

Chapter 1. Introduction

PREFACE

The City of San Luis Obispo (City) prepared and circulated a draft program environmental impact report (EIR) for the Airport Area Specific Plan and Margarita Area Specific Plan and related facilities master plans for water, wastewater, and storm drainage. The draft EIR was made available for public review and comment for 83 days, from February 15, 2002, to May 8, 2002. This final program EIR has been prepared in response to comments received during the public review period, and comprises two volumes:

- # **Volume I: Responses to Comments** contains a list of persons, organizations, and public agencies commenting on the draft program EIR; the comments and recommendations received on the draft EIR; and the City's responses to significant environmental issues raised in the review and consultation process.
- # **Volume II: Revisions to the Draft EIR** contains the full text of the draft program EIR, with minor changes shown as text that is ~~struck-out~~ (deleted) or underlined (added) in response to comments or for clarification purposes.

The content and format of Volumes I and II of this final EIR meet the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (Section 15132).

PURPOSE AND USE OF THE ENVIRONMENTAL IMPACT REPORT

This draft program EIR ~~environmental impact report (EIR)~~ identifies and assesses the anticipated environmental impacts of the City's ~~City of San Luis Obispo's (City's)~~ proposed Airport Area and Margarita Area Specific Plans and related facilities plans, including the Water System Master Plan, Wastewater Master Plan Update, and Storm Drain Master Plan. The Airport and Margarita areas are in the southern part of the San Luis Obispo Urban Area (Urban Area), San Luis Obispo County, California.

~~The California Environmental Quality Act (CEQA)~~ CEQA requires that all state and local government agencies consider the environmental consequences of programs and projects over which they have discretionary authority before taking action on them. The purposes of this draft EIR are

to inform agencies and the public of significant environmental impacts associated with the proposed project, identify ways to minimize the significant impacts of the project, and describe reasonable alternatives to the project that would avoid or reduce the project's significant impacts (State CEQA Guidelines, Section 15121[a]). ~~This program EIR analyzes the specific plans. Actual development in many cases will require additional CEQA review.~~

CEQA requires that the potential environmental impacts of a project be identified and mitigation measures be recommended that may reduce significant impacts on the environment. As a first step in this analysis, an initial study was prepared for the project (Appendix A). The initial study concluded that the project may have significant impacts on the environment; therefore, an EIR would be required.

This program EIR is intended to inform the San Luis Obispo City Council, as the lead decision making body, of the environmental consequences of the proposed project so that the Council can make informed decisions on the project. The City Council has the responsibility for determining the adequacy of the program EIR pursuant to CEQA.

Program EIR

The State CEQA Guidelines (Section 15168) encourage agencies to use a program EIR in certain circumstances involving the implementation of a series of related projects. Use of such a document allows the lead agency (in this case, the City) to characterize the overall plan or program as the project being approved at the time and to consider broad policy alternatives and program-wide mitigation measures early in the plan development and facilities planning effort. This approach also avoids duplicative consideration of policies when future portions of the project are evaluated.

This EIR contains analysis, at a program level, of the basic issues that will be used in conjunction with subsequent tiered environmental documents for specific projects related to the Airport Area Specific Plan, the Margarita Area Specific Plan, and the related facilities master plans. Once the Airport Area Specific Plan, Margarita Area Specific Plan, and the related facilities master plans are adopted by the City, the basic policy issues will not need to be revisited by subsequent (second-tier) documents. However, in many cases, actual development of these plans will involve subsequent CEQA review, which is described further below.

Subsequent Environmental Review

Approval of the Airport Area Specific Plan, Margarita Area Specific Plan, and related facilities master plans is the first step in providing guidance to future development and provision of municipal services in the project area. This program EIR is intended to be augmented by subsequent, second-tier environmental documents when additional details for the specific projects are identified

during the development and engineering design process. Specific projects included in the specific and master plans will be reevaluated in more detail when they are proposed for implementation. Details for each subsequent project may include development areas and building footprints, siting details, ancillary facilities locations, parcel sizes, refinement of alignment locations, specific right-of-way limits, and detail sufficient to identify any specific impacts that may occur in areas that would be disturbed or otherwise affected by project construction or implementation.

Subsequent environmental documents will incorporate, by reference, appropriate information from this program EIR regarding secondary impacts, cumulative impacts, broad alternatives, and other relevant factors. Subsequent environmental documents will focus solely on site-specific issues that have not been considered in this document. If a later activity is found to have new effects that were not examined in this program EIR, additional CEQA review would be required. If the City finds that implementation of a later activity would have no new effects, and no new mitigation measures would be required, then that activity likely would not require additional CEQA review.

REQUIRED APPROVALS

The City and other agencies will use this draft EIR to evaluate compliance of the proposed project with statutory and regulatory requirements. The anticipated approvals required for this project include:

- # certification of this draft EIR,
- # adoption of the Margarita Area Specific Plan,
- # adoption of the Airport Area Specific Plan,
- # adoption of the Water System Master Plan,
- # adoption of the Wastewater Master Plan Update, and
- # adoption of the Storm Drain Master Plan.

Although the above list includes approvals known to be required, other approvals may be required as individual projects are proposed for the project area. No federal approvals for adoption of the specific plans and related facilities master plans, including approval from the Federal Aviation Administration (FAA), are expected. This draft EIR is intended to facilitate adoption of the above-mentioned plans. Other specific projects in the project area will require CEQA review to determine the scope of issues adequately addressed in this draft EIR. Additional environmental review of those projects may be required to fully evaluate project impacts.

Depending on project type, funding, and location, a federal agency may need to take a discretionary action on a proposed project. In this case, the federal agency may require the applicant to comply with the requirements of the National Environmental Policy Act (NEPA).

NEPA requires federal agencies to consider the environmental impacts of their decisions. Similar to CEQA, under which this draft EIR was prepared, NEPA establishes procedures for evaluating potential impacts, disclosing them to the public and affected agencies, and considering comments before acting. Federal agencies typically must satisfy NEPA before funding or issuing permits to local agencies. Preparation of a CEQA document does not satisfy the requirements of NEPA but may serve as a background for a later NEPA action.

Preparation of the Airport Area Specific Plan was paid for in part by Community Development Block Grant funds originating in the federal government. Such planning activities are exempt from NEPA.

In the future, the City may seek federal funds to implement some aspects of the Airport Area Specific Plan, the Margarita Area Specific Plan, or the related facilities master plans. If the City seeks federal funding to help pay for facilities or improvement, NEPA compliance may be required. In that case, the City would need to provide information in the form required by the agency to fulfill its NEPA responsibilities.

The City anticipates that approval by the U.S. Army Corps of Engineers will be needed for proposed changes to creeks and wetlands and that NEPA compliance will be documented when construction plans are prepared and permits are sought.

The City intends that this draft EIR provide a sound basis for evaluating impacts and alternatives under NEPA. Relevant sections of this draft EIR may serve as an environmental assessment during future NEPA review. If NEPA evaluation occurs, there may be additional public notices and opportunities for comment.

SCOPE OF THE ENVIRONMENTAL IMPACT REPORT

In accordance with Sections 15063 and 15082 of the State CEQA Guidelines, the City, as lead agency, prepared an initial study and notice of preparation (NOP) of a draft EIR. The initial study was prepared based on information contained in the Airport Area Specific Plan, Margarita Area Specific Plan, Water System Master Plan, Wastewater Master Plan Update, Storm Drain Master Plan, the City of San Luis Obispo General Plan (City General Plan) and associated EIR, and other related documents.

The initial study and NOP documents were circulated to appropriate public agencies, organizations, and interested groups and individuals for a 30-day comment period that ran from May 16, 2000, to June 16, 2000. Appendix A contains a copy of the initial study and NOP; a list

of the agencies, organizations, and interested groups and individuals receiving these documents for review; and copies of the comment letters received during the comment period.

Based on the initial study and public input, the scope of environmental resources and issues to be addressed in the EIR was established. Under CEQA, the analysis in the EIR may be focused on issues determined in the initial study to be potentially significant, whereas issues found in the initial study to have less-than-significant impacts or no impact potential do not require further evaluation. Based on the analysis contained in the initial study, this draft EIR analyzes in detail the potential impacts of the proposed project on the environmental resources and issues listed in Table 1-1.

In addition to addressing the environmental resources identified in Table 1-1, this draft EIR includes all the sections required by CEQA. Table 1-2 lists the contents required under CEQA, identifies where the requirements are identified in CEQA, and states where the reader will find these required contents included in this draft EIR.

CONTENTS OF VOLUME II: REVISIONS TO THE DRAFT EIR **ENVIRONMENTAL IMPACT REPORT ORGANIZATION**

The content and format of Volume II ~~this draft EIR~~ are designed to meet the current requirements of CEQA and the State CEQA Guidelines. The EIR is organized into the following chapters so that the reader can easily obtain information about the project and its specific issues:

- # The Executive Summary presents a summary of the proposed project and alternatives, potential impacts and mitigation measures, impact conclusions regarding growth inducement and cumulative impacts, and known areas of controversy and issues to be resolved.
- # Chapter 1, "Introduction," provides a brief overview of the proposed project and the organization of the EIR.
- # Chapter 2, "Project Description," describes San Luis Obispo's (the County's) objectives for this project and provides a detailed description of the components of the project.
- # Chapter 3, "Environmental Analysis," describes each resource topic; the existing conditions, or setting, before project implementation; methods and assumptions used in impact analysis; thresholds of significance; impacts that would result from the proposed project; and mitigation measures that would eliminate or reduce significant impacts.
- # Chapter 4, "Other CEQA Considerations," includes a discussion of issues required by CEQA that are not covered in other chapters: irreversible environmental changes, cumulative impacts, growth-inducing impacts, and significant and unavoidable environmental impacts.

- # Chapter 5, “Alternatives Analysis,” identifies the alternatives analyzed in this program EIR.
- # Chapter 6, “Citations,” identifies the documents (printed references) and individuals (personal communications) consulted in preparing this draft EIR.
- # Chapter 7, “Report Preparation,” lists the individuals involved in preparing this draft EIR.
- # Chapter 8, “Acronyms and Abbreviations,” identifies the acronyms and abbreviations used in this draft EIR.
- # Appendix A. Notice of Preparation, Initial Study, and Comments on Initial Study
- # Appendix B. Water System Master Plan Recommended Improvements
- # Appendix C. Wastewater Master Plan Recommended Improvements
- # Appendix D. Storm Drain Master Plan Recommended Improvements
- # Appendix E. Background Information on Acoustics

AVAILABILITY OF THE DRAFT EIR

This draft EIR ~~was is being~~ distributed directly to agencies, organizations, and interested groups and persons for comment during the formal review period. It is available for review or purchase at the City of San Luis Obispo Community Development Department. The purchase cost is \$20, and the report can be mailed for an additional \$4.50 charge. The City can be contacted at:

City of San Luis Obispo
 Community Development Department
 990 Palm Street
 San Luis Obispo, CA 93401
 Contact: ~~John Mandeville~~ Mike Draze
805/781-7274
~~805/781-7172~~

During the public review period, the draft EIR ~~was is~~ also made available for public review at each of the following locations:

Table 1-1. Environmental Resources and Issues Covered in This EIR

Section in EIR	Environmental Resource	Issues Addressed in EIR
3A	Land Use and Aesthetics	<ul style="list-style-type: none"> # Consistency of proposed specific plans with applicable city plans, policies, and agreements # Consistency of proposed specific plans with county general plan policy # Consistency of proposed specific plans with County Airport Land Use Plan # Compatibility with surrounding land uses # Conversion of prime agricultural land to urban uses # Generation of light that would affect nighttime views in the area # Impact on aesthetic quality of the project area # Visual impacts of water supply infrastructure
3B	Hydrology and Water Quality	<ul style="list-style-type: none"> # Impact on surface water quality # Impact on surface water drainages # Impact on floodflows and floodplains
3C	Biological Resources	<ul style="list-style-type: none"> # Loss or temporary disturbance of annual grassland # Loss or temporary disturbance of valley needle grass grassland # Loss or temporary disturbance of serpentine bunchgrass grasslands # Loss or temporary disturbance of coyote brush scrub # Loss or temporary disturbance of open water habitat # Loss or temporary disturbance of freshwater marsh # Loss or temporary disturbance of seasonal wetland # Loss or temporary disturbance of riparian woodland scrub # Loss or temporary disturbance of agricultural field # Loss or temporary disturbance of ruderal and developed areas # Impacts on special-status plant species # Mortality or disturbance of the California red-legged frog # Mortality or indirect impacts on the vernal pool fairy shrimp and California tiger salamander # Mortality of or indirect impacts on the southwestern pond turtle # Disturbance to the loggerhead shrike # Mortality of or disturbance to the California horned lark
3D	Traffic and Circulation	<ul style="list-style-type: none"> # Impacts on intersections # Impacts on roadway system # Impacts on pedestrian and bicycle travel # Impacts on transit

