	B
4. Cochrane Road/Cochrane Plaza	Signal	AM	18.6	B-
		PM	30.5	C
		SAT	22.8	C+
5. Cochrane Road/Southbound US 101 Ramp	Signal	AM	13.0	B
		PM	13.5	B
		SAT	19.0	B-
6. Cochrane Road/Northbound US 101 Ramp	Signal	AM	10.6	B+
		PM	10.5	B+
		SAT	10.2	B+
7. Cochrane Road/De Paul Drive	Stop Sign	AM	11.3	B
		PM	11.2	B
		SAT	10.1	B
8. Cochrane Road/Mission View Drive	Stop Sign	AM	13.9	B
		PM	10.8	B
		SAT	10.5	B
9. Main Avenue/Monterey Road	Signal	AM	27.4	C
		PM	24.0	C
		SAT	21.8	C+
10. Main Avenue/Butterfield Boulevard	Signal	AM	37.3	D+
		PM	36.9	D+
		SAT	31.5	C
11. Main Avenue/Condit Road	Signal	AM	12.3	B
		PM	9.7	A
		SAT	9.9	A
12. Dunne Avenue/Monterey Road	Signal	AM	36.9	D+
		PM	38.7	D+
		SAT	30.3	C
13. Dunne Avenue/Butterfield Boulevard	Signal	AM	33.4	C-
		PM	35.9	D+
		SAT	29.7	C
14. Dunne Avenue/ Northbound US 101 Ramp	Signal	AM	15.2	B
		PM	12.8	B
		SAT	9.7	A
15. Tennant Avenue/Northbound US 101 Ramp	Signal	AM	25.1	C
		PM	21.7	C+
		SAT	19.6	B-

Notes:
[1] AM = Morning peak-hour, PM = Evening peak-hour, SAT = Saturday midday peak-hour.
[2] Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections using methodology described in the *2000 Highway Capacity Manual,* with adjusted saturation flow rates to reflect Santa Clara County conditions. For two-way stop controlled unsignalized intersections, total control delay for the worst movement/approach, expressed in seconds per vehicle, is presented. Calculations conducted using the TRAFFIX level of service analysis software package.
[3] LOS = Level of service

Source: Fehr & Peers, 2005

TRANSIT SERVICE

Bus service in the City of Morgan Hill is provided by the Santa Clara Valley Transportation Authority (VTA), which operates Local Routes 15, 16, and 68, and Express Bus Route 521 in the project vicinity. The nearest existing bus stop to the project site is located on Mission View Drive south of Cochrane Road.

Commuter rail service is provided by CalTrain. Frequent train service is provided between San José and San Francisco and extended service to Morgan Hill and Gilroy during commute hours.

PEDESTRIAN AND BICYCLE FACILITIES

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals. Near the project site, sidewalks are provided on both sides of Cochrane Road across its interchange with U.S. Highway 101. Sidewalks also exist on the south side of Cochrane Road east of Mission View Drive and on the east side of Mission View Road south of Cochrane Road.

3.12.2 REGULATORY SETTING

CITY OF MORGAN HILL GENERAL PLAN

The following *City of Morgan Hill General Plan* goals and policies on transportation and circulation are relevant to the proposed project:

Circulation

Goal 3 A coordinated, continuous network of streets and roads.

Policy 3c Require developers to provide for the construction of their portion of arterial and collector streets at the time of development.

Policy 3d As the design criteria for roadway improvements, use LOS E at freeway ramp intersections and LOS D+ or better elsewhere, except use LOS D at the following intersections) where achieving LOS D+ would require extraordinary development expenditure and right-of-way acquisition):

- Tennant Avenue and Butterfield Boulevard
- Watsonville Road and Monterey Road

Policy 3g Require development that occurs along arterial streets to obtain access through a local street or minor entrance and not through curb cuts directly onto the arterial street wherever possible.

Policy 3h Require Planned Unit Developments (PUDs) for commercial, office or industrial uses at the intersection of Highway 101 and arterial streets (as

designated on the Circulation Element Map) to take access from a public street intersecting with the arterial street at a minimum distance of 600 feet from the freeway on and off ramps unless the City Engineer finds that direct access to the arterial street or closer access will meet safety standards or that mitigating actions will be taken to ensure safe access and minimum interference with traffic flows.

Goal 5 Adequate off-street parking.

Policy 5a Ensure that all developments provide adequate and convenient parking.

Goal 6 A safe and efficient transportation system that reduces congestion by providing viable non-automotive modes of transportation.

Policy 6f Support a Countywide car/vanpool matching program.

Policy 6g Support Countywide programs to encourage employers to promote use of mass transportation.

Policy 6h Encourage employers to provide a flexible set of working hours to ease traffic congestion.

Goal 7 A useable and comprehensive bikeway system that safely connects neighborhoods with workplaces and community destinations.

Policy 7h Where feasible, implement the bikeways system concurrent with adjacent development.

Policy 7l Bicycle parking facilities shall be provided at all schools, parks, recreation facilities, commercial centers, civic buildings (including the library), transit centers, and work places based on the recommendations and standards in the Bikeways Master Plan.

Goal 8 Expanded pedestrian opportunities.

Policy 8a Ensure adequate pedestrian access in all developments, with special emphasis on pedestrian connections in the downtown area, in shopping areas and work centers, including sidewalks in industrial areas.

3.12.3 Impacts and Mitigation Measures

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and standards used by the City of Morgan Hill. For purposes of this EIR, the transportation and circulation impacts associated with the proposed project are considered to be significant if the following would result from implementation of the proposed project:

Roadways

- An increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system, as defined below:

  Signalized Intersections

  For this analysis, traffic impacts at signalized intersections are defined to occur when the addition of project traffic causes:

  - Intersection operations at freeway ramp intersections to deteriorate from an acceptable level of service (LOS E or better) under Background Conditions to an unacceptable level (LOS F); or
  - Exacerbation of unacceptable operations at freeway ramp intersections by increasing the average critical delay by more than four seconds and increasing the volume-to-capacity (V/C) ratio by 0.01 or more at an intersection operating at LOS F under Background Conditions.
  - Intersection operations at non-freeway ramp intersections to deteriorate from an acceptable level (LOS D+ or better) under Background Conditions to an unacceptable level (LOS D, E, or LOS F); or
  - Exacerbation of unacceptable operations at non-freeway ramp intersections by increasing the average critical delay by more than four seconds and increasing the volume-to-capacity (V/C) ratio by 0.01 or more at an intersection operating at LOS D, E, or F under Background Conditions.
  - A decrease in the average critical delay and an increase in the V/C ratio of 0.01 or more for an intersection operating at an unacceptable level (LOS D, E, or F for non-freeway intersections and LOS F for freeway ramp intersections).

  Unsignalized Intersections

  For this analysis, traffic impacts at unsignalized intersections are defined to occur when the addition of project traffic causes:

- Intersection operations to deteriorate from an acceptable level under Background Conditions (LOS D+ or better) to an unacceptable level (LOS D or worse); or
- The exacerbation of operations at an unsignalized intersection already operating at an unacceptable level (LOS D or worse) under Background Conditions and the Caltrans Peak Hour Volume Warrant is met under Project Conditions.

Freeway Segments

The Congestion Management Program (CMP) defines a project as having a significant impact on a freeway segment if:

- The addition of project traffic causes the operating level of a freeway segment to deteriorate from LOS E (or better) under Existing Conditions to LOS F; or
- The number of new trips added by a proposed project to a segment already operating at LOS F under Existing Conditions is more than one percent of the freeway segment capacity.

Project Access and On-Site Circulation

- Creates project access and internal circulation conditions which are potentially disruptive to efficient internal traffic flow; or
- Creates project access and internal circulation conditions, which are potentially hazardous to motorists, pedestrians, and/or bicyclists.

Transit Facilities

- Creates the demand for public transit service above that which is provided, or planned to be provided;
- Disrupts or interferes with existing or planned public transit services or facilities; or
- Creates an inconsistency with policies concerning transit systems set forth in the *City of Morgan Hill General Plan*.

Bicycle and Pedestrian Facilities

- Disrupts or interferes with existing or planned bicycle or pedestrian facilities;
- Creates potentially hazardous conditions for bicyclists or pedestrians;
- Creates an unmet need for bicycle or pedestrian facilities; or
- Creates an inconsistency with policies related to bicycle or pedestrian systems in the General Plan of the City of Morgan Hill.

Parking

- Results in on-site parking supply, which is insufficient to meet the needs of the planned land uses.

METHODOLOGY

The following impact evaluation is based on the technical analysis contained in the traffic impact report prepared by Fehr & Peers in April 2005, which is contained in Appendix K of this EIR. The methods used in various aspects of the technical analysis are fully explained in the traffic impact report, and are summarized as appropriate in the following discussion of impacts.

PROJECT IMPACTS AND MITIGATION MEASURES

Intersection Level of Service Impacts

Impact 3.12-1 With the addition of project-generated traffic, significant level of service impacts would occur at two intersections, as follows:

a) The Dunne Avenue/Monterey Road signalized intersection is projected to operate unacceptably during the PM peak hour under both Background and Project Conditions. Although the addition of project traffic causes a decrease (i.e., improvement) in the average critical delay, the critical volume-to-capacity ratio increases by more than 0.01. This is considered a **significant impact**.

b) At the Cochrane Road/Mission View Drive unsignalized intersection, the addition of project traffic is expected to reduce acceptable levels of service under Background Conditions to an unacceptable level of service (LOS F) during the AM, PM, and Saturday midday peak hours. This is considered a **significant impact.**

Background Conditions

The impacts of the proposed project were evaluated by comparing the results of the level of service calculations under 'Project Conditions' to the results under 'Background Conditions.' Traffic volumes for Background Conditions were estimated by adding existing volumes and traffic generated by approved but not yet constructed and occupied developments in the study area.

The results of the intersection level of service analysis for the key intersections under Background Conditions are presented in **Table 3.12-4** on page 16. The intersection of Dunne Avenue and Monterey Road is projected to degrade to LOS D, an unacceptable level, during the PM peak hour under Background Conditions. The remaining intersections

are projected to operate at acceptable levels (LOS D+ or better for non-freeway and LOS E for freeway intersections) during each peak hour period.

Project Conditions

Project Land Uses

For purposes of this analysis, the proposed project includes 590,100 square feet of retail space, a 12-position fuel station, and 63,200 square feet of movie theater space (up to 14 screens). (It should be noted that the preliminary site plan, dated March 10, 2005, shows the fuel station as an optional use on Pad 2, and that the primary proposed use for this pad is 6,000 square feet of retail space. However, since the 12-position fuel station would generate substantially more traffic than the planned retail space for this location, the traffic impact analysis is based on development of Pad #2 with a fuel station in order to present a worst-case analysis. In addition, it should be noted that the current site plan dated March 10, 2005 shows a total retail floor area (including garden center) of 588,050 square feet, assuming fuel station use for Pad 2. This is 2,050 square feet less than the floor area used in the traffic analysis, which was based on a previous version of the site plan. Since the traffic analysis is therefore based on a project size which is approximately 0.4 percent larger than currently proposed, the resulting calculations may be slightly conservative; however, the difference is not great enough to affect the findings, conclusions, or recommendations contained in the EIR).

Project Roadway Improvements

According to the preliminary site plan, the main project driveway on Cochrane Road would form the new north leg of the Cochrane Road/De Paul Drive intersection and provide full access (left and right-turns in and out). The site plan indicates that Mission View Drive will be extended northward and six project driveways on this street will be provided. The southernmost driveway on Mission View Drive is assumed to be limited to right-turns in and out. Full access is assumed at the remaining five driveways.

The proposed project includes signalization of the Cochrane Road/De Paul Drive intersection. The following lane geometry is assumed:

- Northbound (De Paul Drive): one shared left/through lane and one right-turn lane.
- Westbound (Cochrane Road): one left-turn lane, two through lanes, and one right-turn lane.
- Southbound (project driveway): one shared left/through lane and two right-turn lanes with a separate overlap phase.
- Eastbound (Cochrane Road): two left-turn lanes, one through lane, and one shared through/right-turn lane.

The proposed project will also construct a portion of the ultimate planned width of the extension of Mission View Drive north of Cochrane Road along the project frontage. The following lane configuration is assumed for the unsignalized intersection at Cochrane Road/Mission View Drive:

- Northbound and Southbound (Mission View): one left-turn lane and one shared through/right-turn lane.
- Westbound (Cochrane Road): one left-turn lane and one shared through/right-turn lane.
- Eastbound (Cochrane Road): one shared left-turn/through lane and one right-turn lane.

Project Trip Generation and Distribution

The amount of traffic generated by a development is estimated by applying the appropriate trip generation rates, corresponding to the land use type, to the size of the development. Trip generation rates for "Shopping Center," "Gas Station with Car Wash and Convenience Market," and "Multi-Plex Movie Theater" land uses from *Trip Generation* (Institute of Transportation Engineers, 7th Edition) were used to estimate the number of project trips. The shopping center rate accounts for the proposed retail and restaurant uses at the site.

A reduction of 25 percent was applied to the shopping center trips to account for pass-by and diverted link trips during the peak hours. Pass-by trips are trips to the project site made by vehicles already traveling by the project site on the adjacent street (i.e., these vehicles make an interim stop between their primary origin and destination). Diverted link trips are trips made by vehicles that make a detour to access the project site. For the traffic impact analysis, diverted link trips consist of trips made by vehicles already on U.S. Highway 101. Pass-by and diverted link trips are included in the analysis of traffic that enters and exits the project site, but are not considered "new" trips added to the larger street system by the proposed project. To reflect the lower volume of traffic on roadways during non-peak hours, a lower pass-by/diverted link reduction of 20 percent was applied to daily trips. The trips associated with the gas station were also reduced to account for pass-by and diverted link trips. Based on information provided in the ITE manual, a reduction of 40 percent was used for this land use.

Some movie theater patrons may also visit the project's retail and restaurant uses. To account for the internalization of trips within the site, a 20 percent reduction was applied to peak hour movie theater trip generation. A lower internalization reduction of 10 percent was applied to daily trips to reflect the lower volume of traffic on roadways during non-peak hours.

The project trip generation estimates are presented in **Table 3.12-3**. The proposed retail development is estimated to generate 22,009 net new daily trips, 533 net new AM peak-

hour trips, 1,869 net new PM peak-hour trips, and 2,415 net new Saturday midday peak-hour trips. The project trips were distributed onto the local roadway system based on existing travel patterns in the vicinity and the relative locations of complementary land uses.

TABLE 3.12-3
PROJECT TRIP GENERATION ESTIMATES

Item	Weekday	AM Peak Hour			PM Peak Hour			Sat Peak Hour		
	Total	In	Out	Total	In	Out	Total	In	Out	Total
Trip Rates										
Shopping Center (ksf)	36.49	0.63	0.40	1.03	1.64	1.78	3.42	2.42	2.23	4.65
Gas-Service Station (Fueling Position)	152.84	5.43	5.21	10.64	6.67	6.67	13.33	9.44	9.07	18.50
Movie Theater (screen)	292.50	0.0	0.0	0.0	13.81	9.21	23.02	14.38	5.59	19.97
Trip Estimates										
Shopping Center (590.1 ksf)	21,530	371	237	608	970	1,050	2,020	1,427	1,317	2,744
Gas-Service Station (12 Fueling Positions)	1,834	65	63	128	80	80	160	113	109	222
Movie Theater (14 screens)	4,095	0	0	0	193	129	322	201	79	280
Gross Project Trips	*27,459*	*436*	*300*	*736*	*1,243*	*1,259*	*2,502*	*1,741*	*1,505*	*3,246*
Shopping Center Pass-by/Diverted Trip Reduction[2]	-4,306	-76	-76	-152	-253	-252	-505	-343	-643	-686
Gas-Service Station Pass-by/Diverted Trip Reduction (40%)	-734	-26	-25	-51	-32	-32	-64	-45	-44	-89
Theater Internalization[3]	-410	0	0	0	-32	-32	-64	-28	-28	-56
Net New Project Trips	**22,009**	**334**	**199**	**533**	**926**	**943**	**1,869**	**1,325**	**1,090**	**2,415**

Notes:
[1] Trip rates are expressed as trips per 1,000 s.f. (ksf) or per screen.
[2] Pass-by/Diverted trip reduction 20 percent daily and 25 percent during peak hour.
[3] Internalization trip reduction 10 percent daily and 20 percent during peak hour.

Source: Fehr & Peers, 2005

Project Intersection Levels of Service

Level of service calculations were conducted for the study intersections to evaluate the potential impacts of the proposed project on the local roadway system under 'Project Conditions.' Background Conditions serves as the base against which project impacts were evaluated. **Table 3.12-4** contains the intersection level of service results. The results for Background Conditions, as well as projected increases in critical delay and critical volume-to-capacity ratios with the project, are presented for comparison purposes.

TABLE 3.12-4
BACKGROUND AND PROJECT INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour[1]	Background		Project			
		Delay[2]	LOS[3]	Delay	LOS	Δ in Crit. V/C[4]	Δ in Crit. Delay[5]
1. Cochrane Road/Monterey Road	AM	20.5	C+	20.7	C+	+0.012	+0.2
	PM	25.7	C	25.4	C	+0.045	-0.1
	SAT	24.4	C	26.4	C	+0.130	+0.1
2. Cochrane Road/Butterfield Blvd.	AM	13.2	B	13.4	B	+0.030	+0.5
	PM	12.3	B	13.5	B	+0.113	+2.1
	SAT	10.9	B+	12.7	B	+0.140	+2.7
3. Cochrane Road/Sutter Boulevard	AM	20.6	C+	20.7	C+	+0.021	+0.3
	PM	15.4	B	16.3	B	+0.081	+1.0
	SAT	13.6	B	13.3	B	+0.081	-0.6
4. Cochrane Road/Cochrane Plaza	AM	18.7	B-	18.6	B-	+0.018	+0.2
	PM	28.1	C	26.8	C	+0.075	-0.5
	SAT	23.4	C	22.9	C+	+0.072	+0.2
5. Cochrane Road/SB US 101 Ramp	AM	13.3	B	14.2	B	+0.063	+0.9
	PM	14.6	B	23.6	C	+0.230	+14.7
	SAT	19.9	B-	25.7	C	+0.338	+6.7
6. Cochrane Road/NB US 101 Ramp	AM	11.3	B+	13.4	B	+0.165	+2.7
	PM	10.9	B+	25.0	C	+0.565	+16.6
	SAT	10.8	B+	63.4	E	+0.834	+66.0
7. Cochrane Road/De Paul Drive[6]	AM	12.0	B	16.2	B	NA	NA
	PM	12.6	B	22.1	C+	NA	NA
	SAT	11.2	B	27.6	C	NA	NA
8. Cochrane Road/Mission View Dr.[7]	AM	16.9	C	**>100**	**F**	**NA**	**NA**
	PM	12.7	B	**>100**	**F**	**NA**	**NA**
	SAT	12.3	B	**>100**	**F**	**NA**	**NA**
9. Main Avenue/Monterey Road	AM	27.8	C	27.8	C	+0.003	+0.0
	PM	24.3	C	24.7	C	+0.040	+0.8
	SAT	22.0	C+	22.5	C+	+0.052	+0.9
10. Main Avenue/Butterfield Blvd.	AM	38.2	D+	38.4	D+	+0.012	+0.4
	PM	37.5	D+	37.6	D+	+0.043	+0.5
	SAT	31.9	C	32.2	C-	+0.058	+0.9
11. Main Avenue/Condit Road	AM	12.3	B	12.8	B	+0.022	+0.5
	PM	9.8	A	11.4	B+	+0.088	+2.3
	SAT	9.9	A	11.2	B+	+0.099	+1.8
12. Dunne Avenue/Monterey Road	AM	37.9	D+	38.2	D+	+0.012	+0.6
	PM	39.5	D	**40.7**	**D**	**+0.043**	**-0.4**
	SAT	30.9	C	31.9	C	+0.056	+0.9
13. Dunne Avenue/Butterfield Blvd.	AM	35.3	D+	35.4	D+	+0.007	+0.4
	PM	37.6	D+	38.1	D+	+0.011	+0.6
	SAT	30.3	C	30.7	C	+0.024	-0.2
14. Dunne Avenue/ NB US 101 Ramp	AM	15.5	B	15.5	B	+0.001	-0.0
	PM	12.8	B	12.7	B	+0.003	-0.1
	SAT	9.9	A	9.8	A	+0.005	-0.1
15. Tennant Avenue/NB US 101 Ramp	AM	25.5	C	26.7	C	+0.025	+1.6
	PM	22.0	C+	23.6	C	+0.068	+2.0
	SAT	19.9	B-	22.6	C+	+0.099	+3.2

Table continued on next page.

Table 3.12-4 (Continued)

Notes:
[1] AM = Morning peak-hour, PM = Evening peak-hour, SAT = Saturday midday peak-hour.
[2] Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections using methodology described in the *2000 Highway Capacity Manual,* with adjusted saturation flow rates to reflect Santa Clara County conditions. For two-way stop controlled unsignalized intersections, total control delay for the worst movement/approach, expressed in seconds per vehicle, is presented. LOS calculations conducted using the TRAFFIX level of service analysis software package.
[3] LOS = Level of service
[4] Change in critical movement delay between Background and Project Conditions. A decrease in the critical delay indicates project trips were added to movements with low delays thus causing a decrease in the overall critical delay.
[5] Change in the critical volume-to-capacity ratio (V/C) between Background and Project Conditions.
[6] Intersection is analyzed as unsignalized under Background Conditions, and with a traffic signal and additional lanes under Project Conditions.
[7] Intersection is analyzed as unsignalized under Background, and with additional lanes under Project Conditions.
Significant impacts are designated in **bold** type.

Source: Fehr & Peers, 2005

The addition of project traffic is estimated to cause the unsignalized intersection of Cochrane Road/Mission View Drive to operate at unacceptable levels of service during all peak hours under Project Conditions. The proposed project would exacerbate unacceptable operations at the Dunne Avenue/Monterey Road intersection during the PM peak hour. This is considered a **significant impact**. (It should be noted that this impact remains unchanged with implementation of programmed traffic-calming improvements along nearby segments of Monterey Road, as well as optimization of signal phasing.) Implementation of the following mitigation measures would reduce this impact to a **less than significant level**.

Mitigation Measures

MM 3.12-1a At the Dunne Avenue/Monterey Road intersection, the westbound right-turn lane shall be restriped as a shared through/right-turn lane, and a northbound right-turn overlap phase shall be installed. This improvement would be required when 35 percent of the project has been constructed based on total PM peak hour trip generation.

These modifications would improve the average delay to 38.6 seconds (LOS D+) during the PM peak hour. Based on preliminary field measurements these improvements will not likely require right-of-way acquisition to implement.

The addition of the shared through/right-turn westbound lane requires two receiving lanes for some distance on the west-leg of the intersection. Using Caltrans design standards, the length of the transition from two lanes to one lane would be approximately 200 feet. Based on the roadway width of the west leg, this improvement should be able to be accommodated within the existing right-of-way. In addition, the proposed mitigation to the westbound approach (east-leg) would require the elimination of the striped bike lane on this approach if no additional widening occurred. Currently, the bike lane does not

continue across Monterey Road to the west, but the General Plan includes a future bike lane on Dunne Avenue on both sides of Monterey Road.

MM 3.12-1b At the Cochrane Road/Mission View Drive intersection, a traffic signal shall be installed with protected left-turn phasing on all approaches. In addition, this intersection shall be reconfigured to include the following geometry:

- The northbound approach should include one left-turn lane and one shared through/right-turn lane.
- The westbound approach should include one left-turn lane, one through lane, and one shared through/right-turn lane.
- The southbound approach should include one left-turn lane, one shared through/right-turn lane, and one right-turn lane.
- The eastbound approach should include one left-turn lane, one through lane, and one right-turn lane.

With the above-mentioned roadway geometry and the required traffic signal, the intersection is expected to operate at LOS C or better during all peak hours. (Note: The proposed stacking and queuing distances along the Cochrane Road project frontage (as shown on the proposed site plan) were determined to be adequate for the proposed project. For detailed discussions regarding stacking and queuing distances, refer to the traffic report in Appendix K.)

Freeway Level of Service Impacts

Impact 3.12-2 The addition of project-generated traffic would have a **significant impact** on the level of service at the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue.

The five segments of U.S. Highway 101 from Burnett Avenue south to San Martin Avenue were evaluated to determine if a significant amount of project traffic would be added to these segments during the AM and PM peak hours. (Evaluation of peak Saturday conditions is not required under the CMP guidelines, and Caltrans' data indicates that weekend peak hour volumes are approximately 25 percent lower than weekday peak hour volumes in the project vicinity.) The freeway level of service analysis found that the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue in the northbound direction during the AM peak hour currently operates at an unacceptable level of service (LOS F), and the project is expected to add a volume greater than one percent of the capacity to this segment. The capacity for the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue is 6,900 vehicles. Therefore, one percent of capacity is 69 trips. The

project is anticipated to generate 87 trips along this segment during the AM peak hour, which exceeds the one percent threshold by 18 vehicle trips. Therefore, the proposed project will **have a significant impact** on this segment of U.S. Highway 101. All four of the other freeway segments in the project vicinity would continue to operate at LOS E or better with the addition of project traffic. (See traffic report in Appendix K for freeway LOS table and further discussion.)

Mitigation Measure

MM 3.12-2 The project shall implement the applicable actions listed in the *Immediate Implementation Action List* contained in the *Deficiency Plan Guidelines* of the County's Congestion Management Program, which are intended to encourage the use of non-automobile transportation modes and to help maximize the efficiency of the existing transportation system.

The *Immediate Implementation Action List* comprises a general listing of the types of the measures which can be implemented by project sponsors and/or lead agencies. The listed actions which can be implemented at the project-specific level include: improvements to bicycle and pedestrian facilities; improvements to public transit facilities; and information programs to encourage TDM (Transportation Demand Management) measures such as carpooling. (The full list is contained in Appendix H of the traffic report which is contained in Appendix K of this EIR.) The proposed project would implement several of these action items, either as part of the proposed project or as mitigation measures (for transportation and/or air quality impacts) identified elsewhere in this EIR. These actions include:

- Pedestrian circulation system improvements including sidewalks along project frontages, crosswalks at adjacent intersections and project driveways, internal project sidewalks and marked pedestrian paths providing internal pedestrian circulation;

- Bicycle system improvements including dedication of right-of-way for Class II bike lane along project street frontages, and installation of on-site bicycle storage facilities;

- Transit improvements such as provision of transit stop on project Cochrane Road frontage, and posting of transit schedule and fare information on project employers' bulletin boards;

However, the implementation of these measures would not reduce the project traffic contribution to this freeway segment to less than one percent of current volumes. Therefore, the impact would not be reduced to less-than-significant levels and the project traffic would result in a **significant and unavoidable impact** to this freeway segment.

Site Access

Impact 3.12-3 The six entry driveways on Mission View Drive are more than are needed to provide adequate access to the proposed project. This condition unnecessarily increases the potential for vehicle conflicts with pedestrians. This is considered a **significant impact**.

Implementation of the following mitigation measure would reduce this impact to a **less than significant level.**

Mitigation Measure

MM 3.12-3 The two driveways shown directly behind the movie theater complex on Mission View Drive (i.e., the second and third driveways north of the Cochrane Road intersection) should be eliminated from the proposed project, and a circulation aisle should be provided behind the movie theater complex.

The remaining four intersections would be able to accommodate the volume of traffic anticipated to enter the project site from Mission View Drive.

Site Access

Impact 3.12-4 At the southernmost project driveway on Mission View Drive (i.e., the first driveway north of the Cochrane Road intersection), the preliminary site plan shows no left-turn restrictions. Given the close proximity of this driveway to Cochrane Road, if left turns into the project site are allowed at this driveway, this could result in potential conflicts with vehicles queuing on the north leg of the Mission View/Cochrane intersection. This is considered a **significant impact**.

Implementation of the following mitigation measure would reduce this impact to a **less than significant level.**

Mitigation Measure

MM 3.12-4 The southernmost project driveway should be designated as a right-turn in and out only driveway (i.e., signs should be posted prohibiting left turn movements into or out of the project site at this driveway).

On-Site Circulation

Impact 3.12-5 The main north-south circulation aisle that extends north into the project from De Paul Drive is a long straight section that may encourage speeding

without traffic control devices. This is considered a **potentially significant impact.**

Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

Mitigation Measure

MM 3.12-5 The following modifications are identified on the main north-south circulation aisle to discourage speeding and provide more visible crosswalks for pedestrians:

a) At the first intersection north of Cochrane (i.e., between Shops K and Pad 7, and between Shops B and Pad 2), stop signs should be installed on the side street approaches;

b) At the second intersection north of Cochrane, provide one of the following alternative configurations:

i) Provide raised intersection to provide vertical displacement, and provide stop signs on the side street approaches; or

ii) Provide stops signs on all four approaches;

c) At the third intersection north of Cochrane, provide stops signs on all four approaches.

On-Site Circulation

Impact 3.12-6 At the southwest corner of the building "Major 8" (on March 10, 2005 site plan), the proximity of the designated loading zone to the nearby intersection of two major internal drive aisles could create a driving hazard due to driver confusion. This is considered a **potentially significant impact**.

Implementation of the following mitigation measure would reduce this impact to a **less than significant level.**

Mitigation Measure

MM 3.12-6 The designated loading zone shall be relocated far enough to the east to allow the intersection approach lane to be reduced to one lane.

Public Transit Facilities

Impact 3.12-7 Due to demand for transit service generated by the project, existing transit facilities may not be adequate to serve the project. This is considered a **potentially significant impact.**

It was determined by Fehr & Peers that the existing transit route serving the project site has sufficient capacity to accommodate transit riders generated by the project. However, the existing bus stop on Mission View Drive south of Cochrane is not well situated to serve the project. Implementation of the following mitigation measure would reduce this impact to a **less than significant level.**

Mitigation Measure

MM 3.12-7 The project applicant shall construct a new bus stop along the project frontage, including transit amenities such as a bus turnout, a shelter, and benches.

Pedestrian Facilities

Impact 3.12-8 The preliminary project site plan does not indicate pedestrian crossing facilities at the major intersections adjacent to the project; unless these are provided, a hazard to pedestrian circulation could result. This is considered a **potentially significant impact.**

The site plan shows that a continuous sidewalk will be constructed along the entire frontages on Cochrane Road and Mission View Drive. Designated pedestrian paths are also shown linking the street sidewalks to all of the on-site buildings. However, the site plan does not show pedestrian crossings at the major intersections adjacent to the project. Implementation of the following mitigation measure would reduce this impact to a **less than significant level.**

Mitigation Measure

MM 3.12-8 Pedestrian crosswalks shall be provided on all four legs of the Cochrane Road/Mission View Drive intersection, and at all but the west leg of the Cochrane Road/De Paul Drive intersection.

The operation of double southbound right-turn lanes at the De Paul Drive/ Cochrane Road intersection is not conducive to pedestrian travel across the west leg because of limited sight distance. Therefore, a separate pedestrian signal phase would be required for safe pedestrian crossing. Since this would degrade overall intersection operations, a crosswalk at the west leg is not recommended.

Bicycle Facilities

Impact 3.12-9 The proposed project would create a demand for bicycle facilities, including: a) bicycle racks or lockers within the project site; and b) bicycle lanes along the project frontages. This is considered a **potentially significant impact.**

The preliminary project site plan makes no apparent provision for such bicycle facilities. Policy 71 in the *City of Morgan Hill General Plan* requires bicycle parking facilities to be provided at all commercial centers. In addition, the General Plan Bikeways Plan shows dedicated Class II bicycle lanes along both sides of Cochrane Road, De Paul Drive, and Mission View Drive. With the change in status of De Paul Drive in the General Plan Amendment, proposed in conjunction with the proposed project, it is not clear if the City's policy intent is to provide bicycle lanes along the extension of De Paul Drive into the project site. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

Mitigation Measure

MM 3.12-9 The following bicycle facilities shall be incorporated into the project:

a) Bicycle racks and/or lockers to accommodate bicycle travel by customers and employees. Bicycle parking facilities should be located in high visibility areas in order to encourage bicycle travel and discourage theft and vandalism.

b) Class II bicycle lanes along the project street frontages.

Parking

Impact 3.12-10 The proposed project may not provide sufficient parking supply to meet the demand generated by the planned project land uses. This is considered a **potentially significant impact.**

The number of parking spaces provided on the preliminary site plan is 3,025 stalls. (This total applies to both the retail and fuel station alternatives for Pad 2, which both show 12 spaces.) It should also be noted that that the following analysis of parking supply is based on the preliminary project site plan dated March 10, 2005, which shows a total retail floor area of 594,050 square feet of shopping center space, not including cinema. The land use for Pad #2 is assumed to be the 6,000 square feet of retail shown on the site plan, since this represents a worst-case scenario for parking demand relative to the optional fuel station planned for Pad #2.

The City of Morgan Hill parking code requirements designate parking supply ratios for various land uses. The proposed project includes a combination of commercial land uses, including retail, restaurant (both sit-down and fast food), and movie theater. Although the code includes parking supply ratios for all of these independent uses, the amount of retail and restaurant space to be developed at the project has not been determined by the applicant. Since the City's code does not include a broader 'shopping center' category combining both uses, City staff determined that it would be appropriate to use the Institute of Traffic Engineers (ITE) parking supply rate for 'shopping center,' an action which is provided for in the Municipal Code for situations where the code does not include a particular land use category.

The parking supply required for the proposed project was therefore determined through application of the Municipal Code parking requirements for the movie theater land use, with ITE rate shopping center rate used for retail and restaurant space, as discussed.

A second methodology for calculating parking supply, using only ITE parking rates for both the movie theater and shopping center categories, was also applied. This methodology is somewhat more refined since it incorporates the fact that different land uses have different peak times of use, such that a certain number of parking spaces that would normally be required through application of the City requirements (and are really only needed during peak or near-peak parking demand periods) would actually function as shared parking spaces. The shared parking methodology is explained in further detail below, along with the calculation of parking demand under this methodology.

It is important to note at the outset that although the ITE parking supply rate for shopping centers includes some allowance for restaurants, the specific ratio of restaurants contemplated in the ITE rate is not known, but is believed to be minor. Since restaurants (both sit-down and fast food) generate far greater parking demand than retail uses, the parking calculation under both methodologies discussed below would tend to underestimate actual parking demand for the project if a substantial number of restaurants are ultimately proposed.

Required Parking Supply Based on City Code

As discussed above, the ITE peak-parking rate for 'shopping center' was used to calculate the City parking requirement for retail and restaurant space. The peak rate is 3.21 spaces per 1,000 square feet of space. The ITE rate does not include a circulation factor (i.e., additional spaces to facilitate parking turnover during peak demand periods and thus avoid conditions where drivers must circulate through the project site and wait for spaces to become available). Therefore, a circulation factor of 10 percent was added to the peak rate, resulting in a required parking rate of 3.53 spaces per 1,000 square feet or one space per 283 square feet. (It should be noted that municipal parking rates typically incorporate

a similar 10 percent circulation factor within their required parking rates, although this is not usually stated).

For movie theater space, the City of Morgan Hill code requires 1 space for every 3.5 seats or one space per 32 square feet of usable seating area (whichever is greater). The rate of 1 space per 3.5 seats was used in this analysis to estimate the movie theater parking supply because the exact size of usable movie theater space is unknown at this time.

These rates result in a required supply of 2,956 spaces (i.e., 594,050 square feet retail space at 1 space per 283 square feet equals 2,099 spaces; 3,000 seats at 1 space per 3.5 seats equals 857 spaces). Therefore, the proposed parking supply of 3,025 spaces shown on the preliminary site plan exceeds the supply requirement indicated under this methodology by 69 spaces, or approximately three percent of the total provided.

Shared Parking Analysis

Although City parking codes are typically designed for peak or near-peak demand conditions, the actual times of peak parking demand for the different land uses within a project will occur at different times. Using individual peak rates and not adjusting for different peaking characteristics of different land uses can produce a situation where an oversupply of parking is created. By recognizing when the peak periods for the various land uses occur, one land use could actually utilize the temporary surplus of parking from a neighboring land use during non-peak parking demand times for that neighboring land use. Parking supply requirements can be calculated to reflect such "shared parking" conditions, and thereby reduce overall parking requirements that better reflect the actual demand characteristics associated with the mix of uses in a particular project.

The Institute of Transportation Engineers' (ITE) *Parking Generation* (3rd Edition) provides peak parking demand rates for various land uses. It indicates when the peak parking demand (i.e., 100 percent) occurs for each land use, and for every hour of the day it also indicates the percent of peak parking demand that would occur at those times. By reviewing the peak demand rates for all proposed land uses, the peak time of the aggregate peak parking demand can be determined for all proposed land uses. In the case of this project, the peak hour for aggregate parking demand is 1 PM on a weekend day. The overall project parking requirement was calculated by taking the peak demand rate for each land use and multiplying by the percentage of peak use that occurs at 1 PM on a weekend day for that land use. The overall "shared parking" requirement for peak weekday conditions was also calculated. (These calculations are provided in the traffic report in Appendix K).

The shared parking analysis for the weekend day shows that the projected peak parking demand would be 2,750 spaces at 1:00 PM. This overall demand includes a ten percent circulation factor, as was applied under the first methodology above. The proposed supply

of 3,025 spaces shown on the preliminary project site plan would exceed the peak weekend parking requirement indicated through application of this methodology by 275 spaces, or 10 percent of the total.

The results of the weekday shared parking analysis show that the expected peak demand would be 1,712 spaces at 1:00 PM. This demand also includes a ten percent circulation factor. Therefore, the proposed supply of 3,025 spaces indicated on the project site plan would meet the peak weekday parking requirement of 1,712 spaces indicated under this methodology.

Impact Assessment

As noted at the outset of this discussion, both of the above methodologies could underestimate actual parking demand for the project. This is because both methods utilize the ITE shopping center rate to encompass both retail and restaurant uses. This is generally a valid approach since the ITE shopping center rate does include some provision for restaurants, although the proportion of restaurants assumed in the rate is not known. (It is also a necessary approach since the proportion of restaurant space to be included in the project has not yet been determined). However, given that the parking demand rates for all types of restaurants are substantially higher than the shopping center rate, it is reasonable to conclude that the proportion of restaurants contemplated in the ITE shopping center rate is relatively minor. (This was confirmed by Fehr & Peers, who calculated that approximately 25,000 square feet of sit-down restaurant space could be accommodated by the 3,025 parking spaces without resulting in an overall parking deficiency for the project. If fast-food restaurants are included, this maximum floor area could increase somewhat as the proportion of fast-food restaurants increases since the parking ratio for fast food is lower than for an equivalent area of sit-down restaurant. Assuming a mix of roughly 65 percent fast-food to 35 percent sit-down restaurant by floor area, the maximum floor area for restaurants would be approximately 31,000 square feet without resulting in a parking deficiency.) Therefore, if the amount of restaurant space ultimately proposed exceeds these maximums, the project would potentially face a parking deficiency unless the parking supply is increased, and/or overall project floor area is reduced, and/or the mix of other uses is modified (i.e., some proportion of a land use with high parking demand such as cinema is replaced with a land use with lower parking demand such as retail).

Environmental documents prepared under CEQA, including supporting technical reports on traffic and parking impacts, are to assume reasonable worst-case conditions in the absence of specific project information. In the case of the proposed project, there is a likelihood that a parking deficiency of undetermined magnitude will occur if more restaurant space than the maximum amount indicated above is included in the project. This represents a significant impact of the proposed project. Implementation of the following mitigation measure would reduce this impact to a **less than significant level.**

Mitigation Measure

MM 3.12-10 The overall number of parking spaces included in the project shall be required to meet the aggregate parking demand of the various land uses proposed within the project, to be determined as follows:

At the time of subsequent discretionary approval (e.g., use permit, design review) for each individual restaurant pad or space, the parking supply provided for each such pad or space shall meet the peak parking demand for the specific type of restaurant proposed (e.g., sit-down, fast food), as determined through either the applicable City code parking requirement, or through application of the ITE shared parking rates for 1 PM on a weekend day (plus 10 percent). After the center is 75 percent built-out on the basis of floor area (assuming the cinemas have been completed), the calculation of parking requirements for new restaurant uses may be adjusted based on the results of physical parking surveys conducted at the center by a qualified transportation consultant during the peak usage period. (If the cinemas have not been completed upon 75 percent project completion, then the buildout threshold for such calculations shall be 85 percent of project buildout.) As a guide to the approximate maximum floor area of restaurant that can be constructed without resulting in a parking deficiency for the project, the maximum floor area can range from 25,000 square feet (assuming 100 percent sit-down restaurant) to 41,000 square feet (assuming 100 percent fast-food restaurant), although the actual maximum will fall between these numbers if the project ultimately includes a mix of the two restaurant types. (These maximum figures assume floor areas for all other project uses will remain as proposed on the May 2, 2005 project site plan.)

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Intersection Level of Service Impacts

Impact 3.12-11 The addition of project-generated traffic would result in cumulative level of service impacts at the Cochrane Road/Mission View Drive intersection. This is considered a **significant cumulative impact.**

Cumulative baseline conditions are defined as Background Conditions (existing plus approved trips) plus traffic generated by projects for which development applications are pending but have not yet been approved. (The pending projects were identified by the City of Morgan Hill and are listed in the traffic report in Appendix K and included in Section 5.0, Cumulative Impacts). The resulting traffic scenario is referred to as the Cumulative No Project Condition.

Additional roadway improvements assumed under this scenario, at the direction of City staff, included: 1) At the Cochrane Road at Butterfield Boulevard intersection, a second westbound left-turn lane will be constructed by the City; 2) At the Cochrane Road/Sutter Boulevard intersection, the City will convert the right-turn lane on the eastbound approach to a shared through/right-turn lane, and convert the northbound Sutter Boulevard through lane on the approach to Cochrane Road to a shared through/right-turn lane.

Intersection level of service calculations compared the Cumulative No Project Condition to the Cumulative Plus Project Condition in order to determine the project's cumulative impacts. The analysis found that the proposed project would result in a significant impact at the Cochrane Road/Mission View Drive intersection, where levels of service would degrade from acceptable LOS B or C (depending on the peak hour) to unacceptable LOS F during all peak hours. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

It should be noted that the Dunne Avenue/Monterey Road intersection is expected to operate at an unacceptable LOS D under both Cumulative No Project and Cumulative Plus Project Conditions. However, since the increase in critical delay resulting from project traffic is less than four seconds, there is no impact under the City's criteria, as set forth above. The remaining intersections are projected to operate at acceptable levels of service (LOS D+ or better) during all peak hours. (See traffic report in Appendix K for LOS table and further discussion.)

MM 3.12-11 At the Cochrane Road/Mission View Drive intersection, a traffic signal shall be installed with protected left-turn phasing on all approaches. In addition, this intersection shall be reconfigured to include the following geometry:

- The northbound approach should include one left-turn laneand one shared through/right-turn lane.
- The westbound approach should include one left-turn lane, one through lane, and one shared through/right-turn lane.
- The southbound approach should include one left-turn lane, one shared through/right-turn lane, and one right-turn lane.
- The eastbound approach should include one left-turn lane, one through lane, and one right-turn lane.

Implementation of this mitigation measure would improve the level of service at the Cochrane Road/Mission View Drive intersection to acceptable levels (LOS D+ or better) under Cumulative conditions. Therefore, the proposed project would result in a **less than significant cumulative impact.**

Cumulative Freeway Level of Service Impacts

Impact 3.12-12 The addition of project-generated traffic would have a **significant cumulative impact** on the level of service at the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue.