Section in EIR	Environmental Resource	Issues Addressed in EIR
3E	Air Quality	<ul style="list-style-type: none"> # Short-term construction emissions # Long-term operation emissions
3F	Noise	<ul style="list-style-type: none"> # Expose existing or planned land uses to noise (excluding aircraft noise) in excess of the standards
3G	Hazardous Materials	<ul style="list-style-type: none"> # Potential exposure of construction workers and residents to hazardous materials that are excavated, disturbed, or exposed during construction-related activities # Potential operations-related exposure of workers and residents to hazardous materials # Potential short-term surface water quality degradation from accidental release of hazardous materials during construction
3H	Public Services and Utilities	<ul style="list-style-type: none"> # Impacts on water supply and distribution facilities # Impacts on sewer mains and capacity and expansion of treatment facilities # Impacts on storm drainage capacity # Impacts on solid waste landfill capacity # Increased demand for law enforcement service # Increased demand for fire protection service # Adequacy of fire protection infrastructure to maintain acceptable levels of service # Increased demand for hazardous materials inspection, permitting, and response # Impacts on existing school system # Impacts on park and recreation facilities
3I	Cultural Resources	<ul style="list-style-type: none"> # Potential damage to or destruction of known or unknown cultural resources # Potential impact on unknown cultural resources in the Airport area and Margarita area.

Table 1-2. Required EIR Contents

Requirement (CEQA Section)	Location in EIR
Table of contents (Section 15122)	Table of Contents
Summary (Section 15123)	Executive Summary
Project description (Section 15124)	Chapter 2
Environmental setting (Section 15125)	Chapter 3, Sections 3A through 3I
Significant environmental effects of proposed project (Section 15126[a])	Executive Summary and Chapter 3, Sections 3A through 3I
Unavoidable significant environmental effects (Section 15126[b])	Executive Summary and Chapter 3, Sections 3A through 3I
Mitigation measures (Section 15126[c])	Executive Summary and Chapter 3, Sections 3A through 3I
Cumulative impacts (Section 15130)	Executive Summary and Chapter 4
Alternatives to the proposed project (Section 15126[d])	Chapter 3, Sections 3A through 3I
Growth-inducing impacts (Section 15126[g])	Executive Summary and Chapter 4
Effects found not to be significant (Section 15128)	Executive Summary and Chapter 3, Sections 3A through 3I
Organizations and persons consulted (Section 15129)	Chapter 6
List of preparers (Section 15129)	Chapter 7

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995 Palm Street
San Luis Obispo, CA

The City of San Luis Obispo Planning Commission ~~will~~ received public input on the project and EIR at a hearing before making a recommendation to the City of San Luis Obispo City Council on this project. Public comment is encouraged at all public hearings before the planning commission and city council. Information concerning the public review schedule for the EIR and the planning commission and city council agendas can be obtained by calling the City of San Luis Obispo Community Development Department at 805/781-7172.

ENVIRONMENTAL IMPACT REPORT PREPARATION

This draft EIR has been prepared by Jones & Stokes under contract to the City of San Luis Obispo. It has been prepared for the City in accordance with CEQA (Pub. Res. Code, Sections 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR], Sections 15000 et seq.). Staff members from the City; Jones & Stokes; Wallace, Roberts, and Todd; Fehr & Peers; Boyle Engineering; and Brown and Caldwell who helped to prepare this draft EIR are identified in Chapter 6, "Report Preparation."

Chapter 2. Project Description

PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

CEQA requires all state and local government agencies to consider the environmental consequences of programs/projects over which they have discretionary authority. CEQA also requires each public agency to mitigate or avoid significant environmental impacts resulting from proposed programs/projects and to identify alternatives to the proposed project that could reduce or avoid those environmental impacts. This draft EIR has been prepared for the Airport Area and Margarita Area Specific Plans and related facilities master plans. The overall project is described below.

PROJECT OVERVIEW

Introduction and Project Purpose

The City of San Luis Obispo planning area covers approximately 26,500 hectares (65,500 acres) in the central part of San Luis Obispo County, California (Figure 2-1). In the planning area, the much smaller Urban Area contains the greatest concentration of urban development, including residential, commercial, and industrial uses, and areas designated for additional development. The Urban Area includes land outside the San Luis Obispo city limits that is divided into several individual planning areas, including the Airport area and the Margarita area.

The City is preparing the Airport Area Specific Plan and Margarita Area Specific Plan to implement its general plan. Adoption of the specific plans is a key step because annexation of the areas can then be completed, making them eligible for city services and subject to city land use regulations. The City has begun the process of annexation; supporting facilities master plans for water, wastewater, and storm drainage also have been prepared.

Project Location

The Airport and Margarita areas are in the southern part of the city's Urban Area (Figure 2-2). The resident population in the Airport and Margarita areas is estimated to be

approximately 100, although the number of workers is much higher. Each planning area is described further below.

Airport Area

The 407-hectare (1,006-acre) Airport area is the largest single portion of land in the Urban Area and is located outside the city limits. This planning area is located generally north of Buckley Road, east of South Higuera Street, and west of Broad Street. In addition to the county airport, existing land uses are primarily commercial and industrial (e.g., offices, contractors' supply facilities, concrete products manufacturing facilities, and distribution and storage facilities). The only substantial residential use is a mobile home park, located in the northeastern part the area.

A substantial portion of the planning area is the Unocal Tank Farm property. This approximately 150-hectare (368-acre) site, located both north and south of Tank Farm Road, was established by Union Oil of California in 1910 for the storage and distribution of San Joaquin Valley crude oil. Crude oil was stored in several large concrete-lined reservoirs set into the ground and in aboveground steel tanks. In 1926, lightning ignited a major fire in the area, resulting in the deposition of large amounts of oil and tar across and under much of the site. During the 1990s, operations at the site were decommissioned, and most of the tanks were dismantled. Currently, the local headquarters for a successor to Unocal is located on a small part of the property. Small creeks and low places on the site have reverted to the marshy conditions that probably existed before the tank farm.