As discussed above under Impact 3.12-11, Cumulative Plus Project Conditions are defined as Background Conditions (existing plus approved trips) plus traffic generated by projects for which development applications are pending but have not yet been approved, plus traffic generated by the proposed project. Since no capacity improvements are planned or programmed for the segments of U.S. Highway 101 in the project vicinity, the freeway segment between Tennant Avenue and Dunne Avenue would continue to operate at LOS F in the AM peak hour under Cumulative Plus Project Conditions. The capacity for the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue is 6,900 vehicles. The project is anticipated to generate 87 trips along this segment during the AM peak hour, which represents an increase in volume of 1.26 percent. Since the traffic volume generated under this scenario would add volume greater than one percent to this freeway segment, this would represent a **significant cumulative impact.**

Mitigation Measure

MM 3.12-2 The project shall implement the applicable actions listed in the *Immediate Implementation Action List* contained in the *Deficiency Plan Guidelines* of the County's Congestion Management Program, which are intended to encourage the use of non-automobile transportation modes and to help maximize the efficiency of the existing transportation system.

The *Immediate Implementation Action List* comprises a general listing of the types of the measures which can be implemented by project sponsors and/or lead agencies. The listed actions which can be implemented at the project-specific level include: improvements to bicycle and pedestrian facilities; improvements to public transit facilities; and information programs to encourage TDM (Transportation Demand Management) measures such as carpooling. (The full list is contained in Appendix H of the traffic report which is contained in Appendix K of this EIR.) The proposed project would implement several of these action items, either as part of the proposed project or as mitigation measures (for transportation and/or air quality impacts) identified elsewhere in this EIR. These actions include:

- Pedestrian circulation system improvements including sidewalks along project frontages, crosswalks at adjacent intersections and project driveways, internal project sidewalks and marked pedestrian paths providing internal pedestrian circulation;

- Bicycle system improvements including dedication of right-of-way for Class II bike

lane along project street frontages, and installation of on-site bicycle storage facilities;

- Transit improvements such as provision of transit stop on project Cochrane Road frontage, and posting of transit schedule and fare information on project employers' bulletin boards;

However, the implementation of these measures would not reduce the cumulative plus project traffic contribution to this freeway segment to less than one percent of current volumes. Therefore, the impact would not be reduced to less-than-significant levels and the cumulative plus project traffic would result in a **significant and unavoidable cumulative impact** to this freeway segment.

Intersection Level of Service Impacts – General Plan Buildout Conditions

Impact 3.12-13 With the addition of project-generated traffic, significant impacts would occur at two intersections under General Plan Buildout Conditions, as follows:

a) The Cochrane Road/Butterfield Boulevard signalized intersection is projected to operate at unacceptable LOS E- during the AM peak hour, and at unacceptable LOS F during the PM peak hour under General Plan Buildout Conditions. This is considered a **significant cumulative impact.**

b) The Cochrane Road/Cochrane Plaza signalized intersection is expected to operate at unacceptable LOS D during the PM peak hour under General Plan Buildout Conditions. This is considered a **significant cumulative impact**.

This scenario analyzes traffic operations under 2025 General Plan Conditions. This scenario includes the proposed General Plan Amendment to eliminate the Cochrane Road-to-Burnett Avenue connection via the northern extension of De Paul Drive, and replace it with a parallel connection via Mission View Drive located approximately 800 feet to the northeast of the project site. Thus, for purposes of the traffic analysis, General Plan Buildout Conditions are defined as traffic volumes estimated for buildout of the *City of Morgan Hill General Plan* (Year 2025) plus traffic associated with the proposed project (i.e., based on refinement of model assumptions for site development), and assuming the above change to the General Plan Circulation Element**.** (The analysis assumes a number of other major roadway improvements to be in place under this scenario, as described in the traffic report in Appendix K).

The operations of the eight key intersections on Cochrane Road were evaluated for level of service impacts. Operations at the remaining seven study intersections are not expected to

change as a result of the proposed General Plan Amendment and thus were not evaluated in detail by Fehr and Peers Associates. The results indicate that the Cochrane Road/Butterfield Boulevard (during both peak hours) and the Cochrane Road/Cochrane Plaza (during PM peak hour) are expected to operate at unacceptable levels under General Plan Buildout Conditions.

The remaining intersections are projected to operate acceptably during the AM and PM peak hours. Although the project's peak trip generation occurs on Saturday, the combination of project traffic and other cumulative traffic is lower on weekends than during the weekday commute hours. Accordingly, weekend peak hour operations were not analyzed.

Intersections operating at unacceptable levels under General Plan Buildout Conditions will require modifications in order to operate at acceptable levels of service. Implementation of the following mitigation measure would reduce this significant impact to a **less than significant level**.

Mitigation Measure

MM 3.12-13 The following intersection modifications are identified to provide acceptable operations under General Plan Buildout Conditions:

a) Cochrane Road/Butterfield Boulevard. For the intersection to operate at LOS D+ or better during the AM and PM peak hours, the General Plan configuration for the intersection would require the following modifications:

- Northbound approach: increase number of left-turn lanes from one to two; increase the number of through lanes from one to two; reduce the number of right-turn lanes from two to one.
- Eastbound approach: add a free right-turn lane.

b) Cochrane Road/Cochrane Plaza. For the intersection to operate at LOS D+ or better during the PM peak hour, the General Plan configuration for the intersection would require the following modifications:

- Southbound approach: increase number of left-turn lanes from one to two; change the shared left/through lane to a through lanes; keep the number of right-turn lanes at one.

To implement the above mitigation measures, the applicant will be required to pay impact fees which reflect the project's fair share of improvement costs.

REFERENCES/DOCUMENTATION

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Morgan Hill, City of. *Morgan Hill General Plan*. July 25, 2001 (Updated July 2004).

Morgan Hill, City of. *Morgan Hill General Plan, Draft Master Environmental Impact Report*. March 22, 2001.

This section of the EIR addresses existing infrastructure and utility systems in the City of Morgan Hill that serve the project site, discusses the proposed project relative to the *City of Morgan Hill General Plan,* and evaluates the potential impacts to these services and systems. Potential impacts focus on increased potable water demand, expansion of wastewater collection and treatment, and increased generation of solid waste associated with the proposed project. **Section 3.8, Surface Water Hydrology and Water Quality**, includes a discussion of storm water infrastructure impacts. This analysis is based on the *City of Morgan Hill General Plan, Morgan Hill Planning and Zoning Codes*, *City of Morgan Hill Water System Master Plan, City of Morgan Hill Sewer Master Plan*, and previous environmental documents, including the *Morgan Hill General Plan EIR*.

3.13.1 ENVIRONMENTAL SETTING

The City of Morgan Hill provides a range of public services to the community including potable water and wastewater disposal. Other municipal services such as electricity & natural gas, solid waste, cable television and telecommunications are provided by entities such as Pacific Gas & Electric (PG&E), South Valley Disposal, Charter Communications, SBC Communications and Verizon Communications, respectively.

SOLID WASTE

The City of Morgan Hill receives solid waste management and recycling services from South Valley Disposal and Recycling. Collected waste from the City of Morgan Hill is currently sent to the San Martin Transfer Station where recyclables are diverted to various processing facilities and the remainder sent to Pacheco Pass Landfill for internment. The Pacheco Pass Landfill opened in the early 1960s and serves approximately 75,000 people in the cities of Morgan Hill and Gilroy and the South Santa Clara County area. According to the figures published by the California Integrated Waste Management Board, in the year 2000 the landfill received approximately 90,379 tons of solid waste, with 29,003 tons of that originating in the City of Morgan Hill. According to Waste Management staff, the landfill has approximately 3.2 million cubic yards of remaining capacity, with a daily limit of 1,000 tons per day of municipal solid waste and inert materials. Once maximum capacity has been reached at Pacheco Pass Landfill, the waste stream will be diverted to either the Kirby Creek Landfill in south San José or the BFI landfill in the City of Milpitas.

WATER

There are four water wells on the project site. These include two domestic water wells located on the Millerd-Low and Guglielmo properties, one operational irrigation well on the Millerd-Low property, and one abandoned irrigation well located on or near the property line between the Millerd-Low and Guglielmo properties.

These wells are drawing water from the same groundwater sources as the municipal water system. The City of Morgan Hill provides potable water services to residential, commercial, industrial, and institutional customers within the city limits. According to the *City of Morgan Hill Water Master Plan* and City of Morgan Hill staff, the municipal water system extracts water from underground aquifers via a series of 14 groundwater wells (12 active and 2 reserve) and is distributed to a series of pressure zones via a series of pipes, pump stations and reservoirs. In 2004 the average annual water demand was approximately 7.2 mgd, with a peak day demand of 11.3 mgd. Current municipal capacity is approximately 12.5 million gallons a day (mgd), which will increase to 13.1 mgd by June 1, 2005. Including reserve capacity, the system can supply 13.9 mgd (increasing to 14.5 mgd by June 1, 2005).

The City of Morgan Hill straddles two of the three groundwater subbasins of the Santa Clara Valley, with Cochrane Road (adjacent to the southern boundary of the project site) located on the approximate boundary between the Coyote and Llagas Subbasins. The Coyote Subbasin extends from Cochrane Road north to Metcalf Road. Approximately 7 miles long and two miles wide, the subbasin is generally unconfined and drains north into the Santa Clara Valley subbasin. The Llagas Subbasin extends from Cochrane Road south to the County border. It is connected to the Bolsa Subbasin of the Hollister Basin and bounded on the South by the Pajaro River (the Santa Clara – San Benito County line). The Llagas Subbasin is approximately 15 miles long, 3 miles wide along its northern boundary and 6 miles wide along the Pajaro River. These subbasins serve multiple functions, including the filtering, transmission and storage of water. In the year 2000, the groundwater basin supplied 165,000 of the 390,000 acre-feet used in Santa Clara County.

The *City of Morgan Hill Water System Master Plan* did not include a detailed evaluation of groundwater conditions in relation to projected demand. However, according to the *Water Master Plan*, sufficient groundwater capacity is available to meet future water requirements through the planning horizon of 2020. The Santa Clara Valley Water District *Groundwater Management Plan* (SCVWD 2001) found groundwater conditions throughout Santa Clara County to be "generally very good," as based on results of its groundwater monitoring programs, with groundwater elevations generally recovered from overdraft conditions experienced in the middle of the last century.

One recent issue of note was the discovery and ongoing treatment of perchlorate contamination in the Llagas Subbasin and several of Morgan Hill's municipal water wells. The contamination was first detected in August 2000 and traced to a now demolished highway flare factory on the Olin property at 425 Tennant Avenue in Morgan Hill, approximately three miles south of the project site. Regional water quality samples taken between November 1999 and February 2005 show the contaminant plume generally moving in a southeastern orientation through San Martin and unincorporated County lands east of Gilroy. Contamination of Morgan Hill's municipal wells was first detected in March

2002, with the City responding through a combination of well closure, replacement and treatment. Test results as of April 18, 2005 show all active City wells at a "non-detect" reading for perchlorate. Ongoing decontamination of the Olin Property and monitoring of the contaminant plume in groundwater is being coordinated by the Olin Corporation, Santa Clara Valley Water District, and Central Coast Regional Water Quality Board.

WASTEWATER

While current land uses on the project site rely upon septic systems for wastewater disposal, the city provides wastewater collection service to almost all parts of the City of Morgan Hill, and would provide service to the proposed project. The project site lies at the convergence of the Eagle View and Cochrane subtrunks that direct wastewater from the northeastern quadrant of the city toward the main north-south sewer trunks. Wastewater generally flows from north to south and is directed into a single main trunk sewer that runs through San Martin for treatment in the City of Gilroy. The joint Gilroy/Morgan Hill Wastewater Treatment Facility, officially known as the South County Regional Wastewater Treatment Plant (WWTP), provides secondary treatment and partial tertiary treatment for wastewater produced by Morgan Hill and Gilroy. The WWTP is operated by the South County Regional Wastewater Authority (SCRWA), a joint powers authority overseen by the cities of Morgan Hill and Gilroy.

The WWTP currently has a dry weather capacity of 7.5 million gallons per day (mgd), with Morgan Hill holding a dedicated share equal to 42 percent of the plant's capacity, or 3.15 mgd average dry weather flow (ADWF) under current capacity. There are plans to expand the total capacity of the Wastewater Treatment Facility to 12.75 mgd, and with it Morgan Hill's share of this capacity to 5.36 mgd. Design work for the new facility will begin in fiscal year 2008/2009 and should be completed by 2011/12. Most of the treated effluent is discharged into percolation ponds where it seeps into the upper groundwater table at the south end of the Santa Clara Valley. The planning, development and finance of improvements to the wastewater system are regulated by the *City of Morgan Hill Sewer System Master Plan*.

GAS, ELECTRIC, AND TELECOMMUNICATIONS

The project site and surrounding properties contain natural gas and electricity infrastructure owned and operated by Pacific Gas & Electric (PG&E) Company. Electricity is presently found on-site in the form of pole-mounted transmission lines and transformers bisecting the property in a roughly north-south orientation. Natural gas is not currently provided, with existing residences served by individual propane tanks.

The majority of telecommunications customers in the City of Morgan Hill receive service from SBC Communications, with a smaller number contracting with Verizon Communications. Cable television services are provided by Charter Communications.

3.13.2 REGULATORY SETTING

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995 and 50 percent by January 1, 2000.

The Act further required every city and county to prepare two documents to demonstrate how the mandated rates of diversion would be achieved. The first document is the Source Reduction and Recycling (SRR) Element describing the chief source of the jurisdiction's waste, the existing diversion programs, and the current rates of waste diversion and new or expanded diversion programs intended to implement the Act's mandate. The second document is the Household Hazardous Waste (HHW) Element, which described what each jurisdiction must do to ensure that household hazardous wastes are not mixed with regular non-hazardous solid waste and deposited at a landfill.

CITY OF MORGAN HILL CODES AND ORDINANCES

Provision of Public Services and construction and maintenance of infrastructure and utilities in the City of Morgan Hill is generally enabled and regulated by the *City of Morgan Hill Municipal Code*, *City of Morgan Hill General Plan*, City of *Morgan Hill Sewer System Master Plan* and *City of Morgan Hill Water System Master Plan*.

CITY OF MORGAN HILL GENERAL PLAN

The following Goals and Policies of the *City of Morgan Hill General Plan* are relevant to the proposed project.

Community Development

Goal 2 An orderly and efficient pattern of development.

Policy 2b Ensure that facility/service standards can be met for new development by the time of occupancy.

Goal 16 An urban level of services and facilities.

Policy 16c Identify public facility and service needs, and coordinate their development to minimize costs and support achievement of community goals.

Action 16.1 Require all development that may result in a substantial impact on City infrastructure and/or services to be analyzed to determine the extent of that fiscal burden.

Action 16.4 Fully utilize existing strategies to achieve an urban level of public services throughout the city, including a) require that the timing and location of future urban development be based upon the availability of public services and facilities; b) require new development to pay all the incremental public service costs which it generates; and c) require developers to dedicate land and/or pay to offset the costs relating to the provision and expansion of public services and facilities.

3.13.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and standards used by the City of Morgan Hill. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs;
- A substantial increase in demand for an adequate water supply over the existing condition;
- An inability to provide an adequate water supply, including facilities for treatment, storage and distribution;
- Require substantial expansion or alteration of the City's wastewater treatment or collection facilities; or
- Result in a substantial increase in wastewater flows over current conditions and capacities.

3.13 UTILITIES

METHODOLOGY

The evaluation of potential land use impacts are based on several documents including the *City of Morgan Hill General Plan* and *City of Morgan Hill General Plan EIR*, the *City of Morgan Hill Water System Master Plan*, the *City of Morgan Hill Sewer System Master Plan* and both written and oral discussions with staff of the Morgan Hill Public Works Department.

PROJECT IMPACTS AND MITIGATION MEASURES

Solid Waste

Impact 3.13-1 The proposed project would generate between 0.8 and 8.3 tons of solid waste per day. The waste management provider responsible for the project has sufficient capacity to accommodate the waste within the Pacheco Pass Landfill in Morgan Hill, Kirby Creek Landfill in Milpitas, or BFI landfill in San Jose. Without sufficient waste diversion practices, however, the project may result in noncompliance with the California Integrated Waste Management Act of 1989. As such, the impacts to solid waste services can be considered **potentially significant**.

Precise estimates regarding solid waste generation are difficult to establish. Neither the City of Morgan Hill nor South Valley Waste and Disposal utilize adopted solid waste generation rates for purposes of evaluating impacts to city services. Additionally, a precise tenant mix has not yet been determined and as such, precise generation rates for individual uses is not available. To estimate the generation of solid waste associated with the proposed project, solid waste generation was calculated using Ultrasystems solid waste generation rates for the *Stevenson Ranch Draft EIR* (1992), and *Guide to Solid Waste and Recycling Plans for Development Projects* (Santa Barbara County Public Works Department), as listed on the California Integrated Waste Management Board website. The first assumes a Commercial Retail land use will generate approximately 2.5 pounds of solid waste per 1,000 square feet of commercial uses per day, while the latter assumes 2.5 pounds of solid waste per 100 square feet of commercial uses per day. Assuming build out of the proposed project, we can assume a range of approximately 0.8 to 8.3 tons per day, or approximately 292 to 2,029 tons per year. These figures represent an increase of between 1 and 10 percent over existing solid waste levels generated by the City.

While the proposed project would increase waste generation rates for the City of Morgan Hill, the waste management provider has sufficient capacity to accommodate the waste disposal needs of the proposed project within the Pacheco Pass Landfill currently serving the City, or other landfills such as the Kirby Creek or BFI landfills under long term contracts with the provider. However, to ensure compliance with state mandated source reduction and recycling goals, all waste disposal areas should contain recycling receptacles for the

diversion of corrugated cardboard, mixed paper, food and beverage containers, and other recyclable products.

Mitigation Measure

MM 3.13-1 Subject to review and approval by the City of Morgan Hill, the project applicant shall locate and maintain recycling receptacles for corrugated cardboard, mixed paper, food and beverage containers, and landscaping waste. Such receptacles shall be located adjacent to the garbage dumpsters serving the businesses or maintenance personnel generating such waste. Contracts for the collection of these recyclables shall also be maintained as available.

Implementation of this mitigation measure would reduce long-term impacts to waste diversion goals to a **less than significant level** by ensuring compliance with state mandated source reduction and recycling goals.

Electric, Natural Gas, Telephone and Cable Services

Impact 3.13-2 The proposed project would increase the demand for electric, natural gas, telephone and cable services. This impact to new or existing services is considered **a less than significant impact**.

The project applicant will be required to install municipal utility improvements and infrastructure to the entire project site for the provision of electricity, telephone, and possibly natural gas and cable services. Project plans submitted with the application demonstrate the locations of existing and proposed public utility easements. As a practice, PG&E reviews development applications to identify the necessary utility easements for the provision of service. If existing infrastructure proves unable to service future uses on the project without relocation and/or upgrading of PG&E's electric transmission and substation facilities, the developer will be responsible for any associated costs. Similar upgrades may also be necessary for telecommunications service and other utilities. To ensure the provision of adequate services for the proposed project, the applicant would be required to present a "will-serve" letter from PG&E and SBC Communications, or equivalent providers, prior to Final Map approval and/or issuance of building permits. This is considered a **less than significant** impact because services are readily available to the site and any new construction to provide new or improved connections will be incidental to the overall construction program.

Potable Water

Impact 3.13-3 The proposed project will increase the demand for potable water. However, the existing water system can adequately supply the project

and the increase would not be substantial in relation to the existing condition. As such, the impact to water services can be considered **less than significant**.

The proposed project would result in an increased demand for potable water to service the businesses and landscaping in the proposed shopping center. In 2004, the average annual water demand for the City of Morgan Hill was approximately 7.2 mgd, with a peak day demand of 11.3 mgd. Current municipal capacity is approximately 12.5 million gallons a day (mgd) and will be increasing to 13.1 mgd by June 1, 2005 when an additional well goes online. When reserve capacity from two backup wells is included, the system can supply 13.9 mgd. This will increase to 14.5 mgd by June 1, 2005.

TABLE 3.13-1
ESTIMATED WATER DEMAND

	Firm Capacity (Total excluding reserve)	Total Capacity including Reserve
Current Daily Capacity	13.1 mgd	14.5 mgd
	Average Daily Demand	**Peak Day Demand**
Current Demand	7.2 mgd	11.3 mgd
Current Demand + Project	7.37 mgd	11.64 mgd

Source: City of Morgan Hill Water Master Plan, 2002

The *City of Morgan Hill Water System Master Plan* assumed land uses on this property would use, at buildout, approximately 1.8 gallons per minute per net acre (gpm/na), or 119 gpm (192 acre-feet per year) for the 66.49 acres. This equates to an average daily demand of approximately 0.17 mgd and a peak day demand of 0.34 mgd (0.52 and 1.04 acre-feet respectively), which are increases equivalent to 2.3 and 3 percent of existing average and peak daily demands. As demonstrated in **Table 3.13-1**, the existing water system has sufficient capacity to provide water to the development on both average and peak water usage days.

The proposed project includes water service infrastructure improvements. The four on-site wells currently servicing the property will be capped and replaced with 12-inch water lines extending westward from existing 10 and 12-inch water lines located beneath Cochrane Road. Additionally, fire hydrants will be provided in locations to be approved by the fire department. All work will be done by the applicant to city standards and in conformance with the *City of Morgan Hill Water System Master Plan*. In accordance with Chapter 3.44 and 3.56 of City of Morgan Hill Municipal Code, water Impact fees will also be assessed for the cost of infrastructure necessary to service the proposed project.

Construction of the proposed project would result in a significant increase in impervious surface and loss of groundwater recharge on-site. This loss is less than significant at the

municipal and regional level due to the aggressive groundwater recharge programs of the Santa Clara Valley Water District (SCVWD). The SCVWD operates and maintains 18 major recharge systems, with both reservoir and imported water released in over 30 local creeks for artificial in-stream recharge. Additionally, the SCVWD releases locally conserved and imported water to 71 off-stream facilities (percolation ponds) which range in size from less than 1 acre to more than 20 acres). Through these, the SCVWD recharges the groundwater basin with about 157,000 acre-feet of water annually. Therefore, impacts to water supply can be considered **less than significant**. No mitigation is required.

Wastewater

Impact 3.13-4 The proposed project would require on-site expansion and relocation of existing infrastructure, in addition to an increase in the amount of wastewater entering the sewer system. Neither the expansion nor the increased flow, are substantial relative to current conditions and capacities. As such, the impact to wastewater services will be **less than significant**.

The proposed project will require new wastewater infrastructure in and around the project site. Such improvements include the extension and addition of on-site sewer lines, the relocation of the existing Eagle View sub-trunk that would be located within the footprint of proposed structures, and payment by the applicant of their fair share of improvements necessary to extend service to their site. Project plans indicate that on site sanitary sewer improvements will tie into existing sewer lines at the northern and southwestern edges, permitting passage of existing flow from the Eagle View sub-trunk, in addition to project generated sewage, through the project site and into the existing Cochrane sub-trunk manhole adjacent to the northbound on-ramp for Highway 101. All work will be done by the applicant to city standards and in conformance with the *City of Morgan Hill Sewer System Master Plan*.

The proposed project would also increase the amount of wastewater entering the municipal wastewater system. In 2004, the average dry weather flow (ADWF) to the Wastewater Treatment Facility was approximately 6.259 mgd, with Morgan Hill contributing approximately 2.6 mgd of the total. With a current allocation of 3.15 mgd for Morgan Hill, the city has approximately 550,000 gallons per day (gpd) of remaining capacity. The *City of Morgan Hill Sewer System Master Plan* estimated wastewater generation rates for Commercial and Industrial land uses at 1,500 gallons per day per net acre (gpd/na). The proposed project can be expected to produce an average dry weather flow of 99,360 gpd, an amount equal to 18 percent of remaining capacity and 3.8 percent of existing flow. As such, implementation of the proposed project would neither require substantial alteration or expansion of existing wastewater infrastructure, nor result in a substantial increase in flows over existing conditions. Additionally, in accordance with Chapter 3.44 and 3.56 of Morgan Hill Municipal Code, sewer impact fees will also be

assessed to cover the cost of infrastructure necessary to service the proposed project. Given these conditions the project would result in **less than significant impacts** to wastewater services. No mitigation is required.

Cumulative Impacts and Mitigation Measures

Cumulative Impacts to Utilities

Impact 3.13-5 The proposed project, in addition to reasonably foreseeable projects in the vicinity, would likely result in the need for new or upgraded infrastructure for the delivery of water, sewer, telecommunications, electricity, and natural gas to the project area. This is considered a **less than cumulative significant impact**.

Ultimate development of the project site would contribute to cumulative impacts to the city's utility infrastructure when combined with other growth and development. However, the City of Morgan Hill Public Works Department as a practice requires this and other projects to provide infrastructure improvements consistent with the City Water and Sewer System Master Plans whose goal is the provision of adequate levels of potable water and sewage disposal within the Urban Service Area. Such plans exist to prevent significant impacts to water and sewer services that may result from uncoordinated development and increased demands for service. Additionally, the proposed project will be required to pay water and sewer impact fees to cover its share of the cumulative impact upon municipal systems. Cumulative impacts to telecommunications, natural gas and electricity can be expected to be less than significant as this applicant and other significant projects are required to provide "will-serve" letters prior to final map recordation and/or issuance of building permits. Therefore, cumulative impacts to utilities would be considered **less than cumulative significant**.

REFERENCES/DOCUMENTATION

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4.1 GENERAL CEQA REQUIREMENTS

CEQA requires that a reasonable range of alternatives to the proposed project be described and considered within an EIR. The alternatives considered should represent scenarios that could feasibly attain most of the basic objectives of the project, but will avoid or substantially lessen any of the significant environmental effects. The purpose of this process is to provide decision makers and the public with a discussion of viable development options, and to document that other options to the proposal were considered within the application process (CEQA Guidelines, Section 15126.6).

CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Where a lead agency has determined that, even after the adoption of all feasible mitigation measures, a project as proposed will still cause significant environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, must first determine whether, with respect to such impacts, there remain any project alternatives that are both environmentally superior and feasible within the meaning of CEQA.

CEQA provides the following guidelines for discussing project alternatives:

- An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation (§15126.6(a)).

- An EIR is not required to consider alternatives which are infeasible (§15126.6(a)).

- The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project (§15126.6(b)).

- The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects (§15126.6(c)).

- The EIR should briefly describe the rationale for selecting the alternatives to be discussed (§15126.6(c)).

- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project (§15126.6(d)).

4.2 RELATIONSHIP TO PROJECT OBJECTIVES

The following is a summary of the primary objectives of the Cochrane Road Planned Unit Development (PUD), as stated by the project applicant and the City of Morgan Hill. The objectives provide an important benchmark in conducting the comparative alternatives analysis and the feasibility of each. As discussed previously, an alternative is only meaningful for consideration if it can meet the basic objectives of the project as proposed. Project objectives include the following:

- To provide a retail development that meets the current unmet demand for goods and services and entertainment from consumers residing in the trade area for the City of Morgan Hill and from future residential developments;

- To provide a commercial retail shopping center that serves both the local and regional market area to attract new customers and retailers into the City of Morgan Hill;

- To provide a commercial development that results in a net fiscal benefit to the City of Morgan Hill by generating new sales tax revenue from Morgan Hill residents as well as non-residents attracted to the shopping center, and by increasing property tax revenues;

- To provide a commercial retail shopping center on a large, undeveloped lot in close proximity to an existing highway, near other commercial centers and residential areas, in order to minimize travel lengths and utilize existing infrastructure to the extent possible;

- To provide a commercial center of at least 50 net acres to provide sufficient development area to allow a mixture of uses (including lifestyle and/or entertainment attractions) to create a destination commercial center that will attract various types of customers to the City;

- To create an atmosphere of fun, entertainment, and relaxation for customers in addition to a shopping experience;

- To provide a commercial development that can be adequately served by public services and utilities in a feasible manner;

- To substantially reduce sales dollar leakage out of the City of Morgan Hill;

- To provide a commercial development that creates new jobs for City residents; and
- To complete the development of a large scale retail shopping center on the subject property in a manner substantially consistent with the goals and policies of the

City's General Plan Designation as `Commercial – Sub-Regional Commercial Site Overlay´ and its Zoning Designation as `PUD (HC).´

4.3 ALTERNATIVES CONSIDERED BUT REJECTED

The following alternate site location alternatives were considered, but rejected from further analysis.

SOUTHWEST CORNER OF EAST DUNNE AVENUE AND MURPHY AVENUE

This alternate site consists of three parcels (APNs: 817-12, 010, and 011) and is comprised of approximately 13.88 acres. These parcels are zoned `Planned Unit Development (PUD)´ with a land use designation of `Commercial´ in the *City of Morgan Hill General Plan*. This alternate site is considered a gateway in the *City of Morgan Hill General Plan* and would be required to provide a high quality of architecture and landscape design similar to the project site. Similar to the project site, uses within this designation are intended to meet the retail and related service needs of residents living in this area. This alternate site was rejected from further consideration because the site is too small to meet the objectives of the proposed project and has potential traffic and circulation impacts, as the Murphy Avenue/East Dunne Avenue intersection, which would provide the main access to the project site, is already operating at LOS D under existing conditions.

SOUTHWEST CORNER OF TENNANT AVENUE AND U.S HIGHWAY 101

This alternate site location consists of five parcels (APNs: 817-08-14, 15, 19, 30, and 32) and is comprised of approximately 25.78 acres. This alternate site location is vacant except for an existing church located on parcel 817-08-14. This site is similar to the project site in that it provides visibility along U.S. Highway 101; however, this location was rejected because the site is too small to meet the objectives of the proposed project.

4.4 PROJECT ALTERNATIVES

As identified within various sections of this EIR, the proposed project would result in significant environmental impacts. The proposed project would result in a significant and unavoidable impacts to agricultural resources, air quality, noise, and traffic and circulation. All other impacts identified in the EIR can be mitigated to a less than significant level with the adoption of mitigation measures as specified within this DEIR. Notwithstanding, this alternatives discussion briefly identifies and examines a range of alternatives as developed with City staff:

- **Alternative 1 – No Project/No Development Alternative**
- **Alternative 2 – Supermarket Alternative**

- **Alternative 3 – Reduced Density Alternative**
- **Alternative 4 – Alternate Location Alternative**

Environmental impacts associated with each of the four alternatives are compared with impacts resulting from the proposed project. The impact level of the alternative as compared to the project (less, similar, or greater) is noted in parentheses at the beginning of each comparison. **Table 4-2** at the conclusion of the Section provides a summary. This Section also includes identification of the "environmentally superior" alternative.

ALTERNATIVES ANALYSIS

Alternative 1 – No Project/No Development

CEQA Guidelines Section 15126.6(e)(3) requires that a `No Project/No Development Alternative' be evaluated as part of an EIR, proceeding along one of two lines: the project site remaining in its existing undeveloped state, or development of the project site under existing underlying land use designations. The `No Project/No Development Alternative´ considers the comparative environmental effects of not approving the proposed project, with the site remaining in its current rural residential and agricultural state, since the underlying General Plan land use designation of `Commercial´ would result in a similar project as is currently proposed.

The impacts associated with the `No Project/No Development Alternative´ alternative are discussed below:

Comparative Analysis

Aesthetics and Visual Resources (less). Under the `No Project/No Development Alternative,´ there would be no visual change to the project site. The existing rural character of the project site would remain and the northern gateway, the U.S. Highway 101/Cochrane Road interchange, to the City of Morgan Hill would be preserved in its existing condition. Therefore, the `No Project/No Development Alternative' would result in **less** impacts to aesthetics and visual resources than the proposed project.

Agricultural Resources (less). Impacts to agricultural resources under the `No Project/No Development Alternative´ would not occur and potential conflicts between agricultural and commercial uses would be essentially eliminated. Therefore, the `No Project/No Development Alternative´ would result in less impacts than the proposed project to agricultural resources.

Air Quality (less). The potentially significant short-term air quality impacts that would result from construction of the proposed project, including dust, mud, and debris generated

by construction activity, exposed or disturbed soil surfaces, and stockpiles of materials, would not occur under this alternative. Long-term operational air quality emissions from an increase in the number of vehicles traveling to the project site and stationary source emissions from a possible fuel station would be eliminated. Therefore, the `No Project/No Development Alternative´ would result in less air quality impacts than the proposed project.

Biological Resources (less). The potentially significant impacts to special status and other wildlife species, including burrowing owl, and migratory birds would not occur under this alternative. Leaving the site in rural residential and agricultural uses would allow it to continue as potential foraging and nesting habitat. Therefore, the `No Project/No Development Alternative´ would result in less impacts than the proposed project.

Cultural Resources (less). The potentially significant impacts to cultural or archaeological resources resulting from eventual site construction would not occur under this alternative, as on-site conditions would remain unchanged. Therefore, the `No Project/No Development Alternative´ would result in less impacts to cultural resources than the proposed project.

Geology and Soils (less). The potentially significant impacts relating to ground shaking, earthquake-induced settlement, or adverse soil characteristics would not result with implementation of the `No Project/No Development Alternative.´ Therefore, the `No Project/No Development Alternative´ would result in less impacts from the effects of geology and soils than the proposed project.

Hazards and Hazardous Materials (less). The `No Project/No Development Alternative´ would reduce the exposure to hazardous substances such as pesticides, asbestos containing materials, and lead associated with the demolition of the existing buildings at the project site. Therefore, the `No Project/No Development Alternative' would result in less impacts from hazards and hazardous materials than the proposed project.

Surface Water Hydrology and Water Quality (less). The `No Project/No Development Alternative' would essentially eliminate drainage flows and surface water quality impacts associated with the proposed project. Therefore, the `No Project/No Development Alternative´ would result in less impacts than the proposed project to hydrology and water quality.

Land Use and Planning (similar). The `No Project/No Development Alternative´ would be inconsistent with the *City of Morgan Hill General Plan* which designates the project site as the location of a sub-regional commercial site. However, the `No Project/No Development Alternative´ would avoid any potential for urban decay due to secondary economic impacts. Therefore, the `No Project/No Development Alternative´ would result in similar impacts as the proposed project with respect to land use and planning.

Noise (less). The `No Project/No Development Alternative´ generates noises typically produced by cultivation, harvesting, and other agricultural activities that are currently occurring on the project site. However, the potentially significant short-term impact of noise generated by construction activities, stationary noise sources (e.g. mechanical equipment, etc.) and the significant long-term operational impact of vehicles generated by the proposed project, would not occur under this alternative. Therefore, the `No Project/No Development Alternative´ would result in less impacts from noise than the proposed project.

Public Services (less). The potential impacts to law enforcement, fire services, and other services would not occur under this alternative as there would be no increased demand for these services. Therefore, the `No Project/No Development Alternative´ would result in less impacts than the proposed project.

Transportation and Circulation (less). The potentially significant impacts of increased traffic within the vicinity of the project would not occur under this alternative. Although the impacts of project-generated traffic would be mitigated by improvements to the transportation network as described in Section 3.12, the additional traffic would represent a substantial difference in comparison to the `No Project/No Development Alternative.´ Therefore, the `No Project/No Development Alternative' would result in less impacts than the proposed project.

Utilities (less). The potential impacts to groundwater, wastewater, solid waste facilities and other utilities would not occur under the `No Project/No Development Alternative´ as there would be no increased demand for these services. Therefore, the `No Project/No Development Alternative´ would result in less impacts than the proposed project.

The `No Project/No Development Alternative´ does not meet any of the project objectives.

Alternative 2 – Supermarket Alternative

The `Supermarket Alternative' assumes replacement of approximately 50,000 square feet of commercial uses and construction of a 50,000 square foot supermarket at the project site. The intent of the `Supermarket Alternative´ is to meet Policy 9g in the *City of*

Morgan Hill General Plan, which plans for a future grocery store east of U.S. Highway 101 along Cochrane Road. All other components of the `Supermarket Alternative´ would be similar to the proposed project. If this alternative were selected all mitigation measures incorporated herein would be applicable and one additional traffic mitigation measure would be required for transportation and circulation. The impacts associated with the 'Supermarket' alternative are discussed below:

Comparative Analysis

Aesthetics and Visual Resources (similar). Construction of a supermarket instead of 50,000 square feet of commercial/retail space would have similar effects as the proposed project with respect to the change in visual character and increased light and glare.

Agricultural Resources (similar). The `Supermarket Alternative´ would have similar impacts to the proposed project with respect to the conversion of the project site from rural residential and agricultural uses to urban uses and potential agricultural-urban conflicts.

Air Quality (greater): The `Supermarket Alternative´ would result in an increase of approximately 3,134 daily trips with 60 additional trips during the AM peak hour, 241 trips during the PM peak hour, and 216 trips during the Saturday midday peak hour. This increase in the number of vehicle trips to the project site would result in a subsequent increase in air quality emissions. As emissions associated with the proposed project exceed the BAAQMD significance thresholds, the `Supermarket Alternative´ would result in a greater range of impacts than the proposed project that would further exacerbate regional air quality conditions. Therefore, the `Supermarket Alternative' would result in a greater range of impacts than the proposed project with respect to air quality.

Biological Resources (similar). The `Supermarket Alternative´ would result in similar impacts as the proposed project to special status and other wildlife species, including burrowing owl, and migratory birds and the conversion of potential foraging and nesting habitat. As such, this alternative would result in no substantial difference over the proposed project with respect to biological resources.

Cultural Resources (similar). Since there are no known historic, archaeological, or paleontological resources present at the project site, the `Supermarket Alternative´ would result in similar impacts to the proposed project with respect to cultural resources. In the event of discovery of previously unknown resources at the project site, contingent mitigation measures, as identified in Section 3.5, Cultural Resources, would be applied that would reduce the potentially significant effects to a less than significant level for both the proposed project and the `Supermarket Alternative.´ As such, this alternative would result in no substantial difference over the proposed project with respect to cultural resources.

Geology and Soils (similar). All geologic, soils, and seismic conditions and hazards affecting both the proposed project and the `Supermarket Alternative´ would be mitigated to a less than significant level through geotechnical engineering measures. Therefore, there would be no substantial difference between the proposed project with respect to geology and soils impacts.

Hazards and Hazardous Materials (similar). Since potential effects from hazardous materials would be mitigated to a less than significant level through implementation of mitigation measures incorporated within Section 3.8, Hazards and Hazardous Materials, there would be no impacts from hazardous materials associated with either the proposed project or the `Supermarket Alternative.´ In addition, a proposed supermarket would likely involve the same range of hazardous materials as a retail use. As such, there is no substantial difference in terms of hazardous materials impacts between the proposed project and the `Supermarket Alternative' with respect to hazards and hazardous materials.

Surface Water Hydrology and Water Quality (similar). The drainage impacts of the `Supermarket Alternative´ and that of the proposed project would result in similar volumes of stormwater runoff. These impacts would be mitigated to a less than significant level through the construction of appropriately-sized stormwater basins. The erosion impacts and potential for non-point source pollution of surface water from urban pollutants would be similarly mitigated for both alternatives as discussed in Section 3.8, Surface Water Hydrology and Water Quality. As such, there would be no substantial difference between the proposed project and the `Supermarket Alternative´ with respect to surface water hydrology and water quality.

Land Use and Planning (similar). The `Supermarket Alternative´ would meet the intent of Policy 9g in the *City of Morgan Hill General Plan*, which plans for a future grocery store east of U.S. Highway 101 along Cochrane Road. This alternative would generally include the same range of land uses as the proposed project and would be considered consistent with the *City of Morgan Hill General Plan* and the *City of Morgan Hill Planning and Zoning Codes*. Under this alternative, the additional sales likely to be captured from Morgan Hill stores in combination with a supermarket would not be likely to lead to closures due to the potential cumulative impacts at the Wal Mart Supercenter in the City of Gilroy. Each of the major supermarkets is performing at levels capable of sustaining this level of additional sales loss, assuming the losses are shared somewhat equally. Therefore, there would be no substantial difference between the `Supermarket Alternative´ and the proposed project with respect to land use and planning.

Noise (similar). The `Supermarket Alternative´ would result in an increase of approximately 3,134 daily trips with 60 additional trips during the AM peak hour, 241 trips during the PM peak hour, and 216 trips during the Saturday midday peak hour. However,

this alternative would result in a similar range of noise impacts as the proposed project with respect to long-term operational noise levels.

Public Services (similar). The `Supermarket Alternative' would result in similar impacts to public services. Increased demand for fire protection, law enforcement, and other public services would not be significant for the proposed project and would not be significant for the `Supermarket Alternative.' Therefore, there is no substantial difference between this alternative and the proposed project with respect to public services.

Transportation and Circulation (greater). The traffic impact analysis prepared by Fehr and Peers Associates evaluated construction of a 60,000 square foot supermarket at the project site as an alternative project scenario, therefore the transportation and circulation impacts associated with this alternative would be slightly conservative since the trip generation rates for a supermarket land use are substantially higher. Additionally, as discussed for the proposed project in Section 3.12, Transportation and Circulation, the site plan shows the fuel station as an optional use on Pad 2, and shows that the primary proposed use for this pad is 6,000 square feet of retail space. However, since the 12-position fuel station would generate substantially more traffic than the planned retail space for this location, the traffic analysis for the `Supermarket Alternative' is based on development of Pad #2 with a fuel station in order to present a worst-case analysis. Also, it should be noted that the current site plan shows a total retail floor area (including garden center) of 588,050 square feet assuming fuel station use for Pad 2. This is 2,050 square feet less than the floor area used in this traffic analysis, which was based on a previous version of the site plan. Since the traffic analysis is therefore based on a project size, which is approximately 0.4 percent larger than currently proposed, the resulting calculations may be slightly conservative for the `Supermarket Alternative,' however, the difference is not great enough to affect the findings, conclusions, or recommendations contained in the traffic impact analysis.

Trip Generation. The amount of traffic generated by the alternate project description was estimated using the process discussed in Section 3.12, Transportation and Circulation. Trip generation rates for `Supermarket' from *Trip Generation* (Institute of Transportation Engineers, 7th Edition) were used to estimate the number of trips generated by a supermarket in this location. A pass-by/diverted link reduction of 25 percent was also applied to the supermarket. To account for the internalization of trips within the site, a 20 percent reduction was applied to peak hour supermaket trip generation. **Table 4-1** presents the trip generation estimates for the `Supermarket Alternative.'

Under the `Supermarket Alternative,' 25,143 new daily trips, with 593 trips during the AM peak hour, 2,110 trips during the PM peak hour and 2,631 net new Saturday midday peak-hour trips would be generated. Compared to the proposed project, the `Supermarket Alternative' would generate approximately 3,134 additional daily trips, 60 additional AM

peak-hour trips, 241 additional PM peak-hour trips, and 216 additional Saturday midday peak-hour trips.

TABLE 4-1
SUPERMARKET ALTERNATIVE
TRIP GENERATION ESTIMATES

Item	Weekday	AM Peak Hour			PM Peak Hour			Sat Peak Hour		
	Total	In	Out	Total	In	Out	Total	In	Out	Total
Trip Rates										
Shopping Center (ksf)	37.88	0.63	0.40	1.03	1.70	1.85	3.55	2.51	2.32	4.83
Supermarket (ksf)	102.24	1.98	1.27	3.25	5.33	5.12	10.45	5.49	5.27	10.76
Gas-Service Station (Fueling Position)	152.84	5.43	5.21	10.64	6.67	6.67	13.33	9.44	9.07	18.50
Movie Theater (screen)	292.50	0.0	0.0	0.0	13.81	9.21	23.02	14.38	5.59	19.97
Trip Estimates										
Shopping Center (530.1 ksf)	20,080	333	213	546	903	979	1,882	1,331	1,228	2,559
Supermarket (60 ksf)	6,134	119	76	195	320	307	627	329	317	646
Gas-Service Station (12 Fueling Positions)	1,834	65	63	128	80	80	160	113	109	222
Movie Theater (14 screens)	4,095	0	0	0	193	129	322	201	79	280
Gross Project Trips	*32,143*	*517*	*352*	*869*	*1,496*	*1,495*	*2,991*	*1,974*	*1,733*	*3,707*
Shopping Center Pass-by/Diverted Trip Reduction[2]	-4,016	-69	-68	-137	-236	-235	-471	-320	-320	-640
Supermarket Pass-by/Diverted Trip Reduction[2]	-1,227	-25	-24	-49	-79	-78	-157	-81	-81	-162
Gas-Service Station Pass-by/Diverted Trip Reduction (40%)	-734	-26	-25	-51	-32	-32	-64	-45	-44	-89
Theater Internalization[3]	-410	0	0	0	-32	-32	-64	-65	-64	-129
Supermarket Internalization[3]	-613	-20	-19	-39	-63	-62	-125	-65	-64	-129
Net New Project Trips	**25,143**	**377**	**216**	**593**	**1,054**	**1,056**	**2,110**	**1,435**	**1,196**	**2,631**

Notes:

[1] Trip rates are expressed as trips per 1,000 s.f. (ksf) or per screen.

[2] Pass-by/Diverted trip reduction 20 percent daily and 25 percent during peak hour.

[3] Internalization trip reduction 10 percent daily and 20 percent during peak hour.

Source: *Trip Generation* (Institute of Transportation Engineers, 7th Edition).

Source: Fehr and Peers, Inc. 2005

Intersection Levels of Service. The Level of Service (LOS) calculations performed by Fehr and Peers, Inc. used existing count data and lane configurations, list of approved and pending developments supplied by city staff, and the alternate project-generated trips. The results of the intersection LOS calculations are presented in **Table 4.2** for the `Supermarket Alternative.'

The intersections of Cochrane Road/U.S. Highway 101 northbound ramps, Cochrane Road/Mission View Drive, and Dunne Road/Monterey Road are projected to operate at unacceptable levels of service during one or more peak hours. The remaining intersections would operate at acceptable levels of service.

Based upon the criteria presented in the previous chapter, the `Supermarket Alternative' would result in a significant impact to the three intersections operating at unacceptable levels: Cochrane Road/U.S. Highway 101 northbound ramps, Cochrane Road/Mission View Drive, and Dunne Road/Monterey Road. **Mitigation Measures MM 3.12-1a** and **MM 3.12-1b** incorporated in Section 3.12, Transportation and Circulation would reduce these potentially significant impacts to a less than significant level. In addition, the `Supermarket Alternative' would require the westbound approach of the U.S. Highway 101/Cochrane Road intersection to be converted to provide one separate through lane and one shared through right-turn lane to improve the level of service at this intersection to LOS D during the Saturday peak hour. Improvements to this intersection would have to be approved by Caltrans as well as the City of Morgan Hill. Caltrans typically requires submittal of approved plans along with encroachment applications and fees before approvals are issued. With implementation of these improvements the `Supermarket Alternative' would have a less than significant impact.

Parking. The parking analysis conducted by Fehr and Peers, Inc., for the `Supermarket Alternative' was based on a 50,000 square foot supermarket. The results of the parking analysis are incorporated in Appendix F of the traffic impact analysis, which is Appendix K of this EIR. The number of parking spaces provided on the preliminary site plan is 3,025 stalls. (This total applies to both the retail and fuel station alternatives for Pad 2, which both show 12 spaces.)

Required Supply Based on City Code. As discussed in the discussion of parking for the proposed project, the ITE peak parking rate for the `shopping center' was used to calculate the city parking requirement for retail and restaurant space. The peak rate is 3.21 spaces per 1,000 square feet of space, which was then increased by ten percent to account for a circulation factor (i.e., to allow vehicles to park without having to circulate through the project site and wait for a space to become available). This results in a required parking rate of 3.53 spaces per 1,000 square feet or one space/283 square feet. (It should be noted that municipal parking rates typically incorporate a similar 10 percent circulation factor within their required parking rates, although this is not usually stated.)

For movie theatre space, the City of Morgan Hill code requires one space for every 3.5 seats or one space per 32 square feet of usable seating area (whichever is greater). The rate of one space per 3.5 seats was used in this analysis to estimate the movie theater parking supply because the exact size of usable movie theater space is unknown at this time.

For the alternative supermarket land use presented under the `Supermarket Alternative', the City code requires one parking space per 250 square feet of floor area.

These rates result in a required supply of 2,979 spaces (i.e., 544,050 square feet of retail space at one space/283 square feet equals1,922 spaces; 3,000 seats at one space/3.5 seats equals 857 spaces; and 50,000 square feet of supermarket space at one space/250 square feet equals 200 spaces). Therefore, the proposed parking supply of 3,025 spaces shown on the preliminary site plan exceeds the supply requirement by 46 spaces indicated under this methodology.

Shared Parking Analysis. As with the parking evaluation for the proposed project, this parking analysis for the `Supermarket Alternative' included a second study based on a methodology using the ITE rates for shared parking.

The shared parking analysis for the weekend day shows that the projected peak parking demand would be 2,831 spaces at 1:00 PM. This overall demand includes a ten percent circulation factor, as was applied under the first methodology above. The proposed supply of 3,025 spaces shown on the preliminary project site plan would meet the peak weekend parking requirement by 194 spaces indicated through application of this methodology.

The results of the weekday shared parking analysis show that the expected peak demand would be 1,866 spaces at 1:00 PM. This demand also includes a ten percent circulation factor. Therefore, the proposed supply of 3,025 spaces indicated on the project site plan would meet the peak weekday parking requirement of 1,866 spaces indicated under this methodology.

A further calculation was conducted to determine the amount of restaurant space that could be allowed with the proposed supply (3,025 spaces). Using the shared parking

methodology including the supermarket, it was determined that 18,000 square feet of sit-down restaurant space could be accommodated. Since sit-down restaurant space has a higher parking demand (13.5 spaces/1,000 square feet) than fast food space (9.5 spaces/1,000 square feet) a mix of the two restaurant types would allow for a slightly higher total. For example, if the ratio of sit-down to fast food restaurant was roughly 60 percent to 40 percent, it is estimated that approximately 20,000 square feet of restaurant space would be able to be accommodated in the project site with the proposed supply of 3,025 parking spaces.

Impact Assessment. As discussed in Section 3.12, Transportation and Circulation, both of the parking methodologies could underestimate actual parking demand for the `Supermarket Alternative' depending on the mix of tenants. This is because both methods use the ITE shopping center rates to encompass both retail and restaurant uses. This is a valid approach since the ITE shopping center rate does include some provision for restaurants, although the proportion of restaurants assumed in the rate is unknown. It is also a necessary approach since the proportion of restaurant space to be included in the project has not yet been determined. However, it is reasonable to conclude that the proportion of restaurants contemplated in the ITE shopping center rate is minor given that the parking demand rates for all types of restaurants are substantially higher than the shopping center rate. As such, the above calculations of parking demand would only be valid if the actual amount of restaurant space ultimately proposed is also minor. If a substantial proportion of the project is occupied by restaurants, the project could potentially face a parking deficiency unless the parking supply is increased.

Environmental documents prepared under CEQA, including supporting technical reports on traffic and parking impacts, are to assume reasonable worst-case conditions in the absence of specific project information. In the case of the `Supermarket Alternative,' there is a likelihood that a parking deficiency of undetermined magnitude will occur if more than a minor amount of restaurant space is included in the project. This represents a potentially significant impact under the `Supermarket Alternative.' Implementation of mitigation measures incorporated into the proposed project would reduce this impact to a less than significant level. Therefore, there is no substantial difference between the `Supermarket Alternative' and the proposed project with respect to parking.

Freeway Impacts. The freeway segments for the `Supermarket Alternative´ would provide higher densities. Therefore, the same impact to the northbound segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue during the AM peak hour would occur as would occur under project conditions. The mitigation measure for this impact under the `Supermarket Alternative´ would be to implement the "immediate actions" list required as Mitigation Measure 3.12-2. The `Supermarket Alternative´ would also result in a significant and unavoidable impact to this freeway segment and therefore, there would be no substantial difference between this alternative and the proposed project.

TABLE 4-2
BACKGROUND AND SUPERMARKET ALTERNATIVE INTERSECTION LEVELS OF SERVICE

Intersection	Peak Hour[1]	Background		Alternate Project (with Supermarket)			
		Delay[2]	LOS[3]	Delay	LOS	Δ in Crit. V/C[4]	Δ in Crit. Delay[5]
1. Cochrane Road/Monterey Road	AM	20.5	C+	20.7	C+	+0.013	+0.2
	PM	25.7	C	25.4	C	+0.050	-0.1
	SAT	24.4	C	26.5	C	+0.139	+0.3
2. Cochrane Road/Butterfield Boulevard	AM	13.2	B	13.4	B	+0.033	+0.5
	PM	12.3	B	13.7	B	+0.127	+2.4
	SAT	10.9	B+	12.8	B	+0.152	+3.0
3. Cochrane Road/Sutter Boulevard	AM	20.6	C+	20.7	C+	+0.024	+0.3
	PM	15.4	B	16.4	B	+0.090	+1.2
	SAT	13.6	B	13.4	B	+0.088	-0.6
4. Cochrane Road/Cochrane Plaza	AM	18.7	B-	18.6	B-	+0.020	+0.2
	PM	28.1	C	26.8	C	+0.085	-0.5
	SAT	23.4	C	22.8	C+	+0.082	+0.1
5. Cochrane Road/SB US 101 Ramp	AM	13.3	B	14.3	B	+0.071	+1.0
	PM	14.6	B	27.8	C	+0.265	+21.7
	SAT	19.9	B-	26.6	C	+0.373	+7.7
6. Cochrane Road/NB US 101 Ramp	AM	11.3	B+	13.7	B	+0.184	+3.0
	PM	10.9	B+	36.8	D+	+0.656	+31.1
	SAT	10.8	B+	**91.7**	**F**	**+0.922**	**>100**
7. Cochrane Road/DePaul Drive[6]	AM	12.0	B	16.6	B	NA	NA
	PM	12.6	B	23.9	C	NA	NA
	SAT	11.2	B	34.7	C-	NA	NA
8. Cochrane Road/Mission View Drive[7]	AM	16.9	C	**>100**	**F**	NA	NA
	PM	12.7	B	**>100**	**F**	NA	NA
	SAT	12.3	B	**>100**	**F**	NA	NA
9. Main Avenue/Monterey Road	AM	27.8	C	27.8	C	+0.003	+0.0
	PM	24.3	C	24.8	C	+0.045	+0.9
	SAT	22.0	C+	22.5	C+	+0.057	+1.0
10. Main Avenue/Butterfield Boulevard	AM	38.2	D+	38.5	D+	+0.014	+0.5
	PM	37.5	D+	37.7	D+	+0.048	+0.6
	SAT	31.9	C	32.3	C-	+0.064	+1.0
11. Main Avenue/Condit Road	AM	12.3	B	12.9	B	+0.023	+0.5
	PM	9.8	A	11.5	B+	+0.101	+2.4
	SAT	9.9	A	11.2	B+	+0.107	+1.8
12. Dunne Avenue/Monterey Road	AM	37.9	D+	38.3	D+	+0.013	+0.7
	PM	**39.5**	**D**	**40.9**	**D**	**+0.050**	**-0.1**
	SAT	30.9	C	32.1	C-	+0.062	+1.1
13. Dunne Avenue/Butterfield Boulevard	AM	35.3	D+	35.4	D+	+0.008	+0.4
	PM	37.6	D+	38.5	D+	+0.005	-2.1
	SAT	30.3	C	30.7	C	+0.026	-0.2
14. Dunne Avenue/ NB US 101 Ramp	AM	15.5	B	15.5	B	+0.001	-0.0
	PM	12.8	B	12.7	B	+0.003	-0.1
	SAT	9.9	A	9.8	A	+0.006	-0.1
15. Tennant Avenue/NB US 101 Ramp	AM	25.5	C	26.9	C	+0.028	+1.8
	PM	22.0	C+	23.9	C	+0.077	+2.3
	SAT	19.9	B-	22.9	C+	+0.107	+3.5

Notes:
[1] AM = Morning peak-hour, PM = Evening peak-hour, SAT = Saturday midday peak-hour.
[2] Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections using methodology described in the *2000 Highway Capacity Manual,* with adjusted saturation flow rates to reflect Santa Clara County Conditions. For two-way stop controlled unsignalized intersections, total control delay for the worst movement/approach, expressed in seconds per vehicle, is presented. LOS calculations conducted using the TRAFFIX level of service analysis software package.
[3] LOS = Level of service
[4] Change in critical movement delay between Background and Project Conditions. A decrease in the critical delay indicates project trips were added to movements with low delays thus causing a decrease in the overall critical delay.
[5] Change in the critical volume-to-capacity ratio (V/C) between Background and Project Conditions.
[6] Intersection is analyzed as unsignalized under Background Conditions, and with a traffic signal and additional lanes under Project Conditions.
[7] Intersection is analyzed as unsignalized under Background, and with additional lanes under Project Conditions.
Significant impacts are designated in **bold** type.

Source: Fehr and Peers, Inc. 2005

Utilities (similar). There would be no substantial difference between the `Supermarket Alternative´ and the proposed project with respect to utilities.

Alternative 3 – Reduced Density Alternative

This alternative assumes a 40 percent reduction in the square footage to a 394,350 square foot commercial shopping center on a reduced footprint of approximately 40 acres, which would provide a buffer around the project site. A reduced commercial would generate less traffic, and subsequently result in a decrease in noise emissions in comparison to the proposed project. The impacts associated with the reduced density alternative are discussed below:

Comparative Analysis

Aesthetics and Visual Resources (similar). Although the `Reduced Density Alternative´ would involve the conversion of fewer acres of rural land to urban uses, the overall aesthetic/visual affect associated with construction of a 394,350 square foot commercial shopping center at the Cochrane Road/U.S. Highway 101 interchange would not be substantially different from that of the proposed project. Therefore, there is no substantial difference between the proposed project and the reduced density alternative with respect to aesthetics and visual resources.

Agricultural Resources (less). The `Reduced Density Alternative´ would result in the conversion of fewer acres of agricultural land to urban uses. The conversion of agricultural land at the project site was found to be significant and unavoidable. The reduced project size would result in a relatively lower magnitude of impacts to agricultural resources and any potential conflicts between agricultural and urban uses compared to the proposed project. Therefore, the `Reduced Density Alternative´ would result in less impacts to agricultural resources than the proposed project.

Air Quality (similar). The `Reduced Density Alternative´ would result in air quality emissions of approximately 120.97 lbs/day of Reactive Organic Gases (ROG), 117.72 lbs/day of Nitrogen Oxides (NO_x), and 82.49 lbs/day of Particulate Matter (PM_{10}). This would represent a reduction in the amount of air quality emissions in comparison to the proposed project. However, the resulting emissions associated with this alternative would exceed the air quality thresholds established by the BAAQMD. As such, the 'Reduced Density Alternative´ would reduce, but would not avoid the significant and unavoidable regional air quality impact associated with the proposed project. Therefore, there is no substantial difference between the proposed project and the `Reduced Density Alternative´ with respect to air quality.

Biological Resources (less). The `Reduced Density Alternative´ would result in the conversion of less acreage to urban uses and therefore would result in a reduction in the range of impacts to special status and other wildlife species, including burrowing owl and

migratory birds. Therefore, the `Reduced Density Alternative' would result in less impacts to biological resources than the proposed project.

Cultural Resources (similar). Since there are no known historic, archaeological, or paleontological resources present at the project site, the `Reduced Density Alternative´ would result in similar impacts to the proposed project with respect to cultural resources. In the event of discovery of previously unknown resources at the project site, contingent mitigation measures, as identified in Section 3.5, Cultural Resources, would be applied that would reduce the potentially significant effects to a less than significant level for both the proposed project and the `Reduced Density Alternative.´ As such, this alternative would result in no substantial difference over the proposed project with respect to cultural resources.

Geology and Soils (similar). All geologic, soils, and seismic conditions and hazards affecting both the proposed project and the `Reduced Density Alternative´ would be mitigated to a less than significant level through geotechnical engineering measures. There would be no substantial difference between the `Reduced Density Alternative´ and the proposed project with respect to geology and soils impacts.

Hazards and Hazardous Materials (similar). Since potential effects from hazardous materials would be mitigated to a less than significant level through implementation of mitigation measures incorporated within Section 3.8, Hazards and Hazardous Materials, there would be no impacts from hazardous materials associated with either the proposed project or the `Reduced Density Alternative.´ Therefore, there is no substantial difference in terms of hazardous materials impacts between the proposed project and the `Reduced Density Alternative´ with respect to hazards and hazardous materials.

Surface Water Hydrology and Water Quality (less). The drainage impacts of the `Reduced Density Alternative´ would be lower than the volumes of stormwater runoff associated with the proposed project. An increase in surface water runoff associated with the proposed project would be mitigated to a less than significant level through the construction of appropriately-sized stormwater basins. The erosion impacts and potential for non-point source pollution of surface water from urban pollutants would be similarly mitigated for both the proposed project and the `Reduced Density Alternative.´ However, because the `Reduced Density Alternative´ would result in less surface area than the proposed project, this alternative would have less impacts with respect to hydrology and water quality.

Land Use and Planning (similar). This alternative would generally include the same range of land uses as the proposed project, but at a smaller scale and would be designed to be consistent with the *City of Morgan Hill General Plan* and the *City of Morgan Hill Planning and Zoning Codes*. Therefore, there would be no substantial difference between the

`Reduced Density Alternative´ and the proposed project with respect to land use and planning.

Noise (less). The `Reduced Density Alternative´ would result in less vehicle trips to the project site and would therefore result in a relative decrease in the expected noise levels in comparison to the proposed project. As the proposed project would result in a short-term significant and unavoidable impact from the subsequent increase in noise levels at the single family residential homes located south of Cochrane Road, the `Reduced Density Alternative´ would result in less impacts than the proposed project.

Public Services (similar). Increased demand for fire protection, law enforcement, and other public services would not be significant for the proposed project and would not be significant for the `Reduced Density Alternative.' Therefore, there is no substantial difference between this alternative and the proposed project with respect to public services.

Transportation and Circulation (less): Impacts to study intersections would be mitigated for both the proposed project and the `Reduced Density Alternative.´ However, because the 'Reduced Density Alternative´ would result in less vehicle trips to the project site and congestion on the road network, this alternative would have less impacts with respect to transportation and circulation.

Utilities (similar). There would be no substantial difference between the `Reduced Density Alternative´ and the proposed project with respect to utilities.

Alternative 4 – Alternate Location Alternative

The `Alternate Location Alternative´ is located at the southeast corner of the Cochrane Road and U.S. Highway 101 intersection, immediately south of the project site and is comprised of six parcels (APN: 728-30-006, 008, and 009 and 728-31-009, 010, 011). This alternative site location is shown in **Figure 4-1**. This site is approximately 58.75 acres (approximately 7.74 acres less than the project site). Access to this site is provided by Cochrane Road and De Paul Drive.

According to the *City of Morgan Hill General Plan*, parcels 728-30-006, 008, and 009 have a land use designation of `Industrial´ and a zoning designation of `Planned Unit Development (ML).´ Parcel 728-31-010 and the northern portion of parcels 728-31-009 and -011 have a land use designation of `Commercial´ in the *City of Morgan Hill General Plan* and a zoning designation of `Planned Unit Development (HC).´ The southern portion of parcels 728-31-009 and 011 has a land use designation of `Commercial´ and a zoning designation of `CO, Administrative Office.' These parcels consist primarily of fallow agricultural land; however, there is an existing detention pond and one single family residential home located on parcel 728-31-010. This alternative would include the same range of land uses as the proposed project**.** The impacts associated with the alternative location are discussed below:

Comparative Analysis

Aesthetics and Visual Resources (greater). The `Alternate Location Alternative´ would result in a slightly greater range in impacts in comparison to the proposed project with respect to the change in the visual character of the project site. This location is also considered a gateway location and would require a higher level of design, which would be subject to review and approval by the Architectural Review Board due to visibility of this location from U.S. Highway 101. However based on the lower elevation of this site, this `Alternate Location Alternative' would result in a slightly greater impact than the proposed project based on visibility from northbound U.S. Highway 101.

Agricultural Resources (similar). The `Alternate Location Alternative´ would have similar impacts to the proposed project with respect to the conversion of the project site from rural residential and agricultural uses to urban uses. According to the *Santa Clara County Important Farmland Map*, this site is comprised of prime agricultural land and therefore would also result in a significant impact to agricultural resources with conversion of this site to urban uses.

Air Quality (similar): The `Alternate Location Alternative´ would result in the same number of vehicle trips as the proposed project, which would result in similar air quality emissions as the proposed project and would therefore result in a significant air quality impact. As such, this alternative would result in no substantial difference over the proposed project with respect to air quality.

Biological Resources (similar). The `Alternate Location Alternative´ would result in similar impacts as the proposed project to special status and other wildlife species, including burrowing owl, and migratory birds and the conversion of potential foraging and nesting habitat. As such, this alternative would result in no substantial difference over the proposed project with respect to biological resources.

Cultural Resources (similar). Since there are no known historic, archaeological, or paleontological resources present at the project site, it is likely that the `Alternate Location Alternative´ would result in similar impacts to the proposed project with respect to cultural resources. In the event of discovery of previously unknown resources at the project site, contingent mitigation measures, as identified in Section 3.5, Cultural Resources, would be applied that would reduce the potentially significant effects to a less than significant level for both the proposed project and the `Alternate Location Alternative.' As such, this alternative would result in no substantial difference over the proposed project with respect to cultural resources.

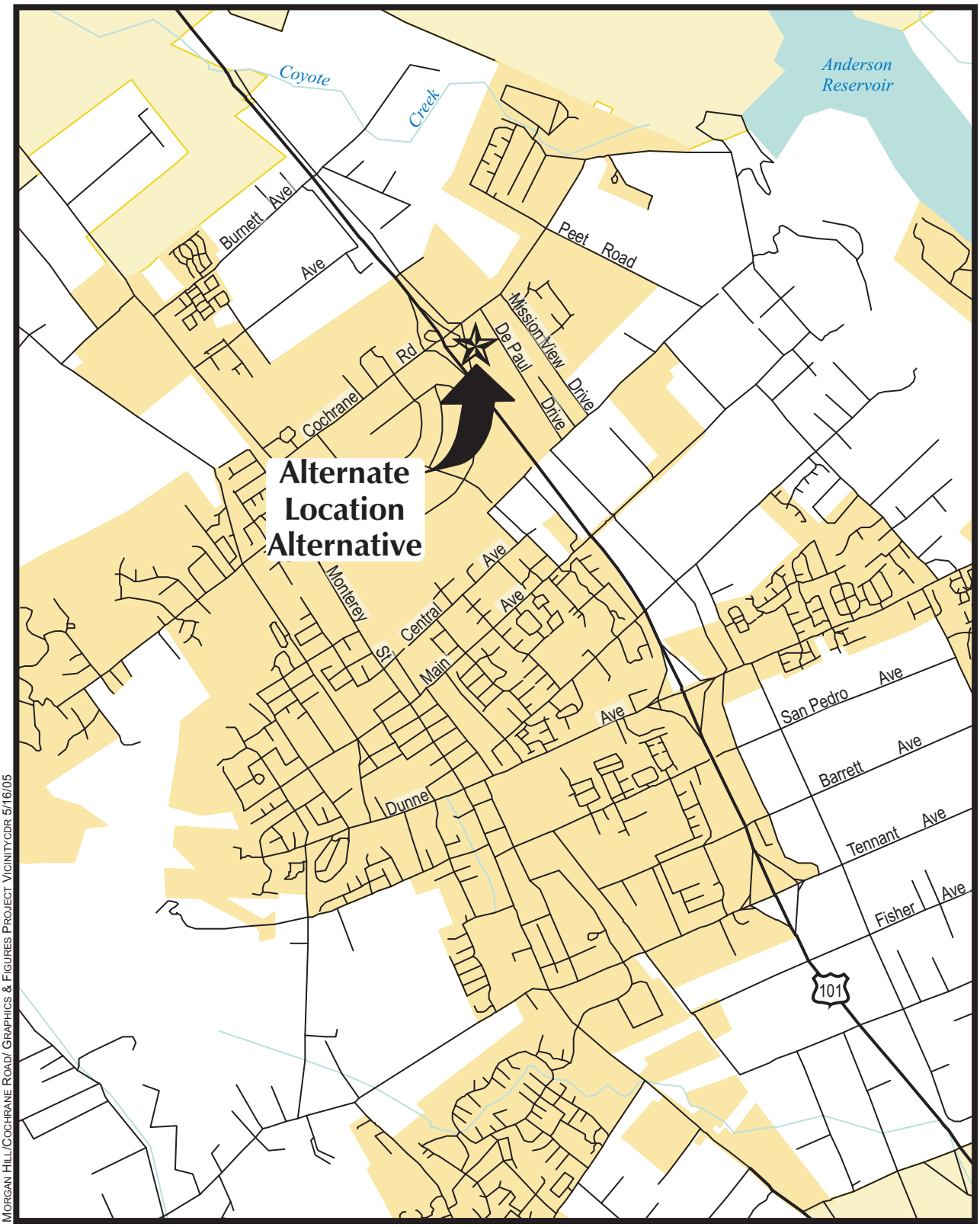

FIGURE 4-1
ALTERNATE LOCATION ALTERNATIVE

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Geology and Soils (similar). All geologic, soils, and seismic conditions and hazards affecting both the proposed project and the `Alternate Location Alternative´ would be mitigated to a less than significant level through geotechnical engineering measures. Therefore, there would be no substantial difference between the proposed project with respect to geology and soils impacts.

Hazards and Hazardous Materials (similar). Since potential effects from hazardous materials would be mitigated to a less than significant level through implementation of mitigation measures incorporated within Section 3.8, Hazards and Hazardous Materials, there would be no impacts from hazardous materials associated with the proposed project. The `Alternate Location Alternative´ is expected to result in a similar range of impacts as the proposed project with respect to hazards and hazardous materials. As such, there is no substantial difference in terms of hazardous materials impacts between the proposed project and the `Alternate Location Alternative´ with respect to hazards and hazardous materials.

Surface Water Hydrology and Water Quality (similar). The drainage impacts of the `Alternate Location Alternative´ and that of the proposed project would result in similar volumes of stormwater runoff. These impacts would be mitigated to a less than significant level through the construction of appropriately-sized stormwater basins. The erosion impacts and potential for non-point source pollution of surface water from urban pollutants would be similarly mitigated for both alternatives as discussed in Section 3.8, Surface Water Hydrology and Water Quality. As such, there would be no substantial difference between the proposed project and the `Alternate Location Alternative' with respect to surface water hydrology and water quality.

Land Use and Planning (greater). This alternative would generally include the same range of land uses as the proposed project and would require a general plan amendment in order to amend the southern portion of site that is designated for industrial uses in the *City of Morgan Hill General Plan*. In addition, the zoning would be inconsistent for approximately two thirds of the project site since the mid section is zoned `CO´ and this location is not identified in the *City of Morgan Hill General Plan* as the location of a `Sub-Regional Commercial Site.´ Therefore, the `Alternate Location Alternative´ would result in a slightly greater impact than the proposed project with respect to land use and planning.

Noise (similar). As the proposed project would result in a short-term significant and unavoidable impact from the subsequent increase in noise levels at one of the single family residential homes located at this alternate site location, the adjacent single family home would continue to be subject to excessive noise levels with implementation of this alternative. Therefore, the `Alternate Location Alternative´ would result in similar impacts as the proposed project with respect to noise.

Public Services (similar). The `Alternate Location Alternative´ would result in similar impacts to public services. Increased demand for fire protection, law enforcement, and other public services would not be significant for the proposed project and would not be significant for the `Alternate Location Alternative.´ Therefore, there is no substantial difference between this alternative and the proposed project with respect to public services.

Transportation and Circulation (greater). The `Alternate Location Alternative´ would result in the same number of vehicle trips as the proposed project, which would result in similar traffic distribution and impacts as the proposed project. As the `Alternate Location Alternative´ is approximately 7.74 acres less than the project site, the parking impacts associated with this alternate site location would likely be greater than the proposed project.

Utilities (similar). There would be no substantial difference between the `Alternate Location Alternative' and the proposed project with respect to utilities.

4.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6(e)(2) requires that the environmentally superior alternative be identified. If the environmentally superior alternative is the `No Project´ Alternative, the EIR shall also identify an environmentally superior alternative among other alternatives. In this case, Alternative 1, `No Project/No Development,´ represents the environmentally superior alternative because, as determined from the above analysis, most impacts would be reduced relative to the proposed project. However, the `No Project/No Development´ meets none of the project objectives and is inconsistent with the General Plan and zoning land use designations. From the remaining options, Alternative 2, the `Reduced Density Alternative,´ would be the environmentally superior alternative and would result in a lesser degree of environmental impact as compared to the proposed project. This is due primarily to the reduced impacts related to traffic, parking and circulation and associated reduction in noise and air quality impacts that would result from the reduced square footage. However, this scenario would not be financially feasible to the project applicant and would not meet the applicant's project objectives or the City's objectives to provide commercial retail shopping center that serves the local and regional market, results in a net fiscal benefit to the City, reduces sales dollar leakage, and creates new jobs for the City of Morgan Hill. **Table 4-3** compares each considered alternative with the proposed project.

TABLE 4-3
COMPARISON OF PROJECT ALTERNATIVES TO THE PROPOSED PROJECT

Environmental Category	Alternative #1 "No Project/No Development Alternative"	Alternative #2 "Supermarket Alternative"	Alternative #3 "Reduced Density Alternative"	Alternative #4 "Alternate Location Alternative"
Aesthetics and Visual Resources	Less	Similar	Similar	Greater
Agricultural Resources	Less	Similar	Less	Similar
Air Quality	Less	Greater	Similar	Similar
Biological Resources	Less	Similar	Less	Similar
Cultural Resources	Less	Similar	Similar	Similar
Geology and Soils	Less	Similar	Similar	Similar
Hazards and Hazardous Materials	Less	Similar	Similar	Similar
Surface Water Hydrology and Water Quality	Less	Similar	Less	Similar
Land Use and Planning	Similar	Similar	Similar	Greater
Noise	Less	Similar	Less	Similar
Public Services	Less	Similar	Similar	Similar
Transportation and Circulation	Less	Greater	Less	Greater
Utilities	Less	Similar	Similar	Similar
Consistency with Project Objectives	Less Consistent	Consistent	Less Consistent	Less Consistent

Greater = Impacts greater than those identified for the proposed project would result.
Less = Impacts less than those identified for the proposed project would result.
Similar = Impacts similar to those identified for the proposed project would result.
Consistent = Alternative would be consistent with Project Objectives.
Less Consistent = Alternative would be less consistent with Project Objectives.

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This section of the EIR identifies the cumulative impacts associated with the proposed project as statutorily required by CEQA. Cumulative impacts expected from the project are the result of combining the potential effects of the project with other cumulative development. The following discussion considers the impacts of the relevant environmental areas. This information is taken from the various analyses from Section 3.0 of this EIR.

5.1 ANALYSIS REQUIREMENT

CEQA GUIDELINES

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in relation with the effects of past projects, the effects of other current projects and the effects of probable future projects. As defined in CEQA Guidelines Section 15355, cumulative impacts refer to two or more individual effects which, when considered together, are substantial or which compound or increase other environmental impacts. A cumulative impact occurs from:

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

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

(1) Either:

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency;

(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.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. CEQA Guidelines Section 15130(a) also states the following with regard to cumulative impacts that are not significant:

- As defined in Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts which do not result in part from the project evaluated in the EIR (Section 15130 (a)(1).

- When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting the lead agency's conclusion that the cumulative impact is less than significant (Section 15130(a)(2)).

- An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of mitigation measure or measures designed to alleviate the cumulative impact. A lead agency shall identify facts and analysis supporting the lead agency's conclusion that the cumulative impact is less than significant (Section 15130(a)(3)).

CEQA Guidelines (Section 15130(b)(1)) requires the use of one method of cumulative analysis from two choices offered: a list of known past, present and probable future projects in the area or a summary of projections contained in adopted municipal plans and planning documents. For the purposes of cumulative impact analysis for this EIR, the list method is used. Relative to this method, CEQA Guidelines state the following:

> 1. *When utilizing a list…factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water*

quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.

2. *"Probable future projects" may be limited to those projects requiring an agency approval for an application which has been received at the time the notice of preparation is released, unless abandoned by the applicant; projects included in an adopted capital improvements program, general plan, regional transportation plan, or other similar plan; projects included in a summary of projections of projects (or development areas designated) in a general plan or a similar plan; projects anticipated as later phase of a previously approved project (e.g. subdivision); or those public agency projects for which money has been budgeted.*

3. *Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used (Section 15130(b)(1)(A)1, 2, 3).*

5.2 CUMULATIVE IMPACT ANALYSIS AND ASSUMPTIONS

Based on project conditions, assessment of the project's contribution to cumulative impacts were discussed for each of the topic areas addressed in **Section 3.0, Environmental Setting, Impacts and Mitigation Measures**. Using the 'list' method identified above, the impacts associated with that growth were projected. Cumulative area projects evaluated, in addition to the proposed project, are listed in **Table 5-1**. This list was compiled in December 2004.

For each section, the discussion of cumulative impacts of these projects follows direct project impacts and mitigation measures. Throughout the cumulative analysis presented in this EIR, the appropriate cumulative context is described and considered in light of the types of impacts created by the project. The cumulative impacts summarized below are also presented in each of the Environmental Analysis subsections of the EIR (see **subsections 3.1 through 3.13**). Each cumulative impact is determined to have one of the following levels of significance: **less than significant**, **potentially significant**, or **significant and unavoidable**, thus requiring a Statement of Overriding Considerations.

TABLE 5-1
CUMULATIVE PROJECTS IN THE CITY OF MORGAN HILL

DEVELOPMENT	STATUS	LAND USE	SIZE
COMMERCIAL/INDUSTRIAL			
Nicholson VI	Approved	General Light Industrial	19,933 sf
Venture Prof. Center Phase II	Approved	General Office	21,878 sf
Venture Prof. Center Phase II	Under Construction	Medical Office	39,140 sf
In-n-Out Burger	Approved	Fast-food Restaurant	3,253 sf
Dennys	Approved	Restaurant	5,096 sf
Condit – The Ford Store	Project Completed	New Car Sales	25,000 sf
W. Main - Meduri	Project Completed	General Commercial	50,500 sf
Lusamerica Fish Co.	Approved	General Light Industrial	65,160 sf
School Expansion	Approved	Private School	366 students
Aerie, Inc. Gymnasium	Under Construction	Recreational Community Ctr	9,141 sf
Commercial Center	Under Construction	Shopping Center	30,190 sf
Digital Drive Lots 9 & 10	Under Construction	General Light Industrial	23,172 sf
Condit – Patel	Under Construction	Shopping Center	6,472 sf
Vineyard – Spirit Road Oils	Approved	General Industrial	9,000 sf
Monterey – Moreno	Under Construction	General Office	4,500 sf
Mast - Mangano	Approved	General Light Industrial	6 acres
Monterey– South Valley Developers	Approved	General Office	36,288 sf
Monterey– South Valley Developers	Under Construction	Shopping Center	23,724 sf
Monterey – MH Engineering	Approved	General Office	3,635 sf
Temple Emanuel	Under Construction	Synagogue	10,506 sf
Depot – Grainery	Under Construction	General Office	13,200 sf
RESIDENTIAL			
Villanova	Approved	Single Family	6 units
Mission Ranch	Under Construction	Single Family	1 unit
Mission Ranch	Approved	Single Family	21 units
Spring Manor	Under Construction	Single Family	1 unit
Spring Manor	Approved	Single Family	1 unit
Madrone Crossing	Under Construction	Single Family	12 units
Madrone Crossing	Approved	Single Family	2 units
Murphy Ranch	Under Construction	Multi Family	38 units
Sheng Property – Mirasol	Under Construction	Single Family	16 units
East Dunne - Gerwal	Approved	Single Family	4 units
Quail Creek – Phase I	Under Construction	Single Family	7 units
Quail Creek – Phase II	Approved	Single Family	22 units
Morgan Station	Approved	Single Family	5 units
Watsonville South County Housing	Approved	Single Family	10 units
Barrett-Ditri	Approved	Single Family	15 units
Lands of Acton/W. Main Vierra	Approved	Single Family	5 units

DEVELOPMENT	STATUS	LAND USE	SIZE
Christeph Ct. Kosich	Approved	Single Family	1 unit
Berkshire-Singh	Under Construction	Single Family	4 units
Coyote Creek Estates	Under Construction	Single Family	12 units
Tuscany Meadows	Under Construction	Single Family	15 units
San Vincente Estates	Under Construction	Single Family	5 units
Quail Meadows	Approved	Single Family	6 units
Alicante Estates	Under Construction	Single Family	14 units
Alicante Estates	Approved	Single Family	42 units
Central Park	Approved	Single Family	39 units
San Pedro Villas	Under Construction	Multi Family	9 units
San Pedro Villas	Approved	Multi Family	8 units
Coyote Estates	Under Construction	Single Family	17 units
Coyote Estates	Approved	Single Family	53 units
Church Street Apartments	Under Construction	Multi Family	49 units
E. Central – Morgan Lane	Under Construction	Single Family	10 units
E. Central – Morgan Lane	Approved	Single Family	28 units
DeWitt – Marquez	Approved	Single Family	4 units
DeWitt – Marrad	Approved	Single Family	3 units
PENDING			
COMMERCIAL/INDUSTRIAL			
River Dance Plaza	Approved	Commercial/Office	45,080 sf
Assisted Living	Approved	Assisted Living	94 beds
Assisted Living	Approved	Congregate Care Facility	70 units
Assisted Living	Approved	General Office	13,560 sf
Assisted Living	Approved	Childcare Facility	6,050 sf
Retail Center	Approved	Specialty Retail Center	3,597 sf
Day Worker Center	Approved	General Office	2,800 sf
Library	In Process	Library	40,000 sf
Indoor Rec Center	Under Construction	Recreational Community Center	52,000 sf
RESIDENTIAL			
Mission Ranch	In Process	Single Family	39 units
Madrone Crossing	In Process	Single Family	78 units
Morgan Station	In Process	Multi Family	9 units
Villas of San Marcos	In Process	Multi Family	5 units
Hill – Gera	In Process	Single Family	9 units
Royal Court South County Housing	In Process	Multi Family	55 units
San Pedro Villas	In Process	Multi Family	15 units
DeWitt – Latala	In Process	Single Family	3 units
Borello Farms	In Process	Single Family	15 units
Christeph	In Process	Single Family	3 units
Jasper Park	In Process	Multi Family	8 units

Source: City of Morgan Hill

DISCUSSION OF CUMULATIVE IMPACTS

Aesthetics

Cumulative Degradation of Visual Character

Impact 3.1.3 The proposed project in combination with cumulative development would add to the urbanization of the project area, resulting in a visual change within the City of Morgan Hill. This is considered **a less than significant impact**.

The proposed project in combination with cumulative development would continue to urbanize the City of Morgan Hill. The *City of Morgan Hill General Plan* anticipated the future development of the project site with commercial uses. The overall change in the visual character of the project site from rural residential and agriculture to a 657,250 square foot shopping center would result in a permanent change, but this is not considered a significant impact in that the project site is not considered a significant visual resource in the *City of Morgan Hill General Plan* and City review and approval processes will ensure that the improvements do not substantially degrade the visual quality of the City. Adjacent County lands would continue to provide the sense of rural character beyond the city limits. Policies in the *City of Morgan Hill General Plan* that emphasize preservation of the rural environment, implemented over time, would address cumulative visual effects resulting from growth in the city limits. Therefore, the proposed project's contribution to the cumulative degradation of visual character in the region would be considered **less than significant.**

Agricultural Resources

Cumulative Loss of Farmland

Impact 3.2-3 The proposed project would convert approximately 66.49 acres of agricultural land to urban uses. This loss would contribute to the cumulative loss of farmland in the region. This considered a **less than significant impact.**

The County of Santa Clara has experienced a ten percent decrease (3,192 acres) in the amount of `Prime Farmland´ between 1998 and 2002 from the conversion of farmland to urban uses (DOC 2002). The proposed project would contribute to the on-going conversion of prime agricultural land in Santa Clara County to urbanized uses by converting approximately 66.49 acres of agricultural land to commercial uses. Based on the California Agricultural LESA model, the conversion of the agricultural land at the project site is considered a significant and unavoidable impact. The proposed project

would therefore contribute to the cumulative conversion of farmland to urban uses. However, the majority of agricultural acreage in Santa Clara County is located in unincorporated areas where there are strong land use policies to preserve this unincorporated agricultural land. Therefore, the proposed project's contribution to the cumulative loss of agricultural land in the region would be considered **less than significant.**

Air Quality

Cumulative Air Quality Emissions

Impact 3.3-5 Project development, combined with other reasonably foreseeable projects in the project vicinity, would contribute to increased air quality emissions in the air basin. This cumulative impact is considered a **significant impact.**

Cumulative air quality impacts are evaluated based on both a quantification of the project-related air quality impacts and the consistency of the proposed project with local and regional air quality plans (i.e., the *Morgan Hill General Plan* and the *BAAQMD 2000 Bay Area Clean Air Plan*). The proposed project would result in a significant cumulative air quality impact if project impacts are significant and/or the proposed project is found to be inconsistent with the *City of Morgan Hill General Plan* and/or the *BAAQMD Clean Air Plan*. In addition to the above significance criteria, the BAAQMD has established thresholds of significance for construction and operational emissions associated with development projects.

At the local level, future cumulative traffic conditions would not result in any violation of a CO standard. As a result, there would not be a cumulative impact to localized air quality emissions. At the regional level, long term operational emissions associated with traffic generated by the proposed project are predicted to be above the significance thresholds established by the BAAQMD as shown in **Table 3.3-4**, and therefore, would result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard.

The BAAQMD is the regional agency responsible for overseeing compliance with State and Federal laws, regulations, and programs within the San Francisco Bay Area Air Basin. The BAAQMD, with assistance from the Association of Bay Area Governments and the Metropolitan Transportation Commission, has prepared and implements specific plans to meet the applicable laws, regulations, and programs. Among them are the *Carbon Monoxide Maintenance Plan* (1994), *Bay Area Clean Air Plan* (2000), and the *2001 Ozone Attainment Plan* (currently under review for approval by EPA). The BAAQMD has also developed CEQA guidelines to assist lead agencies in evaluating the significance of air quality impacts. In formulating compliance strategies, the BAAQMD relies on planned land uses established by local general plans. When a project proposes to change planned

uses, by requesting a general plan amendment, the project may depart from the assumptions used to formulate BAAQMD in such a way that the cumulative result of incremental changes may hamper or prevent the BAAQMD from achieving its goals. This is because land use patterns influence transportation needs, and motor vehicles are the primary source of air pollution.