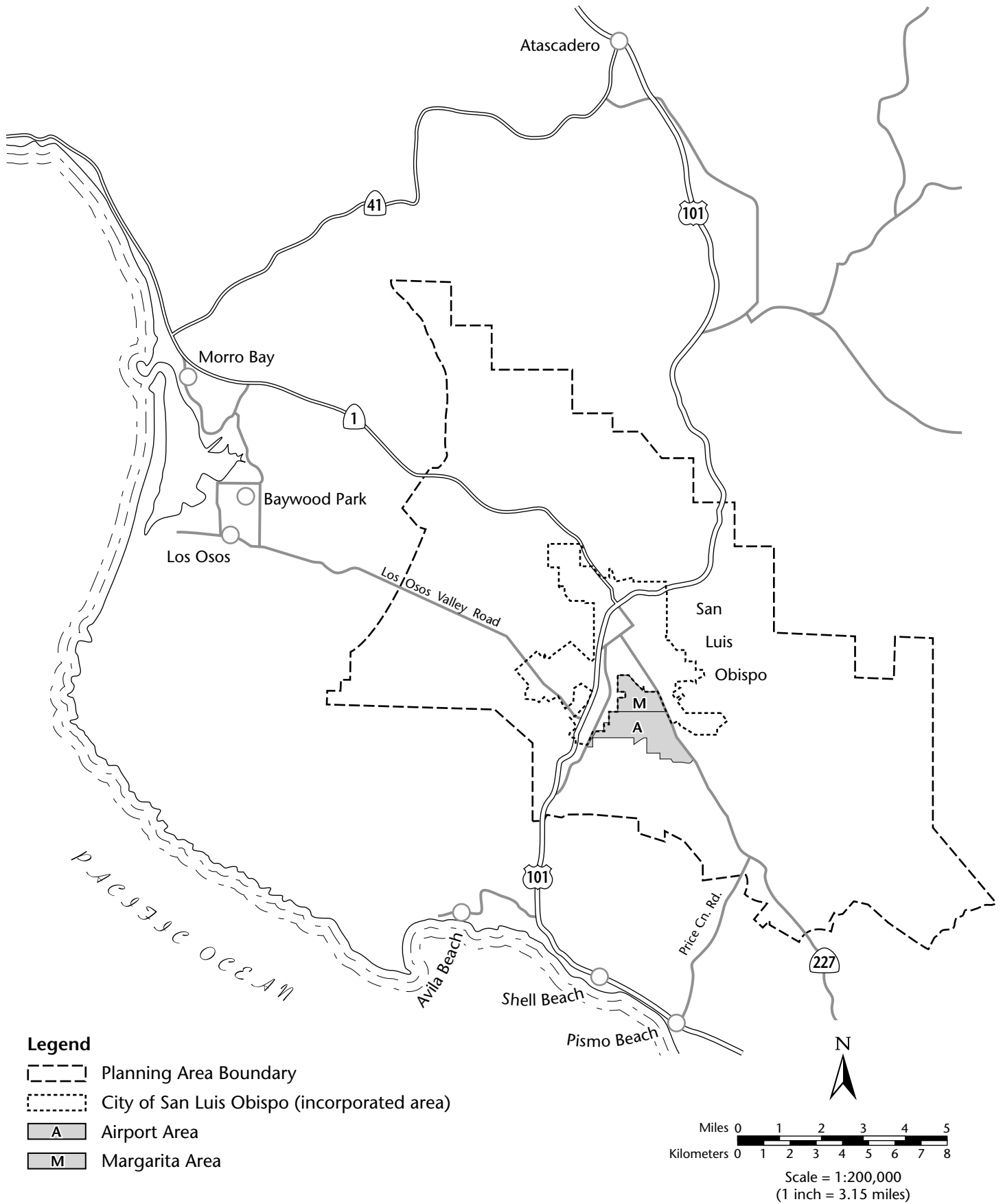
Margarita Area

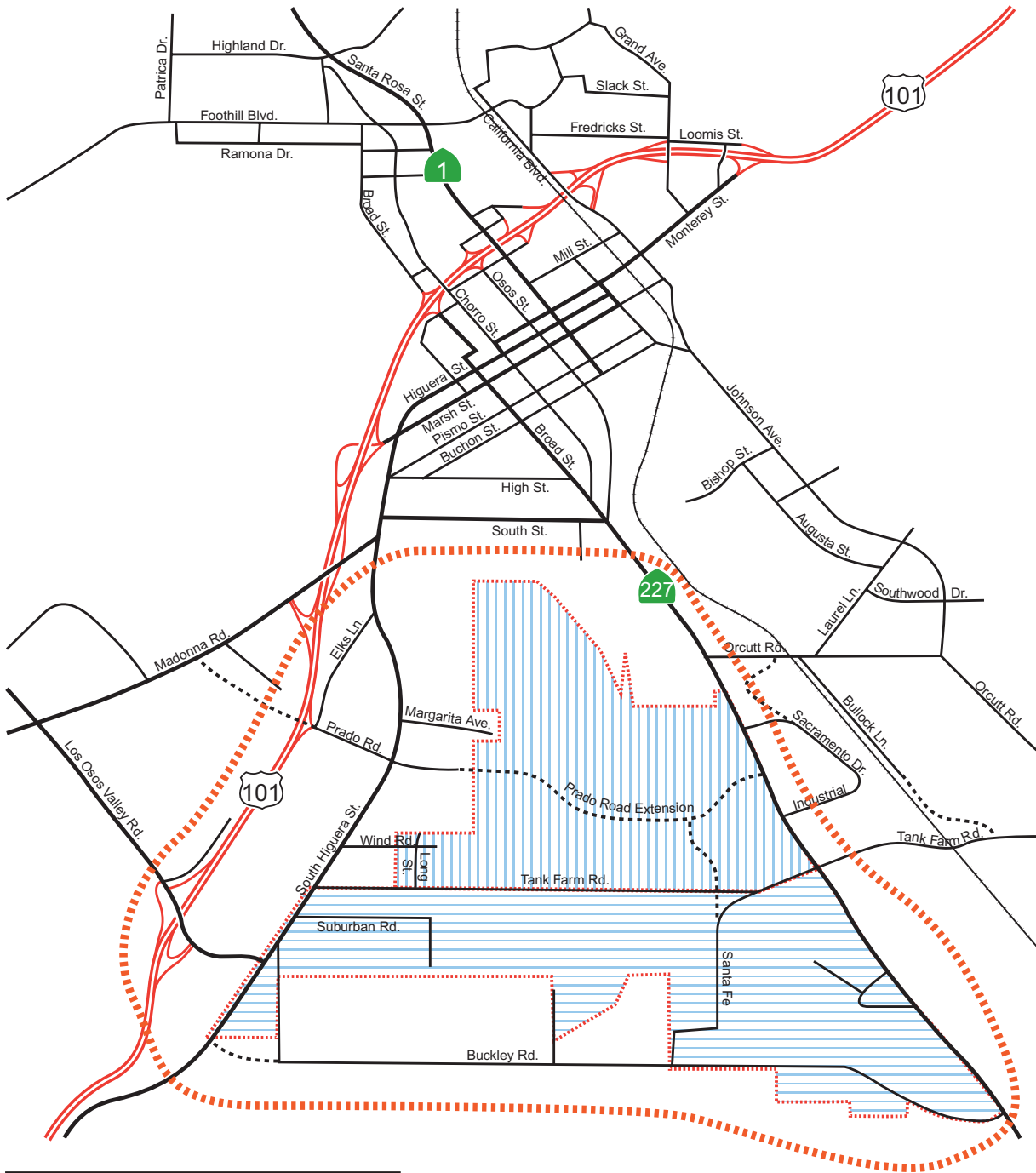
The 170-hectare (420-acre) Margarita area extends from the Airport area's northern boundary to the ridge of the South Street Hills, with Broad Street to the east and existing development along South Higuera Street to the west. Existing land uses are primarily open rangelands with a few residences.

Project Background and Objectives




As required by the City General Plan, each of the specific plans is intended to contain policies and standards that will facilitate appropriate development of land, protection of open space, and provision of adequate public facilities. The specific plans are more detailed than the general plan but less precise than subdivision maps or construction plans.


The overall objective of the project is to adopt specific plans for the Airport and Margarita areas, pursuant to the City General Plan.





Key:

-  Airport Area Specific Plan
-  Margarita Area Specific Plan
-  Study Area


 N
 Not to Scale

Source: Fehr & Peers Associates 2001.

Airport Area Specific Plan Objectives

Airport Area Specific Plan objectives include:

- # identifying the infrastructure needed to provide city services to the area;
- # facilitating the City's eventual annexation of the Airport area;
- # ensuring that planned land uses are compatible with airport operations and consistent with San Luis Obispo County's Airport Land Use Plan (ALUP);
- # accommodating businesses identified in the City's Targeted Industry Cluster Study that provide household-supporting incomes for San Luis Obispo residents; and
- # establishing goals and policies for open space protection, conservation, and restoration.

Margarita Area Specific Plan Objectives

Margarita Area Specific Plan objectives include:

- # accommodating a wide range of housing types, with an emphasis on housing affordable to those working in San Luis Obispo;
- # protecting substantial natural habitats, including creeks, hills, wetlands, and corridors between these habitats;
- # providing convenient access for residents to employment, basic shopping, recreation, and education through both the location of land uses and the design of circulation features;
- # accommodating research and light manufacturing jobs that can support local households in forms compatible with airport safety and neighboring residences;
- # ensuring that planned land uses are compatible with airport operations; and
- # ensuring consistency with San Luis Obispo County's ALUP ~~Airport Land Use Plan~~.

LAND USE CATEGORIES

Under the proposed project and each project alternative, land has been designated for the uses described in this section. Scenarios for the Margarita area and the Airport area under each project alternative vary in the quantity of land allotted to the land uses discussed here but do not vary by category.

Land use designations under the Airport Area Specific Plan are summarized below with a listing of both existing uses and allowable future uses:

- # Medium-Density Residential: the mobile home park that was established before preparation of the specific plan (the park may be retained or replaced with other uses as provided in the R-2 zone);
- # Services and Manufacturing: storage, transportation, wholesaling, certain retail sales and business services that may be less appropriate in other commercial designations, assembly, fabrication, storage and distribution, and sales activities that have little or no direct trade with local consumers;
- # Business Park: research and development, light manufacturing, and business services that are compatible with each other and with airport operations; business parks are primarily intended for firms and agencies that provide employment opportunities that can support households in the city;
- # Open Space: land used for wildlife preservation, low-impact recreation, and continued agricultural use and the airport clear zones; and
- # Government Facilities: the airport site and detention basins serving the whole area.

Land use designations under the Margarita Area Specific Plan are summarized below, with a listing of both existing uses and allowable future uses:

- # Open Space: hills, creek corridors, and wetlands;
- # Parks: the informal neighborhood green, a neighborhood park, and sports fields;
- # Low-Density Residential: five to seven dwellings per net acre;
- # Medium-Density Residential: eight to 12 dwellings per net acre;
- # Medium-High-Density Residential: 12–18 dwellings per net acre;
- # High-Density Mixed Residential: 16–24 dwellings per net acre and small-scale businesses, such as bed and breakfast inns, artist studios, services, and restaurants;
- # Neighborhood Commercial: small-scale businesses that would provide goods and services to residents and workers nearby;
- # Special Use: an existing ranch house that may be used as a small-scale business, such as a bed and breakfast inn; and

- # Business Park: research and development, light manufacturing, and service businesses that are compatible with airport safety and neighboring residences, ~~and~~
- # ~~Elementary School: an elementary school.~~

SUMMARY OF SPECIFIC PLAN LAND USE SCENARIOS

For each proposed specific plan, different land use scenarios have been developed and are described below. Tables 2-1 and 2-2 show how these scenarios compare to the proposed project under each specific plan. Combinations of scenarios for the Airport Area and Margarita Area Specific Plans have then been grouped together to form the alternatives analyzed in this draft EIR (Table 2-3). Facility master plans also have been developed to supplement the land use scenarios and provide additional site-specific infrastructure options for each of the alternatives.

Table 2-3. Alternatives Analyzed in the EIR

EIR Alternative	Airport Area	Margarita Area
Proposed project	Proposed project	Proposed project
Alternative 1	Scenario 1	Scenario 1
Alternative 2	Scenario 2	Proposed project
Alternative 3	Scenario 3	Proposed project

Airport Area Specific Plan

The draft Airport Area Specific Plan’s proposed land uses follow the adopted general plan (with some adjustments) and include annexation of the airport site (Figure 2-3). Three scenarios are presented, as shown in Figures 2-4 through 2-6. The scenarios primarily reflect different approaches to annexing land in the vicinity of the airport site, different land uses, and road extension options.

Margarita Area Specific Plan

Alternative land use scenarios and several options for circulation features for the draft Margarita Area Specific Plan are presented in Figures 2-4 through 2-6. The alternative land use scenario places less emphasis on a high-density, mixed-use “main street” and shifts the neighborhood commercial location to the southern edge of the planning area.

As described above, under “Objectives,” one of the major objectives of the Margarita Area Specific Plan is to ensure that planned land uses are compatible with airport operations and that the Margarita Area Specific Plan is consistent with the County’s ALUP. Since the County adopted the

~~ALUP in June 2002, the City has modified the draft version of the Margarita Area Specific Plan in coordination with the The San Luis Obispo County Airport Land Use Commission (ALUC) to ensure that the revised specific plan is consistent with the adopted 2002 ALUP. determined that the Margarita Area Specific Plan is not consistent with the Airport Land Use Plan. Also, the California Division of Aeronautics has recommended against the proposed elementary school because of potential conflicts with the airport, meaning the school district cannot acquire the site. Mitigation Measure LU-3.1 in this EIR will require revisions to the Margarita Area Specific Plan to make it consistent with the Airport Land Use Plan. The City anticipates that the The revisions made to the Margarita Area Specific Plan involve modifications of land use designations that make it consistent with the ALUP (e.g., the proposed housing development has been moved farther away from the centerline of the airport to avoid locating it in ALUP Safety Zone 3; a proposed school site has been deleted altogether from the Margarita Area Specific Plan map). pursued due to airport incompatibility will have, compared to the proposed project, the same hillside and creek open-space features, similar circulation features, and the same or fewer dwellings. No additional impacts have resulted from these changes to the Margarita Area Specific Plan. That is, Therefore, impacts on the site and immediate surroundings will have been adequately addressed in this EIR. If this is not the case, a supplemental environmental analysis will be prepared prior to adoption of the revisions to address any additional impacts that may result from those revisions.~~

Facility Master Plans

Water System Master Plan

The Water System Master Plan includes improvements to the water treatment and distribution systems to meet citywide general plan development needs, including needs of the Airport and Margarita areas. Figure 2-7 shows the ~~Water System Master Plan study area boundaries as well as the locations of affected pump stations, water tanks, and the treatment plant under the Water System Master Plan.~~ A complete list of all proposed improvements is in Appendix B, "Water System Master Plan Recommended Improvements." The following is a brief summary of key treatment plant and facilities improvements identified in the Water System Master Plan. The proposed improvements under each of the phases listed below will receive separate environmental evaluation by the City before implementation.

Recommended Treatment Plant Improvements. The recommended treatment plant improvements are as follows:

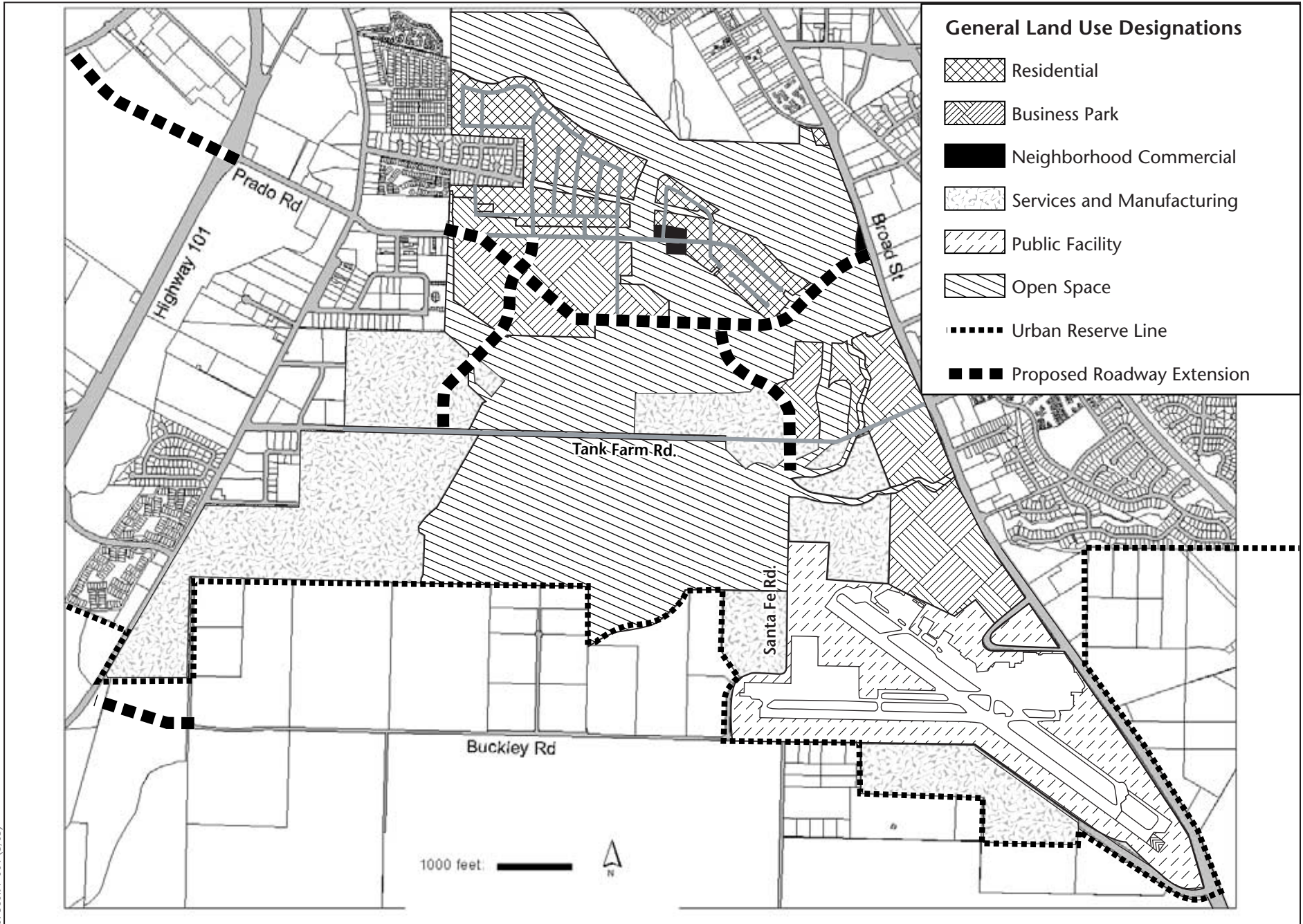
- # Phase I: Perform a seismic evaluation of the existing treated water storage reservoir and Washwater Reservoir No. 2.
- # Phase II: Add facilities to improve filtration rates, treatment processes, and emergency operations. Add 4-million-gallon clearwater tank, new plant water supply pipeline from Reservoir No. 2, and other projects identified in the Water Master Plan.