The project site has a General Plan designation of 'Commercial' in the *City of Morgan Hill General Plan* and a zoning designation of 'PUD (HC)' in the *City of Morgan Hill Planning and Zoning Codes*. The *City of Morgan Hill General Plan* designates the project site as the location of a sub-regional commercial site and the proposed project is consistent with the *City of Morgan Hill General Plan* designation. The proposed project would include a General Plan Amendment (GPA) for the relocation of a future collector street extending from Mission View Drive north of Cochrane Road instead of extending from De Paul Drive (formerly St. Louise Drive) as designated on the *City of Morgan Hill General Plan* map. This amendment is not likely to interfere with population projections or change vehicle miles traveled in Morgan Hill. The project is proposing a retail center that would serve the needs of the population. It is unlikely to interfere with region-wide population or vehicle miles traveled projections that are used in Clean Air planning efforts. However, because the proposed project results in significant emissions of air pollutants that affect regional air quality, it is considered to result in a **significant cumulative unavoidable impact** that cannot be mitigated to a less than significant level.

Biological Resources

Cumulative Impacts to Special Status Species, Critical Habitats and Wildlife Movement

Impact 3.4-8 The proposed project, in addition to anticipated cumulative development in the project vicinity, may disturb special status species, critical habitats, and wildlife movement throughout the region. These impacts would be considered **potentially significant cumulative impacts.**

Implementation of the proposed project would result in a loss of habitat and contribute to biological resource impacts, including disturbance of special status species. Anticipated development within the City of Morgan Hill is expected to further contribute to these impacts and is considered a potentially cumulative significant to biological resources.

Implementation of mitigation measures incorporated herein, would reduce the overall contribution to cumulative biological resource impacts resulting from completion of the proposed project. Therefore, the project contributions to the potential loss and/or restriction of biological resources in the region are considered **less than significant.**

Cultural Resources

Cumulative Impacts to Archaeological and Cultural Resources

Impact 3.5-3 Implementation of the proposed project, in combination with cumulative development activity in the region, would increase the potential to disturb or contribute to the loss of known and undiscovered cultural resources. This is considered a **potentially significant impact.**

Implementation of **Mitigation Measures MM 3.5-1a** and **MM 3.5-1b** would ensure the project's contribution to this cumulative impact remains at a **less than significant** level by addressing impacts on a case by case basis, thus avoiding compounding of cumulative development.

Geology and Soils

Cumulative Impacts from Geologic Hazards

The proposed project and project impacts will not combine with any other factors or projects and, thus, is not significant due to the localized, site-specific nature of geotechnical and seismic impacts. No significant cumulative impacts are predicted relative to geology or geologic hazards. Cumulative development would result in **no cumulative impacts**.

Hazards and Hazardous Materials

Risk of Exposure to Hazardous Waste or Materials

Impact 3.7-7 New development resulting from cumulative development in the City of Morgan Hill could expose people, property, and the environment to hazardous materials. This cumulative impact is considered **less than significant.**

Implementation of the proposed project would result in the potential risks associated with exposure to hazardous substances such as pesticides, asbestos containing materials, and lead associated with previous land uses. However, hazardous materials impacts would be site-specific and are generally not affected by cumulative development in the region. No significant hazardous waste generators were identified within a half-mile of the project site that pose a significant environmental threat to the project site. In addition, implementation of the proposed project would not contribute to an increase in the potential for soil or groundwater contamination. Therefore, the proposed project itself is not anticipated to contribute to a health or hazard-related impact that would cumulatively affect the

environment and the cumulative impact is considered **less than significant**. No mitigation measures are necessary.

Surface Water Hydrology and Water Quality

Cumulative Surface Runoff and Contamination

Impact 3.8-6 New development, combined with other reasonably foreseeable projects in the City of Morgan Hill, would contribute to increased surface runoff and greater runoff contamination in an area that historically was used for agriculture. This cumulative impact is considered **less than significant.**

Ultimate development of the project site would contribute to cumulative drainage flows and surface water quality impacts when combined with other growth and development. However, the City of Morgan Hill requires that all new projects follow the City's detention design criteria, which requires all new developments to design and construct facilities such as stormwater detention basins adequate to limit flow to pre-development levels, and best management practices for control of surface water contaminants (see MM 3.8-5) The application of these standards and practices at each development site would result in minimization of the combined impact. Therefore, the cumulative storm water runoff and contamination impact is considered **less than significant**.

Land Use

Conflicts with the Applicable Land Use Plan, Policy, or Regulations

Impact 3.9-3 The proposed project, combined with other foreseeable projects in the City of Morgan Hill, may result in cumulative land use impacts to the project area. This is considered a **less than significant** impact.

The proposed project meets the *City of Morgan Hill General Plan* goals and policies, which seek to encourage retail sales at major intersections, a sub-regional retail use at the northeast freeway interchange, and a variety of commercial uses to meet the needs of city residents. The proposed project would be subject to design review, which will ensure that the proposed project meets the goals and policies in the *City of Morgan Hill General Plan* for high quality commercial development at the northern gateway to the City of Morgan Hill. The proposed project would be consistent with the *City of Morgan Hill General Plan* and zoning provisions applicable to the project site and therefore would result in a less than significant land use impact. In addition, cumulative development would be subject to the City's development review process through which any potentially significant land use impacts would be reduced to a **less than significant level**.

Potential for Urban Decay Due to Secondary Cumulative Economic Impacts

Impact 3.9-5 The proposed project, combined with other foreseeable projects in the City of Morgan Hill, may result in urban decay due to secondary cumulative land use impacts. This is considered a **less than significant** impact.

The retail market impact analysis (Appendix I) conducted by BAE assessed the impacts of the proposed project in the context of other likely retail developments in the market area or affecting the market area. In Morgan Hill, there are several sites zoned for future retail development, but most are neighborhood centers. The only one besides the proposed project in the development process in the vicinity of the project site is located to the west of U.S. Highway 101 on Cochrane Road at Madrone Parkway, across from Cochrane Plaza. This development involves the rezoning of an eight-acre parcel for a neighborhood commercial center totaling 72,000 square feet. This project is currently not in architectural and site review, but the rezone has been approved has been approved by the City. Current plans call for a number of smaller pads and one 50,000 square-foot store. No tenants are committed to this project at this time. As a neighborhood center, the uses are not likely to compete directly with the planned region-serving uses at the proposed project. A project of uncertainty in Morgan Hill is the expansion of the Cinelux movie theatre which would add three more screens to their existing eight at Tennant Station. This would lead to even more oversaturation of movie screens in Morgan Hill and the Cinema Trade Area, but how this would impact the viability of the existing multiplex and Tennant Station are unclear. It could make it more competitive and lead to lower movie attendance at the proposed project, but also might further erode the profitability of Cinelux's multiplex as it operates more screens but fails to gain enough additional patrons due to the competition from the proposed project. The proposed expansion may add to Cinelux's market share thus discouraging competitors entering the market.

The one under-construction, planned, or proposed development of significance with respect to potential cumulative impacts is the Wal-Mart Supercenter in Gilroy, slated for opening later this year. The addition of a full grocery department to the store will capture supermarket sales going to competitors in Gilroy, Morgan Hill, and elsewhere, with stores in Gilroy bearing the brunt of the impact due to their proximity. The additional sales likely to be captured from Morgan Hill stores in combination with a grocery store at the proposed project would not be likely to lead to closures, as each of the major supermarkets is performing at levels capable of sustaining this level of additional sales loss, assuming the losses are shared somewhat equally. The vacancy created by Wal-Mart's closure of their existing store is another significant retail real estate event related to the opening of the Supercenter. As an older existing space designed for a certain user, it is unlikely to attract the kinds of prime tenants seeking new space in a center such as the proposed project.

However, mitigation measures required as part of the approvals for the Supercenter require the demolition of this space if it is not re-leased within a certain period of time.

BAE research found one other proposed project in Gilroy with a potential region-serving focus, Gilroy Commons, a 117,000 square foot center on slightly over 10 acres adjacent to Gilroy Crossing. According to Gilroy planning staff, one major store in this space will be occupied by an electronics store such as Circuit City, and another potential tenant was a store such as Marshall's or TJ Maxx. The analysis in this report uses the Target Trade Area for these store types, and thus already excludes Gilroy, and assumes that the proposed project will not capture from the Gilroy area. If the proposed project has competitors to the stores in this center, it is assumed already only to capture leakage out of Morgan Hill, and the presence of this new center will not present any new cumulative impacts in combination with the proposed project. This finding is reinforced by the fact that the center is configured as an in-line center rather than with the more pedestrian-oriented lifestyle center design of the proposed project.

In San José, the development currently in process that may result in cumulative impacts is the development at the IBM site of a Lowe's home improvement center in a 222,000 square foot center with other tenants not currently known. This development would make it much less likely that San Jose shoppers would frequent a similar store in Morgan Hill, since most of them would drive by this center to get to Morgan Hill. This development is currently working its way through the EIR process, albeit with some difficulty and controversy due to the potential loss of historic structures at the site. Moreover, the San Jose Lowe's project lies outside the Target Trade Area (used also for the potential home improvement center), and as such would result in little if any additional loss of business (at the Morgan Hill Home Depot), and therefore would result in a **less than significant** cumulative project impact.

Noise

Cumulative Traffic Noise

Impact 3.10-5 The proposed project would contribute to cumulative traffic on the roadway network over existing conditions, which would contribute to cumulative traffic noise at sensitive receptors along Cochrane Road. This is considered a **significant impact.**

Project generated traffic and traffic associated with cumulative development would increase the L_{dn} at the homes located southeast and east of the Cochrane Road/Mission View Drive intersection to 57 dBA along the Cochrane Road frontage and to 59 dBA at the homes located along Mission View Drive, which is considered `normally acceptable´ under the City of Morgan noise standards for residential uses. Therefore, the subsequent noise level increases at these homes under cumulative conditions would be considered less

than significant. The combination of project-generated traffic and traffic associated with cumulative development in the area will increase traffic noise levels between 4 to 9 dBA from U.S. Highway 101 and Mission View Drive, with an increase of 6 dBA at the two homes located south of Cochrane Road. This would increase the L_{dn} at these homes to 70 dBA under cumulative conditions with project-generated traffic.

The only effective mitigation measure that would reduce the exterior noise levels at the two single family homes locates south of Cochrane Road, under cumulative conditions, would be construction of an effective noise attenuation barrier along Cochrane Road. Construction of a noise attenuation barrier at this location is considered infeasible as discussed in Impact 3.10-2. In addition, according to the *City of Morgan Hill General Plan*, the property in which these two residences are currently located is designated for commercial uses in the *City of Morgan Hill General Plan*. Therefore, it is likely that these properties may be developed for commercial uses in the future. Therefore, this impact would be considered a **short-term significant and unavoidable cumulative impact** in the interim until these properties are developed. Development of these properties would likely occur after build out of the proposed project.

Public Services

Cumulative Impacts to Public Services

Impact 3.11-5 The proposed project, in addition to anticipated cumulative development in the project vicinity, may result in the need for increased public facilities for the provision of police and fire protection services, and to a lesser degree parks and educational facilities. These impacts are expected to be **less than significant.**

The cost of these new facilities would be covered in whole or in part by development impact fees assessed on all new construction, as specified and restricted in Chapters 3.44 and 3.56 of Morgan Hill Municipal Code. As a result, the public impacts associated with providing facilities for cumulative development would be considered **less than significant.** No mitigation is required.

Transportation and Circulation

Cumulative Intersection Level of Service Impacts

Impact 3.12-11 The addition of project-generated traffic would result in cumulative level of service impacts at the Cochrane Road/Mission View Drive intersection. This is considered a **significant impact.**

Cumulative baseline conditions are defined as Background Conditions (existing plus approved trips) plus traffic generated by projects for which development applications are pending but have not yet been approved. (The pending projects were identified by the City of Morgan Hill and are listed in the traffic report in Appendix K and included in Section 5.0, Cumulative Impacts). The resulting traffic scenario is referred to as the Cumulative No Project Condition.

Additional roadway improvements assumed under this scenario, at the direction of City staff, included: 1) At the Cochrane Road at Butterfield Boulevard intersection, a second westbound left-turn lane will be constructed by the City; 2) At the Cochrane Road/Sutter Boulevard intersection, the City will convert the right-turn lane on the eastbound approach to a shared through/right-turn lane, and convert the northbound Sutter Boulevard through lane on the approach to Cochrane Road to a shared through/right-turn lane.

Intersection level of service calculations compared the Cumulative No Project Condition to the Cumulative Plus Project Condition in order to determine the project's cumulative impacts. The analysis found that the proposed project would result in a significant impact at the Cochrane Road/Mission View Drive intersection, where levels of service would degrade from acceptable LOS B or C (depending on the peak hour) to unacceptable LOS F during all peak hours. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

It should be noted that the Dunne Avenue/Monterey Road intersection is expected to operate at an unacceptable LOS D under both Cumulative No Project and Cumulative Plus Project Conditions. However, since the increase in critical delay resulting from project traffic is less than four seconds, there is no impact under the City's criteria, as set forth above. The remaining intersections are projected to operate at acceptable levels of service (LOS D+ or better) during all peak hours. (See traffic report in Appendix J for LOS table and further discussion.)

MM 3.12-11 At the Cochrane Road/Mission View Drive intersection, a traffic signal shall be installed with protected left-turn phasing on all approaches. In addition, this intersection shall be reconfigured to include the following geometry:

- The northbound approach should include one left-turn laneand one shared through/right-turn lane.
- The westbound approach should include one left-turn lane, one through lane, and one shared through/right-turn lane.
- The southbound approach should include one left-turn lane, one shared through/right-turn lane, and one right-turn lane.

- The eastbound approach should include one left-turn lane, one through lane, and one right-turn lane.

Implementation of this mitigation measure would improve the level of service at the Cochrane Road/Mission View Drive intersection to acceptable levels (LOS D+ or better) under Cumulative conditions. Therefore, the proposed project would result in a **less than significant cumulative impact.**

Cumulative Freeway Level of Service Impacts

Impact 3.12-12 The addition of project-generated traffic would have a significant impact on the level of service at the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue.

As discussed above under Impact 3.12-11, Cumulative Plus Project Conditions are defined as Background Conditions (existing plus approved trips) plus traffic generated by projects for which development applications are pending but have not yet been approved, plus traffic generated by the proposed project. Since no capacity improvements are planned or programmed for the segments of US 101 in the project vicinity, the freeway segment between Tennant Avenue and Dunne Avenue would continue to operate at LOS F in the AM peak hour under Cumulative Plus Project Conditions. The capacity for the segment of US 101 between Tennant Avenue and Dunne Avenue is 6,900 vehicles. The project is anticipated to generate 87 trips along this segment during the AM peak hour, which represents an increase in volume of 1.26 percent. Since the traffic volume generated under this scenario would add volume greater than one percent to this freeway segment, this would represent a **significant cumulative impact.**

Mitigation Measure

MM 3.12-2 The project shall implement the applicable actions listed in the *Immediate Implementation Action List* contained in the *Deficiency Plan Guidelines* of the County's Congestion Management Program, which are intended to encourage the use of non-automobile transportation modes and to help maximize the efficiency of the existing transportation system.

The *Immediate Implementation Action List* comprises a general listing of the types of the measures which can be implemented by project sponsors and/or lead agencies. The listed actions which can be implemented at the project-specific level include: improvements to bicycle and pedestrian facilities; improvements to public transit facilities; and information programs to encourage TDM (Transportation Demand Management) measures such as carpooling. (The full list is contained in Appendix H of the traffic report which is contained

in Appendix J of this EIR.) The proposed project would implement several of these action items, either as part of the proposed project or as mitigation measures (for transportation and/or air quality impacts) identified elsewhere in this EIR. These actions include:

- Pedestrian circulation system improvements including sidewalks along project frontages, crosswalks at adjacent intersections and project driveways, internal project sidewalks and marked pedestrian paths providing internal pedestrian circulation;

- Bicycle system improvements including dedication of right-of-way for Class II bike lane along project street frontages, and installation of on-site bicycle storage facilities;

- Transit improvements such as provision of transit stop on project Cochrane Road frontage, and posting of transit schedule and fare information on project employers' bulletin boards;

However, the implementation of these measures would not reduce the cumulative plus project traffic contribution to this freeway segment to less than one percent of current volumes. Therefore, the impact would not be reduced to less-than-significant levels and the cumulative plus project traffic would result in a **significant and unavoidable cumulative impact** to this freeway segment.

Intersection Level of Service Impacts – General Plan Buildout Conditions

Impact 3.12-13 With the addition of project-generated traffic, significant impacts would occur at two intersections under General Plan Buildout Conditions, as follows:

a) The Cochrane Road/Butterfield Boulevard signalized intersection is projected to operate at unacceptable LOS E- during the AM peak hour, and at unacceptable LOS F during the PM peak hour under General Plan Buildout Conditions. This is considered a significant impact.

b) The Cochrane Road/Cochrane Plaza signalized intersection is expected to operate at unacceptable LOS D during the PM peak hour under General Plan Buildout Conditions. This is considered a significant impact.

This scenario analyzes traffic operations under 2025 General Plan Conditions. This scenario includes the proposed General Plan Amendment to eliminate the Cochrane Road-to-Burnett Avenue connection via the northern extension of De Paul Drive, and replace it

with a parallel connection via Mission View Drive located approximately 800 feet to the northeast of the project site. Thus, for purposes of the traffic analysis, General Plan Buildout Conditions are defined as traffic volumes estimated for buildout of the *City of Morgan Hill General Plan* (Year 2025) plus traffic associated with the proposed project (i.e., based on refinement of model assumptions for site development), and assuming the above change to the General Plan Circulation Element. (The analysis assumes a number of other major roadway improvements to be in place under this scenario, as described in the traffic report in Appendix K).

The operations of the eight key intersections on Cochrane Road were evaluated for level of service impacts. Operations at the remaining seven study intersections are not expected to change as a result of the proposed General Plan Amendment and thus were not evaluated in detail by Fehr and Peers Associates. The results indicate that the Cochrane Road/Butterfield Boulevard (during both peak hours) and the Cochrane Road/Cochrane Plaza (during PM peak hour) are expected to operate at unacceptable levels under General Plan Buildout Conditions.

The remaining intersections are projected to operate acceptably during the AM and PM peak hours. Although the project's peak trip generation occurs on Saturday, the combination of project traffic and other cumulative traffic is lower on weekends than during the weekday commute hours. Accordingly, weekend peak hour operations were not analyzed.

Intersections operating at unacceptable levels under General Plan Buildout Conditions will require modifications in order to operate at acceptable levels of service. Implementation of the following mitigation measure would reduce this significant impact to a **less than significant level**.

Mitigation Measure

MM 3.12-13 The following intersection modifications are identified to provide acceptable operations under General Plan Buildout Conditions:

a) Cochrane Road/Butterfield Boulevard. For the intersection to operate at LOS D+ or better during the AM and PM peak hours, the General Plan configuration for the intersection would require the following modifications:

- Northbound approach: increase number of left-turn lanes from one to two; increase the number of through lanes from one to two; reduce the number of right-turn lanes from two to one.
- Eastbound approach: add a free right-turn lane.

b) Cochrane Road/Cochrane Plaza. For the intersection to operate at LOS D+ or better during the PM peak hour, the General Plan configuration for the intersection would require the following modifications:

- Southbound approach: increase number of left-turn lanes from one to two; change the shared left/through lane to a through lanes; keep the number of right-turn lanes at one.

To implement the above mitigation measures, the applicant will be required to pay impact fees which reflect the project's fair share of improvement costs.

Utilities

Cumulative Impacts to Utilities

Impact 3.13-5 The proposed project, in addition to reasonably foreseeable projects in the vicinity, would likely result in the need for new or upgraded infrastructure for the delivery of water, sewer, telecommunications, electricity, and natural gas to the project area. This is considered a **less than significant impact.**

Ultimate development of the project site would contribute to cumulative impacts to the city's utility infrastructure when combined with other growth and development. However, the City of Morgan Hill Public Works Department as a practice requires this and other projects to provide infrastructure improvements consistent with the City Water and Sewer System Master Plans whose goal is the provision of adequate levels of potable water and sewage disposal within the Urban Service Area. Such plans exist to prevent significant impacts to water and sewer services that may result from uncoordinated development and increased demands for service. Additionally, the proposed project will be required to pay water and sewer impact fees to cover its share of the cumulative impact upon municipal systems. Cumulative impacts to telecommunications, natural gas and electricity can be expected to be less than significant as this applicant and other significant projects are required to provide "will-serve" letters prior to final map recordation and/or issuance of building permits. Therefore, cumulative impacts to utilities would be considered **less than significant**.

In summary, development of the identified approved, pending, and probable future projects, in addition to development of the proposed project would result in cumulatively significant impacts to air quality, noise, and transportation and circulation. Since these impacts cannot be feasibly mitigated to a less than significant level, these effects would represent significant and unavoidable cumulative impacts.

This section discusses the long-term implications of the project as required by CEQA. The topics discussed include significant irreversible environmental changes/irretrievable commitment of resources, growth-inducing impacts, and significant and unavoidable environmental effects.

6.1 IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA REQUIREMENT

Public Resources Code Section 21100(b)(2)(B) requires an Environmental Impact Report to include a detailed statement setting forth any significant effects on the environment that would be irreversible if a project is implemented. Examples of irreversible environmental changes, as set forth in CEQA Guidelines Section 15126.2(c), include the following:

- The project would involve a large commitment of nonrenewable resources such that removal or nonuse thereafter is unlikely;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g. a highway providing access to a previously inaccessible area);
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing of the proposed consumption of resources is not justified (e.g. the project involves the wasteful use of energy).

A proposed project would result in significant irreversible effects if it is determined that key resources would be degraded or destroyed to the extent that there is little possibility of restoring them. Irreversible environmental changes should be evaluated to assure that such current consumption is justified (CEQA Guidelines Section 15126.2(c)).

ANALYSIS

The proposed project would result in an increased intensity of development, with the conversion of currently rural residential and agricultural uses to commercial uses. A variety of nonrenewable and limited resources would be irretrievably committed for project construction and maintenance, including, but not limited to, oil, natural gas, gasoline, lumber, sand and gravel, asphalt, steel, water, land, energy, construction materials and human resources. In addition, the proposed project would result in an increase in demand on public services and utilities.

An increase in the intensity of land uses at the project site would result in an increase in regional electric energy consumption to satisfy additional electricity demands from the proposed project. These energy resource demands relate to initial project construction, transport of people and goods, and lighting, heating and cooling of buildings.

Development of the project site to support urban uses may be regarded as a permanent and irreversible change. The project site was historically used for agriculture and residential uses. Site development would demolish the existing residential homes and eliminate the possibility for agricultural production on the project site. Grading, utility extensions, drainage improvements, new and improved roadways, and construction of buildings would permanently alter the character of the site to one that is more urbanized. The proposed project would generally commit future generations to similar urban uses on the site.

6.2 GROWTH INDUCING IMPACTS

CEQA REQUIREMENT

Public Resources Code Section 21100(a)(5) requires that the growth-inducing impacts of a project be addressed in the EIR. A project may be growth-inducing if it directly or indirectly fosters economic or population growth or additional housing, removes obstacles to growth, taxes community services facilities, or encourages or facilitates other activities that cause significant environmental effects (CEQA Guidelines Section 15126.2(d)). Direct growth-inducing impacts result when the development associated with a project directly induces population growth or the construction of additional developments within the same geographic area. These impacts may impose burdens on a community or encourage new local development, thereby triggering subsequent growth-related impacts.

The analysis of potential growth-inducing impacts includes a determination of whether a project would remove physical obstacles to population growth. This often occurs with the extension of infrastructure facilities that can provide services to new development. Indirect growth-inducing impacts result from projects that serve as catalysts for future unrelated development in an area. Development of public institutions, such as colleges, and the introduction of employment opportunities within an area are examples of projects that may result in indirect growth-inducing impacts.

CEQA provides no criteria for determining if induced growth is detrimental or beneficial. Induced growth is considered a significant impact only if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth could significantly affect the environment in some other way.

Precedent for Further Expansion of the Urban Area and Removal of Obstacles to Growth

Approval of the proposed project would not represent a new commitment of rural lands for urban development. The project site is located within the city limits of Morgan Hill at the border of the urban growth boundary (UGB), which borders the project site to the north. The UGB is an officially adopted and mapped line dividing land to be developed from land to be protected for natural or rural uses, including agriculture. The project site has a General Plan designation of 'Commercial' in the *City of Morgan Hill General Plan* and a zoning designation of 'PUD (HC)' in the *City of Morgan Hill Planning and Zoning Codes*. The *City of Morgan Hill General Plan* designates the project site as the location of a sub-regional commercial site. The project site has been designated for urban uses in the City of Morgan Hill General Plan since 1969 (Personal communication with Rebecca Tolentino, Associate Planner, City of Morgan Hill, April 7, 2005). The City of Morgan Hill and the County of Santa Clara have strong policies supporting the protection of agricultural lands.

The proposed project includes a General Plan Amendment (GPA) for the relocation of a future collector street extending from Mission View Drive north of Cochrane Road instead of extending from De Paul Drive (formerly St. Louise Drive) as designated on the *City of Morgan Hill General Plan* map. The *City of Morgan Hill General Plan* anticipated the extension of St. Louise Drive to areas north of the project site; therefore, this policy change of extending Mission View Drive instead of De Paul Drive would not remove obstacles to growth and/or establish a policy precedent for ad hoc urban expansion beyond the UGB, as this has been previously evaluated in the *City of Morgan Hill General Plan*. Moreover, development of properties to the north and east of the project site, located in the City's sphere of influence and designated 'Rural County' and 'Single Family Residential' in the *City of Morgan Hill General Plan* respectively, would have to be annexed to the City and would be subject to the City's Residential Development Control System. Therefore, development of the proposed project would not remove obstacles to the development of adjacent lands and/or hasten their development.

Stimulus for Economic Growth

The proposed commercial shopping center would stimulate growth by providing employment opportunities, as well as indirect growth through demand for goods and services. This could contribute to incremental secondary effects such as increased hiring by suppliers. The retail establishments would also generate significant sales tax revenue for the City, which could enable expenditures on capital improvement projects and/or City programs that would also stimulate secondary economic activity. During the construction phase, temporary jobs would be created and others supported in the purchase of materials.

Population and Housing Growth

Some of the jobs openings provided by the proposed project could be filled by local residents in Morgan Hill. To the extent that new employees of the proposed project would not already live within an acceptable commute range of the proposed project, they could be induced to move to the area, thus creating a slight increase in local housing demand. However, this minor increase in housing demand would not be significant and could be readily absorbed by the local housing inventory. More importantly, the growth management policies of the City of Morgan Hill limit the number of annual building permits for dwelling units through the Residential Development Control System. The increase in population is expected to be minimal and should not induce substantial population and housing growth.

In summary, the proposed project would not result in a significant growth inducement by way of setting a precedent for further urban expansion, by creating excess infrastructure capacities, or by removing obstacles to further growth.

6.3 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL EFFECTS

Public Resources Code Section 21100(b)(2)(A) requires an EIR to include a detailed statement setting forth any significant effects on the environment that cannot be avoided if a project is implemented. CEQA Guidelines Section 15126.2(b) states that such impacts include those which can be mitigated but not reduced to a level of insignificance. In addition, Section 15093(a) of the CEQA Guidelines allows the decision-making agency to determine if the benefits of a proposed project outweigh the unavoidable adverse environmental impacts of implementing the project. The City of Morgan Hill can approve a project with unavoidable adverse impacts if it prepares a "Statement of Overriding Considerations" setting forth the specific reasons for making such a judgment. The Statement of Overriding Considerations is a statement of the City of Morgan Hill's views on the ultimate balancing of the merits of approving a project despite its environmental damage. The Statement of Overriding Considerations must be in writing and state specific reasons supporting the City's action based on the Final EIR or other substantial evidence in the record. Substantial evidence includes facts, reasonable assumptions predicated upon facts and expert opinions supported by facts. Substantial evidence is not argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment.

Based upon the environmental analysis provided in **Section 3.0**, most of the potential impacts associated with the proposed project can be avoided or reduced to a less than significant level through the application of mitigation measures that would be implemented in conjunction with the proposed project. However, there are several significant impacts

that cannot be feasibly mitigated to a less than significant level. These significant and unavoidable impacts of the proposed project are listed below:

- **Significant Impacts to Agricultural Resources**
- **Significant Impacts to Regional Air Quality**
- **Short-Term Significant Impacts to Operational Noise**
- **Significant Impacts to Traffic and Circulation**
- **Significant Impacts to Land Use**
- **Significant Cumulative Impacts to Regional Air Quality**
- **Short-Term Significant Cumulative Impacts to Operational Noise**
- **Significant Cumulative Impacts to Traffic and Circulation**

6.4 EFFECTS FOUND NOT TO BE SIGNIFICANT

A significant effect on the environment is generally defined as a substantial or potentially substantial adverse change in the physical environment (CEQA Guidelines Section 15358). The term "environment", as used in this definition, means the physical conditions that exist within the area that will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. The area involved shall be the area in which significant effects would occur either directly or indirectly as a result of the project. The "environment" includes both natural and man-made conditions (CEQA Guidelines Section 15360).

Detailed analyses and discussion of environmental topics found to have a less than significant impact are provided within **Section 3.0** of this EIR. Listed below are those environmental issues found to have absolutely no impact as a result of the project. This determination is based on the standards of significance contained within the CEQA Guidelines and the Notice of Preparation process for the proposed project. The completed NOP and responses from the public and affected agencies and organizations are included in **Appendix A**.

MINERAL RESOURCES

According to the *City of Morgan Hill General Plan* and the *City of Morgan Hill General Plan EIR*, there are no mineral resource areas located at or in the vicinity of the project site. Therefore, implementation of the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state or that is delineated on a local general plan, specific plan, or other land use plan. Therefore, impacts to mineral resources are considered **less than significant.**

RECREATION

The project site is currently used for residential and agricultural uses and its conversion to a commercial center would not conflict with any established recreational land uses or inhibit the ability to provide recreational opportunities in the future. The proposed project is consistent with the *City of Morgan Hill General Plan* and does not conflict with the *City of Morgan Hill Park and Recreation Master Plan*.

New jobs created as a result of the project may result in the migration of individuals and households to the City of Morgan Hill as residents or commuting workers. Such migration will be severely restricted by the growth management policies of the City of Morgan Hill that limits the number of annual building permits for dwelling units through the Residential Development Control System. The increase in population is expected to be minimal and should not result in additional demand for parks and recreation facilities. Therefore, impacts to recreation are considered **less than significant**.

POPULATION AND HOUSING

The proposed project would demolish three residential homes with implementation of the proposed project. The residents can be readily absorbed into the existing housing stock. Therefore, the proposed project would not displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere.

The proposed project is estimated to employ upwards of 945 people. Some of the jobs openings provided by the proposed project could be filled by local residents in Morgan Hill. However, new jobs may result in the migration of future employees to the City of Morgan Hill. Such migration will be severely restricted by the growth management policies of the City of Morgan Hill. The increase in population is expected to be minimal and should not induce substantial population growth. Therefore, the proposed project would have a **less than significant impact** on population and housing.

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Technical Appendices

Appendix A – Notice of Preparation and Responses

CITY OF MORGAN HILL

COMMUNITY DEVELOPMENT DEPARTMENT

17555 Peak Avenue Morgan Hill CA 95037 (408) 779-7248 Fax (408) 779-7236
Website Address: www.morgan-hill.ca.gov

NOTICE OF PREPARATION

DATE: November 12, 2004

TO: Responsible Agencies, Organizations, and Interested Parties

LEAD AGENCY: City of Morgan Hill
Community Development Department
Contact: Rebecca Tolentino
17555 Peak Avenue
Morgan Hill, CA 95037-4128

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report for the Cochrane Road Planned Unit Development (PUD) Project

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The City of Morgan Hill (Lead Agency) will prepare an Environmental Impact Report (EIR) for the Cochrane Road Planned Unit Development (PUD). In accordance with Section 15082 of the CEQA Guidelines, the City of Morgan Hill has prepared this Notice of Preparation (NOP) to provide Responsible Agencies and other interested parties with sufficient information describing the proposal and its potential environmental effects.

The determination to prepare an EIR was made by the City of Morgan Hill. As specified by the CEQA Guidelines, the Notice of Preparation will be circulated for a 30-day review period. The City of Morgan Hill welcomes agency and public input during this review as to the scope and content of the environmental information, which is germane to your agency's statutory responsibilities in connection with the proposed project. In the event that no response or request for additional time is received by the end of the review period, the Lead Agency may presume that the Responsible Agency has no response. Comments may be submitted in writing during the review period and addressed to:

Rebecca Tolentino
Associate Planner
City of Morgan Hill
Community Development Department
17555 Peak Avenue
Morgan Hill, CA 95037-4128

The comment period closes on **Thursday, December 16, 2004**

A. PROJECT LOCATION

The City of Morgan Hill is located in the southern portion of Santa Clara County, south of the City of San Jose. The project site is located east of U.S. Highway 101 at the northeast corner of Cochrane Road intersection with U.S. Highway 101. The project site is approximately 66.49 acres. The regional location is illustrated in Figure 1 and the project vicinity is shown on an Assessors Parcel Map presented in Figure 2. The figures are attached to this NOP.

The project site is generally level and consists of vacant fallow agricultural land, cultivated land (row crops and vineyards), three residences, and an equestrian boarding facility. The project site is located within the city limits at the edge of the urban growth boundary, which borders the project site to the north. Surrounding land uses include vacant land planned for commercial uses and the former Saint Louise Hospital located south of the project site; unincorporated County land located within the City's sphere of influence designated 'Single-Family Medium' in the *City of Morgan Hill General Plan* located east of the project site; unincorporated County land located within the City's sphere of influence designated 'Rural County' in the *City of Morgan Hill General Plan* located north of the project site; and U.S. Highway 101 located west of the project site.

B. PROJECT DESCRIPTION

The Cochrane Road Planned Unit Development (PUD) project (hereinafter "proposed project") consists of a zoning amendment and a general plan amendment application to establish a precise development plan for an approximate 612,000 square foot shopping center on a 66.49-acre site located at the northeast corner of Cochrane Road and U.S. Highway 101. The proposed shopping center may include two "big-box" retail uses, specialty retail shops, restaurants (sit-down and fast food), a grocery store, and a cinema totaling approximately 612,000 square feet. The proposed zoning amendment application would establish a precise development plan and development guidelines for the proposed project. The proposed project also includes a general plan amendment (GPA) for the relocation of a future collector street extending from Mission View Drive north of Cochrane Road instead of extending from St. Louise Drive as designated on the *City of Morgan Hill General Plan* map.

C. POTENTIAL ENVIRONMENTAL EFFECTS

The primary environmental constraints associated with the proposed project is the conversion of agricultural land; aesthetics/visual resources based on its location adjacent to U.S. Highway 101; long-term air quality emissions and increases in noise levels from increased vehicle trips to the project site; traffic and circulation; biological resources; archaeological and historic resources; and increased demands upon public services and utilities. The potential environmental effects that will be addressed in the EIR are described below:

Aesthetics

The EIR will describe the existing setting at the project site and project vicinity in terms of visual and aesthetic characteristics. The potential impacts resulting from the proposed project will be analyzed with emphasis on changes in views from surrounding land uses and the gateway to the City from the Cochrane Road interchange with U.S. Highway 101. New lighting sources will be documented based on the project plans, as well as existing light and glare sources from surrounding land uses.

Agricultural Resources

The project site is comprised of fallow agricultural land, cultivated agricultural land, and an equestrian boarding facility. The project site is designated as 'Prime Farmland' on the *Santa Clara County Important Farmland Map* (California Department of Conservation 2002) and is located on the border of the City limits at the edge of the Urban Growth Boundary (UGB). The project site is currently under a Williamson Act contract.

The agricultural resources analysis of the EIR will evaluate the quality of agricultural resources at the project site and the potential conversion of surrounding agricultural resources with implementation of the proposed project. In order to determine the significance of conversion of agricultural land to urban uses, the relative quality of land resources at the project site will be based on preparing a "Land Evaluation and Site Assessment (LESA)" model for the project site. The agricultural resources impact evaluation will identify: the potential safety hazards associated with new development constructed adjacent to farmland (spraying, odor, decreased crop yields for surrounding land uses, as well as a discussion of the value of the agricultural resources at the project site based on the rating in the LESA model prepared for the project site.

Air Quality

Primary air quality issues associated with the proposed project would be impacts to air quality from long-term indirect mobile sources (i.e. traffic generation) and the emission of dust during grading activities and diesel exhaust from equipment during construction activities at the project site. The air quality analysis will be prepared in accordance with the *Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines* and will focus on long-term operational impacts and short-term construction impacts associated with the proposed project. The EIR section will identify reasonable and feasible mitigation measures to reduce any significant air quality impacts and potential changes to the project, if warranted, to reduce significant air quality impacts to less than significant levels and/or to bring the project into compliance with the Air Quality Management Plan.

Biological Resources

Based on the character of the existing environment at the project site, a biological assessment and burrowing owl protocol level surveys of the project site will be conducted to document biological resources and sensitive species within and immediately adjacent to the project site. A survey of the existing trees at the project site will also be conducted by a certified arborist. The biological assessment would include a summary of pre-survey information, methods used during the investigation, summary of existing conditions (e.g., habitat, dominant vegetation, observed species) within and immediately adjacent to the project site; and an evaluation of the potential impacts of the project on biological resources with emphasis on special-status species and critical habitat. The biological assessment will also include a summary of the habitat assessment and burrowing owl surveys.

Cultural Resources

The project site is currently disturbed from historical agricultural uses at the project site and several homes and outbuildings that may be more than 45 years old are located at the project site. The cultural resources section of the EIR will include a records search at the Northwest Information Center at Sonoma State University, Rohnert Park; a sacred lands search conducted by the Native American Heritage Commission; consultation, as appropriate, with Native Americans and other interested parties (e.g., local historical societies); research to provide a pre-historic and historic context for the project area; research at the Santa Clara County Assessor's Office for any buildings within the area of potential effects (APE) for the proposed project; survey of the project site; and recording and/or updating of buildings or archaeological sites within the area of potential effects. If buildings at the project site are confirmed to be more than 45-years old, an evaluation by a qualified architectural historian will be conducted pursuant to the *City of Morgan Hill General Plan EIR* Mitigation Measure Cult-1a.

Geology and Soils

Several faults are located in the vicinity of the project site, including the Silver Creek Fault and the Range Front Thrust Fault located approximately 7,000 to 7,500 feet east of the project site. Although the project site has level topography with slopes ranging from 2 to 10 percent, development of the project site would involve grading activities, which may result in increased rates of soil erosion and subsequent sedimentation to nearby Coyote Creek located approximately 2,500 feet east of the project site. Geologic and soils conditions at the project site would be described and any information regarding geologic or seismic hazards will be identified. Mitigation measures would be proposed for any significant impacts associated with geology and soils and seismic hazards. Such measures typically address design-level construction criteria depending upon the conditions present.

Hazards and Hazardous Materials

This section discusses the potential for the project to create a significant hazard through the use, transport or storage of hazardous materials, as well as possible impacts from airport hazards, and to emergency response plans. Based on information contained in the Phase I and Phase II environmental site assessments, the EIR will evaluate the potential for on-site sources of contamination such as agricultural chemicals, fuel tanks, equipment and vehicle maintenance areas, asbestos-containing building materials, and lead-based paint, among other things. Mitigation measures to avoid hazardous materials impacts to the project will be identified.

Hydrology and Water Quality

The potential hydrology and drainage impacts associated with the proposed project will be addressed in the EIR. The discussion of surface water hydrology will describe existing on-site drainage conditions and evaluate the potential impacts of increased impervious surfaces and resulting increased peak runoff from the project on downstream storm drainage facilities and Coyote Creek, which is located approximately 2,500 feet east of the project site. Any on-site storm drainage system planned for the proposed project would be reviewed, described and evaluated in terms of its ability to mitigate potential on-site and off-site drainage and flooding impacts.

The discussion of water quality will address potential impacts resulting from the project both during construction and during project operation. Specific mitigation measures to control erosion during construction will be identified, as will measures planned to be incorporated into project design to control urban non-point source pollution. Due to the size of the project site, grading activities would exceed one acre. Therefore, this section of the EIR will note that the project applicant would be required to comply with the General Permit on storm water management, as required under the NPDES implementation program administered by the Regional Water Quality Control Board.

Land Use and Planning

The project site has a General Plan designation of 'Commercial' in the *City of Morgan Hill General Plan* and a zoning designation of 'PUD (HC)' in the *City of Morgan Hill Zoning Ordinance*. The project site is designated as the location of a sub-regional commercial site. This section of the EIR will evaluate the compatibility of the proposed project with the existing and planned uses in the vicinity of the project site. Included within this section will be an evaluation of the consistency of the proposed project with the *City of Morgan Hill General Plan*, zoning ordinance, as well as any other applicable city plans, policies, and regulations.

Noise

The EIR will identify noise from traffic generation along roadways where residential or other noise-sensitive receptors are located, stationary noise sources from project operations, and construction noise impacts. Future noise levels generated by the construction and operation of the proposed project will be projected to the nearest noise-sensitive receivers and placed into context with the future noise environment. The incremental increase in noise, which would result from project-generated traffic would be assessed. On-site sources (e.g. loading docks, mechanical equipment) as it would affect adjacent noise sensitive receptors would be addressed. Short-term construction noise impacts would be assessed by estimating construction-related noise and projecting the noise levels to the nearest noise-sensitive receptors. The EIR section will identify reasonable and feasible mitigation measures to reduce any significant noise impacts and potential changes to the project, if warranted, to reduce significant noise impacts to less than significant levels.

Transportation/Traffic

A traffic impact analysis will be prepared for the EIR. The impacts of the proposed project would be evaluated following the guidelines of the City of Morgan Hill and the Santa Clara Valley Transportation Authority (VTA), the congestion management agency of Santa Clara County, as well as meetings and discussions with the City of Morgan Hill. Site access; on-site circulation; and parking will also be evaluated in the EIR. The Transportation/Traffic section of the EIR will also address the relocation of a future collector street extending from Mission View Drive north of Cochrane Road instead of extending from St. Louise Drive as designated on the *City of Morgan Hill General Plan* map.

The focus of the traffic impact analysis will be the key intersections on the roadway system including the following: Cochrane Road/Monterey Road; Cochrane Road/Butterfield Boulevard; Cochrane Road/Sutter Boulevard; Cochrane Road/Madrone Parkway; Cochrane Road/Southbound Highway 101; Cochrane Road/Northbound Highway 101; Cochrane Road/DePaul Drive (St. Louise Drive); Cochrane Road/Mission View Drive; Main Avenue/Monterey Road; Main Avenue/Butterfield Boulevard; Main Avenue/Condit Road; Dunne Avenue/Monterey Road; Dunne Avenue/Butterfield Boulevard; Dunne

Avenue/Northbound Highway 101; Tennant Avenue/Northbound Highway 101. The key intersections will be evaluated during the morning (AM), evening (PM), and Saturday Mid-day peak hours of the adjacent street for the following six scenarios: existing conditions; background conditions; project conditions; cumulative no project conditions; cumulative plus project conditions; and general plan build out conditions. In addition, potential impacts of the project on segments of U.S. Highway 101 immediately north and south of Cochrane Road will be evaluated. Intersection level of service calculations will be conducted to estimate the operating levels of service of the key intersections during the AM and PM peak hours under these scenarios.