Revised Table 2-1. Acreage by Land Use Category for the Airport Area

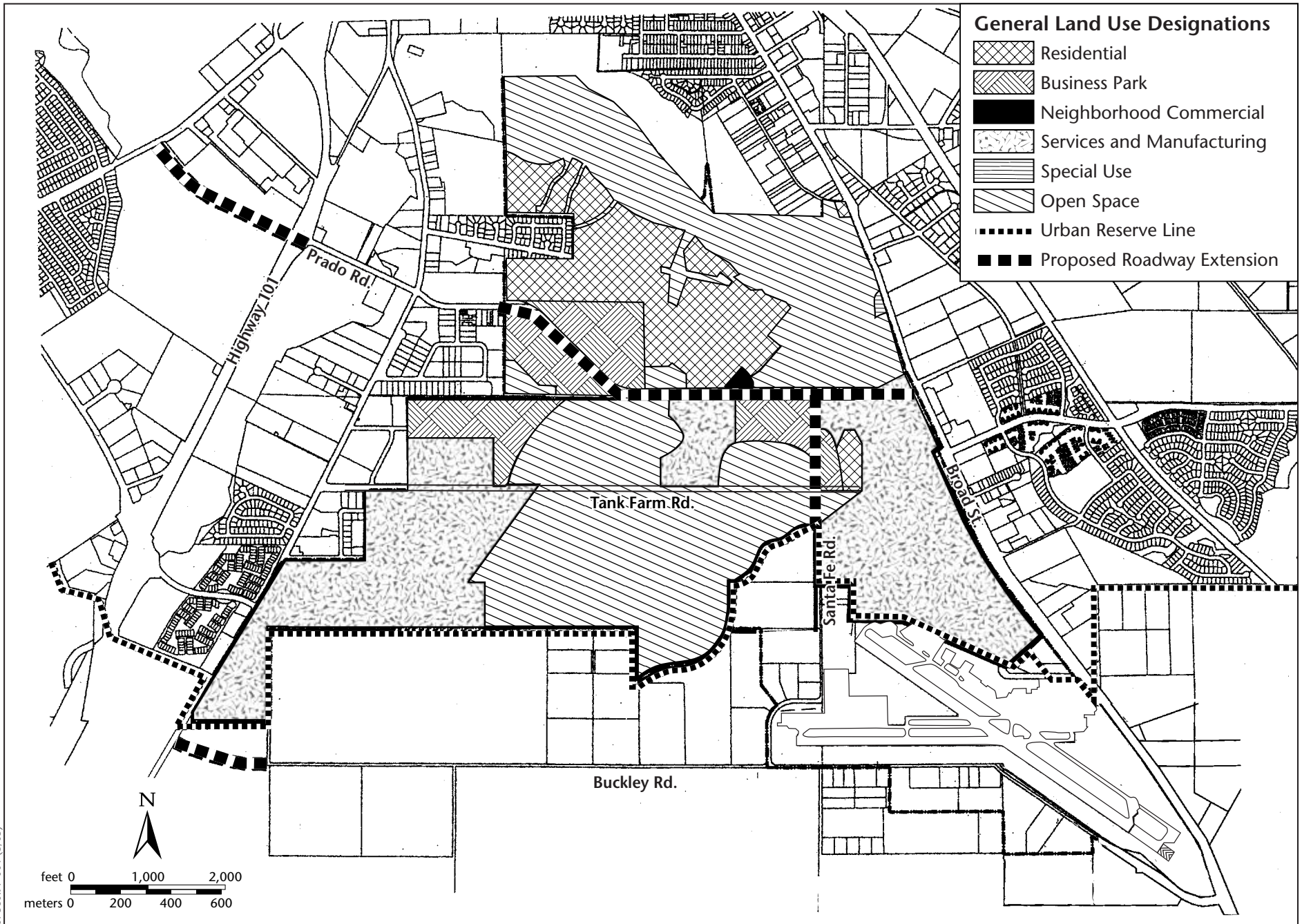
Land Use Category	Proposed Project		Scenario 1		Scenario 2		Scenario 3	
	Hectares (Acres)	Percent	Hectares (Acres)	Percent	Hectares (Acres)	Percent	Hectares (Acres)	Percent
Medium-Density Residential	3.1 (7.6)	1	3.1 (7.6)	1	3.1 (7.6)	1	3.1 (7.6)	1
Services and Manufacturing	114.2 (282.3) <u>134.3</u> <u>(331.8)</u>	28 <u>33</u>	136.1 (336.4)	52	204.0 (504.2)	56	140.6 <u>140.5</u> (347.2)	30
Business Park	68.8 (169.9) <u>44.6</u> <u>(110.1)</u>	17 <u>12</u>	20.1 <u>20.8</u> (51.4)	8	29.3 (72.4)	8	132.0 (326.1)	28
Recreation and Open Space	120.6 (298.0) <u>124.7</u> <u>(308.03)</u>	30 <u>30</u>	103.8 (256.6)	39	120.3 (297.3)	33	117.6 (290.6)	24
Government Facilities	97.6 (241.1)	24	0 (0)	0	0 (0)	0	0 (0)	0
Agriculture and Open Space	0 <u>(0)</u>	0 —	0 <u>(0)</u>	0 —	8.4 <u>(20.8)</u>	2 —	81.4 <u>(201.2)</u>	17 —
Total acreage	404.3 (998.9) <u>404.1</u> <u>(998.6)</u>	100	263.1 <u>263.8</u> (652.0)	100	365.1 (902.3)	100	474.7 <u>474.6</u> (1,172.7)	100

Revised Table 2-2. Acreage by Land Use Category for the Margarita Area

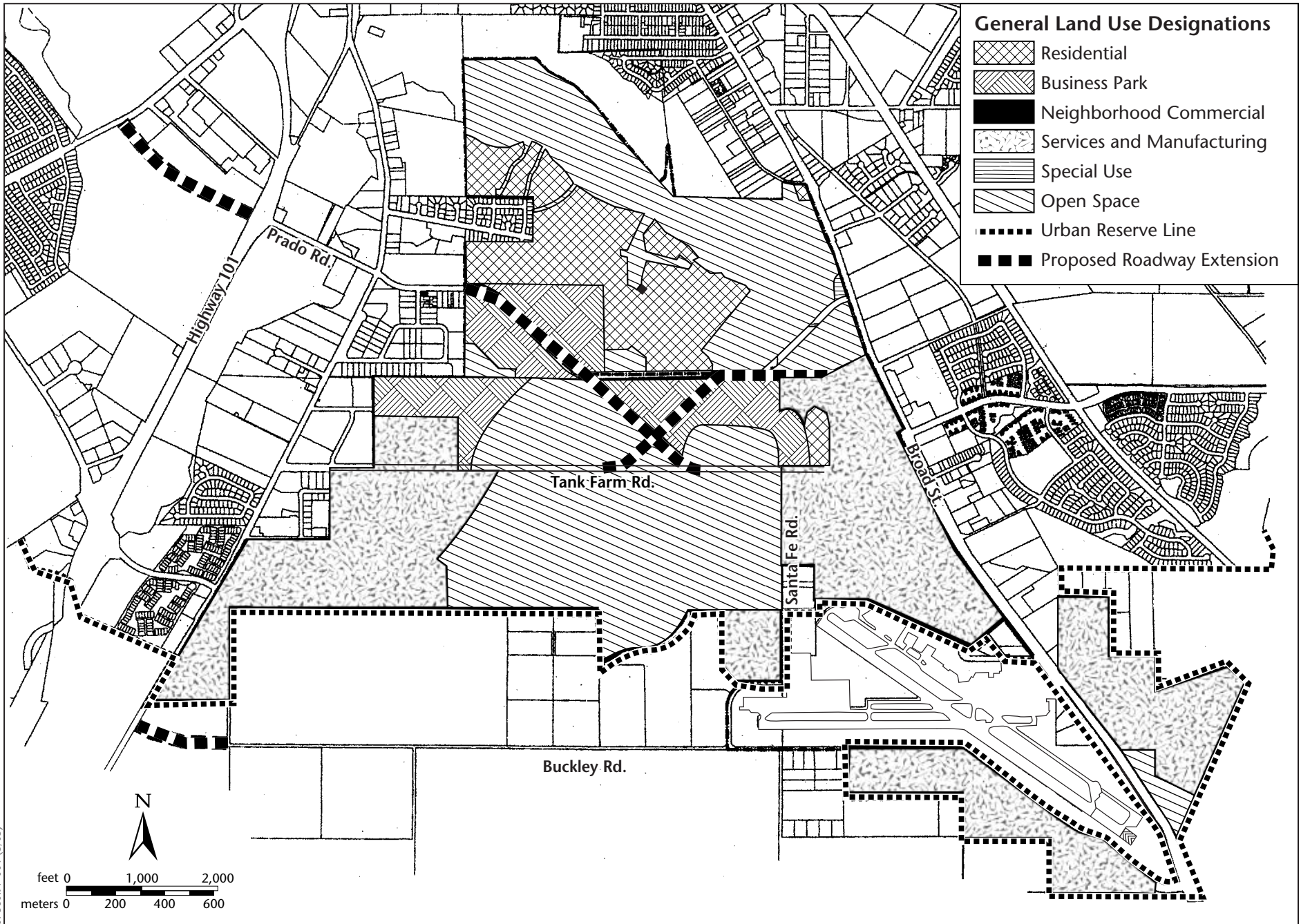
Land Use Category	Proposed Project		Scenario 1	
	Hectares (Acres)	Percent	Hectares (Acres)	Percent
Open Space	67.3 (166.2)	40	67.7 (167.2)	40
	<u>68.4 (169.0)</u>	<u>41</u>	<u>71.1 (175.6)</u>	<u>42</u>
Parks	12.6 (31.1)	8	10.9 (26.9)	6
	<u>22.6 (55.7)</u>	<u>13</u>		
Residential	38.1 (94.1)	23	40.4 (99.8)	24
	<u>30.3 (74.9)</u>	<u>18</u>		
Neighborhood Commercial	0.1 (0.2)	<1	0.6 (1.5)	<1
	<u>0.9 (2.1)</u>	<u><1</u>		
Special Use	0.4 (1.0)	<1	0.4 (1.0)	<1
Business Park	17.5 (43.2)	10	17.5 (43.2)	10
	<u>27.9 (68.8)</u>	<u>16</u>		
Elementary School	4.1 (10.1)	2	3.4 (8.4)	2
Streets	27.5 (67.9)	16	<u>27.7 (68.4)</u>	<u>17</u>
	<u>19 (47)</u>	<u>11</u>		
Total acreage	167.6 (413.8)	100	168.6 (416.4)	100
	<u>169.4 (418.5)</u>			