Project impacts to key intersections will be identified and mitigation measures will be recommended if a significant impact is identified. The amount of traffic added to the key freeway segments will be evaluated based on the preliminary trip generation estimates to determine if a detailed freeway level of service analysis must be completed. For those segments to which the project adds more than one percent of their capacity, level of service will be calculated based on density, per the VTA guidelines.

Public Services

The EIR discussion on public services will cover the issues of Fire and Police Protection, and Solid Waste. The County of Santa Clara Fire Department, which provides service to the City of Morgan Hill, and the City of Morgan Hill Police Department will be contacted regarding adequacy of response times to the project site, and to determine whether the project will result in the need for additional personnel or equipment to serve the proposed project. The solid waste generated by the proposed project will be estimated, and provisions for solid waste collection and disposal within the project area will be described, and the remaining capacity of the local landfills addressed.

Utilities and Service Systems

The proposed project would require domestic water supply, sanitary sewer service and wastewater treatment, as well as power, natural gas, and telephone service. The demand for these services will be evaluated relative to the existing capacities and availability based on discussions with the City of Morgan Hill Public Works Department and other service providers.

Effects Found to be Less Than Significant

Effects to population and housing, mineral resources, and recreation would likely be considered less than significant based on a review of the *City of Morgan Hill General Plan.* This section of the EIR will include a brief discussion of those impact topics that were found not to have significant impacts associated with them.

RECEIVED: 12/20/04 14:58; CITY OF MORGAN HILL COM. DEV.; 7/81; PAGE 1

ARNOLD SCHWARZENEGGER
GOVERNOR

DEPARTMENT OF CONSERVATION
STATE OF CALIFORNIA

DIVISION OF
LAND RESOURCE
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December 20, 2004

VIA FACSIMILE (408) 779-7236
Ms. Rebecca Tolentino, Associate Planner
City of Morgan Hill
Community Development Department
17555 Peak Avenue
Morgan Hill, CA 95037-4128

Subject: Cochrane Road Planned Unit Development (PUD) Project Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) – Santa Clara County

Dear Ms. Tolentino:

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the NOP for the referenced project. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations with respect to the project's impacts on agricultural land and resources.

Project Description

The project is a general plan and zoning amendment to construct a shopping center on a 66.49-acre site at the northeast corner of Cochrane Road and US Highway 101in the City of Morgan Hill (City), Santa Clara County (County). The project site, which is Prime Farmland enforceably restricted by Williamson Act contract, consists of fallow and cultivated land (row crops and vineyards), three residences and an equestrian boarding facility. Surrounding land is not described by land use but includes unincorporated land within the City's Sphere of Influence. The NOP states that the DEIR will utilize the LESA model to evaluate the significance of the project's conversion of agricultural land.

Agricultural Setting of the Project

The DEIR should describe the project setting in terms of the actual and potential agricultural productivity of the land. The Division's Important Farmland Map (IFM) for Santa Clara County should be utilized to identify

agricultural land within the project site and in the surrounding area that may be impacted. Acreages for each land use designation should be identified for both areas. Likewise, the County's Williamson Act Map should be utilized to identify potentially impacted contract, Farmland Security Zone (FSZ) and agricultural preserve land by acreage and whether it is prime or nonprime agricultural land according to definition in Government Code §51201(c). Maps of the Important Farmland and Williamson Act land should be included in the DEIR.

In addition, we recommend including the following items of information to characterize the agricultural land resource setting of the project.

- Current and past agricultural use of the project area. Include data on the types of crops grown, crop yields and farm gate sales values.
- To help describe the full agricultural resource value of the soils of the site, we recommend the use of economic multipliers to assess the total contribution of the site's potential or actual agricultural production to the local, regional and state economies. State and Federal agencies such as the UC Cooperative Extension Service and USDA are sources of economic multipliers.

Project Impacts on Agricultural Land

The Department recommends that the following be included in the DEIR in the analysis of project impacts in addition to the results of using the LESA model.

- Type, amount, and location of farmland lost to project implementation. The conversion of Prime Farmland, Unique Farmland or Farmland of Statewide Importance is considered a potentially significant adverse impact.
- A discussion of conflicts with Williamson Act contracts, including termination in order to accommodate the project. The DEIR should also discuss the impacts that conflicts or termination would have on nearby properties under contract; i.e., growth-inducing impacts from the perspective that the removal of contract protection removes a barrier to development and results in an incentive to shift to a more intensive land use such as urban development. The termination of a Williamson Act contract is considered a potentially significant adverse impact.
- Indirect impacts on current and future agricultural operations; e.g., land-use conflicts, increases in land values and taxes, vandalism, population, traffic, water availability, etc.
- Growth-inducing impacts, including whether leapfrog development is involved.
- Incremental project impacts leading to cumulatively considerable impacts on agricultural land. These impacts would include impacts from the proposed project as well as impacts from past, current and probable future projects. The Division's farmland conversion tables may provide useful historical data.

Williamson Act Lands

The Department recommends that the following information be included in the DEIR regarding Williamson Act land impacted by the project.

As a general rule, land can be withdrawn from Williamson Act contract only through the nine-year nonrenewal process. Immediate termination via cancellation is reserved for "extraordinary", unforeseen situations (See Sierra Club v. City of Hayward (1981) 28 Cal.3d 840, 852-855). Furthermore, it has been held that "cancellation is inconsistent with the purposes of the (Williamson) act if the objectives to be served by cancellation should have been predicted and served by nonrenewal at an earlier time, or if such objectives can be served by nonrenewal now" (Sierra Club v. City of Hayward).

- If cancellation is proposed, notification must be submitted to the Department when the County or City accepts the application as complete (Government Code §51284.1). The board or council must consider the Department's comments prior to approving a tentative cancellation. Required findings must be made by the board or council in order to approve tentative cancellation. Cancellation involving FSZ contracts include additional requirements. We recommend that the DEIR include discussion of how cancellations involved in this project would meet required findings. However, notification must be submitted separately from the CEQA process and CEQA documentation. (The notice should be mailed to Debbie Sareeram, Interim Director, Department of Conservation, c/o Division of Land Resource Protection, 801 K Street MS 18-01, Sacramento, CA 95814-3528.)
- If any part of the site is to continue under contract, or remain within an agricultural preserve, after project completion, the DEIR should discuss the proposed uses for those lands. Uses of contracted and preserve land must meet compatibility standards identified in Government Code §51238 - 51238.3, 51296.7. Otherwise, contract termination (see above) must occur prior to the initiation of the land use, or the preserve must be disestablished.
- An agricultural preserve is a zone authorized by the Williamson Act, and established by the local government, to designate land qualified to be placed under contract. Preserves are also intended to create a setting for contract-protected lands that is conducive to continuing agricultural use. Therefore, the uses of agricultural preserve land must be restricted by zoning or other means so as not to be incompatible with the agricultural use of contracted land within the preserve (Government Code §51230). The DEIR should also discuss any proposed general plan designation or zoning within agricultural preserves affected by the project.

Mitigation Measures

The Department encourages the use of agricultural conservation easements on land of at least equal quality and size as partial compensation for the direct loss of agricultural

land. If a Williamson Act contract is terminated, or if growth inducing or cumulative agricultural impacts are involved, we recommend that this ratio be increased. We highlight this measure because of its acceptance and use by lead agencies as mitigation under CEQA. It follows a rationale similar to that of wildlife habitat mitigation under the Metropolitan Bakersfield Habitat Conservation Plan (HCP). The loss of agricultural land represents a permanent reduction in the State's agricultural land resources. Agricultural conservation easements will protect a portion of those remaining resources and lessen project impacts in accordance with CEQA Guideline §15370.

Mitigation using agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance, and the search for replacement lands conducted regionally or statewide, and not limited strictly to lands within the project's surrounding area.

Other forms of mitigation may be appropriate for this project, including the following:

- Protecting farmland in the project area or elsewhere in the County through the use of less than permanent long-term restrictions on use such as 20-year Farmland Security Zone contracts (Government Code §51296 et seq.) or 10-year Williamson Act contracts (Government Code §51200 et seq.).
- Directing a mitigation fee to invest in supporting the commercial viability of the remaining agricultural land in the project area, County or region through a mitigation bank that invests in agricultural infrastructure, water supplies, marketing, etc.
- The Department also has available listing of approximately 30 "conservation tools" that have been used to conserve or mitigate project impacts on agricultural land. This compilation report may be requested from the Division at the address or phone number below.

Although the direct conversion of agricultural land and other agricultural impacts are often deemed to be unavoidable by an agency's CEQA analysis, mitigation measures must nevertheless be considered. The adoption of a Statement of Overriding Consideration does not absolve the agency of the requirement to implement feasible mitigation that lessens a project's impacts. A principal purpose of an EIR is to present a discussion of mitigation measures in order to fully inform decision-makers and the public about ways to lessen a project's impacts. In some cases, the argument is made that mitigation cannot reduce impacts to below the level of significance because agricultural land will still be converted by the project, and, therefore, mitigation is not required. However, reduction to a level below significance is not a criterion for mitigation. Rather, the criterion is feasible mitigation that lessens a project's impacts. Pursuant to CEQA

Guideline 15370, mitigation includes measures that "avoid, minimize, rectify, reduce or eliminate, or compensate" for the impact. For example, mitigation includes *"Minimizing impacts by limiting the degree or magnitude of the action and its implementation (§15370(b))"* or *"Compensating for the impact by replacing or providing substitute resources or environments (§15370(e))."*

All measures ostensibly feasible should be included in the DEIR. Each measure should be discussed, as well as the reasoning for selection or rejection. A measure brought to the attention of the Lead Agency should not be left out unless it is infeasible on its face.

Finally, when presenting mitigation measures in the DEIR, it is important to note that mitigation should be specific, measurable actions that allow monitoring to ensure their implementation and evaluation of success. A mitigation consisting only of a statement of intention or an unspecified future action may not be adequate pursuant to CEQA.

Information about agricultural conservation easements, the Williamson Act and provisions noted above is available on the Department's website or by contacting the Division at the address and phone number listed below. The Department's website address is:

http://www.conservation.ca.gov/dlrp/index.htm

Thank you for the opportunity to comment on this NOP. The Department looks forward to receiving your response, including a copy of the DEIR. If you have questions on our comments or require technical assistance or information on agricultural land conservation, please contact Bob Blanford at 801 K Street, MS 18-01, Sacramento, California 95814; or, phone (916) 327-2145.

Sincerely,

Dennis J. O'Bryant
Acting Assistant Director

cc: State Clearinghouse

Loma Prieta Resource Conservation District
8010 Wayland Lane, Suite 1 D
Gilroy, CA 95020

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, GOVERNOR

DEPARTMENT OF TRANSPORTATION
P. O. BOX 23660
OAKLAND, CA 94623-0660
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PLANNING DEPT.
DEC 15 2004
CITY OF MORGAN HILL

December 14, 2004

SCL-101-R17.82
SCL101787
SCH2004112060

Ms. Rebecca Tolentino
City of Morgan Hill
17555 Peak Avenue
Morgan Hill, CA 95037-4128

Dear Ms. Tolentino:

Cochrane Road Planned Unit Development -- Notice of Preparation (NOP)

Thank you for including the California Department of Transportation in the environmental review process for the proposed project. We have reviewed the NOP and have the following comments to offer.

Our primary concern with the project is the potentially significant impact it may have to traffic volume and congestion. In order to address our concerns regarding the proposed development, we recommend a traffic impact analysis be prepared. The traffic impact analysis should include, but not be limited to the following:

1. Information on the project's traffic impacts in terms of trip generation, distribution, and assignment. The assumptions and methodologies used in compiling this information should be addressed.

2. Current Average Daily Traffic (ADT), AM, and PM peak hour volumes on all significantly affected streets, highway segments, intersections and ramps.

3. Schematic illustration of the traffic conditions for: 1) existing, 2) existing plus master plan, and 3) cumulative for the intersections in the master plan area.

4. Calculation of cumulative traffic volumes should consider all traffic-generating developments, both existing and future, that would affect the State Highway facilities being evaluated.

5. Mitigation measures should consider highway and non-highway improvements and services. Special attention should be given to the development of alternate solutions to circulation problems that do not rely on increased highway construction.

6. All mitigation measures proposed should be fully discussed, including financing, scheduling, implementation responsibilities, and lead agency monitoring.

We recommend you utilize Caltrans' *"Guide for the Preparation of Traffic Impact Studies"* which can be accessed from the following webpage: http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf

Please be advised that any work or traffic control within the State right-of-way (ROW) will require an encroachment permit from the Department. To apply for an encroachment permit, submit a completed encroachment permit application, environmental documentation, and five (5) sets of plans (in metric units) which clearly indicate State ROW to the following address:

Mr. Sean Nozzari, District Office Chief
Office of Permits
California Department of Transportation, District 04
P. O. Box 23660
Oakland, Ca 94623-0660

An encroachment permit application and instructions can be located at the following web address: http://www.dot.ca.gov/hq/traffops/developserv/permits/applications/index.html

Should you require further information or have any questions regarding this letter, please call José L. Olveda of my staff at (510) 286-5535.

Sincerely,

Timothy C. Sable

TIMOTHY C. SABLE
District Branch Chief
IGR/CEQA

c: Scott Morgan (State Clearinghouse)

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Department of Planning, Building and Code Enforcement
STEPHEN M. HAASE, AICP, DIRECTOR

December 15, 2004

Rebecca Tolentino
City of Morgan Hill
Community Development Department
17555 Peak Avenue
Morgan Hill, CA 95037

SUBJECT: Notice of Preparation of Draft EIR FOR Cochrane Road Development Project (File No. OA04-10-023)

Dear Ms. Tolentino:

The City of San Jose (CSJ) appreciates the opportunity to review and comment on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) from the City of Morgan Hill for the proposed Cochrane Road General Plan amendment and Planned Unit Development Rezoning project located at the northeast corner of Cochrane Road and Highway 101 in the City of Morgan Hill.

While we have no specific comments at this time, we look forward to reviewing the Draft EIR when it becomes available for review. Please provide CSJ with two copies of the complete Draft EIR, including all technical reports, traffic analysis, etc. that may be contained in one or more volumes of the document. Please send the documents directly to my attention, as I will be coordinating with other CSJ departments in the review of the Draft EIR.

Thank you again for the opportunity to review and comment on the NOP for this project. If you need to contact me, you may reach me at (408) 277-4576.

Sincerely,

Janis Moore
Planner II

OA04-11-023 NOP MH Cochrane Rd PUD Pjct Ltr.doc/JAM

Santa Clara Valley Water District

5750 ALMADEN EXPWY
SAN JOSE, CA 95118-3686
TELEPHONE (408) 265-2600
FACIMILE (408) 266-0271
www.valleywater.org
AN EQUAL OPPORTUNITY EMPLOYER

File: 24149
Cochran Channel

PLANNING DEPT.
DEC 13 2004
CITY OF MORGAN HILL

December 9, 2004

Mr. Christopher Eggers, P.E.
Schaaf & Wheeler
11000 Lake City Way, Suite 402
Seattle, WA 98125

Subject: Cochrane Road Planned Unit Development Project

Dear Mr. Eggers:

The Santa Clara Valley Water District (District) has received your request for information on the Cochran Channel, located adjacent to the subject 66-acre site on the northeasterly corner of Cochrane Road and Highway 101.

Cochran Channel is a District drainage facility that was constructed by the California State Department of Transportation (Caltrans). Caltrans transferred the Cochran Channel and its right of way to the District after completion of the project in the 1980's. Enclosed are construction drawings of the Cochran Channel taken from Caltrans' plans. The District does not appear to have as-built plans of the facility. The bottom 3 feet of the trapezoidal earth channel is lined with air blown mortar. District records show the channel accepts drainage from Highway 101, as well as some tributary areas from the east, such as the project site. A majority of the adjacent Cochran Channel watershed from the east is agricultural land.

The District does not have design hydraulic information for Cochran Channel. Cochran Channel is tributary to Coyote Creek which is not currently adequate to contain the 100-year flood. The proposed project should provide detention to mitigate increased runoff due to development. Post-development runoff for various flood events (*i.e.*, 2-year, 10-year, 100-year) should not be greater than predevelopment runoff. A detailed hydrology report will need to be provided to show that the project will not increase existing flows in Cochran Channel during the various flood events. The hydrology report should identify drainage patterns and runoff quantities for the existing and proposed condition.

If you have any questions, please call me at (408) 265-2607, extension 2319. Please reference District File No. 24149 on future correspondence regarding this project.

Sincerely,

Yvonne Arroyo

Yvonne Arroyo
Associate Engineer
Community Projects Review Unit

Enclosure: Cochran Channel Construction Plans
cc: Ms. Rebecca Tolentino, City of Morgan Hill
S. Tippets, Y. Arroyo, M. Klemencic, File (2)
ya:mf
1208d-pl.doc

ENCLOSURE

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 01-119
NPDES PERMIT NO. CAS029718

AMENDMENT REVISING PROVISION C.3. OF ORDER NO. 01-024 FOR:

SANTA CLARA VALLEY WATER DISTRICT, COUNTY OF SANTA CLARA, CITY OF CAMPBELL, CITY OF CUPERTINO, CITY OF LOS ALTOS, TOWN OF LOS ALTOS HILLS, TOWN OF LOS GATOS, CITY OF MILPITAS, CITY OF MONTE SERENO, CITY OF MOUNTAIN VIEW, CITY OF PALO ALTO, CITY OF SAN JOSE, CITY OF SANTA CLARA, CITY OF SARATOGA, AND CITY OF SUNNYVALE, which have joined together to form the SANTA CLARA VALLEY URBAN RUNOFF POLLUTION PREVENTION PROGRAM

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter referred to as the Regional Board, finds that:

Existing Permit and Revision of Provision C.3.

1. The Regional Board adopted Order No. 01-024 on February 21, 2001, reissuing waste discharge requirements under the National Pollutant Discharge Elimination System (NPDES) permit for the Santa Clara Valley Urban Runoff Pollution Prevention Program (Program) for the discharge of stormwater to South San Francisco Bay and its tributaries. The Program's NPDES permit is jointly issued to the thirteen Cities of Santa Clara County named above, Santa Clara County and the Santa Clara Valley Water District, all of which are Co-permittees. These Co-permittees are referred to as the Dischargers.

2. As outlined in Finding 17 of Order No. 01-024, Provision C.3. of Order No. 01-024 is to be revised in response to the "Cities of Bellflower, et. al." decision by the State Water Resources Control Board (State Board Order No. 2000-11).

3. Order No. 01-024 recognizes the Santa Clara Valley Urban Runoff Management Plan (Management Plan) as the Dischargers' Comprehensive Control Program and requires implementation of the Management Plan, which describes a framework for management of stormwater discharges. The 1997 Management Plan describes the Program's goals and objectives and contains Performance Standards, which represent the base line level of effort required of each of the Dischargers. The Management Plan contains Performance Standards for seven different stormwater management activities.

Nature of Discharges and Sources of Pollutants

4. Urban Development Increases Pollutant Load, Volume, and Velocity of Runoff: During urban development two important changes occur. First, where no urban development has previously occurred, natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, and parking lots. Natural vegetated soil can both absorb rainwater and remove pollutants providing a very effective natural

purification process. Because pavement and concrete can neither absorb water nor remove pollutants, the natural purification characteristics of the land are lost. Secondly, urban development creates new pollution sources as human population density increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc., which can be washed into the municipal separate storm sewer system (MS4). As a result of these two changes, the runoff leaving a newly developed urban area may be significantly greater in volume, velocity and/or pollutant load than pre-development runoff from the same area.

5. Certain pollutants present in stormwater and/or urban runoff may be derived from extraneous sources that dischargers have limited or no direct jurisdiction over. Examples of such pollutants and their respective sources are: PAHs which are products of internal combustion engine operation and other sources; heavy metals, such as copper from brake pad wear and zinc from tire wear; dioxins as products of combustion; mercury resulting from atmospheric deposition; and natural-occurring minerals from local geology. All of these pollutants, and others, may be deposited on impervious surfaces and roof-tops as fine air-borne particles, thus yielding stormwater runoff pollution that is unrelated to the particular activity or use associated with a given new or redevelopment project. However, dischargers can implement treatment control measures, or require developers to implement treatment control measures, to reduce entry of these pollutants into stormwater and their discharge to receiving waters.

6. Pollutants present in stormwater can have damaging effects on both human health and aquatic ecosystems. In addition, the increased flows and volumes of stormwater discharged from new impervious surfaces resulting from new development and redevelopment can significantly impact beneficial uses of aquatic ecosystems due to physical modifications of watercourses, such as bank erosion and widening of channels.

7. Water Quality Degradation Increases with Percent Imperviousness: The increased volume and velocity of runoff from newly developed urban areas can greatly accelerate the erosion of downstream watercourses. A number of studies have demonstrated a direct correlation between the degree of imperviousness of an area and the degradation of beneficial uses of downstream watercourses. Significant declines in the biological integrity and physical habitat of streams and other receiving waters have been found to occur with as little as a 10% conversion from natural to impervious surfaces. Typical medium-density single-family home projects developed in previously unurbanized locations, range between 25 to 60% impervious. Even at very low densities, such as 1-2 housing units per acre, some types of subdivisions built in previously unurbanized locations can result in more than a 10% increase in imperviousness.[1] Studies on the impacts of imperviousness on beneficial uses of waters include "Urbanization of aquatic systems: Degradation thresholds, stormwater detection, and the limits of mitigation," Derek B. Booth and C. Rhett Jackson, Journal of the American Water Resources Association 33(5), Oct. 1997, pp. 1077-1089; "Urbanization and Stream Quality Impairment," Richard D. Klein, Water Resources Bulletin 15(4), Aug. 1979, pp. 948-963; "Stream channel enlargement due to urbanization," Thomas R. Hammer, Water Resources Research 8(6), Dec. 1972, pp. 1530- 1540; and, summaries of work on the impacts

[1] A discussion of imperviousness based on type of development and time of construction is provided in Heaney, J.B., Pitt, R, and Field, R. **Innovative Urban Wet-Weather Flow Management Systems**, 1999. USEPA Doc. No. EPA/600/R-99/029 (Chapter 2).

of imperviousness, including "The Importance of Imperviousness," in Watershed Protection Techniques 1(3), Fall 1994, pp. 100-111, and "Impervious surface coverage: The emergence of a key environmental indicator," Chester L. Arnold et al., Journal of the American Planning Association 62(2), Spring 1996, pp. 243-259.

Implementation

8. This Order, revising Provision C.3., is intended to enhance the Dischargers' existing Performance Standard for new development and significant redevelopment. This Order more clearly requires a level of implementation of best management practices (BMPs), including treatment measures in new development and significant redevelopment, that reflects the regulatory standard of maximum extent practicable (MEP). This is done through addition of requirements to more effectively incorporate source control measures, site design principles, and structural stormwater treatment controls in new development and redevelopment projects in order to reduce water quality impacts of stormwater runoff for the life of these projects. The consistent application of such measures is intended to greatly reduce the adverse impacts of new development and redevelopment on water quality and beneficial uses by reducing stormwater pollutant impacts, and impacts of increases in peak runoff rate.

9. Cost-effective opportunities to protect water quality in new and redevelopment may exist during the land use approval process. When a Discharger incorporates policies and principles designed to safeguard water resources into its General Plan and development project approval processes, it has taken a far-reaching step towards the preservation of local water resources for future generations.

10. The revised Provision C.3. is written with the assumption that Dischargers are responsible for considering potential stormwater impacts when making planning and land use decisions. The goal of these requirements is to address pollutant discharges and changes in runoff flows from significant new and redevelopment projects, through implementation of post-construction treatment measures, source control, and site design measures, to the maximum extent practicable. Neither Provision C.3. nor any of its requirements are intended to restrict or control local land use decision-making authority.

11. Opportunities for Dischargers to address stormwater pollution and hydrograph modification can be limited by their current local design standards and guidance. For example, such standards and guidance may reduce or prohibit opportunities to minimize impervious surfaces, minimize directly connected impervious area, provide for small-scale detention, and implement other management measures. Depending on the existing state of program development/implementation and site-specific conditions, revision of current standards and guidance may result in an increased ability for project designers to minimize project impacts. Revision of standards and guidance can allow implementation of site design measures in projects to meet or help meet the numeric sizing criteria in Provision C.3.d. and/or the hydrograph modification limitation in Provision C.3.f.

12. Provision C.3.f. requires Dischargers to prepare a Hydrograph Modification Management Plan (HMMP), for approval by the Regional Board, to manage impacts from changes to the volume and velocity of stormwater runoff from new development and significant

redevelopment projects, where these changes can cause excessive erosion damage to downstream watercourses. Transit village type developments within 1/4 mile of transit stations, and within the 80% developed urban core of cities, are unlikely to fall under the requirements of C.3.f. and the HMMP. This is due to the fact that significant change in impervious surface or significant change in stormwater runoff volume or timing is unlikely in this circumstance, because the development would be within a largely already paved catchment, and on a site that is largely already paved or otherwise impervious.

13. Certain BMPs implemented or required by Dischargers for urban runoff management may create a habitat for vectors (e.g., mosquitoes and rodents) if not properly designed or maintained. Close collaboration and cooperative effort between the Dischargers, local vector control agencies, the Regional Board staff, and the State Department of Health Services is necessary to identify appropriate vector control measures that minimize potential nuisances and public health impacts resulting from vector breeding, so that Dischargers and local vector control agencies can implement such control measures without undue adverse effects.

Public Process

14. The action to modify an NPDES Permit is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code [California Environmental Quality Act (CEQA)] pursuant to Section 13389 of the California Water Code.

15. The Dischargers and interested agencies and persons have been notified of the Regional Board's intent to modify waste discharge requirements for the existing discharge and have been provided opportunities for public meetings and the opportunity to submit their written views and recommendations. The following is a brief summary of public meetings and comment periods on draft versions of this Order:

Oct. 13 - Nov. 13, 2000: Formal public comment period on the Tentative Order for reissuance of the Program's entire NPDES permit. Comments were received from Co-permittees, environmental advocacy groups, and industry, and included comments on new development provision.

Nov. 7, 2000: Regional Board staff held a stakeholder meeting during the formal public comment period to discuss permit issues. Significant unresolved comments remained on the new development provision.

Dec. 13, 2000: Regional Board staff held a public stakeholder meeting on the new development provision.

Jan. 10, 2001: Regional Board staff held a public stakeholder meeting on the new development provision.

Feb. 21, 2001: The Program's NPDES permit is reissued, revision of Provision C.3. on new development is deferred to later date.

May 7, 2001: Administrative draft of new development provision issued for discussion with stakeholders.

May 14, 2001: Regional Board staff held a public stakeholder meeting on the new development provision.

May 18-June 18, 2001: Formal public comment period for the May 18 Tentative Order containing the revised new development provision.

June 5, 2001: Regional Board staff held a public stakeholder meeting on the new development provision.

August 6, 2001: Regional Board staff held a public stakeholder meeting on the new development provision.

August 9 & 10, 2001: Regional Board staff spoke at Bay Area Stormwater Management Agencies Association conferences, "Meeting New Requirements for Stormwater Controls in New and Redevelopment Projects" in Berkeley and Cupertino.

August 17 – Sept. 19, 2001: Formal public comment period for the August 17 Tentative Order containing the revised new development provision.

August 27, 2001: Executive Officer and Board staff met with officials from Milpitas, City of Santa Clara, San Jose, Sunnyvale, Palo Alto, and Santa Clara County to discuss provision revisions.

August 30, 2001: Board staff presented a Workshop in San Jose (courtesy of Altera Corporation) to (1) Bring newly involved stakeholders up to date on the proposed permit amendment, and (2) Get feedback on the specific requirements of revised Provision C.3., and possible provision language improvements.

Sept. 5, 2001: Board staff presented a Workshop in San Jose (courtesy of the SCVWD) to (1) Present and discuss example post-construction controls at development projects – how they work, how they are sized, and other technical details, and (2) Get feedback on the technical requirements of the revised permit Provision C.3., and possible provision language improvements.

Sept. 14, 2001: Executive Officer and Board staff met with officials from Milpitas, City of Santa Clara, San Jose, Sunnyvale, Palo, Alto, Los Altos, Santa Clara County and the SCVWD to discuss provision revisions.

Sept. 20, 2001: Executive Officer gave a presentation on the new development provision to the Santa Clara Council of Cities.

Sept. 26, 2001: Executive Officer gave a presentation on the new development provision to the Silicon Valley Pollution Prevention Committee.

Sept. 28, 2001: Executive Officer met with officials from Milpitas, City of Santa Clara, San Jose, Sunnyvale, and the SCVWD to discuss provision revisions.

Oct. 1, 2001: Board staff met with members of the Western States Petroleum Association to discuss their concerns regarding regulation of retail gasoline outlets under Provision C.3.

16. The Regional Board has conducted public meetings to discuss the draft revised Provision C.3.as follows:

Nov. 18, 2000: Regional Board meeting - Informational Workshop on the Program's Permit Reissuance, focusing on the new development Provision C.3.

July 18, 2001: Regional Board meeting - Informational Workshop on the new development Provision C.3, proposed Tentative Order for permit amendment.

Sept. 19, 2001: Regional Board meeting – Informational Workshop on the types of stormwater treatment controls that are appropriate for new development and significant redevelopment under Provision C.3.

17. The Regional Board, through public testimony in public meetings and in written form, has received and considered all comments pertaining to the revision of Provision C.3.

IT IS HEREBY ORDERED that the Dischargers, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted hereunder, shall comply with the following:

Provision C.3. New and Redevelopment Performance Standards of Order No. 01-024 is hereby revised to read as follows:

The Management Plan contains performance standards and supporting documents to address the post-construction and construction phase impacts of new and redevelopment projects on stormwater quality (Planning Procedures and Construction Inspection Performance Standards). The Dischargers shall continue to implement these

performance standards and continuously improve them to the maximum extent practicable in accordance with the following sections.

a. **Performance Standard Implementation:** The Dischargers shall continue to implement and continually improve, as necessary and appropriate, the following performance standards for planning procedures:

   i. Each Discharger shall have adequate legal authority to implement new development control measures, including all requirements of this Provision C 3, as part of its development plan review and approval procedures, and other appropriate new development and redevelopment permitting procedures;

   ii. Each Discharger shall provide developers with information and guidance materials on site design guidelines, building permit requirements, and BMPs for stormwater pollution prevention early in the application process, as appropriate for the type of project;

   iii. Each Discharger shall require developers of projects that disturb a land area of five acres or more to demonstrate coverage under the State's General Permit for Storm Water Discharges Associated with Construction Activity;

   iv. Each Discharger shall require developers of projects with potential for significant erosion and planned construction activity during the wet season (as defined by local ordinance) to prepare and implement an effective erosion and/or sediment control plan or similar document prior to the start of the wet season;

   v. Each Discharger shall ensure that municipal capital improvement projects include stormwater quality control measures during and after construction, as appropriate for each project, and that contractors comply with stormwater quality control requirements during construction and maintenance activities; and,

   vi. Each Discharger shall provide training at least annually to its planning, building, and public works staffs on planning procedures, policies, design guidelines, and BMPs for stormwater pollution prevention.

b. **Development Project Approval Process:** Dischargers shall modify their project review processes as needed to incorporate the requirements of Provision C.3. Each Discharger shall include conditions of approval in permits for applicable projects, as defined in Provision C.3.c., to ensure that pollutant discharges are reduced by incorporation of treatment measures and other appropriate source control and site design measures, and increases in runoff flows are managed in accordance with C.3.f., to the maximum extent practicable. Such conditions shall, at a minimum, address the following goals:

   i. Require project proponent to implement site design/landscape characteristics where feasible which maximize infiltration (where appropriate), provide retention or detention, slow runoff, and minimize impervious land coverage, so that post-development pollutant loads from a site have been reduced to the maximum extent practicable; and

   ii. For new and redevelopment projects that discharge directly to water bodies listed as impaired by a pollutant(s) pursuant to Clean Water Act Section 303(d), ensure that post-project runoff does not exceed pre-project levels for such pollutant(s), through

implementation of the control measures addressed in this provision, to the maximum extent practicable, in conformance with Provision C.1.

Modification of project review processes shall be completed by July 1, 2003, subject to a workplan, submitted by March 1, 2002, acceptable to the Executive Officer, identifying incremental progress already made and to be made toward this completion by July 1, 2003. If no acceptable workplan is received, modification of project review processes shall be completed by October 15, 2002.

c. **Applicable Projects – New and Redevelopment Project Categories:** New development and significant redevelopment projects that are subject to Provision C.3. are grouped into two categories based on project size. New and redevelopment projects that do not fall into Group 1 or Group 2 are not subject to the requirements of Provision C.3. Provision C.3. shall not apply to projects for which a privately-sponsored development application has been deemed complete by a Discharger or, with respect to public projects, for which funding has been committed, and for which construction is scheduled by October 15, 2003.

i. **Group 1 Projects:** Dischargers shall require Group 1 Projects to design and implement stormwater treatment BMPs to reduce stormwater pollution to the maximum extent practicable. Implementation of this requirement shall begin on July 15, 2003, subject to a workplan, submitted March 1, 2002, acceptable to the Executive Officer, identifying incremental progress already made and to be made toward implementation of C.3.c.i. by July 15, 2003. If no acceptable workplan is received, implementation of C.3.c.i. requirements shall begin on October 15, 2002. Group 1 Projects consist of all public and private projects in the following categories:

1. *Commercial, industrial, or residential developments that create one acre (43,560 square feet) or more of impervious surface, including roof area, streets and sidewalks.* This category includes any development of any type on public or private land, which falls under the planning and building authority of the Dischargers, where one acre or more of new impervious surface, collectively over the entire project site, will be created.

2. *Streets, roads, highways, and freeways that are under the Dischargers' jurisdiction and that create one acre (43,560 square feet) or more of new impervious surface.* This category includes any newly constructed paved surface used for the transportation of automobiles, trucks, motorcycles, and other motorized vehicles.

3. *Significant redevelopment projects.* This category is defined as a project on a previously developed site that results in addition or replacement which combined total 43,560 ft^2 or more of impervious surface on such an already developed site ("Significant Redevelopment"). Where a Significant Redevelopment project results in an increase of, or replacement of, more than fifty percent of the impervious surface of a previously existing development, and the existing development was not subject to stormwater treatment measures, the entire project must be included in the treatment measure design. Conversely, where a Significant Redevelopment project results in an increase of, or replacement of, less than fifty percent of the impervious surface of a previously existing development, and the existing development was not subject to stormwater treatment measures, only that affected portion must be included in treatment

design. Excluded from this category are interior remodels and routine maintenance or repair, including roof or exterior surface replacement and repaving.

ii. **Group 2 Projects:** The Group 2 Project definition is in all ways the same as the Group 1 Project definition above, except that the size threshold of impervious area for new and Significant Redevelopment projects is reduced from one acre (43,560 ft^2) to 5000 square feet. Dischargers shall require Group 2 Projects to design and implement stormwater treatment BMPs to reduce stormwater pollution to the maximum extent practicable. Implementation of this requirement shall begin on October 15, 2004, at which time the definition of Group 1 Project is changed to include all Group 2 Projects.

iii. **Alternative Project Proposal:** The Program may propose, for approval by the Regional Board, an alternative Group 2 Project definition. Any such proposal shall contain supporting information about the Dischargers' development patterns, and pollutant source information, that demonstrates that the proposed definition is comparable in effectiveness to the Group 2 Project definition (i.e., that a comparable development area and/or pollutant loading would be addressed under the proposed alternate definition). Proposals must be submitted by April 15, 2004, in order to be considered by the Regional Board before the Group 2 Project implementation date in C.3.c.ii.

d. **Numeric Sizing Criteria For Pollutant Removal Treatment Systems:** All Dischargers shall require that treatment BMPs be constructed for applicable projects, as defined in C.3.c., that incorporate, at a minimum, the following hydraulic sizing design criteria to treat stormwater runoff. As appropriate for each criterion, the Dischargers shall use or appropriately analyze local rainfall data to be used for that criterion.

i. **Volume Hydraulic Design Basis:** Treatment BMPs whose primary mode of action depends on volume capacity, such as detention/retention units or infiltration structures, shall be designed to treat stormwater runoff equal to:

1. the maximized stormwater quality capture volume for the area, based on historical rainfall records, determined using the formula and volume capture coefficients set forth in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ ASCE Manual of Practice No. 87, (1998)*, pages 175-178 (e.g., approximately the 85th percentile 24-hour storm runoff event); or

2. the volume of annual runoff required to achieve 80 percent or more capture, determined in accordance with the methodology set forth in Appendix D of the *California Stormwater Best Management Practices Handbook*, (1993), using local rainfall data.

ii. **Flow Hydraulic Design Basis:** Treatment BMPs whose primary mode of action depends on flow capacity, such as swales, sand filters, or wetlands, shall be sized to treat:

1. 10% of the 50-year peak flow rate; or
2. the flow of runoff produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths; or
3. the flow of runoff resulting from a rain event equal to at least 0.2 inches per hour intensity.

e. Operation and Maintenance of Treatment BMPs:

Each Discharger shall implement an operation and maintenance (O&M) verification program, which shall include the following:

i. Compiling a list of properties (public and private) and responsible operators for all treatment BMPs. In addition, the Dischargers shall inspect a subset of prioritized treatment measures for appropriate operation and maintenance, on an annual basis, with appropriate follow-up and correction.

ii. Verification at a minimum shall include: Where a private entity is responsible for O&M, the developer's signed statement accepting responsibility for maintenance until the responsibility is legally transferred; and either

1. A signed statement from the public entity assuming post-construction responsibility for treatment BMP maintenance and that the BMP meets all local agency design standards; or
2. Written conditions in the sales or lease agreement, which require the recipient to assume responsibility for maintenance consistent with this provision; or
3. Written text in project conditions, covenants and restrictions (CCRs) for residential properties assigning maintenance responsibilities to the Home Owners Association for maintenance of the treatment BMPs; or
4. Any other legally enforceable agreement or mechanism that assigns responsibility for the maintenance of post-construction treatment BMPs.

iii. **O&M Reporting:** The Dischargers shall report on their Treatment BMPs Operation and Maintenance Verification program in each Annual Report. The Annual Report shall contain: a description of the organizational structure of the Discharger's O&M Verification program; an evaluation of the Discharger's O&M verification program's effectiveness; summary of any planned improvements in O&M Verification; and a list or summary of treatment BMPs that have been inspected that year with inspection results.

f. Limitation on Increase of Peak Stormwater Runoff Discharge Rates:

i. The Dischargers shall manage increases in peak runoff flow and increased runoff volume, for all Group 1 Projects, where such increased flow and/or volume can cause increased erosion of creek beds and banks, silt pollutant generation, or other impacts to beneficial uses. Such management shall be through implementation of a Hydrograph Modification Management Plan (HMMP), developed by the Program and approved by the Regional Board within two years after adoption of this Order. The HMMP, once approved by the Regional Board, will be implemented so that post-project runoff shall not exceed estimated pre-project rates and/or durations, where the

increased stormwater discharge rates and/or durations will result in increased potential for erosion or other adverse impacts to beneficial uses, attributable to changes in the amount and timing of runoff. The term duration in this section is defined as the period that flows are above a threshold that causes significant sediment transport and may cause excessive erosion damage to creeks and streams.

ii. This requirement does not apply to new development and redevelopment projects where the project discharges stormwater runoff into creeks or storm drains where the potential for erosion, or other impacts to beneficial uses, is minimal. Such situations may include discharges into creeks that are concrete-lined or significantly hardened (e.g., with rip-rap, sackrete, etc.) downstream to their outfall in San Francisco Bay, underground storm drains discharging to the Bay, and construction of infill projects in highly developed watersheds, where the potential for single-project and/or cumulative impacts is minimal. Guidelines for identification of such situations shall be included as a part of the HMMP. However, plans to restore a creek reach may re-introduce the applicability of HMMP controls, and would need to be addressed in the HMMP.

iii. The HMMP may identify conditions under which some increases in runoff may not have a potential for increased erosion or other impacts to beneficial uses. Reduced controls or no controls on peak stormwater runoff discharge rates and/or durations may be appropriate in those cases, subject to the conditions in the HMMP. In the absence of information demonstrating that changes in post-development runoff discharge rates and durations will not result in increased potential for erosion or other adverse impacts to beneficial uses,the HMMP requirements shall apply.

iv. The HMMP proposal shall include:

1. A review of the pertinent literature;
2. A protocol to evaluate potential hydrograph change impacts to downstream watercourses from proposed projects;
3. An identification of the rainfall event below which these standards and management requirements apply, or range of rainfall events to which this limitation applies;
4. A description of how the Dischargers will incorporate these requirements into their local approval processes, or the equivalent; and
5. Guidance on management practices and measures to address identified impacts.

v. The identified maximum rainfall event or rainfall event range may be different for specific watersheds, streams, or stream reaches. Individual Dischargers may utilize the protocol to determine a site- or area-specific rainfall event standard.

vi. The HMMP's evaluation protocols, management measures, and other information may include the following:

1. Evaluation of the cumulative impacts of urbanization of a watershed on stormwater discharge and stream morphology in the watershed;
2. Evaluation of stream form and condition, including slope, discharge, vegetation, underlying geology, and other information, as appropriate;
3. Implementation of measures to minimize impervious surfaces and directly connected impervious area in new development and redevelopment projects;

4. Implementation of measures including stormwater detention, retention, and infiltration;
5. Implementation of land use planning measures (e.g., stream buffers and stream restoration activities, including restoration-in-advance of floodplains, revegetation, use of less-impacting facilities at the point(s) of discharge, etc.) to allow expected changes in stream channel cross sections, stream vegetation, and discharge rates, velocities, and/or durations without adverse impacts to stream beneficial uses;
6. A mechanism for pre- vs. post-project assessment to determine the effectiveness of the HMMP and to allow amendment of the HMMP, as appropriate; and,
7. Other measures, as appropriate.

vii. **Equivalent limitation of peak flow impacts:** The Dischargers may develop an equivalent limitation protocol, as part of the HMMP, to address impacts from changes in the volumes, velocities, and/or durations of peak flows through measures other than control of those volumes and/or durations. The protocol may allow increases in peak flow and/or durations, subject to the implementation of specified BMPs and land planning practices that take into account expected stream change (e.g., increases in the cross-sectional area of stream channel) resulting from changes in discharge rates and/or durations, while maintaining or improving beneficial uses of waters.

viii. The Program shall complete the HMMP according to the schedule below. All required documents shall be submitted acceptable to the Executive Officer, except the HMMP, which shall be submitted for approval by the Regional Board. Development and implementation status shall be reported in the Dischargers' Annual Reports, which shall also provide a summary of projects incorporating measures to address this section and the measures used.

1. March 1, 2002: Submit a detailed workplan and schedule for completion of the literature review, development of a protocol to identify an appropriate limiting storm, development of guidance materials, and other required information;
2. September 15, 2002: Submit literature review;
3. March 1, 2003: Submit a draft HMMP, including the analysis that identifies the appropriate limiting storm and the identified limiting storm event(s) or event range(s);
4. October 15, 2003: Submit the HMMP for Regional Board approval; and,
5. Upon adoption by the Regional Board, implement the HMMP, which shall include the requirements of this measure. Prior to approval of the HMMP by the Regional Board, the early implementation of measures likely to be included in the HMMP shall be encouraged by the Dischargers

g. Waiver Based on Impracticability and Compensatory Mitigation:

i. The Dischargers may establish a program under which a project proponent may request a waiver from the requirement to install treatment BMPs for a given project, upon an appropriate showing of impracticability, and with provision to treat an equivalent pollutant loading or quantity of stormwater runoff, or provide other equivalent water quality benefit.. The location of this equivalent stormwater treatment, or water quality benefit, would be where no other requirement for treatment

exists, within the same stormwater runoff drainage basin and treating runoff discharging to the same receiving water, where feasible. The Program and the Dischargers should specifically define the basis for impracticability or infeasibility, which may include situations where treatment is technically feasible, but excessively costly, as determined by set criteria.

ii. **Regional Solutions:** The waiver program may allow a project to participate in a regional or watershed stormwater treatment facility, without a showing of impracticability on the individual project site, if the regional or watershed stormwater treatment facility discharges into the same receiving water, where feasible.

iii. The Program is encouraged to propose a model waiver program on behalf of the Dischargers, for approval by the Regional Board, and for potential adoption and implementation by the Dischargers.

iv. The waiver program proposal should state the criteria for granting waivers; criteria for determining impracticability or infeasibility; and criteria for use of regional or watershed stormwater treatment facilities. The proposal should also describe how the project sponsor will provide equivalent water quality benefits or credit to an alternative project or to a regional or watershed treatment facility and tracking mechanisms to support the reporting requirements set forth in Section C.3.g.v. below.

v. **Reporting:** Each year, as part of its Annual Report, each Discharger shall provide a list of the waivers it granted. For each project granted a waiver, the following information shall be provided:

1. Name and location of the project for which the waiver was granted;
2. Project type (e.g., restaurant, residence, shopping center) and size;
3. Percent impervious surface in final design;
4. Reason for granting the waiver;
5. Terms of the waiver; and,
6. The stormwater treatment project receiving the benefit, and the date of completion of the project.

vi. **Interim Waiver:** In the event that a waiver program has not been proposed by the Program, approved by the Regional Board, or implemented by a particular Discharger by the date of implementation of Group 1 Projects, an interim waiver may be granted by a Discharger. An interim waiver may be granted if the project proponent (1) demonstrates impracticability due to extreme limitations of space for treatment and lack of below grade surface treatment options, and (2) presents assurance of provision of equivalent stormwater pollutant and/or volume treatment at another location within the drainage basin, for which construction of stormwater treatment measures is not otherwise required, discharging into the same receiving water, where feasible. The Discharger will be responsible for assuring that equivalent treatment has occurred for any use of this interim waiver, within six months of project construction, and will report the basis of impracticability and the nature of equivalent treatment for each project in its Annual Report. Any equivalent treatment that does not include construction of

stormwater treatment BMPs must be approved by the Executive Officer. This interim waiver clause will be void when the waiver program described in C.3.g.i-iv. above is approved by the Regional Board.

h. **Alternative Certification of Adherence to Design Criteria for Stormwater Treatment Measures:** In lieu of conducting detailed review to verify the adequacy of measures required pursuant to Provisions C.3.d. and C.3.f., a Discharger may elect to accept a signed certification from a Civil Engineer or a Licensed Architect or Landscape Architect registered in the State of California, or another Discharger that has overlapping jurisdictional project permitting authority, that the plan meets the criteria established herein. The Discharger should verify that each certifying person has been trained on BMP design for water quality not more than three years prior to the signature date, and that each certifying person understands the groundwater protection principles applicable to the project site (*see Provision C.3.i. Limitations on Use of Infiltration Treatment Measures*). Training conducted by an organization with stormwater treatment BMP design expertise (e.g., a university, American Society of Civil Engineers, American Society of Landscape Architects, American Public Works Association, or the California Water Environment Association) may be considered qualifying.

i. **Limitations on Use of Infiltration Treatment Measures - Infiltration and Groundwater Protection:** In order to protect groundwater from pollutants that may be present in urban runoff, treatment BMPs that function primarily as infiltration devices (such as infiltration trenches and infiltration basins) must meet, at a minimum, the following conditions:

   i. Pollution prevention and source control BMPs shall be implemented at a level appropriate to protect groundwater quality at sites where infiltration devices are to be used;

   ii. Use of infiltration devices shall not cause or contribute to degradation of groundwater water quality objectives;

   iii. Infiltration devices shall be adequately maintained to maximize pollutant removal capabilities;

   iv. The vertical distance from the base of any infiltration device to the seasonal high groundwater mark shall be at least 10 feet. Note that some locations within the Dischargers' jurisdiction are characterized by highly porous soils and/or a high groundwater table; in these areas BMP approvals should be subject to a higher level of analysis (e.g., considering the potential for pollutants such as on-site chemical use, the level of pretreatment to be achieved, and similar factors);

   v. Unless stormwater is first treated by a means other than infiltration, infiltration devices shall not be recommended for areas of industrial or light industrial activity; areas subject to high vehicular traffic (25,000 or greater average daily traffic on main roadway or 15,000 or more average daily traffic on any intersecting roadway); automotive repair shops; car washes; fleet storage areas (bus, truck, etc.); nurseries; and other high threat to water quality land uses and activities as designated by each Discharger;

vi. Infiltration devices shall be located a minimum of 100 feet horizontally from any water supply wells.

j. Site Design Measures Guidance and Standards Development:

i. The Dischargers shall review their local design standards and guidance for opportunities to make revisions that would result in reduced impacts to water quality and beneficial uses of waters. In this event, the Dischargers shall make any such revisions and implement the updated standards and guidance, as necessary.

Areas that may be appropriate to address include the following, which are offered as examples:

1. Minimize land disturbance;
2. Minimize impervious surfaces (e.g., roadway width, driveway area, and parking lot area), especially directly connected impervious areas;
3. Minimum-impact street design standards for new development and redevelopment, including typical specifications (e.g., neo-traditional street design standards and/or street standards recently revised in other cities, including Portland, Oregon, and Vancouver, British Columbia);
4. Minimum-impact parking lot design standards, including parking space maximization within a given area, use of landscaping as a stormwater drainage feature, use of pervious pavements, and parking maxima;
5. Clustering of structures and pavement;
6. Typical specifications or "acceptable design" guidelines for lot-level design measures, including:
   - Disconnected roof downspouts to splash blocks or "bubble-ups;"
   - Alternate driveway standards (e.g., wheelways, unit pavers, or other pervious pavements); and,
   - Microdetention, including landscape detention and use of cisterns.
7. Preservation of high-quality open space;
8. Maintenance and/or restoration of riparian areas and wetlands as project amenities, including establishing vegetated buffer zones to reduce runoff into waterways, allow for stream channel change as a stream's contributing watershed urbanizes, and otherwise mitigate the effects of urban runoff on waters and beneficial uses of waters; and,
9. Incorporation of supplemental controls to minimize changes in the volume, flow rate, timing, and duration of runoff, for a given precipitation event or events. These changes include cumulative hydromodification caused by site development. Measures may include landscape-based measures or other features to reduce the velocity of, detain, and/or infiltrate stormwater runoff.

ii. The standards and guidance review shall be completed according to the schedule below. A summary of review, revision, and implementation status shall be submitted for acceptance by the Executive Officer and reported in the Dischargers' Annual Reports.

1. No later than March 1, 2002: The Dischargers shall submit a detailed workplan and schedule for completion of the review, revision, and implementation of revised standards and guidance;
2. No later than September 15, 2003: The Dischargers shall submit a draft review and analysis of local standards and guidance, opportunities for revision, and proposed revised standards and guidance; and,
3. No later than September 15, 2004: The Dischargers shall incorporate any revised standards and guidance into their local approval processes and shall be fully implementing the revised standards and guidance.

k. Source Control Measures Guidance Development: The Dischargers shall, as part of their continuous improvement process, submit enhanced New and Redevelopment Performance Standards which summarize source control requirements for new and redevelopment projects to limit pollutant generation, discharge, and runoff, to the maximum extent practicable.

Examples of source control measures may include the following, which are offered as examples:

i. Indoor mat/equipment wash racks for restaurants, or covered outdoor wash racks plumbed to the sanitary sewer;

ii. Covered trash and food compactor enclosures with a sanitary sewer connection for dumpster drips and designed such that run-on to trash enclosure areas is avoided;

iii. Sanitary sewer drains for swimming pools;

iv. Sanitary drained outdoor covered wash areas for vehicles, equipment, and accessories;

v. Sanitary sewer drain connections to take fire sprinkler test water;

vi. Storm drain system stenciling;

vii. Landscaping that minimizes irrigation and runoff, promotes surface infiltration where appropriate, minimizes the use of pesticides and fertilizers, and where feasible removes pollutants from stormwater runoff; and,

viii. Appropriate covers, drains, and storage precautions for outdoor material storage areas, loading docks, repair/maintenance bays, and fueling areas.

A model enhanced Performance Standard and proposed workplans for its implementation shall by submitted by March 1, 2003. Implementation shall begin no later than July 1, 2003, and the status shall thereafter be reported in the Dischargers' Annual Reports, which shall also provide appropriate detail on projects reflecting the application of the enhanced performance standards consistent with Provision C.3.b. above.

l. Update General Plans: At the next scheduled update/revision of its General Plan occurring after October 15, 2004, each Discharger shall confirm that it has incorporated water quality and watershed protection principles and policies into its General Plan or equivalent plan, to the extent necessary, if any, to require implementation of the measures required by Provision C.3. for applicable development projects. These principles and policies shall be designed to protect natural water bodies, reduce impervious land

coverage, slow runoff, and where feasible, maximize opportunities for infiltration of rainwater into soil. Such water quality and watershed protection principles and policies may include the following, which are offered as examples:

i. Minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and where feasible maximize on-site infiltration of runoff;

ii. Implement pollution prevention methods supplemented by pollutant source controls and treatment. Use small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into an MS4;

iii. Preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones. Encourage land acquisition of such areas;

iv. Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges;

v. Prior to making land use decisions, utilize methods available to estimate increases in pollutant loads and flows resulting from projected future development. Require incorporation of structural and non-structural BMPs to mitigate the projected increases in pollutant loads and flows;

vi. Avoid development of areas that are particularly susceptible to erosion and sediment loss; or establish development guidance that identifies these areas and protects them from erosion and sediment loss; and,

vii. Reduce pollutants associated with vehicles and increased traffic resulting from development.

If amendments of General Plans are determined to be legally necessary to allow for implementation of any aspect of Provision C 3., such amendments shall occur by the implementation date of the corresponding component of the Provision.

m. **Water Quality Review Processes:** When Dischargers conduct environmental review of projects in their jurisdictions, the Dischargers shall evaluate water quality effects and identify appropriate mitigation measures. This requirement shall be implemented by March 1, 2003. Questions that evaluate increased pollutants and flows from the proposed project include the following, which are offered as examples:

i. Would the proposed project result in an increase in pollutant discharges to receiving waters? Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash).

ii. Would the proposed project result in significant alteration of receiving water quality during or following construction?

iii. Would the proposed project result in increased impervious surfaces and associated increased runoff?

iv. Would the proposed project create a significant adverse environmental impact to drainage patterns due to changes in runoff flow rates or volumes?

v. Would the proposed project result in increased erosion in its watershed?

vi. Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, will it result in an increase in any pollutant for which the water body is already impaired?

vii. Would the proposed project have a potentially significant environmental impact on surface water quality, to marine, fresh, or wetland waters?

viii. Would the proposed project have a potentially significant adverse impact on ground water quality?

ix. Will the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?

x. Will the project impact aquatic, wetland, or riparian habitat?

n. **Reporting, including Pesticide Reduction Measures:** The Dischargers shall demonstrate compliance with the requirements of Provision C.3. by providing in their Annual Reports the information described in Table 1, beginning with the dates shown in Table 1 and continuing thereafter. In addition, the following information shall be collected for annual report submittal, beginning six months after adoption of this amendment, unless otherwise specified below.

i. For all new development and significant redevelopment projects which meet the Group 1 or Group 2 definitions in C.3.c., collect and report the name or other identifier, type of project (using the categories in Provision C.3.c.), site acreage or square footage, and square footage of new impervious surface. For significant redevelopment projects, the square footage of land disturbance will be reported.

ii. For projects that must implement treatment measures, report which treatment BMPs were used and numeric-sizing criteria employed, the operation and maintenance responsibility mechanism including responsible party, site design measures used, and source control measures required. This reporting shall begin in the annual report following the implementation date specified in C.3.c.

iii. A summary of the types of pesticide reduction measures required for those new development and significant redevelopment projects to be addressed under Provision C.3.c., and the percentage of such new development and significant redevelopment projects for which pesticide reduction measures were required. These measures are required under Provision C.9.d.ii., and relate directly to Provision C.3. requirements.

o. **Implementation Schedule:** The Dischargers shall implement the requirements of Provisions C.3.b. through C.3.n. according to the schedule in Table 2.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on October 17, 2001.

original signed by

Loretta K. Barsamian
Executive Officer

ATTACHMENTS:
Table 1. Summary of Annual and One-Time Reporting Requirements
Table 2. Implementation Schedule

Table 1. Summary of Annual and One-Time Reporting Requirements

Provision	Information to Report	Date
C.3.b *Develop't Project Approval Process*	List of any modifications made to development project approval process	2002 & 2003 annual reports
	Optional: Submit workplan for completion of C.3.b. requirements by July 1, 2003	March 1, 2002
C.3.c.i *Group 1 Workplan*	Optional: Submit workplan identifying incremental progress toward implementation of C.3.c.i. requirements by July 15, 2003	March 1, 2002
C.3.c.iii *Project Categories*	Optional: Propose an alternative minimum project size	April 15, 2004, may submit any time
C.3.c *O & M*	Details of O&M verification program: organizational structure, evaluation, proposed improvements, list/# of inspections and follow-up	beginning with 2003 annual report
C.3.f *Peak Runoff Limitation*	Submit a detailed workplan and schedule	March 1, 2002
	Submit literature review	Sept. 15, 2002
	Submit draft Hydrograph Modification Management Plan (HMMP)	March 1, 2003
	Submit final HMMP	October 15, 2003
C.3.g *Waiver*	Name and location of project which was granted a waiver; Project type and size; Percent impervious surface; Reason for granting the waiver; Terms of the waiver; The stormwater treatment project or regional treatment receiving the benefit, and the date of completion of the treatment project.	In each annual report; Begin the year a waiver is granted
C.3.h *Alternate Certification*	List the projects certified by someone other than a Discharger employee.	In each annual report
C.3.j *Site Design Guidance*	Summarize the status of review, revision, and implementation of Site Design Measures Guidance and standards	In each annual report, as applicable
	Submit workplan and schedule for revision of guidance	March 1, 2002
	Submit draft proposal of revised standards and guidance	Sept. 15, 2003
	Summarize how any revisions to site design standards and/or guidance have been incorporated into local approval process	Sept. 15, 2004 Annual report
C.3.k *Source Control*	Submit draft conditions of approval document for source control measures	Sept. 15, 2002
	Summarize how any revisions to source control measures guidance document have been implemented	2003 annual report

Table 1. Summary of Annual Reporting and One-Time Requirements, continued

C.3.l *General Plan*	Summarize any revisions to General Plans that direct land-use decisions and require implementation of consistent water quality protection measures for development projects	Year revision is made, no later than July 1, 2005
C.3.m *Environ'l Review*	Summarize any revisions to Environmental Review Processes	2003 & 2004 annual reports
C.3.n *Reporting*	List new development and redevelopment projects by name, type of project (using the categories in Provision C.3.e.), site acreage or square footage, square footage of new impervious surface. Where applicable, report treatment BMPs and numeric sizing criteria used, O&M responsibility mechanism, site design measures used, and source control measures required	In each annual report following implementation
	Describe the pesticide reduction measures required for new development and redevelopment projects; give percentage of new development and redevelopment projects for which pesticide reduction measures were required	In each annual report

Table 2: Implementation Schedule

Provision	Action	Implementation Date
C.3.b	Modify development project approval process as needed	July 1, 2003*
C.3.c *Project Categories*	Require stormwater treatment BMPs at Group 1 Projects	July 15, 2003*
	Require stormwater treatment BMPs at Group 2 Projects in addition to Group 1 Projects	October 15, 2004
	Optional: Propose an alternative minimum project size	Feb. 15, 2004
C.3.c *O & M*	Implement an O&M verification program for Group 1 Projects with structural in-ground BMPs such as sand filters, filter inlets, detention/ retention basins	July 15, 2003
	Implement an O&M verification program for Group 1 Projects with landscape and all other BMPs, such as vegetated swales, dry or wet ponds	October 15, 2003
	Begin reporting on O&M verification program in Annual Report	September 15, 2003

* This implementation date is subject to submittal of an acceptable workplan by March 1, 2002. If no acceptable workplan is received, the implementation date shall be October 15, 2002.

Table 2: Implementation Schedule, continued

C.3.f *Peak Runoff Limitation*	Submit a detailed workplan and schedule	March 1, 2002
	Submit literature review	Sept. 15, 2002
	Submit draft HMMP	March 1, 2003
	Submit final HMMP for Regional Board approval	October 15, 2003
	Implement HMMP	Following Regional Board approval
C.3.g *Waiver*	Report on any waiver(s) granted by the Discharger in Annual Report, due September 15 of each year	Begin the year a waiver is granted
C.3.j *Site Design*	Submit workplan and schedule for completion of review, revision, and implementation of design standards and guidance	March 1, 2002
	Submit draft proposal of revised standards and guidance	September 15, 2003
	Incorporate revisions into local process and fully implement site design standards and guidance	September 15, 2004
C.3.k *Source Control*	Submit draft conditions of approval document for source control measures	September 15, 2002
	Implement source control measures guidance document	March 1, 2003
C.3.l *General Plans*	Revise General Plans as necessary to direct land-use decisions and require implementation of consistent water quality protection measures for all development projects	July 1, 2005 or at next scheduled revision, whichever is first
C.3.m	Revise Environmental Review Processes as needed to evaluate water quality impacts of stormwater runoff from new development and significant redevelopment	March 1, 2003
C.3.n *Reporting*	See Table 1	See Table 1

ENCLOSURE

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

REVISED ORDER 01-024
NPDES PERMIT NO. CAS029718

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

SANTA CLARA VALLEY WATER DISTRICT, COUNTY OF SANTA CLARA, CITY OF CAMPBELL, CITY OF CUPERTINO, CITY OF LOS ALTOS, TOWN OF LOS ALTOS HILLS, TOWN OF LOS GATOS, CITY OF MILPITAS, CITY OF MONTE SERENO, CITY OF MOUNTAIN VIEW, CITY OF PALO ALTO, CITY OF SAN JOSE, CITY OF SANTA CLARA, CITY OF SARATOGA, AND CITY OF SUNNYVALE, which have joined together to form the SANTA CLARA VALLEY URBAN RUNOFF POLLUTION PREVENTION PROGRAM

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter referred to as the Regional Board) finds that:

1. The Santa Clara Valley Water District (hereinafter District), County of Santa Clara, City of Campbell, City of Cupertino, City of Los Altos, Town of Los Altos Hills, Town of Los Gatos, City of Milpitas, City of Monte Sereno, City of Mountain View, City of Palo Alto, City of San Jose, City of Santa Clara, City of Saratoga, and City of Sunnyvale (hereinafter referred to as the Dischargers) have joined together to form the Santa Clara Valley Urban Runoff Pollution Prevention Program (hereinafter referred to as the Program) and have submitted a permit application (Report of Waste Discharge), dated December 21, 1999, for re-issuance of waste discharge requirements under the National Pollutant Discharge Elimination System (NPDES) to discharge stormwater run off from storm drains and watercourses within the Dischargers' jurisdictions.

2. The Dischargers are currently subject to NPDES Permit No.CAS029718 issued by Order No. 95-180 on August 23, 1995, and modified by Order No. 99-050 on July 21, 1999.

3. The Dischargers each have jurisdiction over and/or maintenance responsibility for their respective municipal separate storm drain systems and/or watercourses in the Santa Clara basin. (See attached location and political jurisdiction map.) The basin can be divided into eleven sub basins or watersheds including the Coyote Creek watershed on the east side of the valley, the Guadalupe River watershed which drains the south-central portion of the valley, the San Francisquito Creek watershed which drains the northwest portion of the valley (and part of San Mateo County), and a series of small, relatively urbanized watersheds that drain the west side of the valley. (See attached basin watersheds map.) Discharge consists of the surface runoff generated from various land uses in all the hydrologic sub basins in the basin which discharge into watercourses, which in turn flow into South San Francisco Bay.

   The quality and quantity of these discharges varies considerably and is affected by hydrology, geology, land use, season, and sequence and duration of hydrologic event. Pollutants of concern in these discharges are certain heavy metals, excessive sediment production from erosion due to anthropogenic activities, petroleum hydrocarbons from sources such as used motor oil, microbial

pathogens of domestic sewage origin from illicit discharges, certain pesticides associated with the risk of acute aquatic toxicity, excessive nutrient loads which may cause or contribute to the depletion of dissolved oxygen and/or toxic concentrations and dissolved ammonia, and other pollutants which may cause aquatic toxicity in the receiving waters.

4. Section 402(p) of the federal Clean Water Act (CWA), as amended by the Water Quality Act of 1987, requires NPDES permits for stormwater discharges from separate municipal storm drain systems, stormwater discharges associated with industrial activity (including construction activities), and designated stormwater discharges which are considered significant contributors of pollutants to waters of the United States. On November 16, 1990, the United States Environmental Protection Agency (hereinafter US EPA) published regulations (40 CFR Part 122) which prescribe permit application requirements for municipal separate storm drain systems pursuant to Section 402(p) of the CWA. On May 17, 1996, USEPA published an Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems (MS4s), which provided guidance on permit application requirements for regulated MS4s.

5. This Order was developed in cooperation with the Santa Clara Basin Watershed Management Initiative (SCBWMI). The SCBWMI, in which the Program and several of the Dischargers are active participants, is a stakeholder driven process that commenced in June 1996 as a pilot effort by the Regional Board. The SCBWMI seeks to integrate regulatory and watershed programs in the South San Francisco Bay Region. As part of this process, Regional Board staff conducted a series of 10 meetings with the Regulatory Subgroup of the SCBWMI (which included RWQCB staff, representatives of the Dischargers, and representatives of local environmental groups and other interested parties), and solicited the Regulatory Subgroup's input and comments concerning the Dischargers' permit and permit application. Through this process, the Regulatory Subgroup attempted to identify, prioritize, and resolve issues related to the Dischargers' and Program's performance, the Management Plan, and this permit, and attempted to develop a consensus concerning the requirements reflected herein. This Permit also reflects the SCBWMI's recommendations concerning the role of the Program and Dischargers in watershed management activities in the Santa Clara Valley Basin and lower South San Francisco Bay.

6. On December 21, 1999, the Dischargers and the Program submitted a Permit Re-Application Package that included the Program's 1997 Urban Runoff Management Plan, the Dischargers' updated Urban Runoff Management Plans, the Program's Watershed 2000 Vision statement,[1] the Dischargers' updated Memorandum of Agreement and Bylaws for Program Funding and Management, and the Program's and Dischargers' Annual Reports for FY 1999/00 and Workplans for FY 2000/01, which will hereinafter collectively be known as the Management Plan. The intent of the Management Plan is to reduce the discharge of pollutants in stormwater to the maximum extent practicable, and in a manner designed to achieve compliance with water

[1] The Program's Watershed 2000 Vision, submitted as part of its December 21, 1999 Permit Re-Application Package, contains a five-year watershed education and outreach strategy that outlines the outreach efforts of the Santa Clara Basin Watershed Management Initiative. The strategy includes development, implementation, and evaluation of a county-wide Watershed Education and Outreach Campaign, beginning in FY 00-01. The goals of the Campaign are to 1) educate residents on the Santa Clara Basin watershed and how to protect it; 2) promote public involvement in watershed stewardship; and 3) change behaviors that negatively impact the watershed.

quality standards and objectives, and effectively prohibit non-stormwater discharges into municipal storm drain systems and watercourses within the Dischargers' jurisdictions. The Management Plan fulfills the Regional Board's permit application requirements subject to the condition that it will be improved and revised in accordance with the provisions of this Order.

7. The Management Plan describes a framework for management of stormwater discharges during the term of this permit. The title page and table of contents of the Program's 1997 Urban Runoff Management Plan (Management Plan) are attached to this Order. The 1997 Management Plan describes the Program's goals and objectives, and the annual reporting and program evaluation process. Performance Standards, which represent the baseline level of effort required of each of the Dischargers, are contained in Appendix A of the 1997 Management Plan. The baseline performance standards serve as a reference point upon which to base effectiveness evaluations and consideration of opportunities for improving them.

   Program activities are focused on the following elements:
   - Program Management
   - Annual Reporting and Evaluation
   - Monitoring
   - Public Agency Activities
   - Public Information and Participation
   - Metals Control Measures
   - Watershed Management Measures
   - Illicit Connection / Illegal Dumping Elimination
   - Industrial and Commercial Discharges
   - New Development and Construction
   - Continuous Improvement

   Each Discharger has developed an Urban Runoff Management Plan to reduce, control and/or otherwise address sources of discharge. The Dischargers' Management Plans incorporate Performance Standards that, where necessary, refine the model Performance Standards to suit local conditions. The Dischargers' Management Plans contain local strategies for urban runoff control, including tailored Performance Standards, workplans to implement Performance Standards, and Best Management Practices and Standard Operating Procedures that detail how control measures will be carried out day-to-day.

   The Program participates, in and contributes to, joint efforts with other entities, including regulatory agencies, public benefit corporations, universities, and citizens' groups. These entities take the lead on addressing particular sources because they are regional, statewide or national in scope, because they have different skills or expertise, or because they have appropriate regulatory authority.

   The Program will continue to build and actively participate in the SCBWMI. The Program and several of the Dischargers are stakeholders (signatories) in the SCBWMI and provide staff support and funding to the SCBWMI. The SCBWMI, as a stakeholder process, provides the tools to identify community goals and issues, and facilitates the development of common ground between stakeholders to recommend to policy-makers the actions needed to better manage watershed resources.

8. The Program and the Dischargers are dedicated to a process of continuous review and improvement, which includes seeking new opportunities to control stormwater pollution and to protect beneficial uses. Accordingly, the Program and the Dischargers will on a continuous basis conduct and document peer review and evaluation of each relevant element of each Dischargers program and revise activities, control measures, Best Management Practices (BMPs) and Performance Standards. These changes will be documented in the Annual Report and will be considered an enforceable component of this Order. These reviews provide an opportunity for local staff to experience peer review, and to explore Bay Area, statewide and national stormwater program models and to identify additional ways that the Program could assist local pollution-prevention efforts.

9. It is the intent of Regional Board staff to perform, in coordination with the Dischargers and interested persons, an annual performance review and evaluation of the Program and its activities. The reviews are a useful means of evaluating overall Program effectiveness, implementation of Performance Standards, and continuous improvement opportunities. The following areas will be evaluated:

   a. Overall Program effectiveness;

   b. Performance Standard improvements;

   c. Dischargers' coordination and implementation of watershed based management actions (e.g., flood management, new development and construction, industrial source controls, public information/participation, monitoring);

   d. Partnership opportunities with other Bay Area stormwater programs; and

   e. Consistency in meeting maximum extent practicable measures within the Program and with other Regional, Statewide, and National municipal stormwater management programs.

10. The Program is organized, coordinated, and implemented based upon a Memorandum of Agreement (MOA) and set of Bylaws signed by the Dischargers, which define roles and responsibilities of the Dischargers. The roles and responsibilities of the Dischargers are, in part, as follows:

    a. The Management Committee, which includes representatives from all of the Dischargers, is the decision making body of the Program. It operates within the budget and policies established by the Dischargers' governing boards and councils to decide matters of budget and policy necessary to implement the Management Plan, and provides direction to the Program Manager and staff. The Management Committee has established ad hoc task groups to assist in planning and implementation of the Management Plan, and may add, modify, or delete such groups as deemed necessary.

    b. Any party as defined within the Program MOA may act as the contracting/fiscal agent for the Program. A contracted Program Manager is responsible for implementation of the Program's self-monitoring activities and preparation and submittal of Program components of the Annual Report and Workplans. In acting as the Program's contracting/fiscal agent, a Discharger does not assume responsibility for the obligations assigned to other Dischargers

by this Order. Regardless of the presence of a Program Manager, Dischargers remain fully responsible for complying with all requirements of this permit.

c. Each of the Dischargers is individually responsible for adoption and enforcement of ordinances and policies, implementation of assigned control measures/best management practices (BMPs) needed to prevent or reduce pollutants in stormwater, and for providing funds for the capital, operation, and maintenance expenditures necessary to implement such control measures/BMPs within their jurisdiction. Each Discharger is also responsible for its share of the costs of the area-wide component of the Program as specified in the MOA and Bylaws. Except for the area-wide component of the Program, enforcement actions concerning this Order will be pursued only against the individual Discharger(s) responsible for specific violations of this Order.

11. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995, which was approved by the State Water Resources Control Board and the Office of Administrative Law on July 21 and November 13 of 1995, respectively. This updated and consolidated plan represents the Regional Board's master water quality control planning document. A summary of the regulatory provisions is contained in Title 23 of the California Code of Regulations at Section 3912. The Basin Plan identifies beneficial uses and water quality objectives for surface waters in the Region, as well as effluent limitations and discharge prohibitions intended to protect those uses. This Order implements the plans, policies, and provisions of the Board's Basin Plan.

12. The beneficial uses of South San Francisco Bay, its tributary streams and contiguous water bodies, and other water bodies within the drainage basin are listed in the Basin Plan.

13. The Regional Board considers stormwater discharges from the urban and developing areas in the San Francisco Bay Region, such as the Santa Clara Valley basin, to be significant sources of certain pollutants in waters of the Region that may be causing or threatening to cause or contribute to water quality impairment. Furthermore, as delineated on the CWA Section 303(d) list, the Regional Board finds that there is a reasonable potential that municipal stormwater discharges may cause or contribute to an excursion above water quality standards for: mercury, PCBs, dioxins, furans, diazinon, dieldrin, chlordane, and DDT in South San Francisco Bay; diazinon in Calabazas Creek, Coyote Creek, Guadalupe Creek, the Guadalupe River, Los Gatos Creek, Matadero Creek, San Francisquito Creek, Saratoga Creek, and Stevens Creek, mercury in the Guadalupe River, Alamitos Creek, Guadalupe Creek, Calero Reservoir, and Guadalupe Reservoir;[2] and sediment in San Francisquito Creek and possibly other creeks in the Santa Clara Basin. In accordance with CWA Section 303(d), the Regional Board is required to establish the Total Maximum Daily Loads (TMDLs) of these pollutants to these waters sufficient to eliminate impairment and attain water quality standards. Therefore, certain early actions and/or further assessments by the Dischargers are warranted and required pursuant to this Order.

[2] In addition, in May 2000, the Regional Board transmitted a Report to US EPA entitled, "Watershed Management of Mercury in the San Francisco Bay Estuary: Draft Total Maximum Daily Load." The Regional Board has listed all segments of San Francisco Bay as impaired due to mercury pollution. The Report indicates that urban runoff serves as a conveyance for mercury, and recommends certain actions by urban runoff programs when a mercury TMDL has been adopted.

In addition, pursuant to Provision C.1 of Order No. 95-180 as modified by Order No. 99-050, the Program's and Dischargers' Annual Reports dated September 1, 1999 and September 1, 2000 included delineations of control measures designed to address specific pollutants of concern in the near term and a program of continuous improvement to further address these pollutants and their adverse water quality impacts over time. The Regional Board has reviewed these prior Provision C.1 submissions and, in response, is including additional requirements in Provision C.9 of this Order to continue implementation of previously delineated pollutant specific control measures and identification and implementation of additional control measures necessary to prevent or reduce discharges of pollutants that are causing or contributing to the exceedance of water quality standards.

14. The Regional Board had made previous findings that municipal stormwater discharges from the urban and developing areas in the San Francisco Bay Region, such as the Santa Clara Basin, cause or contribute to excursions above water quality standards for copper and nickel in South San Francisco Bay, south of the Dumbarton Bridge (Lower South San Francisco Bay). However, recent studies and related actions as described below provide cause for the Regional Board to revise the finding.

    a. A cooperative effort was initiated in 1998 to establish TMDLs for copper and nickel in Lower South San Francisco Bay. The SCBWMI established the TMDL Workgroup (TWG) as a stakeholder group to oversee and provide input and advice on development of the TMDLs. The TWG included representatives from the Dischargers, Regional and State Board staff, US EPA, San Francisco Estuary Institute, California Department of Fish and Game, environmental groups (CLEAN South Bay and Silicon Valley Toxics Coalition), business groups (Chamber of Commerce, Silicon Valley Manufacturing Group, and the Copper Development Association), Silicon Valley Pollution Prevention Center, and others.

    b. At its April 14, 2000 meeting the TWG approved the following reports and forwarded them to the SCBWMI: Impairment Assessment Report and Copper Action Plan. The TWG also approved an outline of a Nickel Action Plan.

    c. The Impairment Assessment Report (dated June 2000) recommends the establishment of site-specific objectives for Lower South San Francisco Bay in the range of 5.5 to 11.6 µg/l for dissolved copper and in the range of 11.9 to 24.4 µg/l for dissolved nickel and concludes that impairment of Lower South San Francisco Bay due to copper or nickel is unlikely. Accordingly, the report recommends that copper and nickel be removed from the CWA Section 303(d) list. The report also identifies specific areas of uncertainty associated with the finding that impairment is unlikely. Action Plan implementation items should address these uncertainties.

    d. The Copper Action Plan (dated June 2000) contains specific actions to be implemented by various entities. Actions applicable to the Dischargers are described in Appendix B of this Order. These include immediate pollution prevention Baseline actions and additional actions that would be triggered by specific increases in ambient concentrations. The plan calls for monitoring of municipal wastewater and urban runoff copper loading and dissolved copper in Lower South San Francisco Bay during the dry season. If the mean dissolved copper

concentrations measured at certain specified stations[3] increases from its current level of 3.2 µg/l to 4.0 µg/l or higher, Phase 1 actions would be triggered to further control copper discharges. If the mean dissolved copper concentration increases to 4.4 µg/l, Phase 2 actions would be triggered. Such incremental increases in mean dissolved copper concentrations shall be used solely for triggering the aforementioned actions. If dischargers into the Lower South San Francisco Bay demonstrate that the increases in copper concentrations are due to factors beyond their control, the Regional Board will consider eliminating or postponing actions required under Phase 1 or Phase 2 of the Copper Action Plan.

e. The Nickel Action Plan (dated August 23, 2000) contains specific actions to be implemented by various entities. Actions applicable to the Dischargers are described in Appendix C of this Order. These include immediate pollution prevention Baseline actions and additional actions that would be triggered by specific increases in ambient concentrations. The plan calls for monitoring of municipal wastewater and urban runoff copper loading and dissolved copper in Lower South San Francisco Bay during the dry season. If the mean dissolved nickel concentrations measured at certain specified stations[3] increases from its current level of 3.8 µg/l to 6.0 µg/l or higher, Phase 1 actions would be triggered to further control nickel discharges. If the mean dissolved nickel concentration increases to 8.0 µg/l, Phase 2 actions would be triggered. Such incremental increases in mean dissolved nickel concentrations shall be used solely for triggering the aforementioned actions. If dischargers into the Lower South San Francisco Bay demonstrate that the increases in nickel concentrations are due to factors beyond their control, the Board will consider eliminating or postponing actions required under Phase 1 or Phase 2 of the Nickel Action Plan.

f. Some Baseline, Phase 1, and Phase 2 actions in the Copper Action Plan and Nickel Action Plan may require the assistance of the Regional Board to co-ordinate and assist in the efforts of dischargers into the Lower South San Francisco Bay and other entities to limit or reduce copper and nickel levels in the Lower South San Francisco Bay. It is the intent of the Regional Board that its staff will to the extent practicable coordinate and assist Baseline, Phase 1, and Phase 2 actions as identified in the Copper Action Plan and Nickel Action Plan.

g. Based upon the information contained in the Impairment Assessment Report, the Regional Board hereby concludes that Lower South San Francisco Bay is not impaired by copper or nickel. Therefore, it is the intent of the Regional Board to remove Lower South San Francisco Bay from the CWA Section 303(d) list of impaired water bodies for copper and nickel the next time the list is updated. This conclusion is based on data collected in Lower South San Francisco Bay from 1997 to 1999 which show that the mean dissolved copper concentration was 2.7 µg/l (range 0.8 to 4.9 µg/l) and that the mean dissolved nickel concentration was 3.8 µg/l (range 1.5 to 10.1 µg/l) and these data are below the lowest end of the suggested ranges for site specific objectives in the Impairment Assessment Report of 5.5 to 11.6 µg/l for dissolved copper and 11.9 to 24.4 µg/l for dissolved nickel.

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[3] Ten stations described in the Copper Action Plan are being monitored monthly during the dry season (May through October) for dissolved copper and nickel by the Publicly Owned Treatment Works (POTWs) that discharge to Lower South San Francisco Bay. The results of this monitoring will be reported by the POTWs in their monthly and annual Self Monitoring Reports submitted to the Regional Board and to the SCBWMI Regulatory Subgroup.

h. It is the intent of the Regional Board to amend the Basin Plan to establish site-specific objectives for copper and nickel for Lower South San Francisco Bay. Information contained in the Impairment Assessment Report, along with other information, including information to be developed by the Dischargers for review and consideration by the Regional Board, will be used to establish the objectives. It is the intent of the Regional Board to establish appropriate site-specific objectives using available state and/or federal water quality guidance and procedures.

i. The Regional Board has adopted similar findings as those noted above in the October 2000 amendments to the NPDES permits for the POTWs that discharge to Lower South San Francisco Bay, relative to the results and conclusion of the copper and nickel TMDL studies.

15. In Order No. 99-059 regarding the NPDES stormwater permit for the San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP), the Regional Board required STOPPP to develop and implement an erosion control and prevention plan for the San Francisquito Creek watershed that drains approximately 45 square miles – 80% of which lies within the boundaries of San Mateo County. The Santa Clara Valley Water District, in partnership with the United States Geological Survey, adjacent municipal governments, and regional and state regulatory boards, has assumed a proactive role toward development of a sediment analysis within the San Francisquito Creek watershed. This ongoing effort included the development of a decision support system with community stakeholders, assisting continued development of STOPPP's erosion control plan, and characterization of management practices. It is the Regional Board's intent to continue to direct STOPPP to make progress on this issue, and to have the Dischargers work cooperatively with STOPPP to build upon the efforts already initiated without assuming a disproportionate share of the burden to resolve sediment issues is this watershed.

16. This Order contains in Provision C.5 the requirement to create an effective BMP approach for the following rural public works maintenance and support activities: a) management and/or removal of large woody debris and live vegetation from stream channels; b) streambank stabilization projects; c) road construction, maintenance, and repairs in rural areas to prevent and control road-related erosion; and d) environmental permitting for rural public works activities.

17. The Management Plan contains performance standards and supporting documents to address the post-construction and construction phase impacts of new and redevelopment projects on stormwater quality (Planning Procedures and Construction Inspection Performance Standards). The Dischargers will continue to implement these performance standards and continuously improve them to the maximum extent practicable for new development as described in Provision C.3.a. Provision C.3.b. which was in the October, 2000 Tentative Order has been removed in this draft, and only the current performance standard for New Development Planning Procedures from the existing permit, included in Provision C.3.a, has been retained. Provision C.3.b. will be extensively revised and the Order will be amended to address significant changes to Provision C.3 in the near future. The Dischargers consent to reopening the permit to address revisions to Provision C.3. The Order will be proposed for amendment in response to comments received and the need to address the "Cities of Bellflower, et. al." decision by the State Board (State Board Order No. 2000-11). When the Order is re-noticed for amendment of Provision C.3, supplemental comments will be taken, and all comments relating to Provision C.3 will receive appropriate response at that time.

18. On April 15, 1992, the Board adopted Resolution No. 92-043 directing the Executive Officer to implement the Regional Monitoring Program for San Francisco Bay. Subsequent to a public hearing and various meetings, Board staff requested major permit holders in this region, under authority of Section 13267 of California Water Code, to report on the water quality of the estuary. These permit holders, including the Dischargers, responded to this request by participating in a collaborative effort, through the San Francisco Estuary Institute. This effort has come to be known as the San Francisco Estuary Regional Monitoring Program for Trace Substances (RMP). The RMP involves collection and analysis of data on pollutants and toxicity in water, sediment and biota of the estuary. This Order specifies that the Dischargers shall continue to participate in the RMP or shall submit and implement an acceptable alternative monitoring plan. Annual reports from the RMP are referenced elsewhere in this Order.

19. The San Francisco Estuary Project, established pursuant to CWA Section 320, culminated in June of 1993 with completion of its Comprehensive Conservation and Management Plan (CCMP) for the preservation, restoration, and enhancement of the San Francisco Bay-Delta Estuary. The CCMP includes recommended actions in the areas of aquatic resources, wildlife, wetlands, water use, pollution prevention and reduction, dredging and waterway modification, land use, public involvement and education, and research and monitoring. Recommended actions which may, in part, be addressed through implementation of the Dischargers' Management Plan include, but are not limited to, the following:

    a. Action PO-2.1: Pursue a mass emissions strategy to reduce pollutant discharges into the Estuary from point and nonpoint sources and to address the accumulation of pollutants in estuarine organisms and sediments.

    b. Action PO-2.4: Improve the management and control of urban runoff from public and private sources.

    c. Action PO-2.5: Develop control measures to reduce pollutant loadings from energy and transportation systems.

    d. Action LU-1.1: Local General Plans should incorporate watershed protection plans to protect wetlands and stream environments and reduce pollutants in runoff.

    e. Action LU-3.1: Prepare and implement Watershed Management Plans that include the following complementary elements: 1) wetlands protection; 2) stream environment protection; and, 3) reduction of pollutants in runoff.

    f. Action LU-3.2: Develop and implement guidelines for site planning and Best Management Practices.

    g. Action PI-2.3: Work with educational groups, interpretive centers, decision-makers, and the general public to build awareness, appreciation, knowledge, and understanding of the Estuary's natural resources and the need to protect them. This would include how these natural resources contribute to and interact with social and economic values.

20. On February 1, 1989, pursuant to Section 304(l) of the Clean Water Act, as amended by the Water Quality Act of 1987, the State Water Resources Control Board included South San Francisco Bay, below the Dumbarton Bridge (South Bay), on the 304(l)(1)(B) list of impaired waters for the pollutants cadmium, chromium, copper, lead, mercury, nickel, silver, selenium,

and zinc (304(l) metals) and included the Dischargers on the 304(l)(1)(C) list of point sources discharging the listed pollutants. Order No. 90-094 served as an Individual Control Strategy required by Section 304(l) for point sources on the 304(l)(1)(C) list. The Individual Control Strategy was designed to produce a reduction in the discharge of toxic pollutants from stormwater discharges sufficient, in combination with controls on point and nonpoint sources of pollutants, to achieve applicable water quality standards no later than three years after the date of the establishment of the Individual Control Strategy.

The Regional Board reviewed reports submitted by the Dischargers between June of 1990 and September of 1993 and San Francisco Regional Monitoring Program for Trace Substances data and found that the Dischargers made considerable progress in reducing the discharge of pollutants, including 304(l) metals, but that the South Bay remained impaired and applicable water quality objectives had not been achieved. Consequently, on December 15, 1993, the Regional Board adopted Cease and Desist Order No. 93-164 which required the Dischargers to submit a plan identifying measures for further control of the 304(l) metals and assigning responsibilities and time schedules for implementation of such control measures. The Dischargers' Management Plan includes an implementation plan for Metals Control Measures. This Order requires implementation of the Management Plan and the Metals Control Measures and their annual evaluation and update and serves as a continuation of the Individual Control Strategy.