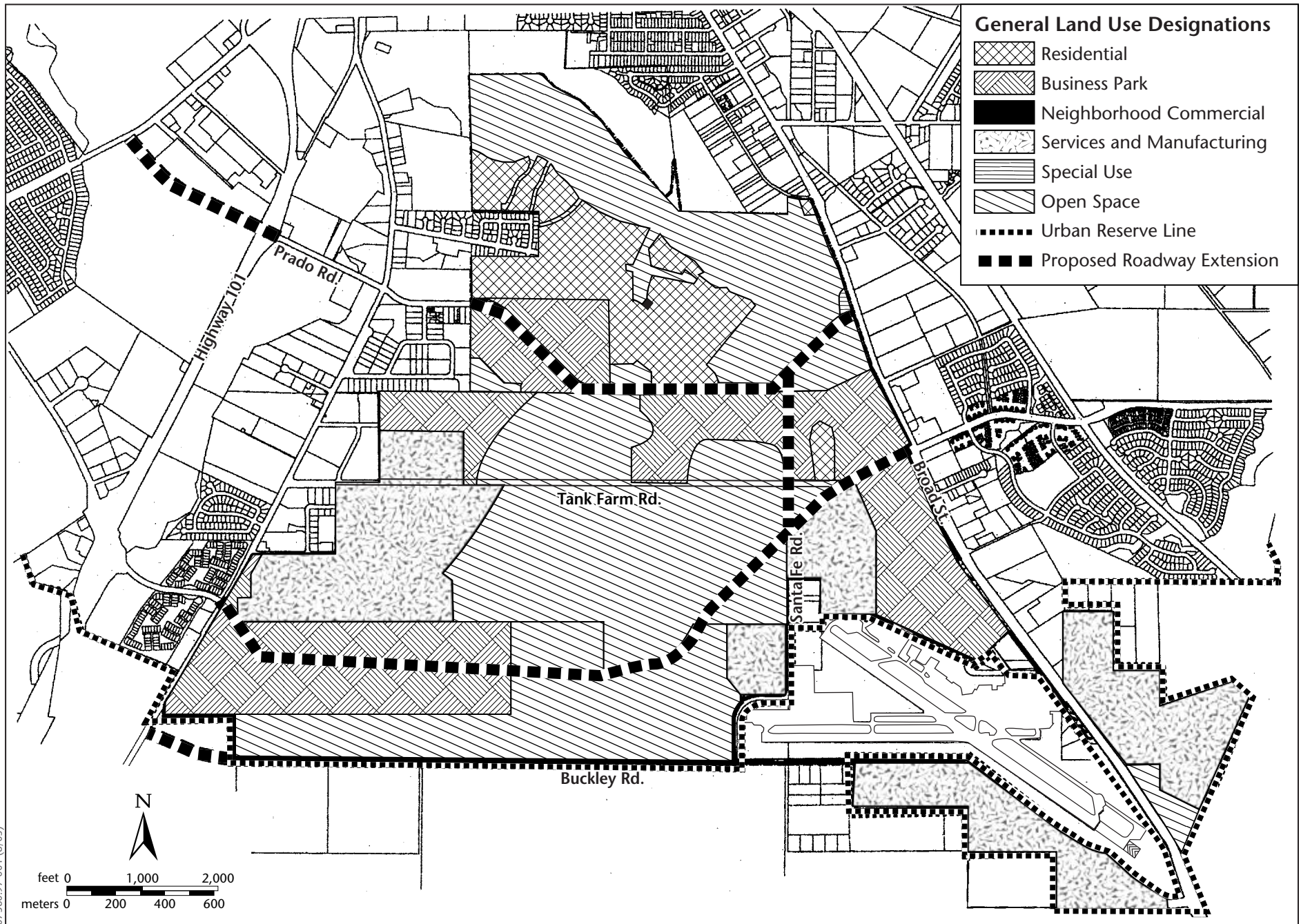
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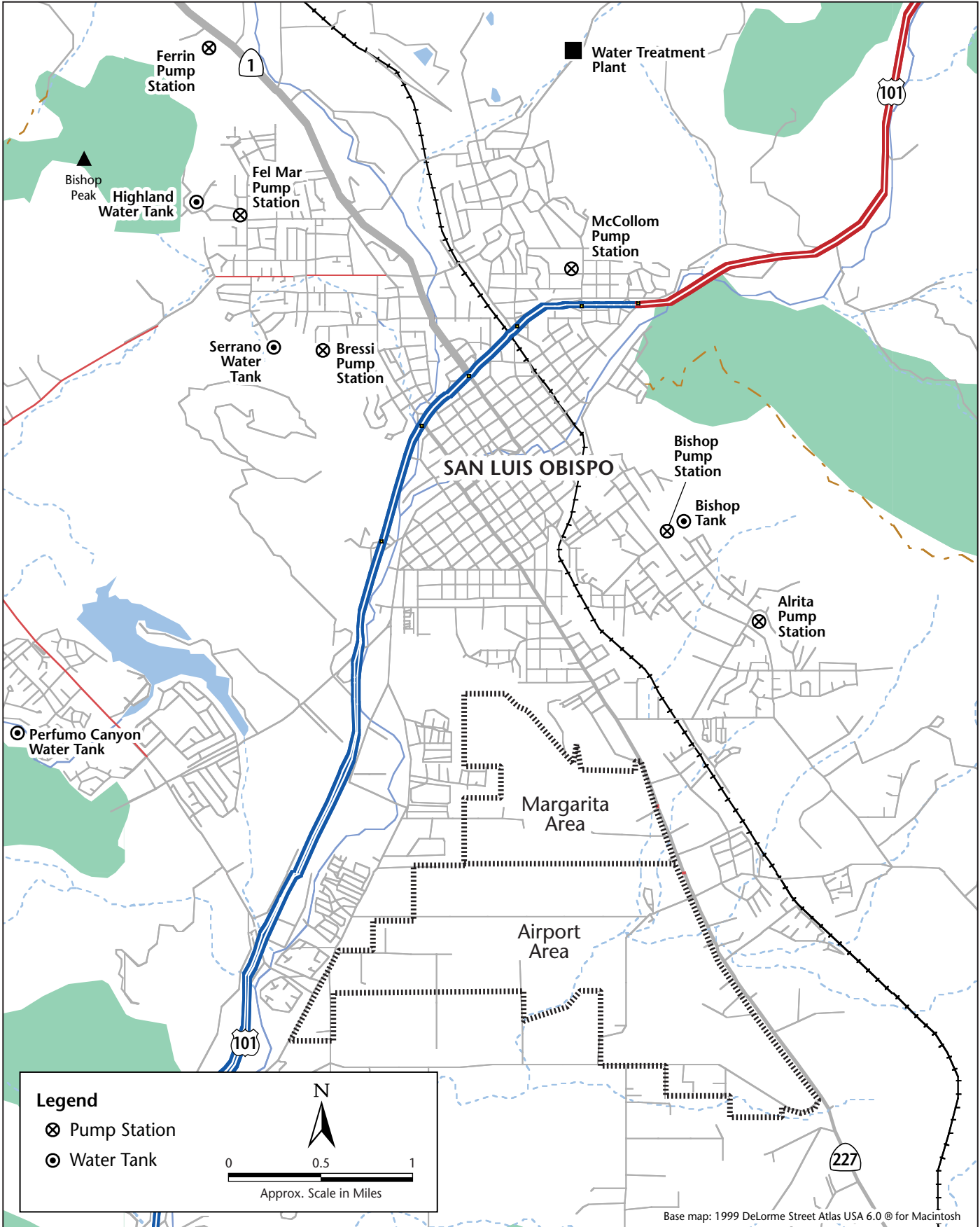


Figure 2-7
Water System Master Plan Study Area
Tank, Plant, and Pump Station Improvement Locations

- # Phase III: Monitor water levels at the forebay, improve efficiency of pump motors, evaluate means to protect the water treatment plant from railroad accidents, and improve emergency standby power capacity.

Recommended Distribution Improvements. The recommended distribution improvements are:

- # addition of a grid of 12-inch-diameter mains: three east-west mains connecting to the Los Osos Valley Road, Tank Farm Road, and Prado Road alignments and two north-south mains connecting to existing 16- and 20-inch-diameter transmission mains to the north;
- # addition of 8- and 10-inch-diameter interior distribution mains based on final plans and fire flow demand;
- # addition of a 0.2-million-gallon water reservoir in the southwestern part of the city to improve fire flows in the Edna Valley Zone (Prefumo Canyon area);
- # adding approximately 122 meters (400 feet) of 16-inch pipe, 9,600 meters (31,600 feet) of 12-inch pipe, and 250 meters (830 feet) of 10-inch pipe;
- # adding a 4,542,000-liter (1,200,000-gallon) water tank to replace the existing Bishop Tank, located near General Hospital.

Wastewater Master Plan Update

The City's Wastewater Master Plan Update addresses the city in its entirety, including annexation areas. The plan identifies improvements to collection and treatment facilities that will be needed to provide wastewater service to future annexation areas and to the city as a whole. Figure 2-8 shows the ~~Wastewater Master Plan Update study area boundaries as well as the locations of the affected pump stations and reclamation facility under the Wastewater Master Plan Update.~~ Increased flows from the Airport area and other annexation areas will require the expansion of the city's water reclamation facility. When the city's population exceeds 50,000 or flows approach design capacity, the City will need to expand advanced treatment facilities, such as cooling towers, filters, chlorination, and dissolved air flotation thickening processes. In summary, the Wastewater Master Plan Update identifies the following substantial reclamation facility and system improvements:

- # replacing the Howard Johnson and Laguna lift stations;
- # adding a new Tank Farm lift station approximately 2.1 kilometers (1.29 miles) west of the Tank Farm Road/Broad Street intersection;

- # installing approximately 3,790 meters (12,400 feet) of new 8-inch sewer mains in the Airport area;
- # installing 1,219 meters (4,000 feet) of 16-inch discharge pipe (required at the new tank farm facility); and
- # installing approximately 9,400 meters (30,700 feet) of new trunk sewer mains in the Margarita area.

Storm Drain Master Plan

The ~~draft~~ Storm Drain Master Plan addresses the East Branch San Luis Obispo Creek watershed. This watershed includes the Airport and Margarita areas as well as areas to the east. The Storm Drain Master Plan area boundaries are shown in Figure 2-9. ~~The proposed improvements are shown in Figure 2-10.~~ The plan's features would:

- # downstream of the Airport area, limit storm drainage flows at buildout to the level estimated for existing conditions;
- # provide 100-year flood protection in the Airport area and Margarita area;
- # provide for environmental enhancement of stream corridors; and
- # provide individual onsite or subregional detention basins ~~a single regional detention basin~~ that will serve the entire area, rather than a single regional detention basin. ~~facilities on individual sites.~~

Previous project improvement recommendations included parallel, minor creek modifications as needed and permitted by the governing entity to enhance flood conveyance capacity. However, the City has determined that the existing creeks have capacity to sufficiently convey floodwaters. In summary, the ~~draft~~ Storm Drain Master Plan identifies the following recommended improvements:

- # replacing bridges across Acacia Creek at Tank Farm Road and the East Branch of San Luis Obispo Creek at Santa Fe Road; and
- # replacing and improving Tank Farm Creek culvert facilities at Tank Farm Road with a standard Caltrans two-span concrete slab bridge; ;
- # ~~reconfiguring West Fork Tank Farm Creek, Acacia Creek, and portions of the East Branch of San Luis Obispo Creek as modified natural channels to provide increased conveyance capacity for floodwaters;~~

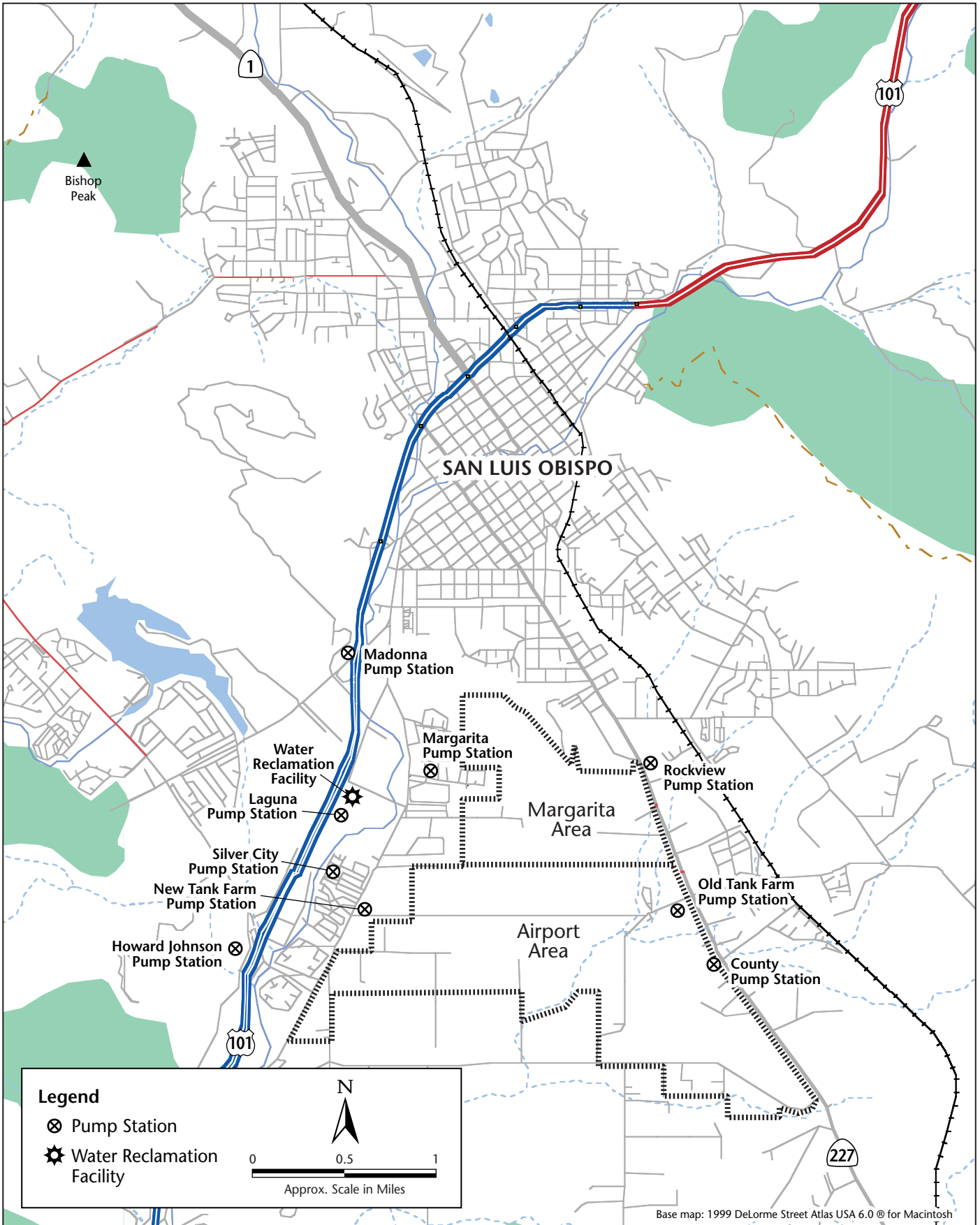
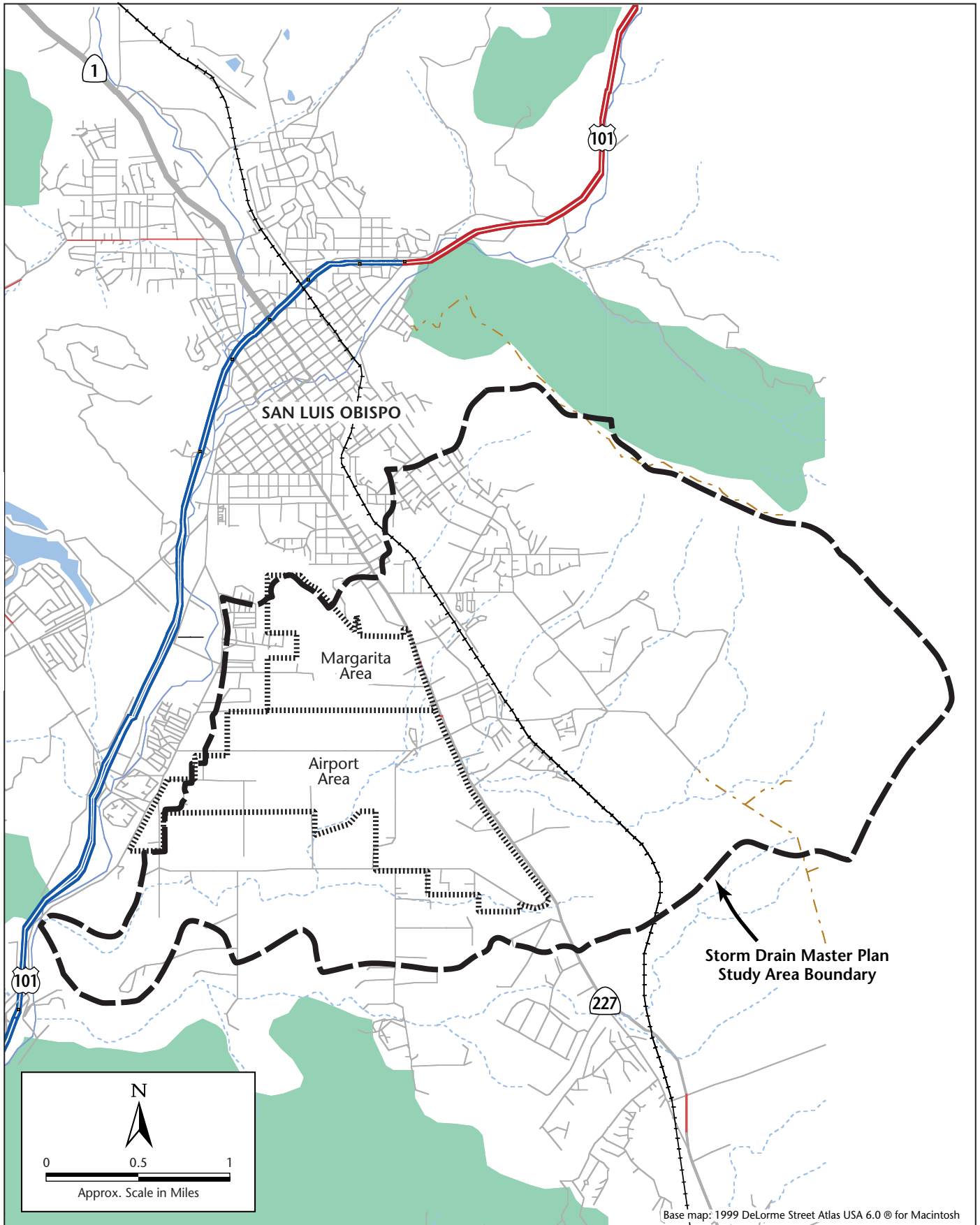


Figure 2-8
Wastewater Master Plan Update
Study Area and Facility Locations

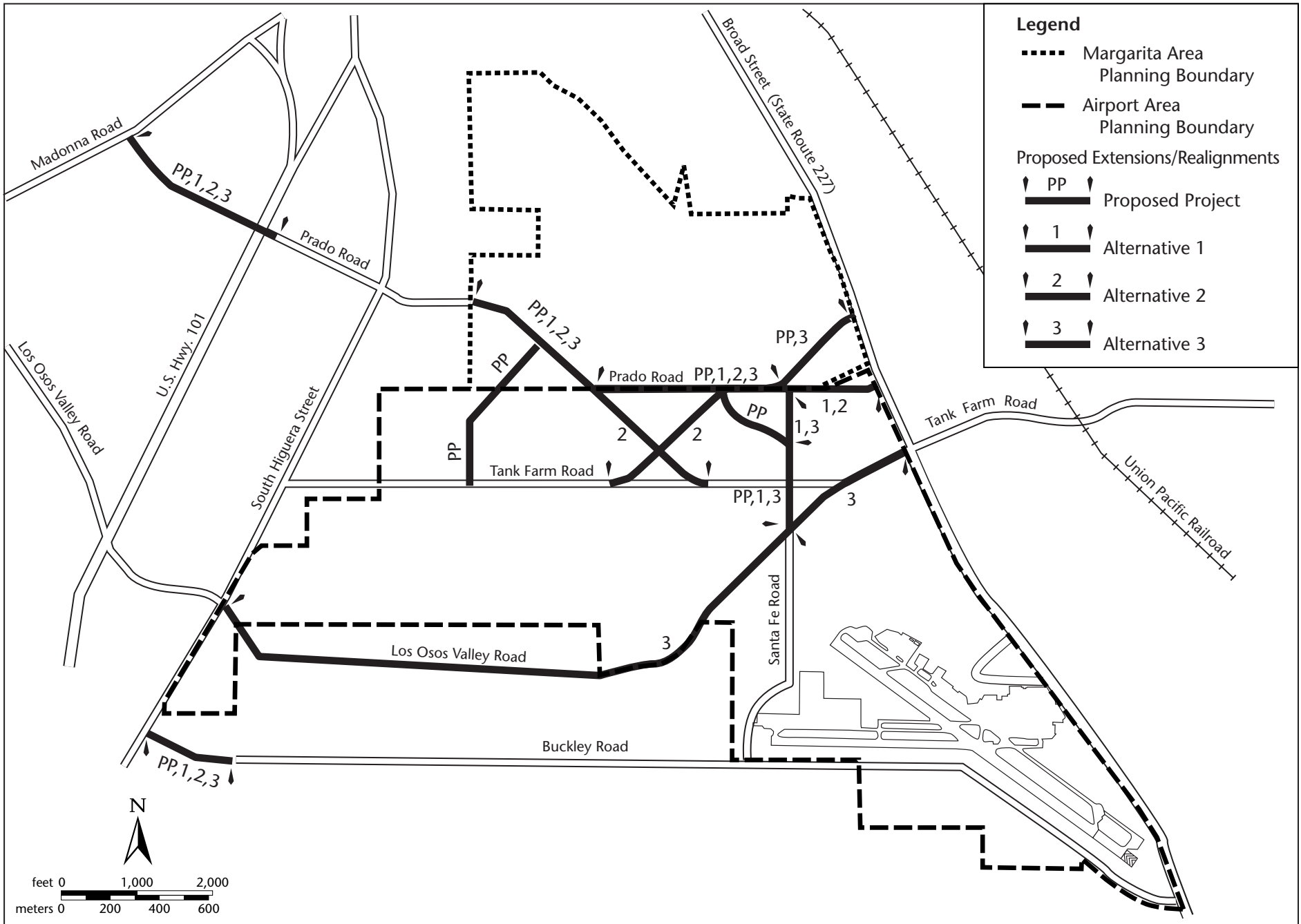


- # ~~constructing a 150-acre-foot detention basin at south of Buckley Road along Tank Farm Creek (including a diversion channel from the East Branch San Luis Obispo Creek to the detention basin) as shown in Figure 2-10.~~

Road Improvements

The Specific Plan includes improvements to the street system necessary to accommodate Airport area traffic at buildout as well as citywide general plan development needs. Figure ~~2-10~~ 2-11 shows the circulation system and the location of affected street segments. Following is a brief summary of key circulation system improvements identified in the Airport Area and Margarita Area Specific Plans:

- # extension of Prado Road as a four-lane roadway from the U.S. 101 interchange to Broad Street;
- # realignment of Santa Fe Road north to connect with Tank Farm Road and an extension of Santa Fe Road north to connect with the Prado Road extension;
- # extension of a new two-lane collector street from Tank Farm Road to Prado Road, approximately 960 meters (3,150 feet) east of South Higuera Street; and
- # ~~widening of Broad Street to arterial standards (four lanes with a median) from Tank Farm Road to Buckley Road; and~~
- # widening of Tank Farm Road to four lanes with medians at the east and west ends and to two lanes with a median in the central section between Santa Fe Road and the new Unocal collector street.