21. It is the Regional Board's intent that this Order shall ensure attainment of applicable water quality objectives and protection of the beneficial uses of receiving waters and associated habitat. This Order therefore includes standard requirements to the effect that discharges shall not cause violations of water quality objectives nor shall they cause certain conditions to occur which create a condition of nuisance or water quality impairment in receiving waters. Accordingly, the Regional Board is requiring that these standard requirements be addressed through the implementation of technically and economically feasible control measures to reduce pollutants in stormwater discharges to the maximum extent practicable as provided in Provisions C.1 through C.10 of this Order. Compliance with Provisions C.1 through C.10 is deemed compliance with the requirements of this Order. If these measures, in combination with controls on other point and nonpoint sources of pollutants, do not result in attainment of applicable water quality objectives, the Regional Board will reopen this permit pursuant to Provisions C.1 and C.12 of this Order to impose additional conditions which require implementation of additional control measures.

22. It is generally not considered feasible at this time to establish numeric effluent limitations for pollutants in municipal stormwater discharges. Instead, the provisions of this permit require implementation of Best Management Practices to control and abate the discharge of pollutants in stormwater discharges.

23. The Regional Board considers the Management Plan an essential component of an urban watershed management plan for the Santa Clara Basin and its eleven sub basins or watersheds. The Management Plan is intended to provide a framework for protection and restoration of the Santa Clara Basin watersheds and the Lower South San Francisco Bay in part through effective

and efficient implementation of appropriate control measures for the most important sources of pollutants within the watersheds.

24. The State Board has issued NPDES general permits for the regulation of stormwater discharges associated with industrial activities and construction activities. To effectively implement the Industrial and Commercial Dischargers and New Development and Construction elements of the Management Plan, the Dischargers will conduct investigations and local regulatory activities at industries and construction sites covered by these general permits. However, under the Clean Water Act, the Regional Board cannot delegate to the Dischargers its own authority to enforce these general permits. Therefore, Regional Board staff intend to work cooperatively with the Dischargers to ensure that industries and construction sites within the Dischargers' jurisdictions are in compliance with applicable general permit requirements and are not subject to uncoordinated stormwater regulatory activities.

25. Federal, state, or regional entities within the Dischargers' boundaries, not currently named in this Order, operate storm drain facilities and/or discharge stormwater to the storm drains and watercourses covered by this Order. The Dischargers may lack legal jurisdiction over these entities under the state and federal constitutions. Consequently, the Regional Board recognizes that the Dischargers should not be held responsible for such facilities and/or discharges. The definition of discharges of stormwater in the federal NPDES regulations may result in federal, state, or regional entities within the Santa Clara Basin, not currently named in this Order, being subject to NPDES permitting regulations. The Regional Board will consider issuing separate NPDES permits for such stormwater discharges to other federal, state, or regional entities within the Dischargers' boundaries or amending this permit to include such dischargers.

26. The action to adopt a NPDES permit is exempt from the provisions of the California Environmental Quality Act (Division 13 of the Public Resources Code, Chapter 3, Section 21100, et. seq.) in accordance with Section 13389 of the California Water Code.

27. The Regional Board will notify interested agencies and interested persons of the availability of reports, plans, and schedules, including Annual Reports, Work Plans, Performance Standards, and the Management Plan, and will provide interested persons with an opportunity for a public hearing and/or an opportunity to submit their written views and recommendations. The Regional Board will consider all comments and may modify the reports, plans, or schedules or may modify this Order in accordance with the NPDES permit regulations. All submittals required by this Order conditioned with acceptance by the Executive Officer will be subject to these notification, comment, and public hearing procedures.

28. The Regional Board has notified the Dischargers and interested agencies and interested persons of its intent to prescribe reissued waste discharge requirements and a reissued NPDES permit for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

29. The Regional Board, at a properly noticed public meeting, heard and considered all comments pertaining to the discharge.

30. It is the intention of the Regional Board that this Order supersedes Order Nos. 90-094, 92-021, 93-164, 95-180, and 99-050.

31. This Order serves as a NPDES permit, pursuant to CWA Section 402, or amendments thereto, and shall become effective ten days after the date of its adoption provided the Regional Administrator, US EPA, Region IX, has no objections.

IT IS HEREBY ORDERED that the Dischargers, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted hereunder, shall comply with the following:

A DISCHARGE PROHIBITION

The Dischargers shall, within their respective jurisdictions, effectively prohibit the discharge of non-stormwater (materials other than stormwater) into the storm drain systems and watercourses. NPDES permitted discharges are exempt from this prohibition. Compliance with this prohibition shall be demonstrated in accordance with Provision C.1 and C.8 of this Order. Provision C.8 describes a tiered categorization of non-stormwater discharges based on potential for pollutant content.

B RECEIVING WATER LIMITATIONS

1. The discharge shall not cause the following conditions to create a condition of nuisance or to adversely affect beneficial uses of waters of the State:

   a. Floating, suspended, or deposited macroscopic particulate matter, or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin; and/or

   e. Substances present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption.

2. The discharge shall not cause or contribute to a violation of any applicable water quality standard for receiving waters contained in the Regional Board Basin Plan. If applicable water quality objectives are adopted and approved by the State Board after the date of the adoption of this Order, the Regional Board may revise and modify this Order as appropriate.

C. PROVISIONS

1. The Dischargers shall comply with Discharge Prohibition A and Receiving Water Limitations B.1 and B.2 through the timely implementation of control measures and other actions to reduce pollutants in the discharge in accordance with the Management Plan and other requirements of

this permit, including any modifications. The Management Plan shall be designed to achieve compliance with Receiving Water Limitations B.1 and B.2. If exceedance(s) of water quality standards or water quality objectives (collectively WQSs) persist notwithstanding implementation of the Management Plan, a Discharger shall assure compliance with Discharge Prohibition A.1 and Receiving Water Limitations B.1 and B.2 by complying with the following procedure:

a. Upon a determination by either the Discharger(s) or the Regional Board that discharges are causing or contributing to an exceedance of an applicable WQS, the Discharger(s) shall promptly notify and thereafter submit a report to the Regional Board that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of WQSs. The report may be incorporated in the annual update to the Management Plan unless the Regional Board directs an earlier submittal. The report shall include an implementation schedule. The Regional Board may require modifications to the report;

b. Submit any modifications to the report required by the Regional Board within 30 days of notification;

c. Within 30 days following approval of the report described above by the Regional Board, the Dischargers shall revise the Management Plan and monitoring program to incorporate the approved modified control measures that have been and will be implemented, the implementation schedule, and any additional monitoring required;

d. Implement the revised Management Plan and monitoring program in accordance with the approved schedule.

As long as Dischargers have complied with the procedures set forth above and are implementing the revised Management Plan, they do not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the Regional Board to develop additional control measures and BMPs.

2. Urban Runoff Management Plan and Performance Standards

a. The Dischargers shall implement control measures and best management practices to reduce pollutants in stormwater discharges to the maximum extent practicable. The Management Plan shall serve as the framework for identification, assignment, and implementation of such control measures/BMPs. The Management Plan contains Performance Standards that address the following Program elements: Illicit Connection/Illegal Discharge Control; Industrial/Commercial Discharger Control; Public Streets, Roads, and Highways Operation and Maintenance; Storm Drain Operation and Maintenance; Water Utility Operation and Maintenance; and New Development Planning Procedures and Construction Inspection. Performance Standards are defined as the level of implementation necessary to demonstrate the control of pollutants in stormwater to the maximum extent practicable. The Dischargers shall implement the Management Plan, and shall, through its continuous improvement process[4], subsequently demonstrate its effectiveness and provide for necessary and

[4] Continuous Improvement shall be defined as seeking new opportunities for improving Program effectiveness, controlling stormwater pollution, and, protecting beneficial uses. The Program's approach to implementing Performance Standards explicitly

appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable and as required by Provisions C.1 through C.10 of this Order.

b. The Management Plan shall be revised to adopt and incorporate any new Performance Standards developed by the Dischargers or any revised Performance Standard identified by the Dischargers through the Program's continuous improvement process. Performance Standards shall be developed or revised through a process which includes 1) opportunities for public participation, 2) appropriate external technical input and criteria for the applicability, economic feasibility, cost effectiveness, design, operation, and maintenance, and 3) measures for evaluation of effectiveness so as to achieve pollutant reduction or pollution prevention benefits to the maximum extent practicable. New or revised Performance Standards may be based upon special studies or other activities conducted by the Dischargers, literature review, or special studies conducted by other programs or dischargers. New or revised Performance Standards shall include the baseline components to be accomplished and the method to be used to verify that the Performance Standard has been achieved. The Dischargers shall incorporate newly developed or updated Performance Standards, acceptable to the Executive Officer, into applicable annual revisions to the Management Plan and adhere to implementation of the new/revised Performance Standard(s). In addition to the annual Management Plan revisions, the Dischargers shall submit a compilation of all annual Management Plan revisions by September 1, 2004, which shall serve in part as the re-application for the next permit. The draft Annual Workplan required in Provision C.6 shall identify any Performance Standards that will be developed or revised for the upcoming fiscal year. Following the addition/revision of a Performance Standard, acceptable to the Executive Officer, the Dischargers for which the Performance Standard is applicable shall adhere to its implementation.

3. **New and Redevelopment Performance Standards**

The Management Plan contains performance standards and supporting documents to address the post-construction and construction phase impacts of new and redevelopment projects on stormwater quality (Planning Procedures and Construction Inspection Performance Standards). The Dischargers will continue to implement these performance standards and continuously improve them to the maximum extent practicable in accordance with the following sections.

a. Planning Procedures

i) The Dischargers will continue to implement and continually improve the following performance standards for planning procedures:

1. Each Discharger shall have adequate legal authority to implement new development control measures as part of its development plan review and approval procedures.

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acknowledges that "Maximum Extent Practicable" (MEP) is an ever evolving, flexible and advancing concept. As knowledge about controlling urban runoff continues to evolve so does the definition of MEP.

2. Each Discharger shall provide developers with information and guidance materials on site design guidelines, building permit requirements, and BMPs for stormwater pollution prevention early in the application process, as appropriate for the type of project.

3. Environmental documents required for those projects that fall under CEQA or NEPA review, such as EIRs, negative declarations, and initial study checklists, shall address stormwater quality impacts during the life of the project (both significant and cumulative), required permits, and specific mitigation measures related to stormwater quality.

4. Each Discharger, to the maximum extent practicable, shall require developers of projects with significant stormwater pollution potential[5] to mitigate stormwater quality impacts, through proper site planning and design techniques and/or/or addition of permanent post-construction stormwater treatment control measures ("treatment controls").

5. Each Discharger shall require developers of projects that disturb a land area of five acres or more to demonstrate coverage under the State General Construction Activity StormWater Permit.

6. Each Discharger shall require developers of projects with potential for significant erosion and planned construction activity during the wet season (as defined by local ordinance) to prepare and implement an effective erosion and/or sediment control plan or similar document prior to the start of the wet season.

7. Each Discharger shall require developers of projects that include installation of permanent structural stormwater controls to establish and provide a method for operation and maintenance of such structural controls.

8. Each Discharger shall ensure that municipal capital improvement projects include stormwater quality control measures during and after construction, as appropriate for each project, and that contractors comply with stormwater quality control requirements during construction and maintenance activities.

9. Each Discharger shall provide training at least annually to its planning, building, and public works staffs on planning procedures, policies, design guidelines, and BMPs for stormwater pollution prevention.

4. Public Information / Public Participation Basic Performance Standards

The goals of public information and participation (PI/P) are to identify and change behaviors that adversely affect water quality and to increase the understanding and appreciation of streams and the San Francisco Bay. To meet these goals the Dischargers shall implement the January 3, 2001 Watershed Education & Outreach Campaign Conceptual Plan. PI/P activities shall be conducted locally, county-wide and in collaboration with other regional agencies. At a minimum, annual PI/P efforts must include general outreach, targeted outreach (including outreach to municipal

[5] A project with significant stormwater pollution potential is defined as one that causes substantial or potentially substantial adverse change in the quantity and/or quality of stormwater runoff generated from the site. (This is consistent with the CEQA definition of significance and currently requires professional judgment.)

staff within each Dischargers' jurisdictions), educational programs, and citizen participation activities designed to further the objectives and meet the requirements of this permit. Annual Draft Workplans shall state the PI/P activities each Discharger will conduct or participate in to meet the requirements of this provision. Both the level of implementation and the effectiveness of PI/P activities shall be reported annually. Effectiveness may be measured through direct or indirect means, such as observation of business/citizen behavior; surveys; and/or analysis of available data on public involvement in or response to PI/P activities. The implementation and effectiveness of each PI/P activity shall be reported in the Annual Report.

5. Performance Standard for Rural Public Works Maintenance and Support

The Program shall develop by June 30, 2002, Performance Standards, annual training and technical assistance needs, and annual reporting requirements for the following rural public works maintenance and support activities: a) management and/or removal of large woody debris and live vegetation from stream channels; b) streambank stabilization projects; c) road construction, maintenance, and repairs in rural areas to prevent and control road-related erosion; and d) environmental permitting for rural public works activities.

6. Annual Reports and Workplans

a. The Dischargers shall submit an Annual Report by September 15 of each year, documenting the status of the Program's and the Dischargers' activities during the previous fiscal year, including the results of a qualitative field level assessment of activities implemented by the Dischargers, and the performance of tasks contained in the Management Plan.

The Annual Report shall include a compilation of deliverables and milestones completed during the previous 12-month period, as described in the Management Plan and Annual Workplan. In each Annual Report, the Dischargers may propose pertinent updates, improvements, or revisions to the Management Plan, which shall be complied with under this Order unless disapproved by the Executive Officer or acted upon in accordance with Provision C.12. As part of the Annual Report process, each Discharger shall evaluate the effectiveness of the activities completed during the reporting period. Direct and indirect measures of effectiveness may include, but are not limited to, conformance with established Performance Standards, quantitative monitoring to assess the effectiveness of control measures, measurements or estimates of pollutant load reductions, detailed accounting of Program accomplishments, funds expended, or staff hours utilized. Methods to improve effectiveness in the implementation of tasks and activities including development of new, or modification of existing, Performance Standards, shall be identified through the Program's continuous improvement process, where appropriate.

In each Annual Report, the Dischargers shall propose pertinent updates, improvements, or revisions to the Management Plan, which shall be deemed to be incorporated into this Order unless disapproved of by the Executive Officer or acted on in accordance with Provision C.11.

i. Enhanced Annual Reporting Requirements for Industrial/Commercial Discharger Control Program

The goal of industrial and commercial discharger control measures is to reduce or eliminate adverse water quality impacts from activities conducted at any industrial and commercial site within the Dischargers' jurisdictions which has a potential for significant urban runoff pollution. Performance measures for this program area are in the various program management plans, which are included in this permit by reference. Enhanced annual reporting shall, at a minimum, include the number of inspections conducted grouped into reasonably descriptive industry and commercial business categories. If any actual non-compliance or threatened non-compliance is noted during the inspection, the nature of follow-up will be reported, through resolution of the noted issue, up to and including enforcement action. Dischargers shall describe the procedures for this program component in the September 2001 Annual Report and begin implementing these procedures immediately thereafter.

The range of industrial and commercial businesses that will require regular inspection is not limited to those industrial sites that are required to obtain coverage under the State's Industrial Stormwater NPDES General Permit. The Program shall propose the categories of industrial and commercial businesses that the Dischargers shall commit to inspecting, along with proposed inspection frequencies, in the September 2001 Annual Report. The Dischargers shall begin implementing these procedures immediately thereafter.

Frequency of inspection of a given site or category of industry or commercial business may vary depending upon known or anticipated threat to water quality, but should not be less frequent than once in five years. Inspection frequency can be reduced for sites that demonstrate a history of compliance or exhibit little threat to water quality, and inspection frequency should be increased for sites that demonstrate non-compliance, or exhibit significant threat to water quality.

ii. Enhanced Annual Reporting Requirements for Illicit Connection and Illegal Dumping Elimination Activities

The goal of illicit connection and illegal dumping control measures is to identify and eliminate non-permissible non-stormwater discharges associated with illegal dumping or illicit connections to the storm drain system. Performance measures for this program area are in the various program management plans, which are included in this permit by reference. Enhanced annual reporting for this program area shall, at a minimum, include number of responses to reports of potential impacts to water quality, complaints, spills, and other similar reports. These should be, at a minimum, characterized as to report source, nature of the report, location of the event, reported source of pollutants, and follow-up and investigation, if any. In addition, for any actual non-compliance or threatened non-compliance noted during the investigation of the report, the nature of follow-up will be reported, through resolution of the noted issue, up to and including enforcement action. Dischargers shall describe the procedures for this program

component in the September 2001 Annual Report and begin implementing these procedures immediately thereafter.

b. By March 1 of the year following the submission of each Annual Report, the Dischargers shall submit draft Workplans that describe the proposed implementation of the Management Plan and the Watersheds 2000 Vision Statement (from the NPDES Permit Re-application, 12/21/99) for the next fiscal year.

The Workplans shall consider the status of implementation of current year activities and actions of the Dischargers, problems encountered, and proposed solutions, and shall address any comments received from the Executive Officer on the previous year Annual Report. The Workplans shall include clearly defined tasks, responsibilities, and schedules for implementation of Program and Discharger actions for the next fiscal year. The Workplans shall also include a proposal for development of new, or modification of existing, Performance Standards in accordance with Provision C.2.b and alternative monitoring activities as required in Provision C.7.

The Workplans shall be deemed to be final and incorporated into the Management Plan and this Order as of July 1 unless previously determined to be unacceptable by the Executive Officer. The Dischargers shall address any comments or conditions of acceptability received from the Executive Officer on their draft Workplans prior to the submission of their Annual Report on September 15, at which time the modified Workplans shall be deemed to be incorporated into the Management Plan and this Order unless disapproved of by the Executive Officer.

7. Monitoring Program

a. The Dischargers shall implement a Monitoring Program that supports the development and implementation and demonstrates the effectiveness of the Management Plan and related work conducted through the Santa Clara Basin Watershed Management Initiative. The Monitoring Program shall be designed to achieve the following objectives:

- Characterization of representative drainage areas and stormwater discharges, including land-use characteristics, pollutant concentrations, and mass loading;
- Assessment of existing or potential adverse impacts on beneficial uses caused by pollutants of concern in stormwater discharges, including an evaluation of representative receiving waters;
- Identification of potential sources of pollutants of concern found in stormwater discharges; and
- Evaluation of effectiveness of representative stormwater pollution prevention or control measures.

The Monitoring Program shall include the following:

i. Provision for conducting and reporting the results of special studies conducted by the Dischargers which are designed to determine effectiveness of BMPs or control measures,

define a Performance Standard or assess the adverse impacts of a pollutant or pollutants on beneficial uses.

ii. Provisions for conducting watershed monitoring activities including: identification of major sources of pollutants of concern; evaluation of the effectiveness of control measures and BMPs; and use of physical, chemical and biological parameters and indicators as appropriate.

iii. Identification and justification of representative sampling locations, frequencies and methods, suite of pollutants to be analyzed, analytical methods, and quality assurance procedures. Alternative monitoring methods in place of these (special projects, financial participation in regional, state, or national special projects or research, literature review, visual observations, use of indicator parameters, recognition and reliance on special studies conducted by other programs, etc.) may be proposed with justification. Alternative monitoring methods may include participation in the Bay Area Stormwater Management Agencies Association's Regional Monitoring Strategy and related projects.

b. Multi-Year Receiving Waters Monitoring Plan In conjunction with the submissions required by Provision C.9, the Dischargers shall submit by July 1, 2001, an interim draft of a Five-Year Receiving Waters Monitoring Plan, and, by March 1, 2002, a final Five-Year Receiving Waters Monitoring Plan acceptable to the Executive Officer, designed to comply with these Monitoring Program requirements. The Receiving Waters Monitoring Plan shall include provisions for monitoring South San Francisco Bay by participating in the San Francisco Estuary Regional Monitoring Program for Trace Substances or an acceptable alternative monitoring program. The Receiving Waters Monitoring Plan activities shall also be coordinated with SCBWMI assessment activities.

c. Annual Monitoring Program Plan The Dischargers shall submit by March 1 of each year an Annual Monitoring Program Plan, acceptable to the Executive Officer, that includes clearly defined tasks, responsibilities, and schedules for implementation of monitoring activities for the next fiscal year designed to comply with these Monitoring Program requirements.

8. Non-Stormwater Discharges

a. **Exempted Discharges** In carrying out Discharge Prohibition A of this Order, the following non-stormwater discharges are not prohibited unless they are identified by the Dischargers or the Executive Officer as sources of pollutants to receiving waters:

i. Flows from riparian habitats or wetlands;
ii. Diverted stream flows;
iii. Springs;
iv. Rising ground waters; and
v. Uncontaminated groundwater infiltration.

If the any of the above categories of discharges, or sources of such discharges, are identified as sources of pollutants to receiving waters, then such categories or sources shall be addressed as conditionally exempted discharges in accordance with Provision C.8.b.

b. **Conditionally Exempted Discharges** The following non-stormwater discharges are not prohibited if they are identified by either the Dischargers (and incorporated into the Management Plan as an Appendix) or the Executive Officer as not being sources of pollutants to receiving waters or if appropriate control measures to prevent or eliminate adverse impacts of such sources are developed and implemented under the Management Plan in accordance with Provision C.8.c.:

i. Uncontaminated pumped groundwater;
ii. Foundation drains;
iii. Water from crawl space pumps;
iv. Footing drains;
v. Air conditioning condensate;
vi. Irrigation water;
vii. Landscape irrigation;
viii. Lawn or garden watering;
ix. Planned and unplanned discharges from potable water sources;
x. Water line and hydrant flushing;
xi. Individual residential car washing; and
xii. Discharges or flows from emergency fire fighting activities.

c. The Dischargers shall identify and describe the categories of discharges listed in C.8.b that they wish to exempt from Prohibition A in periodic submissions to the Executive Officer. For each such category, the Dischargers shall identify and describe as necessary and appropriate to the category either documentation that the discharges are not sources of pollutants to receiving waters or circumstances in which they are not found to be sources of pollutants to receiving waters. Otherwise, the Dischargers shall describe control measures to eliminate adverse impacts of such sources, procedures and Performance Standards for their implementation, procedures for notifying the Regional Board of these discharges, and procedures for monitoring and record management. Such submissions shall be deemed to be incorporated into the Management Plan unless disapproved by the Executive Officer or acted on in accordance with Provision C.11 and the NPDES permit regulations.

d. Permit Authorization for Exempted Discharges

i. Discharges of non-stormwater from sources owned or operated by the Dischargers are authorized and permitted by this Order, if they are in accordance with the conditions of this provision and the Dischargers' Management Plan.

ii. The Regional Board may require dischargers of non-stormwater other than the Dischargers to apply for and obtain coverage under a NPDES permit and comply with the control measures developed by the Dischargers pursuant to this Provision. Non-stormwater discharges that are in compliance with such control measures may be accepted by the Dischargers and are not subject to Prohibition A.

iii. The Dischargers may propose, as part of their annual updates to the Management Plan under Provision C.6 of this Order, additional categories of non-stormwater discharges to be included in the exemption to Discharge Prohibition A. Such proposals are subject to approval by the Regional Board in accordance with the NPDES permit regulations.

9. Water Quality-Based Requirements for Specific Pollutants of Concern

In accordance with Provision C.1 and Findings 12 and 13 of this Order, the Dischargers shall implement control programs for pollutants that have the reasonable potential to cause or contribute to exceedances of water quality standards. These control programs shall include the following.

a. **Control Program for Copper.** The Dischargers shall implement all applicable elements of the Copper Action Plan, as presented in Appendix B, including immediate implementation of the baseline actions of the Copper Action Plan. Detailed descriptions of activities in each fiscal year shall be included in Annual Workplans and associated evaluations and results shall be reported in the Annual Reports. If the results of the monitoring referenced in Finding 14 show that mean dissolved copper concentrations have risen to 4.0 µg/l, the Dischargers shall implement Phase 1 actions described in Appendix B and report on the Phase 1 actions in the Annual Report required by Provision C.6. If the results of the monitoring referenced in Finding 14 show that mean dissolved copper concentrations have risen to 4.4 µg/l, the Dischargers shall implement Phase 2 actions described in Appendix B and report on the Phase 2 actions in the Annual Report required by Provision C.6.

b. **Control Program for Nickel.** The Dischargers shall implement all applicable elements of the Nickel Action Plan, as presented in Appendix C, including immediate implementation of the baseline actions. Detailed descriptions of activities in each fiscal year shall be included in Annual Workplans and associated evaluations and results shall be reported in Annual Reports. If the results of the monitoring referenced in Finding 14 show that mean dissolved nickel concentrations have risen to 6.0 µg/l, the Dischargers shall implement Phase 1 actions described in Appendix C and report on the Phase 1 actions in the Annual Report required by Provision C.6. If the results of the monitoring referenced in Finding 14 show that mean dissolved nickel concentrations have risen to 8.0 µg/l, the Dischargers shall implement Phase 2 actions described in Appendix C and report on the Phase 2 actions in the Annual Report required by Provision C.6.

c. **Control Program for Mercury.** To address the impairment of the Guadalupe River Watershed and San Francisco Bay for mercury, the Dischargers shall implement a mercury pollution prevention plan (Mercury Plan) which includes:

i. Development and adoption of policies, procedures, and/or ordinances calling for:

- The virtual elimination of mercury from controllable sources in urban runoff, including the identification of mercury-containing products used by the Dischargers and a schedule for their timely phase out; and
- Coordination with solid waste management agencies to ensure maximum recycling of fluorescent lights and/or establishment of "take back" programs for the public collection of mercury-containing household products (potentially including thermometers and other gauges, batteries, fluorescent and other lamps, switches, relays, sensors and thermostats);

ii. A schedule for assisting the Regional Board staff in conducting an assessment of the contribution of air pollution sources to mercury in the Dischargers' urban runoff

(potentially including an identification of significant mercury air emission sources, an inventory of relevant mercury air emissions and a review of options for reducing or eliminating mercury air emissions);

iii. Assessment of the sediment mercury concentrations and percentage of fine material at the base of key watersheds, above the tide line;

iv. A public education, outreach and participation program designed to reach residential, commercial and industrial users or sources of mercury-containing products or emissions; and

v. Participation with other organizations to encourage the electric light bulb manufacturing industry to reduce mercury associated with the disposal of fluorescent lights through product reformulation.

The Mercury Plan shall be submitted to the Executive Officer by March 1, 2002. The Mercury Plan may be incorporated in the Program's submittal of the FY 2002/03 Workplan. The Plan shall include a schedule for implementation, although implementation of early action priorities should take place before the due date of the Mercury Plan, and shall include provisions addressing training and technical assistance needed to help municipalities implement the Mercury Plan. To facilitate the development of the actions specified above, the Dischargers may coordinate with publicly owned treatment works and other agencies to develop cooperative plans and programs.

d. Control Program for Pesticides. To address the impairment of urban streams by diazinon, the Dischargers shall implement a pesticide toxicity control plan (Pesticide Plan) that addresses their own use of pesticides, including diazinon and other lower priority pesticides no longer in use, such as chlordane, dieldrin and DDT, and the use of such pesticides by other sources within their jurisdictions. The Dischargers may address this requirement by building upon their prior submissions to the Regional Board. They may also coordinate with BASMAA, the Urban Pesticide Committee, and other agencies and organizations.

i. **Pesticide Use by Dischargers**

The Pesticide Plan shall include a program to quantitatively identify each Discharger's pesticide use by preparing a periodically updated inventory of pesticides used by all internal departments, divisions, and other operational units as applicable to each Discharger. The Pesticide Plan shall include goals and implementing actions to replace pesticide use (especially diazinon use) with least toxic alternatives. Schools and special district operations shall be included in the Pesticide Plan to the full extent of each Discharger's authority. The Dischargers shall adopt and verifiably implement policies, procedures, and/or ordinances requiring the minimization of pesticide use and the use of integrated pest management (IPM) techniques in the Dischargers' operations. The policies, procedures, and/or ordinances shall include 1) commitments to reduce use, phase-out, and ultimately eliminate use of pesticides that cause impairment of surface waters, and 2) commitments to not increase the Dischargers' use of organophosphate pesticides without justifying the necessity and minimizing adverse water quality impacts. The Dischargers shall implement training programs for all municipal employees who use or could use pesticides, including pesticides available over the counter. These programs

shall address pesticide-related surface water toxicity, proper use and disposal of such pesticides, and least toxic methods of pest prevention and control, including IPM. The Pesticide Plan shall be subject to updating via the Dischargers' continuous improvement process.

ii. **Other Pesticide Sources.** To address other pesticide users within the Dischargers' jurisdictions (including schools and special district operations that are not owned or operated by the Dischargers), the Pesticide Plan shall include the following elements:

- Public education and outreach programs. Such programs shall be designed for residential and commercial pesticide users and pest control operators. These programs shall provide targeted information concerning proper pesticide use and disposal, potential adverse impacts on water quality, and alternative, least toxic methods of pest prevention and control, including IPM. These programs shall also target pesticide retailers to encourage the sale of least toxic alternatives and to facilitate point-of-sale public outreach efforts. These programs may also recognize local least toxic pest management practitioners.
- Mechanisms to discourage pesticide use at new development sites. Such mechanisms shall encourage the consideration of pest-resistant landscaping and design features, minimization of impervious surfaces, and incorporation of stormwater detention and retention techniques in the design, landscaping, and/or environmental reviews of proposed development projects. Education programs shall target individuals responsible for these reviews and focus on factors affecting water quality impairment.
- Coordination with household hazardous waste collection agencies. The Dischargers shall support, enhance, and help publicize programs for proper pesticide disposal.

The Pesticide Plan shall include a schedule for implementation and a mechanism for reviewing and amending the plan, as necessary, in subsequent years. The Pesticide Plan shall be submitted to the Executive Officer by July 1, 2001.

iii. **Other Pesticide Activities**

The Dischargers shall work with the Urban Pesticide Committee and other municipal stormwater management agencies in the Bay Area to assess which diazinon products and uses and previous uses of dieldren, chlordane, and DDT pose the greatest risks to surface water quality. Along with incorporating this information into the programs described above, the Dischargers shall work with the Urban Pesticide Committee and other municipal stormwater management agencies to encourage US EPA, the California Department of Pesticide Regulation (DPR), and pesticide manufacturers to understand the adverse impacts of diazinon, dieldren, chlordane, and DDT on urban creeks, monitor US EPA and DPR activities related to the registration of diazinon products and uses, and actively encourage US EPA, DPR, and pesticide manufacturers to eliminate, reformulate, or otherwise curtail, to the extent possible, the sale and use of diazinon when it poses substantial risks to surface water quality (e.g., when there is a high potential for runoff).

The Dischargers shall also work with the Regional Board and other agencies in developing a TMDL for diazinon in impaired urban creeks. The Dischargers will

participate in stakeholder forums and collaborative technical studies necessary to assist the Regional Board in completing the TMDL. These studies may include, but shall not be limited to, additional diazinon monitoring and toxicity testing.

e. **Control Program for Polychlorinated Biphenyls (PCBs) and Dioxin Compounds.** To determine if urban runoff is a conveyance mechanism associated with the impairment of San Francisco Bay for PCBs and dioxin-like compounds (including, but not limited to furans) associated with other sources, the Dischargers shall work with the other municipal stormwater management agencies in the Bay Area to implement a plan to identify, assess, and manage controllable sources of PCBs and dioxin-like compound found in urban runoff, if any (PCBs/Dioxin Plans). The PCBs/Dioxin Plan shall include actions to:

i. Characterize the representative distribution of PCBs and dioxin-like compounds in the urban areas of the Santa Clara basin to determine if: a) PCBs and dioxin-like compounds are present in urban runoff, b) if any such PCBs or dioxin-like compounds are distributed relatively uniformly in urban areas, and c) whether storm drains or other surface drainage pathways are sources of PCBs or dioxin-like compounds in themselves, or whether there are specific locations within urban watersheds where prior or current uses result in land sources contributing to discharges of PCBs or dioxin-like compounds to San Francisco Bay via urban runoff conveyance systems;

- for PCBs: implement forthwith
- for Dioxin-like Compounds: submit workplan by March 1, 2002; implement by October 1, 2002

ii. Provide information to allow calculation of PCBs and dioxin-like compound loads to San Francisco Bay from urban runoff conveyance systems;

- for PCBs: implement forthwith
- for Dioxin-like Compounds: submit workplan by March 1, 2002; implement by October 1, 2002

iii. Identify control measures and/or management practices to eliminate or reduce discharges of PCBs or dioxin-like compounds conveyed by urban runoff conveyance systems;

- for PCBs: submit plan with implementation schedule by June 1, 2001; begin implementation by July 1, 2001
- for Dioxin-like Compounds: submit plan with implementation schedule by March 1, 2003; begin implementation by July 1, 2003

and

iv. Implement actions to eliminate or reduce discharges of PCBs or dioxin-like compounds from urban runoff conveyance systems from controllable sources (if any).

- for PCBs: submit plan with implementation schedule by March 1, 2002; begin implementation by July 1, 2002

- for Dioxin-like Compounds: submit plan with implementation schedule by March 1, 2004; begin implementation by July 1, 2004 although implementation of early action priorities should take place before that date

The Dischargers may coordinate with other stormwater programs and/or other organizations to implement cooperative plans and programs to facilitate implementation of the specified actions.

f. **Control Program for Sediment.** The Dischargers shall conduct analyses of excess sediment impairment in urban streams and assess management practices that are currently being implemented and additional management practices that will be implemented to prevent or reduce excess sediment impairment in urban creeks, and implement any additional management practices necessary to prevent or reduce excess sediment impairment in urban creeks in accordance with the following:

i. **San Francisquito Creek.** Submit a plan and time schedule for implementation acceptable to the Executive Officer by September 1, 2001 to conduct a watershed analysis of San Francisquito Creek in cooperation with the San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP). The plan will provide for: (1) quantitative characterization of sediment and water inputs to the creek; (2) relative roles of sediment associated with natural and anthropogenic land use discharges; (3) sediment conveyance from headwaters to the Bay, and (4) development of a rapid sediment budget.

ii. **San Francisquito Creek.** Submit a plan and time schedule for implementation acceptable to the Executive Officer by March 1, 2002 to conduct, in cooperation with STOPPP, an assessment of management practices that are currently being implemented and additional management practices that will be implemented to prevent or reduce excess sediment impairment in urban creeks, and implement any additional management practices necessary to prevent or reduce excess sediment impairment in San Francisquito Creeks. Such management practices may include but are not limited to: management and/or removal of large woody debris and live vegetation from channels; streambank stabilization projects; road construction, operation, maintenance, and repairs to prevent and control road-related erosion; management of construction related sediment; and management of post-construction sediment from areas of new development or redevelopment.

iii. **Other Creeks.** Submit a report acceptable to the Executive Officer by March 1, 2002 that identifies the other creeks that may be impaired by excessive sediment production from erosion due to anthropogenic activities.

Other Creeks. Submit a plan and time schedule for implementation acceptable to the Executive Officer by September 1, 2002 to conduct a watershed analysis and management practice assessment in the other creeks which may be impaired by excessive sediment production from erosion due to anthropogenic activities.

10. Watershed Management

The Dischargers shall implement watershed management measures based on identification of appropriate watershed characteristics and identification of control measures and other actions in the Management Plan that are appropriately implemented on a watershed basis with the recognition that there may be unique values, problems, goals, and strategies specific to individual watersheds. Watershed management measures also seek to develop and implement the most cost effective approaches to solving identified problems and to coordinate these activities with other related programs.

a. The Dischargers shall submit to the Regional Board by July 1, 2001 a report concerning the integration of watershed management activities into the Management Plan. The report shall, at a minimum:

   i. Identify the watersheds that are relevant to each Discharger;

   ii. Identify key characteristics related to urban runoff in each watershed and program elements related to such characteristics; and

   iii. Provide a priority listing of watersheds to be assessed and a schedule for conducting such assessments in conjunction with the SCBWMI.

b. Consistent with the schedule submitted pursuant to Provision 10.a.iii, the Dischargers shall submit to the Regional Board, summary assessment reports for each of the subject watersheds, that at a minimum, include the following:

   i. The Dischargers' support for the SCBWMI by, among other things: (1) investigating beneficial uses and causes of impairment, (2) reviewing, compiling, and disseminating environmental data, (3) developing and implementing strategies for controlling adverse impacts of land use on beneficial uses, and (4) facilitating, implementing, and supporting relevant SCBWMI subgroups;

   ii. An assessment of each Discharger's implementation of watershed management activities; and,

   iii. A consideration of steps needed for continuous improvement in addressing priorities within each watershed.

c. As the SCBWMI moves toward implementation, the Program and the Dischargers shall, as appropriate, develop examples, model language and planning tools to implement programmatic and watershed specific actions as well as facilitate the assessment of additional watersheds. The Program should also work with Regional Board staff to apply a regulatory strategy that allows the Dischargers to find ways to coordinate with other agencies within a specific watershed to protect beneficial uses.

11. It is anticipated that the Management Plan may need to be modified, revised, or amended from time to time to respond to changed conditions and to incorporate more effective approaches to pollutant control. Requests for changes may be initiated by the Executive Officer or by the Dischargers. Minor changes may be made with the Executive Officer's approval and will be brought to the Regional Board as information items and the Dischargers and interested parties will be notified accordingly. If proposed changes imply a major revision of the Program, the

Executive Officer shall bring such changes before the Regional Board as permit amendments and notify the Dischargers and interested parties accordingly.

12. This Order may be modified, or alternatively, revoked or reissued, prior to the expiration date as follows:

    a. To address significant changed conditions identified in the technical reports required by the Regional Board that were unknown at the time of the issuance of this Order;

    b. To incorporate applicable requirements of statewide water quality control plans adopted by the State Board or amendments to the Basin Plan approved by the State Board; or

    c. To comply with any applicable requirements, guidelines, or regulations issued or approved under Section 402(p) of the CWA, if the requirement, guideline, or regulation so issued or approved contains different conditions or additional requirements not provided for in this Order. The Order as modified or reissued under this paragraph shall also contain any other requirements of the CWA then applicable.

13. Each of the Dischargers shall comply with all parts of the Standard Provisions contained in Appendix A of this Order.

14. This Order expires on February 21, 2006. The Dischargers must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 360 days in advance of such date as application for reissuance of waste discharge requirements.

15. Order Nos. 93-164, 95-180 and 99-050 are hereby rescinded.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 21, 2001.

Loretta K. Barsamian
Executive Officer

APPENDIX A - STANDARD PROVISIONS

APPENDIX B - COPPER CONTROL ACTIONS

APPENDIX C - NICKEL CONTROL ACTIONS

ATTACHMENTS - Location and Political Jurisdiction Map
Basin Watersheds Map

Santa Clara Valley Water District

5750 ALMADEN EXPWY
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AN EQUAL OPPORTUNITY EMPLOYER

File: 24149
Cochran Channel

December 10, 2004

Ms. Rebecca Tolentino
Associate Planner
Community Development Department
City of Morgan Hill
17555 Peak Avenue
Morgan Hill, CA 95037-4128

Subject: Cochrane Road Planned Unit Development

Dear Ms. Tolentino:

The Santa Clara Valley Water District (District) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the subject project, received on November 15, 2004. The District has the following comments on the NOP:

1. Current Federal Emergency Management Agency maps show the site is within zone XBan area which may be subject to flooding to a depth less than 1 foot. The DEIR should discuss measures that may be used to keep future developrnent free from flooding.

2. The site is within the Cochran Channel watershed, which is tributary to Coyote Creek. The development of the 66-acre site will increase the amount of impervious area on the site, resulting in increased storm runoff. Cochran Channel is a District drainage facility that was constructed by the California State Department of Transportation (Caltrans). Caltrans transferred the Cochran Channel and its right of way to the District after completion of the project in the 1980's. District records show the channel accepts drainage from Highway 101, as well as some tributary areas from the east, such as the project site. A majority of the adjacent Cochran Channel watershed from the east is agricultural land. The DEIR should include a detailed hydrologic analysis which identifies feasible mitigation for the increased runoff from the project site due to development. The hydrologic analysis should identify the existing and proposed condition drainage patterns, rates of runoff, and volume of runoff for various flood events (i.e., 2-year, 10-year, 100-year, etc.) The DEIR should also address potential impacts to the existing flooding condition in Coyote Creek, as well as any potential to increase or cause flooding from Cochrane Channel prior to its confluence with Coyote Creek.

3. The DEIR should include analysis and mitigation for increased erosion in Coyote Creek resulting from the increased rate and volume of runoff due to the development. The District has regulatory jurisdiction over Cochran Channel and Coyote Creek, the water bodies to which the project site will be directing its storm drainage. The District is a member of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) which is permitted under the San Francisco Bay Regional Water Quality Control Board's National Pollutant Discharge Elimination System (NPDES) Permit No. CAS029718, Revised Order No. 01-024 and Order No. 01-119 (copies enclosed). Accordingly, the District will require that the project development conform to the

requirements of the District's NPDES permit, particularly Section C.3, prior to permitting the project to direct its storm drainage to Cochran Channel. The DEIR should address how the project will conform to these requirements, not just mention that it will be a requirement. Addressing the C.3 provisions may require additional hydrologic analysis, particularly for the most frequent flood events, such as a 3-month or 6-month or 1-year flood event.

4. The DEIR should address water quality and groundwater quality mitigation measures needed during project construction and post-construction. Section C.3 of the District's NPDES permit also provides instructions on post-construction water quality mitigation requirements. Additionally, if any of the mitigation measures include unlined detention or retention facilities, then additional mitigation measures for pre-treatment of storm runoff should be included to protect the groundwater basin from the infiltration of pollutants.

5. The NOP states that the DEIR will note that the project applicant will be required to comply with the NPDES general construction permit. However, the DEIR should provide detailed information on elements of the Storm Water Pollution Prevention Plan that is required, particularly post-construction water quality mitigation measures.

6. Previous project conceptual plans submitted to the District for this same project site identified design difficulties for the storm drainage system and Cochrane Road widening improvements, due to the District's Cross Valley Pipeline, which runs along the southerly and westerly border of the site. The Cross Valley Pipeline is a major raw water distribution pipeline that delivers water to the Santa Teresa Water Treatment Plant. The DEIR should address any potential adverse impacts to the Cross Valley Pipeline resulting from the project improvements, whether temporary or permanent.

7. The District's regulatory authority for improvements adjacent to Cochran Channel and Cross Valley Pipeline, per District Ordinance 83-2, should also be included in the DEIR.

Additional information about SCVURPPP, including best management practices and design guidelines, can be found at http://www.scvurppp.org/. Please reference District File No. 24149 on future correspondence regarding this project. I may be reached at (408) 265-2607, extension 2319, if you have questions.

We look forward to reviewing the DEIR when it is available.