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Chapter 3. Environmental Analysis

INTRODUCTION

In May 2000, the City prepared and published an initial study for the proposed project. The City has used the initial study as well as agency and public input received during the NOP comment period to determine the scope of the analysis for this draft EIR. Through this process, the City has determined that the EIR analysis should focus on the resources and issues presented in Table 1-1 potential impacts in the following issue areas:

Land Use and Aesthetics

Hydrology and Water Quality

Biological Resources

Traffic and Circulation

Air Quality

Noise

Hazardous Materials

Public Services and Utilities

Cultural Resources

Cumulative Impacts

Sections 3A through 3I provide a detailed discussion of the resource setting, impacts associated with the proposed project and alternatives, and mitigation measures designed to reduce significant impacts to less-than-significant levels (or to reduce the severity of significant impacts). As described in Chapter 1 of Volume II, the environmental analysis was conducted on a program level pursuant to State CEQA Guidelines Section 15168.

ORGANIZATION OF ENVIRONMENTAL ANALYSIS (SECTIONS 3A TO 3I)

To assist the reader in comparing information about the various environmental resource topics, each section in this chapter (Sections 3A through 3I) contains the following main headings and information:

Introduction: This section presents an overview of the resource section and, if applicable, discusses where to find information on related impacts.

Setting: Each resource section includes a discussion of the regulatory and environmental setting associated with that resource. This information is used to identify baseline conditions

(i.e., conditions present before the project is implemented) to provide a way to measure the change that would be associated with the project's implementation.

Impacts and Mitigation: This section presents the methods used to assess potential impacts, describes the criteria used to determine the significance of impacts, provides a table summarizing the project's impacts on the environmental resources covered in that chapter, presents a discussion of each impact evaluated in the EIR and its associated level of impact (see "Terminology Used in This Draft EIR," below), and recommends mitigation measures to reduce any significant impacts to a less-than-significant level (or to reduce the overall severity of an impact). This section also includes an analysis of potential impacts associated with the project alternatives.

TERMINOLOGY USED IN THIS DRAFT EIR

For each impact identified in this draft EIR, a statement of the level of significance of the impact is provided. Impacts are categorized in one of the following categories:

- # A *beneficial* impact would result when the proposed project would have a positive effect on the natural or human environment, and no mitigation would be required.
- # *No impact* would result when no adverse change in the environment is expected; no mitigation would be required.
- # A *less-than-significant* impact would not cause a substantial change in the environment, although an adverse change in the environment may occur; no mitigation would be required.
- # A *significant* (but mitigatable) impact would have a substantial adverse impact on the environment but could be reduced to a less-than-significant level with mitigation.
- # A *significant unavoidable* impact would cause a substantial adverse effect on the environment, and no feasible mitigation measures would be available to reduce the impact to a less-than-significant level.

EVALUATION AND PRESENTATION OF IMPACTS

Because this ~~draft~~ final EIR evaluates the environmental impacts associated with implementation of the Airport Area Specific Plan, the Margarita Area Specific Plan, and the facility master plans, each of which has an independent boundary, usage, and standards, the impact analysis, where appropriate, provides a discussion of project impacts by plan area. This approach allows the City and the public to evaluate the impacts of each plan independently.

Section 3A. Land Use and Aesthetics

INTRODUCTION

This section presents information on existing land uses, applicable plans and policies, and the visual character associated with the proposed project and alternatives. This information is based on a review of applicable planning documents and a review of previously prepared environmental studies provided by the City of San Luis Obispo's Community Development Department. Impact topics assessed in this section include:

- # consistency of proposed specific plans with applicable city plans, policies, and agreements;
- # consistency of proposed specific plans with county general plan policy;
- # consistency of proposed specific plans with County ~~Airport Land Use Plan~~ (ALUP);
- # compatibility with surrounding land uses;
- # conversion of prime agricultural land to urban uses;
- # change in views; and
- # potential increase in daytime/nighttime light and glare.

SETTING

Regulatory Setting

City of San Luis Obispo

While the City of San Luis Obispo has land-use authority only for land within its incorporated boundaries, it is concerned with its entire planning area, which is coincident with the County's San Luis Obispo Planning Area. This planning area includes considerable land beyond the city's boundaries. The City's concern is focused within the designated Urban Reserve Line (URL)

and on the greenbelt immediately outside the URL. The URL encompasses lands outside the city's incorporated limits that have been identified as possible areas for annexation and urban development. The Margarita area and Airport area are within the URL.

The city general plan provides long-range direction and policy for the use of land in the Margarita and Airport areas. The land use element of the general plan establishes a general land use pattern that will support the orderly development of the area while protecting important resources and being responsive to the city's economic needs. It states that a specific plan must be adopted for the Margarita area before that area develops and that a specific plan should be adopted for the Airport area before the areawide annexation is completed.

Applicable Policies. The existing City of San Luis Obispo General Plan contains policies that specifically address the Airport and Margarita planning areas. The following policies are from the City's land use element (April 1997), which provides the most recent city policies with respect to the planning areas:

- # **Policy 1.13.3. Required Plans:** *Land in any of the following annexation areas may be developed only after the City has adopted a plan for land uses, roads, utilities, the overall pattern of subdivision, and financing of public facilities for the area. The plan shall provide for open space protection consistent with policy 1.13.5.*
 - A. *For the Airport Area, a specific plan shall be adopted for the whole area. Until a specific plan is adopted, properties may only be annexed if they meet the following criteria:*
 - 1. *The property is contiguous to the existing city limits; and*
 - 2. *The property is within the existing urban reserve line; and*
 - 3. *The property is located near to existing infrastructure; and*
 - 4. *Existing infrastructure capacity is available to serve the proposed development; and*
 - 5. *A development plan for the property belonging to the applicant(s) accompanies the application for annexation; and*
 - 6. *The applicant(s) agree to contribute to the cost of preparing the specific plan and constructing area-wide infrastructure improvements according to a cost-sharing plan maintained by the City.*

- # **Policy 1.13.5. Open Space:** *Each annexation shall help secure permanent protection for areas designated Open Space, and for the habitat types and wildlife corridors within*

the annexation area that are identified in policy 6.1.1. Policies concerning prime agricultural land shall apply when appropriate. The following policies shall apply to the indicated areas:

B. Margarita Area properties shall dedicate land or easements covering the hills above the elevation designated in the hillside planning section and riparian and wetlands areas as identified in the Open Space Element. (See also Hillside Planning section 6.2.6.E.)

D. Airport Area properties shall secure protection for any on-site resources as identified in the Open Space Element. These properties, to help maintain the greenbelt, shall also secure open space protection for any contiguous, commonly owned land outside the urban reserve. If it is not feasible to directly obtain protection for such land, fees in lieu of dedication shall be paid when the property is developed, to help secure the greenbelt in the area south of the City's southerly urban reserve line.

Land Use Program 1.16.7. Consistent Plans: *The City will seek County Board of Supervisors approval amending the County Land Use element to make it consistent with this element within San Luis Obispo's planning area. The City will work with the County during updates of the County's plan for the San Luis Obispo planning area*

Land Use Program 1.16.8. City-County Agreement: *The City will pursue a memorandum of understanding between the City and County governments, pledging that neither agency will approve a substantial amendment to its plan for San Luis Obispo's planning area without carefully considering the comment and recommendation of the other agency. The key feature of the memorandum would be the City's acceptance of the planned amount of growth and the County's agreement to not allow urban development within the planning area but outside the City.*

Land Use Program 1.17.3. Refined Planning Area Map: *The City will prepare, incorporate into the general plan, and seek County concurrence for a refined land-use map applying to the City's planning area outside the urban reserve. The map will show:*

A. Areas to be kept in permanent open space, including scenic lands, sensitive wildlife habitat, and undeveloped prime agricultural land.

Policy 2.3.1. Specific Plans: *Specific plans for the Margarita Area and Orcutt Area residential expansions shall include:*

A. Desired types and intensities of development, compatible with the surrounding area;

B. Phasing of development and public facilities, subject to availability of resources;

- C. *Measures to protect resources and open space, including, among other types, permanent wildlife habitats and corridors, and farm fields;*
 - D. *Desired types of public facilities and the means to provide them, to City standards, including water supply, sewage collection, storm water drainage, streets, bikeways, walking paths, and passive and active park space;*
 - E. *Desired levels of public services and the means to provide them, including fire, police, and schools;*
 - F. *A variety of owner and rental housing, including a road range of prices, sizes, and types;*
 - G. *Trees to help reduce wind exposure, and water-frugal landscaping;*
 - H. *Public parks and open space, and other land that is not to be built on, such as yards, and community gardens for multifamily areas;*
 - I. *Dual water systems allowing use of treated wastewater for non-potable uses;*
 - J. *Energy efficient design, utilizing passive and active solar features;*
 - K. *Amenities to facilitate public transportation within the area;*
 - L. *Opportunities for individuals or small groups, other than the specific plan developer, to build homes or to create living environments suited to small groups or to special needs.*
- # **Policy 6.2.6. Hillside Planning Areas:** *Hillside policies apply to all hills in and around the City. Specific policies to address particular concerns for the areas as shown on Figure 6 of the City General Plan, listed below. For each of these areas, land above the development limit line should be secured as permanent open space.*
- E. *The Margarita Area includes the southern slopes of the South Street Hills. No building sites should be located above the development limit line.*
- # **Policy 7.1:** *The Airport will continue to serve the region, consistent with the approved Master Plan.*
- # **Policy 7.2:** *Development should only be permitted only if it is consistent with the San Luis Obispo County Airport Land Use Plan. Prospective buyers of property that is subject to Airport influence should be so informed.*

- # **Policy 7.3:** *The City intends to actively pursue annexation of the Airport area by the year 1995. Airport area land inside the urban reserve shall be considered for annexation subject to completion of environmental and economic studies and a specific plan. Pending annexation: A) any urban development approved by the County shall be consistent with City development standards; and B) urban development and provision of adequate resources shall be closely monitored.*

- # **Policy 7.4:** *Annexation of the Airport area, whether it occurs as one action or several, shall be consistent with the growth management objectives of maintaining areas outside the urban reserve line in rural, predominantly open space uses. An Airport area annexation shall not take effect unless the annexed area helps protect an appropriate part of the greenbelt near the Airport area, through one or more of the following methods: A) dedicating an open-space easement or fee ownership to the City or to a responsible land-conservation organization; or B) paying fees to the City in-lieu of dedication, which shall be used within a reasonable time to secure greenbelt open space near the Airport area.*

- # **Policy 7.5:** *The areas designated for urban uses, but not necessarily each parcel, should include open areas as site amenities and to protect resources, consistent with the Open Space Element. In addition, wildlife corridors across the Airport area shall be identified and preserved.*

- # **Policy 7.6A:** *Areas that are designated for eventual urban development may be developed during the interim with rural residential or rural commercial uses. In such areas, County development standards and discretionary review should assure that projects will not preclude options for future development consistent with the City's planning policies and standards. Before any discretionary County land use or land division approval for such areas, a development plan for the site should be prepared, showing that circulation, water and other utility, and drainage proposals will be compatible with future annexation and urban development.*

- # **Policy 7.6B:** *Any development within the urban reserve approved by the County prior to annexation should comply with the City standards for roadway cross-sections, bus stops, walking and bicycle paths, landscaping, view protection, setbacks, preferred site layouts, and architectural character.*

- # **Policy 7.7:** *Transit service linking development sites with the city-wide bus system should be concurrent with any additional urban development in the Airport area.*

- # **Policy 7.8:** *The City will prepare a specific plan for land uses, habitat protection, circulation, utilities, and drainage within the Airport area.*

- # **Policy 7.9:**

1. *Business parks may be developed in areas designated for them. Business parks are to accommodate research and development and light manufacturing in a campus like setting. They should provide high quality design of public and private facilities. Land designated for a business park should not be further divided or developed until the City approves a master plan for the business park.*
 2. *Building location and intensity standards will be provided in a specific plan for each business park. The ratio of building floor area to site area shall not exceed 1.0. The Zoning Regulations will establish maximum building height and lot coverage, and minimum setbacks from streets and other property lines, as well as procedures for exceptions to such standards in special circumstances. Dwellings may be provided only as caretaker quarters or as part of a specially approved mixed-use development. The appropriate residential density would be set considering the maximum residential density allowed in any neighboring residential area.*
- # **Policy 7.10:** *The large Recreation space shown in the Airport area is to be a golf course or other outdoor recreational use such as sports fields, irrigated with non-potable (probably reclaimed) water.*

County of San Luis Obispo

Through its general plan, the County of San Luis Obispo provides land use planning guidance in the unincorporated areas of the county, including the project area. Thus, because the area lies within the City's URL but has not yet been annexed, it is subject to land use policies from both the city and county general plans. The project area is addressed in the County's San Luis Obispo Area Plan (Area Plan) (revised January 1997), one of 13 area plans contained in the county general plan. The Area Plan describes county land use policies for the area immediately south of the city's limits and includes the project area. It identifies policies, programs, and standards that provide guidance for development specific to the planning area (including that related to the San Luis Obispo County Airport [Airport]).