Sincerely,

Yvonne Arroyo

Yvonne Arroyo
Associate Engineer
Community Projects Review Unit

Enclosure: NPDES Permit CAS029718, Order Nos. 01-119 and 01-024
cc: San Francisco Bay Regional Water Quality Control Board
Mr. Christopher Eggers, P.E., Schaaf & Wheeler
Mr. James L. Gessford, P.E., Schaaf & Wheeler
S. Tippets, Y. Arroyo, S. Yung, T. Hipol, S. Rose, D. Hook, M. Klemencic, File (2)
ya:jl
1209b-pl.doc

Pacific Gas and Electric Company

Land Services Office
Corporate Real Estate

111 Almaden Boulevard, Rm. 814
San Jose, CA 95115-0005

Mailing Address
Pacific Gas and Electric Company
P. O. Box 15005
San Jose, CA 95115-0005

December 10, 2004

PLANNING DEPT.
DEC 14 2004
CITY OF MORGAN HILL

City of Morgan Hill
17555 Peak Avenue
Morgan Hill, CA 95037-4128
Attn: Rebecca Tolentino
Fax No: 408-779-7236

RE: Review of Draft Environmental Impact Report (EIR)
Cochrane Road Planned Unit Development (PUD) Project
East of Hwy 101 at the NE corner of Cochrane Rd., Morgan Hill
Report dated : November 12 2004
SCH: not provided
PG&E file: 40322924-y04-MR-203

Dear Sir / Madam,

Thank you for the opportunity to review the Draft Environmental Impact Report, for the above project. PG&E has the following comments to offer:

PG&E owns and operates gas and electric facilities which are located within and adjacent to the proposed project. To promote the safe and reliable maintenance and operation of utility facilities, the California Public Utilities Commission (CPUC) has mandated specific clearance requirements between utility facilities and surrounding objects or construction activities. To ensure compliance with these standards, project proponents should coordinate with PG&E early in the development of their project plans. Any proposed development plans should provide for unrestricted utility access and prevent easement encroachments that might impair the safe and reliable maintenance and operation of PG&E's facilities.

The developers will be responsible for the costs associated with the relocation of existing PG&E facilities to accommodate their proposed development. Because facilities relocation's require long lead times and are not always feasible, the developers should be encouraged to consult with PG&E as early in their planning stages as possible.

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San Jose, CA 95115-0005

Relocations of PG&E's electric transmission and substation facilities (50,000 volts and above) could also require formal approval from the California Public Utilities Commission. If required, this approval process could take up to two years to complete. Proponents with development plans which could affect such electric transmission facilities should be referred to PG&E for additional information and assistance in the development of their project schedules.

We would also like to note that continued development consistent with City's General Plans will have a cumulative impact on PG&E's gas and electric systems and may require on-site and off-site additions and improvements to the facilities which supply these services. Because utility facilities are operated as an integrated system, the presence of an existing gas or electric transmission or distribution facility does not necessarily mean the facility has capacity to connect new loads.

Expansion of distribution and transmission lines and related facilities is a necessary consequence of growth and development. In addition to adding new distribution feeders, the range of electric system improvements needed to accommodate growth may include upgrading existing substation and transmission line equipment, expanding existing substations to their ultimate buildout capacity, and building new substations and interconnecting transmission lines. Comparable upgrades or additions needed to accommodate additional load on the gas system could include facilities such as regulator stations, odorizer stations, valve lots, distribution and transmission lines.

We would like to recommend that environmental documents for proposed development projects include adequate evaluation of cumulative impacts to utility systems, the utility facilities needed to serve those developments and any potential environmental issues associated with extending utility service to the proposed project. This will assure the project's compliance with CEQA and reduce potential delays to the project schedule.

We also encourage the Planning Office of the City to include information about the issue of electric and magnetic fields (EMF) in environmental documents. It is PG&E's policy to share information and educate people about the issue of EMF.

> Electric and Magnetic Fields (EMF) exist wherever there is electricity--in appliances, homes, schools and offices, and in power lines. There is no scientific consensus on the actual health effects of EMF exposure, but it is an issue of public concern. If you have questions about EMF, please call your local PG&E office. A package of information which includes materials from the California Department of Health Services and other groups will be sent to you upon your request.

Pacific Gas and Electric Company

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Corporate Real Estate

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San Jose, CA 95115-0005

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PG&E remains committed to working with City to provide timely, reliable and cost effective gas and electric service to the planned area. We would also appreciate being copied on future correspondence regarding this subject as this project develops.

The California Constitution vests in the California Public Utilities Commission (CPUC) exclusive power and sole authority with respect to the regulation of privately owned or investor owned public utilities such as PG&E. This exclusive power extends to all aspects of the location, design, construction, maintenance and operation of public utility facilities. Nevertheless, the CPUC has provisions for regulated utilities to work closely with local governments and give due consideration to their concerns. PG&E must balance our commitment to provide due consideration to local concerns with our obligation to provide the public with a safe, reliable, cost-effective energy supply in compliance with the rules and tariffs of the CPUC.

Should you require any additional information or have any questions, please call me at (408) 282-7401.

Sincerely,

Alfred Poon
Land Agent
South Coast Area, San Jose

County of Santa Clara

Roads and Airports Department
Land Development and Permits
101 Skyport Drive
San Jose, California 95110-1302
(408) 573 2460 FAX (408) 441 0275

PLANNING DEPT.
DEC 06 2004
CITY OF MORGAN HILL

December 1, 2004

Ms. Rebecca Tolentino
Associate Planner
City of Morgan Hill
Community Development Department
17555 Peak Avenue
Morgan Hill, CA 95037-4128

Subject: Notice of Preparation of a Draft Environmental Impact Report (DEIR) for the Cochrane Road Planned Unit Development (PUD) Project

Miss Tolentino,

Your Notice of Preparation along with the attachments for the subject above have been reviewed. We have no comments.

If you have any questions, please call me at 573-2464.

Sincerely,

Raluca Nitescu
Project Engineer

Cc: MA, WRI., File

SANTA CLARA
Valley Transportation Authority

PLANNING DEPT.
DEC 20 2004
CITY OF MORGAN HILL

December 20, 2004

City of Morgan Hill
Community Development Department
17555 Peak Avenue
Morgan Hill, CA 95037-4128

Attention: Rebecca Tolentino

Subject: Cochrane Road Planned Unit Development

Dear Ms. Tolentino:

Santa Clara Valley Transportation Authority (VTA) staff have reviewed the NOP for a draft EIR for a precise development plan for a 612,000-square foot shopping center on a 66.5-acre site. We have the following comments.

The project site is served by VTA bus line 16 on Cochrane Roade. VTA staff recommends that the City condition the project to provide at least one bus stop in the westbound direction adjacent to the shopping center. We request the opportunity to review project plans when available in order to provide specific recommendations concerning bus stop improvements.

Thank you for the opportunity to review this project. If you have any questions, please call me at (408) 321-5784.

Sincerely,

Roy Molseed
Senior Environmental Planner

RM:kh

DRAFT ENVIRONMENTAL IMPACT REPORT

FOR THE

COCHRANE ROAD PLANNED UNIT DEVELOPMENT

SCH# 2004112060

VOLUME III OF III - APPENDICES

PREPARED FOR:

CITY OF MORGAN HILL
Community Development Department
17555 Peak Avenue
Morgan Hill, CA 95037-4128

PREPARED BY:

PMC
PACIFIC MUNICIPAL CONSULTANTS

JULY 2005

DRAFT ENVIRONMENTAL IMPACT REPORT

FOR THE

COCHRANE ROAD PLANNED UNIT DEVELOPMENT

SCH# 2004112060

VOLUME I OF III

PREPARED FOR:

CITY OF MORGAN HILL
Community Development Department
17555 Peak Avenue
Morgan Hill, CA 95037-4128

PREPARED BY:

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PACIFIC MUNICIPAL CONSULTANTS

JULY 2005

Section 3.1
Aesthetics

SECTION 3.2
AGRICULTURAL RESOURCES

SECTION 3.3
AIR QUALITY

SECTION 3.4
BIOLOGICAL RESOURCES

SECTION 3.5
CULTURAL RESOURCES

SECTION 3.6
GEOLOGY AND SOILS

SECTION 3.7
HAZARDS AND HAZARDOUS MATERIALS

SECTION 3.8
SURFACE WATER HYDROLOGY AND WATER QUALITY

SECTION 3.9
LAND USE

Section 3.10
Noise

SECTION 3.11
PUBLIC SERVICES

SECTION 3.12
TRANSPORTATION AND CIRCULATION

SECTION 3.13
UTILITIES

S - Executive Summary

1.0 Introduction

2.0 Project Description

3.0 Environmental Setting, Impacts and Mitigation Measures

4.0 Alternatives to the Project

5.0 Cumulative Impacts Summary

6.0 Other Sections Required by CEQA

7.0 Report Preparers and References

Technical Appendices

Appendix A – Notice of Preparation and Responses

Technical Appendices

Appendix B – Agricultural Resources

Pacific Municipal Consultants. California Agricultural Land Evaluation and Site Assessment Model for the Cochrane Road Planned Unit Development. June 12, 2005

Technical Appendices

Appendix C – Biological Resources

Pacific Municipal Consultants. Species Commonly Occurring in Santa Clara County. 2005.

Pacific Municipal Consultants. Arborist Report & Tree Inventory Summary. June 29, 2005

Technical Appendices

Appendix D - Air Quality

Illingworth and Rodkin, Inc. Cochrane Road Retail Development Air Quality Assessment, Morgan Hill, California. March 15, 2005.

Technical Appendices

Appendix E – Cultural Resources

Pacific Municipal Consultants. Archaeological and Historical Investigations for the Cochrane Road Planned Unit Development Project in the City of Morgan Hill, Santa Clara County. January 2005.

Technical Appendices

Appendix F – Geology and Soils

Twining Laboratories, Inc. Preliminary Geotechnical Investigation, Proposed Retail Shopping Center, Northeast Corner of State Highway 101 and Cochrane Road, Morgan Hill, California. November 1, 2004.

Technical Appendices

Appendix G – Hazards and Hazardous Materials

Twining Laboratories, Inc. Phase I Environmental Site Assessment, Northeast of Interstate 101 and Cochrane Road, Morgan Hill, Santa Clara County, California. June 2004.

Twining Laboratories, Inc. Results of Phase II Assessment at Site Located Northeast of the Intersection of Interstate 101 and Cochrane Road, Morgan Hill, California. February 2005.

Twining Laboratories, Inc. Supplemental Letter Regarding Morgan Hill Site. February 2005.

Bovee Environmental Management, Inc. Asbestos and Lead-Based Paint Reconnaissance, 66-Acre Property: NEC Hwy 101 & Cochrane Road, Morgan Hill, California. February 2005.

Technical Appendices

Appendix H – Surface Water Hydrology and Water Quality

Schaaf & Wheeler. NEC Hwy. 101 & Cochrane Road – Hydrology Report. May 2005.

Technical Appendices

Appendix I – Land Use and Planning

Bay Area Economics. Retail Impact Market Analysis for Proposed Retail Shopping Center in Morgan Hill, CA. June 2005.

Technical Appendices

Appendix J – Noise

Illingworth and Rodkin, Inc. Cochrane Road Retail Development Environmental Noise Assessment, Morgan Hill, California. May 17, 2005.

Technical Appendices

Appendix K – Transportation and Circulation

Fehr and Peers, Inc. Transportation Consultants. Cochrane Road PUD, Morgan Hill, California. July 2005.

TABLE S-1
EXECUTIVE SUMMARY OF PROJECT AND CUMULATIVE IMPACTS

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Aesthetics/Visual Resources			
Impact 3.1-1. The proposed project would alter the project site from a rural residential and agricultural use to an urban use with construction of a 657,250 square foot commercial center at the U.S Highway 101/Cochrane Road interchange.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.1-2. The proposed project would introduce new sources of lighting that could adversely affect the existing and proposed development in the vicinity of the project site.	Less than Significant Project Impact	**MM 3.1-1.** The project applicant shall prepare and submit a detailed exterior lighting plan consistent with Section 18.74.370 of the City of Morgan Hill Municipal Code.	Less than Significant Project Impact
Impact 3.1-3. The proposed project in combination with cumulative development would add to the urbanization of the project area, resulting in a visual change within the City of Morgan Hill.	Less than Significant Cumulative Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Cumulative Impact
Agricultural Resources			
Impact 3.2-1. The proposed project would result in the conversion of approximately 66.49 acres of `Prime Farmland´ as designated on California Department of Conservation, Division of Land Resources Protection *Santa Clara County Important Farmland Map*	Significant Project Impact	There are no feasible mitigation measures available to reduce the impact of agricultural land conversion to a less than significant impact.	Significant and Unavoidable Project Impact
Impact 3.2-2. At build-out, the proposed project would place urban land uses adjacent to agricultural uses, which may impair agricultural production and result in land use compatibility conflicts.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.2-3. The proposed project would convert approximately 66.49 acres of agricultural land to urban uses. This loss would contribute to the cumulative loss of farmland in the region.	Less than Significant Cumulative Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Cumulative Impact
Air Quality			
Impact 3.3-1. The proposed project would require the demolition of three residences and associated outbuildings. Asbestos is detectable in hazardous concentrations in the structures at the project site. Therefore, demolition of these buildings has the potential to result in short-term air quality emissions, including the release of asbestos.	Potentially Significant Project Impact	**MM 3.3-1.** The project applicant shall conduct a full site assessment for asbestos-containing materials (ACM) prior to demolition. Identified ACM shall be removed and disposed of by a licensed contractor and clearance obtained from the Bay Area Air Quality Management District (BAAQMD).	Less than Significant Project Impact
Impact 3.3-2. Construction activity during build-out of the proposed project would generate air pollutant emissions that could expose sensitive receptors to substantial pollutant concentrations.	Potentially Significant Project Impact	**MM 3.3-2.** The project applicant shall implement dust control measures recommended by the BAAQMD for construction emissions of fine particulate matter (PM_{10}) during construction.	Less than Significant Project Impact
Impact 3.3-3. The proposed project would generate operational emissions that would affect long-term air quality.	Significant Project Impact	**MM 3.3-3.** A facilities 'trip reduction plan' shall be implemented by the project applicant to reduce vehicle trips by employees and promote non-auto travel by both employees and patrons.	Significant and Unavoidable Impact
Impact 3.3-4. The proposed project would result in an increase in carbon monoxide concentrations at land uses near roadways and intersections.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.3-5. The proposed project includes a possible fuel station, which could result in the emission of toxic air contaminants, including benzene.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.3-6. Project development, combined with other reasonably foreseeable projects in the project vicinity, would contribute to increased air quality emissions in the air basin.	Significant Cumulative Impact	There are no feasible mitigation measures available to reduce regional air quality emissions to a less than significant level.	Significant and Unavoidable Cumulative Impact
Biological Resources			
Impact 3.4-1. Development of the proposed project would result in temporary disturbance and permanent alteration of a site, which could be a dispersal area for Bay checkerspot butterfly.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.4-2. Implementation of the proposed project would result in temporary and direct alteration of site conditions that could support burrowing owl, a special status wildlife species.	Potentially Significant Project Impact	**MM 3.4-1a.** The project applicant shall conduct a preconstruction survey for nesting burrowing owls no more than 30 days prior to ground disturbance. Any owls inhabiting the site shall be protected during the nesting season or be excluded and/or passively relocated outside of the nesting area by a qualified biologist. A qualified biologist shall be present during initial ground clearing and if undetected owls emerge during clearing, activity shall cease until the proper measures are implemented. **MM 3.4-1b.** The project applicant shall compensate for loss of burrowing owl habitat by complying with the Citywide Burrowing Owl Habitat Mitigation Plan and fee program.	Less than Significant Project Impact
Impact 3.4-3. Implementation of the proposed project would result in temporary and direct disturbance to nesting raptors and migratory birds (excluding burrowing owl).	Potentially Significant Project Impact	**MM 3.4-2.** If proposed construction activities are planned to occur during the nesting seasons, the project applicant shall retain a qualified biologist to conduct a focused survey for active nests of raptors and migratory birds. If active nests are located during preconstruction surveys, construction activities shall be restricted to avoid disturbance of the nest. No action is necessary if construction will occur during the nonbreeding season (generally September 1st through January 31st).	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.4-4. Implementation of the proposed project would result in temporary and direct alteration of site conditions that could support San Joaquin kit fox, a special status wildlife species.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.4-5. Implementation of the proposed project would result in temporary and direct alteration of site conditions that could support special status bat species and/or their roosting habitat.	Potentially Significant Project Impact	**MM 3.4-3.** The project applicant shall retain a qualified biologist to conduct a focused preconstruction survey 45 days prior to ground disturbance for possible roost sites of special status bat species within the project area. If bat species or roosts are identified the biologist in coordination with the project applicant shall (at a minimum): identify species present within the roost; install one-way bat doors at the roost and bat boxes with guidance from the USFWS and/or DFG. The applicant shall postpone any activity that would damage or disturb the roost site and implement USFWS and/or DFG recommendations for minimizing the potential to take bat species during construction. If bat species are not identified onsite during the preconstruction survey, no further action is necessary.	Less than Significant Project Impact
Impact 3.4-6. Implementation of the proposed project would result in potential removal of 118 various species, five of which fall within the criteria of the City of Morgan Hill Ordinance Section 12.32.070.	Potentially Significant Project Impact	**MM-3.4-4.** Removal and/or relocation of trees at the project site shall be in compliance with the City of Morgan Hill Municipal Code, Restrictions on Removal of Significant Trees.	Less than Significant Project Impact
Impact 3.4-7. Implementation of the proposed project would potentially result in increased runoff entering the SCVWD Cochrane Channel, which is a tributary of Coyote Creek.	Potentially Significant Project Impact	Mitigation Measure **MM 3.8-5** in Section 3.8, Surface Water Hydrology and Water Quality would require implementation of structural and non-structural stormwater controls that would reduce the long-term potential of increased non-point source pollution in Coyote Creek.	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.4-8. The proposed project, in addition to anticipated cumulative development in the project vicinity, may disturb special status species, critical habitats, and wildlife movement throughout the region.	Potentially Significant Cumulative Impact	Implementation of Mitigation Measures **MM3.4-1a, b through MM 3.8-5**, would reduce the overall contribution to cumulative biological resource impacts resulting from completion of the proposed project.	Less than Significant Cumulative Impact
Cultural and Historic Resources			
Impact 3.5-1. The project site does not contain any recorded or anticipated resources of archaeological, cultural, or pre-historic significance. However, site preparation and grading could disrupt undiscovered archaeological and cultural resources of importance under CEQA and/or eligible for listing on the California Register.	Potentially Significant Project Impact	**MM 3.5-1a**. Should any previously undisturbed cultural, historic, or archaeological resources be uncovered, all operations within 150 feet of the discovery shall be halted until a qualified professional archaeologist can recommend appropriate action. **MM 3.5-1b.** In the event of discovery or recognition of any human remains, there shall be no further disturbance until the coroner of Santa Clara County has determined whether the remains are subject to the coroner's authority or if the Native American Heritage Commission needs to be notified.	Less than Significant Project Impact
Impact 3.5-2. Implementation of the proposed project would demolish three private residences and associated structures that were constructed over 45 years ago. Based on the archaeological and historic investigation, none of the buildings/structures within the project site appear to meet the eligibility criteria for inclusion in the California Register of Historic Resources (CRHR) or for consideration as unique archaeological resources.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.5-3. Implementation of the proposed project, in combination with cumulative development activity in the region, would increase the potential to disturb or contribute to the loss of known and undiscovered cultural resources.	Potentially Significant Cumulative Impact	Implementation of Mitigation Measures **MM 3.5-1a** and **MM 3.5-1b** would address impacts on a case by case basis, thus avoiding compounding of cumulative development.	Less than Significant Cumulative Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Geology and Soils			
Impact 3.6-1. Strong ground shaking occurring on the site during a major earthquake event could cause severe damage to project buildings and structures.	Significant Project Impact	**MM 3.6-1.** Structural damage to buildings resulting from ground shaking shall be minimized by following the requirements of the California Building Code and implementing the recommendations of the project geotechnical engineer.	Less than Significant Project Impact
Impact 3.6-2. There is a low, but not necessarily insignificant, potential for liquefaction at the project site, which could result in differential settlements and damage to project structures and improvements.	Potentially Significant Project Impact	**MM 3.6-2.** All proposed structures shall be evaluated for liquefaction potential as part of subsequent design-level geotechnical engineering investigations. If determined to be a potential for liquefaction, mitigation will be accomplished through compliance with the geotechnical engineering reports recommendations.	Less than Significant Project Impact
Impact 3.6-3. There is a potential for seismically-induced ground settlements at the site, which could result in damage to project foundations and structures.	Potentially Significant Project Impact	**MM 3.6-3.** Near-surface soils beneath buildings, exterior slabs, and pavements shall be over-excavated and recompacted, in accordance with the specifications recommended by the project geotechnical engineer.	Less than Significant Project Impact
Impact 3.6-4. Soils present on the site exhibit high compressibility and high collapse potential, which could result in damage to structures.	Potentially Significant Project Impact	**MM 3.6-4.** The effects of soil compressibility and collapse potential shall be mitigated through over excavation and compaction of soil beneath proposed structures, in accordance with the specifications to be recommended by the project geotechnical engineer.	Less than Significant Project Impact
Impact 3.6-5. There is a low, but not necessarily insignificant, potential for soils expansion at the site, which could result in differential sub-grade movements and cracking of foundations.	Potentially Significant Project Impact	**MM 3.6-5.** All final design specifications to be recommended by the project geotechnical engineer shall be incorporated into the project design to prevent saturation of soils beneath structures.	Less than Significant Project Impact
Impact 3.6-6. The project soils are mildly corrosive to buried metal objects, and could result in damage to buried utilities.	Potentially Significant Project Impact	**MM 3.6-6.** The proposed project shall utilize corrosion-resistant materials in construction.	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.6-7. There is a potential for bank instability along the banks of the proposed detention basins for the project.	Potentially Significant Project Impact	**MM 3.6-7.** Design-level geotechnical studies shall investigate the potential of bank instability at the proposed stormwater detention basins and recommend appropriate setbacks, if warranted.	Less than Significant Project Impact
Hazards and Hazardous Materials			
Impact 3.7-1. Residual pesticides and metals are present in the soils on the project site; however, the concentrations are low and are not considered hazardous.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.7-2. The project site includes approximately three residences and associated outbuildings that are proposed for demolition with implementation of the proposed project. According to an asbestos and lead-based paint reconnaissance performed by Bovee Environmental Management, Inc. these existing structures contain asbestos and lead-based paint in hazardous concentrations.	Significant Project Impact	Implementation of **MM 3.3-1** in Section 3.3, Air Quality, would require the project applicant to conduct a full site assessment and removal of ACM prior to demolition. **MM 3.7-1.** Prior to demolition of any on-site structures, a full site assessment for lead-based paint shall be conducted and all identified deteriorating lead-based paint shall be removed and disposed of by a licensed contractor in accordance with Title 22 of the California Code of Regulations.	Less than Significant Project Impact
Impact 3.7-3. There are four septic tanks reportedly present on the project site, although their locations were not identified during the Phase I site reconnaissance.	Significant Project Impact	**MM 3.7-2.** Septic systems at the project site shall be properly removed in accordance with state regulations and the requirements of the Santa Clara County Environmental Health Department.	Less than Significant Project Impact
Impact 3.7-4. Unless the four existing wells on the site are properly destroyed, they could act as conduits for groundwater contamination.	Significant Project Impact	**MM 3.7-3.** Prior to commencement of site clearing and general demolition activities, the existing wells on the site shall be destroyed in accordance with state and Santa Clara County regulations and requirements.	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.7-5. The potential presence of PCBs in the existing transformers on the project site poses a potential health hazard; however, the transformers would be properly removed from the site by PG&E prior to site development.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.7-6. The proposed project includes a possible fuel station, which would involve potentially hazardous storage and handling of gasoline.	Significant Project Impact	**MM 3.7-4.** The gasoline station operator shall obtain a Hazardous Materials Storage Permit from the Santa Clara County Fire Department and air quality permits from the BAAQMD.	Less than Significant Project Impact
Impact 3.7-7. New development resulting from cumulative development in the City of Morgan Hill could expose people, property, and the environment to hazardous materials.	Less than Significant Cumulative Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Cumulative Impact
Hydrology and Water Quality			
Impact 3.8-1. The proposed project would result in a substantial increase in stormwater runoff generated at the project site compared to existing conditions; however, the project includes detention ponds which have been designed to provide temporary storage of increased runoff in order to prevent increased flooding downstream.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.8-2. During the 100-year storm event, the project site may be subject to shallow flooding to depths of less than one foot; however, all finished floors will be on raised pads at least one foot above existing ground elevations to prevent flooding of the project buildings.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.8-3. Since the project site is located within the dam failure inundation area for Anderson Reservoir, development of the proposed project would increase the number of people and structures exposed to dam failure risk and the potential for associated loss of life and property.	Significant Project Impact	**MM 3.8-1.** Prior to occupancy of the structures, the project applicant shall prepare an emergency evacuation plan for the proposed project.	Less than Significant Project Impact
Impact 3.8-4. During grading and construction, erosion of exposed soils and pollutants generated by site development activities may result in water quality impacts to downstream water bodies.	Potentially Significant Project Impact	**MM 3.8-2.** The project applicant shall prepare a comprehensive erosion control and water pollution prevention program to be implemented during grading and construction activities.	Less than Significant Project Impact
Impact 3.8-5. The proposed project would generate urban non-point contaminants, which may be carried in stormwater runoff from paved surfaces to downstream water bodies.	Significant Project Impact	**MM 3.8-3** The proposed project shall include structural and non-structural stormwater controls, in order to reduce non-point source pollutant loads. Post-construction Best Management Practices shall also be implemented.	Less than Significant Project Impact
Impact 3.8-6. New development, combined with other reasonably foreseeable projects in the City of Morgan Hill, would contribute to increased surface runoff and greater runoff contamination in an area that historically was used for agriculture.	Less than Significant Cumulative Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Cumulative Impact
Land Use			
Impact 3.9-1. The proposed project would not disrupt or divide an established community.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.9-2. The proposed project would not conflict with existing polices adopted to avoid or mitigate environmental impact.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.9-3a. The proposed project would construct a 657,250 square-foot retail center that would could consist of the relocation and expansion of the `Target´ store (currently located at the Cochrane Plaza shopping center) and construction of over 530,000 square feet of additional retail, which could include a home improvement store, wholesale store or department store; retail shops; restaurants (sit-down and fast food); and a 63,200 square foot multi-plex cinema with up to 14 screens. These retail uses would compete with existing businesses in the City of Morgan Hill. This increased competition could potentially result in or contribute to closure of existing businesses in the City of Morgan Hill and there is a high likelihood that the Cochrane Plaza would be subject to a causal chain ultimately resulting in urban decay.	Significant Project Impact	**MM 3.9-1.** The Target Corporation will make a written commitment to maintain their vacated existing store per the City of Morgan Hill Municipal Code. This commitment will extend to successors in ownership if the Target Corporation sells the property and until a majority of the space in the vacant store is re-occupied for a period of at least 12 consecutive months. **MM 3.9-2.** The Target Corporation will provide the City of Morgan Hill with a façade easement on the existing Target space. This façade easement will be granted for a period not to exceed five years, or until a majority of the space is re-occupied for a period of at least 12 consecutive months. **MM 3.9-3.** The Target Corporation shall provide the City of Morgan Hill with a written re-tenanting plan for the vacant store.	Significant and Unavoidable Project Impact
Impact 3.9-3b. The proposed project would increase competition that could result in closure for major tenants in the Lawrence Oaks and Tennant Station shopping centers.	Potentially Significant Project Impact	**MM 3.9-4**. If the Lawrence Oaks, Cochrane Plaza, and Tennant Station shopping centers face vacancies following the opening of the proposed project, the City of Morgan Hill will monitor maintenance of the vacated spaces and their centers for the first signs of disinvestment or deterioration, and require that these properties continue to be maintained to standards as stated in Section 15.56.020 of the Morgan Hill Municipal Code. **MM 3.9-5**. To help small local businesses compete with likely national chain retailers in the proposed project, the City of Morgan Hill will fund programs aimed at assisting locally-owned small retailers. **MM 3.9-6**. City of Morgan Hill will ensure the Target Corporation, the other owners of Cochrane Plaza, and the owners	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.9-3b continued		of Tennant Station, Vineyard Town Center, and the Lawrence Oaks Shopping Center are aware that their centers are in the City's Redevelopment Area, and are eligible to apply for programs administered by the City's Business Assistance Division.	
Impact 3.9-4. The proposed project, combined with other foreseeable projects in the City of Morgan Hill may result in cumulative land use impacts to the project area.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.9-5. The proposed project, combined with other foreseeable projects in the City of Morgan Hill may result in urban decay due to secondary cumulative land use impacts.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Noise			
Impact 3.10-1. Construction activities at the project site would result in elevated noise levels, with maximum noise levels ranging from 85-88 dB at 50 feet.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.10-2. The proposed project will result in an increase of approximately 22,009 daily weekday automobile trips on the existing roadway network, which will result in traffic noise level increases greater than 5 dBA L_{dn} over background conditions.	Significant Project Impact	There are no feasible mitigation measures available to reduce the operational noise impacts to a less than significant impact.	Short-Term Significant and Unavoidable Project Impact
Impact 3.10-3. Noise generated by activity associated with the proposed project would elevate off-site noise at sensitive receptors in the project vicinity.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.10-4. The proposed project would be exposed to noise from existing and future traffic on U.S. Highway 101 and Cochrane Road.	Less Than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.10-5. The proposed project would contribute to cumulative traffic on the roadway network over existing conditions, which would contribute to cumulative traffic noise at sensitive receptors along Cochrane Road.	Significant Cumulative Impact	There are no feasible mitigation measures available to reduce the cumulative traffic noise impacts to a less than significant level.	Significant and Unavoidable Cumulative Impact
Public Services			
Impact 3.11-1. The proposed project will not result in the need for new or physically altered governmental facilities, but will increase service demands for police patrol and incident response.	Potentially Significant Project Impact	**MM 3.11-1.** The project applicant shall install and maintain a video surveillance system and on-site security personnel during all hours of operation.	Less than Significant Project Impact
Impact 3.11-2. The proposed project will increase the demand for fire protection. However, the proposed project would not result in the need for new or physically altered governmental facilities.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.11-3. The proposed project will generate employment opportunities, which may attract additional residents with school-age children to Morgan Hill.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.11-4. The proposed project will not conflict with an established recreational land use in the area nor inhibit the future provision of recreational opportunities. The proposed project will generate employment opportunities that may attract a limited number of new residents and with them incremental demand for recreational opportunities.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.11-5. The proposed project, in addition to anticipated cumulative development in the project vicinity, may result in the need for increased public facilities for the provision of police and fire protection services, and to a lesser degree parks and educational facilities.	Less than Significant Cumulative Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Cumulative Impact
Transportation and Circulation			
Impact 3.12-1. With the addition of project-generated traffic, significant level of service impacts would occur at two intersections, as follows: a) The Dunne Avenue/Monterey Road signalized intersection is projected to operate unacceptably during the PM peak hour under both Background and Project Conditions. Although the addition of project traffic causes a decrease (i.e., improvement) in the average critical delay, the critical volume-to-capacity ratio increases by more than 0.01. This is considered a significant impact. b) At the Cochrane Road/Mission View Drive unsignalized intersection, the addition of project	Significant Project Impact	**MM 3.12-1a.** At the Dunne Avenue/Monterey Road intersection, the westbound right-turn lane shall be restriped as a shared through/right-turn lane, and a northbound right-turn overlap phase shall be installed. This improvement would be required when 35 percent of the project has been constructed based on total PM peak hour trip generation. **MM 3.12-1b.** At Cochrane Road/Mission View Drive intersection, a traffic signal shall be installed with protected left-turn phasing on all approaches. In addition geometry will be reconfigured as follows: • Northbound approach - one left-turn lane and one shared through/right-turn lane. • Westbound approach - one left-turn lane, one through lane, and one shared through/right-turn lane.	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
traffic is expected to reduce acceptable levels of service under Background Conditions to an unacceptable level of service (LOS F) during the AM, PM, and Saturday midday peak hours. This is considered a significant impact.		• Southbound approach - one left-turn lane, one shared through/right-turn lane, and one right-turn lane. • Eastbound approach - one left-turn lane, one through lane, and one right-turn lane.	
Impact 3.12-2. The addition of project-generated traffic would have a significant impact on the level of service at the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue.	Significant Project Impact	**MM 3.12-2.** The proposed project shall implement the applicable actions listed in the *Immediate Implementation Action List* contained in the *Deficiency Plan Guidelines* of the County's Congestion Management Program.	Significant and Unavoidable Project Impact
Impact 3.12-3. The six entry driveways on Mission View Drive are more than are needed to provide adequate access to the proposed project. This condition unnecessarily increases the potential for vehicle conflicts with pedestrians.	Significant Project Impact	**MM 3.12-3.** The two driveways shown directly behind the movie theater complex on Mission View Drive should be eliminated from the proposed project, and a circulation aisle should be provided behind the movie theater complex.	Less than Significant Project Impact
Impact 3.12-4. At the southernmost project driveway on Mission View Drive (i.e., the first driveway north of the Cochrane Road intersection), the preliminary site plan shows no left-turn restrictions. Given the close proximity of this driveway to Cochrane Road, if left turns into the project site are allowed at this driveway, this could result in potential conflicts with vehicles queuing on the north leg of the Mission View/Cochrane intersection.	Significant Project Impact	**MM 3.12-4.** The southernmost project driveway should be designated as a right-turn in and out only driveway.	Less than Significant Project Impact
Impact 3.12-5. The main north-south circulation aisle that extends north into the project from De Paul Drive is a long straight section that may encourage speeding without traffic control devices.	Potentially Significant Project Impact	**MM 3.12-5.** The following modifications are identified on the main north-south circulation aisle to discourage speeding and provide more visible crosswalks for pedestrians: a) At the first intersection north of Cochrane stop signs should be installed on the side street approaches; b) At the second intersection north of Cochrane, provide one of	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
		the following alternative configurations: i) Provide raised intersection to provide vertical displacement, and provide stop signs on the side street approaches; or ii) Provide stops signs on all four approaches; c) At the third intersection north of Cochrane, provide stops signs on all four approaches.	
Impact 3.12-6. At the southwest corner of the building "Major 8" (on March 10, 2005 site plan), the proximity of the designated loading zone to the nearby intersection of two major internal drive aisles could create a driving hazard due to driver confusion.	Potentially Significant Project Impact	**MM 3.12-6.** The designated loading zone shall be relocated far enough to the east to allow the intersection approach lane to be reduced to one lane.	Less than Significant Project Impact
Impact 3.12-7. Due to demand for transit service generated by the project, existing transit facilities may not be adequate to serve the project.	Potentially Significant Project Impact	**MM 3.12-7.** The project applicant shall construct a new bus stop along the project frontage, including transit amenities such as a bus turnout, a shelter, and benches.	Less than Significant Project Impact
Impact 3.12-8. The preliminary project site plan does not indicate pedestrian crossing facilities at the major intersections adjacent to the project; unless these are provided, a hazard to pedestrian circulation could result.	Potentially Significant Project Impact	**MM 3.12-8.** Pedestrian crosswalks shall be provided on all four legs of the Cochrane Road/Mission View Drive intersection, and at all but the west leg of the Cochrane Road/De Paul Drive intersection.	Less than Significant Project Impact
Impact 3.12-9. The proposed project would create a demand for bicycle facilities, including: a) bicycle racks or lockers within the project site; and b) bicycle lanes along the project frontages.	Potentially Significant Project Impact	**MM 3.12-9.** The following bicycle facilities shall be incorporated into the project: a) Bicycle racks and/or lockers to accommodate bicycle travel by customers and employees, and b) Class II bicycle lanes along the project street frontages.	Less than Significant Project Impact
Impact 3.12-10. The proposed project may not provide sufficient parking supply to meet the demand generated by the planned project land uses.	Potentially Significant Project Impact	**MM 3.12-10.** The overall number of parking spaces included in the project shall be required to meet the aggregate parking demand of the various land uses proposed within the project	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.12-11 The addition of project-generated traffic would result in cumulative level of service impacts at the Cochrane Road/Mission View Drive intersection.	Significant Cumulative Impact	**MM 3.12-11** At the Cochrane Road/Mission View Drive intersection, a traffic signal shall be installed with protected left-turn phasing on all approaches. In addition, this intersection shall be reconfigured to include the following geometry: • The northbound approach should include one left-turn laneand one shared through/right-turn lane. • The westbound approach should include one left-turn lane, one through lane, and one shared through/right-turn lane. • The southbound approach should include one left-turn lane, one shared through/right-turn lane, and one right-turn lane. The eastbound approach should include one left-turn lane, one through lane, and one right-turn lane	Less than Significant Cumulative Impact
Impact 3.12-12 The addition of project-generated traffic would impact the level of service at the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue	Significant Cumulative Impact	There are no feasible mitigation measures available to reduce the level of service impacts at the segment of U.S. Highway 101 between Tennant Avenue and Dunne Avenue to a less than significant impact.	Significant and Unavoidable Cumulative Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.12-13 With the addition of project-generated traffic, significant impacts would occur at two intersections under General Plan Buildout Conditions, as follows: a) The Cochrane Road/Butterfield Boulevard signalized intersection is projected to operate at unacceptable LOS E- during the AM peak hour, and at unacceptable LOS F during the PM peak hour under General Plan Buildout Conditions. b) The Cochrane Road/Cochrane Plaza signalized intersection is expected to operate at unacceptable LOS D during the PM peak hour under General Plan Buildout Conditions.	Significant Cumulative Impact	**MM 3.12-13** The following intersection modifications are identified to provide acceptable operations under General Plan Buildout Conditions: a) Cochrane Road/Butterfield Boulevard. For the intersection to operate at LOS D+ or better the General Plan configuration for the intersection would require the following modifications: • Northbound approach: increase number of left-turn lanes from one to two; increase the number of through lanes from one to two; reduce the number of right-turn lanes from two to one. • Eastbound approach: add a free right-turn lane. b) Cochrane Road/Cochrane Plaza. For the intersection to operate at LOS D+ or better the General Plan configuration for the intersection would require the following modifications: • Southbound approach: increase number of left-turn lanes from one to two; change the shared left/through lane to a through lanes; keep the number of right-turn lanes at one. To implement the above mitigation measures, the applicant will be required to pay impact fees, which reflect the project's fair share of improvement costs.	Less than Significant Cumulative Impact
Utilities			
Impact 3.13-1. The proposed project would generate between 0.8 and 8.3 tons of solid waste per day. The waste management provider has sufficient capacity to accommodate the waste within local landfills. However, the project may result in noncompliance with the California Integrated Waste Management Act (1989) without sufficient waste diversion practices.	Potentially Significant Project Impact	**MM 3.13-1.** The project applicant shall locate and maintain recycling receptacles for corrugated cardboard, mixed paper, food and beverage containers, and landscaping waste.	Less than Significant Project Impact

Potential Project and Cumulative Impacts	Level of Significance w/o Mitigation	Summary of Mitigation Measure(s)	Resulting Level of Significance
Impact 3.13-2. The proposed project would increase the demand for electric, natural gas, telephone and cable services.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.13-3. The proposed project will increase the demand for potable water. However, the existing water system can adequately supply the project and the increase would not be substantial in relation to the existing condition.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.13-4. The proposed project would require on-site expansion and relocation of existing infrastructure, in addition to an increase in the amount of wastewater entering the sewer system. Neither the expansion nor the increased flow, are substantial relative to current conditions and capacities.	Less than Significant Project Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Project Impact
Impact 3.13-5. The proposed project, in addition to reasonably foreseeable projects in the vicinity, would likely result in the need for new or upgraded infrastructure for the delivery of water, sewer, telecommunications, electricity, and natural gas to the project area.	Less than Significant Cumulative Impact	No significant impact has been identified; therefore, no mitigation is proposed.	Less than Significant Cumulative Impact

DRAFT ENVIRONMENTAL IMPACT REPORT

FOR THE

COCHRANE ROAD PLANNED UNIT DEVELOPMENT (PUD)

SCH# 2004112060

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This section of the Draft Environmental Impact Report (DEIR) provides a summary overview of the project environmental analysis, impacts and mitigation measures. For additional detail regarding specific issues, please consult the appropriate subsection of **Section 3.0, Environmental Setting, Impacts and Mitigation Measures**.

S.1 PURPOSE AND SCOPE OF THE EIR

This DEIR provides an analysis of the potential environmental effects associated with the approval of the Cochrane Road Planned Unit Development (PUD).

The purpose of an EIR is to identify the significant effect on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided (CEQA Guidelines 21002.1(a)).

The lead agency shall focus the discussion in the DEIR on those potential effects on the environment resulting from a proposed project that the lead agency has determined are or may be significant. Based on the results of public input generated during the Notice of Preparation response period for the project, **Section 3.0** of the DEIR focuses upon aesthetics/visual resources, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, surface water hydrology and water quality, land use and planning, noise, public services, transportation and circulation, and utilities.

S.2 PROJECT CHARACTERISTICS

The project applicants, Browman Development Company, Inc., J.P. Di Napoli Companies Inc., and the Guglielmo Family (hereinafter "project applicant") have submitted applications for a zoning amendment; development agreement; site and architectural plan review; conditional use permits; tentative map review; tree removal plan; and grading plan to establish a precise development plan for an approximate 657,250 square foot shopping center on a 66.49-acre site located at the northeast corner of Cochrane Road and U.S. Highway 101. Section 2.7 of this EIR lists the requested actions and required approvals for the proposed project.

The proposed project would include two large anchor stores, retail shops, restaurants (sit-down and fast-food), and a multi-plex cinema with up to 14 screens. The proposed anchor stores could consist of the relocation and expansion of the `Target´ store (currently located at the Cochrane Plaza shopping center) and construction of over 530,000 square feet of additional retail, which could include a home improvement store, wholesale store or department store; retail shops; restaurants (sit-down and fast food); and a 63,200 square foot multi-plex cinema with up to 14 screens. The proposed project includes an optional

12-position fuel station that would incorporate a 1,600 square foot convenience market and a 600 square foot car wash as a substitution for 6,000 square feet of retail space. The expanded `Target´ will not include a full-size grocery store.

The proposed project also entails a general plan amendment (GPA) for the extension of Mission View Drive north of Cochrane Road instead of extending from De Paul Drive (formerly St. Louise Drive) as designated on the *City of Morgan Hill General Plan* map.

S.2 PROJECT ALTERNATIVES CONSIDERED

CEQA Guidelines Section 15126.6(e)(2) requires that the environmentally superior alternative be identified. If the environmentally superior alternative is the `No Project´ Alternative, the EIR shall also identify an environmentally superior alternative among other alternatives. In this case, Alternative 1, `No Project/No Development,´ represents the environmentally superior alternative because, as discussed in Section 4.0, Alternatives to the Project, most impacts would be reduced relative to the proposed project. However, the `No Project/No Development´ meets none of the project objectives and is inconsistent with the General Plan and zoning land use designations. From the remaining options, Alternative 2, the `Reduced Density Alternative,´ would be the environmentally superior alternative and would result in a lesser degree of environmental impact as compared to the proposed project. This is due primarily to the reduced impacts related to traffic, parking and circulation and associated reduction in noise and air quality impacts that would result from the reduced square footage. However, this scenario would not be financially feasible to the project applicant and would not meet the applicant's project objectives or the City's objectives to provide commercial retail shopping center that serves the local and regional market, results in a net fiscal benefit to the City, reduces sales dollar leakage, and creates new jobs for the City of Morgan Hill. **Table 4-3** compares each considered alternative with the proposed project.

SUMMARY OF ENVIRONMENTAL IMPACTS

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

For detailed discussions of all project impacts and mitigation measures, the reader is referred to topical environmental analysis in **Section 3.0** of this EIR.

Insert Summary Table (S-1)

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