In addition to the county general plan, the project area is subject to the county airport ALUP. The Area Plan does not allow urban densities in clear zones or under the runway take-off or approach zones. The ALUP is discussed further under "County of San Luis Obispo Airport Land Use Commission," below.

Applicable Policies. The existing County of San Luis Obispo General Plan contains policies that specifically address the Airport and Margarita planning areas. The following policies are from the county's general plan (revised January 1997), which provides the most recent county policies regarding the planning areas.

- # **Planning Principle 1:** *The San Luis Obispo County Airport will continue to serve the region, as provided in the approved Airport Master Plan, and development in the urban area should be permitted only if it will be compatible with the airport.*

- # **Planning Principles 1a, 1b, and 1c:**
 - a. *Residential uses should not be established under airport runway approach or takeoff zones, as shown in the adopted San Luis Obispo County Airport Land Use Plan.*

 - b. *Disclosure of the proximity of an existing airport should be assured for new land uses or divisions through recording of navigation easements, where required by the San Luis Obispo County Airport Land Use Plan.*

 - c. *Non-residential land uses established in the urban area also shall be consistent with the adopted San Luis Obispo Airport Land Use Plan.*

- # **Planning Principle 2:** *The City of San Luis Obispo should ultimately annex land within its urban reserve. The city should annex the urban reserve, provide municipal services and implement the planned land uses in an orderly manner. The City should use all reasonable means to increase its service capacities as needed to annex and serve areas within the urban reserve in a timely manner.*

- # **Planning Principle 3:** *The County of San Luis Obispo intends to facilitate the eventual annexation of the urban reserve into the city. The County will coordinate with the City and property owners to facilitate an orderly transition from County to City jurisdiction during implementation of the Land Use Element.*
 - a. *All new development in the urban reserve must comply with this area plan, as well as other plans and regulations. For example, the proposed Airport area specific plan will establish standards for water supply, sewage disposal, drainage controls, roadway widths and cross-sections, bus stops, pedestrian and bike ways, landscaping, preservation of scenic views, architectural themes and elements, special setbacks, and preferred site layout design patterns. The urban reserve will be subject to limitations on uses and restricted land divisions until those areas are annexed. This approach will preserve options for more detailed land use planning as part of the annexation process by preventing establishment of long-term land uses and land use patterns which would conflict with full development of sites once annexed into the city. Only if appropriate urban service systems are provided, separate from city systems, would more intensive, higher impact land uses be feasible if the area is not annexed.*

 - b. *If the City does not annex the Airport area within five years or earlier, the County will consider whether the county Land Use Element should be amended to reduce development intensities, or conversely to form a county service area or other*

mechanism which would provide increased services and allow for additional development.

c. While under County jurisdiction, any on-site or community water supply, or on-site sewage disposal systems, should be designed to connect eventually with the City's municipal systems.

Planning Principle 4: *The affected property owners will pay for the costs of services, facilities and environmental mitigation to the extent those costs are associated with the development of their properties.*

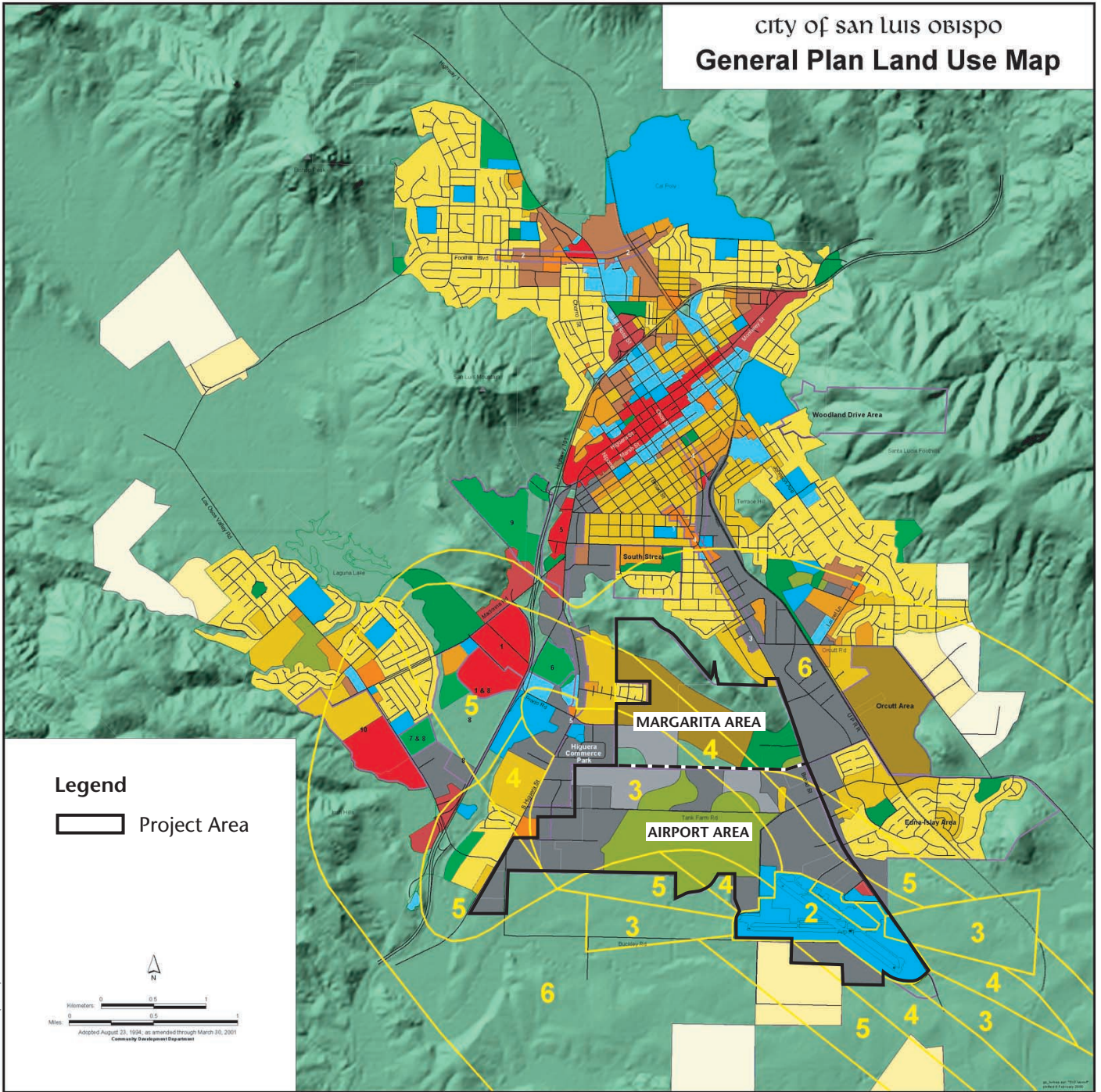
Planning Principle 5: *The County and the City will participate in an equitable distribution of revenues from taxes and other sources to fund the facilities and services needed to support development in the City's urban reserve.*

County of San Luis Obispo Airport Land Use Commission

The County's ~~Airport Land Use Commission's~~ (ALUC's) primary goals are to preserve and protect the long-term viability of the public use airports in the county and to protect the citizens and properties surrounding the Airport. The ALUC reviews proposed plans and plan amendments in the Airport Review Area for consistency with the ALUP. It also prepares and adopts the County's ALUP, which defines compatible land uses and standards for six specific "zones" around the Airport. The ALUP was recently adopted in June 2002. Figure 3A-1 shows the relationship between the ~~newly drafted~~ recently adopted zones and proposed land uses. The six zones and the typical land use/development constraints associated with each zone are described below:

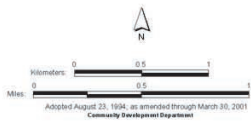
- # Zone 1—Airport Operation Areas: includes all the land owned by the Airport and is not subject to review by the ALUC; high risk and high noise area; no new buildings except for airport-related development
- # Zone 2—Inner Safety Zone: includes areas other than Zone 1 with the greatest exposure to potential accident impacts and to aircraft operation noise; also includes safety zones, height restrictions, and all areas within the 65-decibel (dB) and 70-dB Community Noise Equivalent Level (CNEL) noise contours; no new buildings except for airport-related development; private property restricted to low-intensity outdoor uses
- # Zone 3—Outer Safety Zone: includes the area beneath flight paths for aircraft at altitudes of 500 feet or less and all areas within the ultimate 60- to 65-dB CNEL noise contours; moderate to high risk and moderate to high noise area; low-intensity development permitted (i.e., 50% maximum coverage, 50 people per acre for outdoor uses, and 25 people per acre for indoor uses); some retail uses (10% of space) and rural residential (minimum lot = 5 acres) allowed, but no medium- or high-intensity uses

city of san luis obispo
General Plan Land Use Map



Legend

Project Area



This key is a summary. See the General Plan text for complete policies.

- OPEN SPACE**
Land or water in a predominantly natural state (includes creeks, though not all are shown)
- INTERIM OPEN SPACE**
Land to be kept open until constraints to development are overcome
- PARK**
Publicly owned parks
- RECREATION**
Public or private recreation in a park-like setting
- RURAL RESIDENTIAL**
At least ten acres per dwelling; City utilities not available
- SUBURBAN RESIDENTIAL**
At least one acre per dwelling; City utilities not available
- LOW DENSITY RESIDENTIAL**
Up to 7 dwellings per acre
- MEDIUM DENSITY RESIDENTIAL**
Up to 12 dwellings per acre
- MEDIUM-HIGH DENSITY RESIDENTIAL**
Up to 16 dwellings per acre
- HIGH DENSITY RESIDENTIAL**
Up to 24 dwellings per acre
- RESIDENTIAL NEIGHBORHOOD**
A major residential development area, including neighborhood-serving public and commercial uses

- OFFICE**
Mainly professional and administrative services
- PUBLIC**
Government facilities
- NEIGHBORHOOD COMMERCIAL**
Businesses which serve mainly those living nearby
- GENERAL RETAIL**
General merchandise stores, specialty stores, entertainment, and some services
- TOURIST COMMERCIAL**
Businesses which serve mainly visitors and travelers
- BUSINESS PARK**
Campus-like setting for research & development and light manufacturing
- SERVICES & MANUFACTURING**
Repair, maintenance, sales of vehicles & materials; storage; fabrication; transport; certain offices
- URBAN RESERVE LINE** Boundary of area where urban development may be appropriate
- CITY LIMIT** Boundary of the area subject to City land-use rules and eligible for City services
- SPECIFIC PLAN AREA** Development is subject to a specific plan; see text
- SPECIAL DESIGN AREA** Special policies or programs may apply; see text

07360.97 001 (5/03)

- # Zone 4—Extended Runway Flight Zone: includes all land outside Zones 1 through 3 where frequent overflight occurs at or below 1,000 feet and areas within the ultimate 55- to 65-dB CNEL noise contours; moderate risk and moderate noise area; low- to medium-intensity development permitted, but large concentrations of people are discouraged; retail uses (25% of space) and suburban residential (minimum lot = 1 acre) allowed, but no high-intensity uses

- # Zones 5 and 5a—Overflight Zones: include areas where frequent overflight occurs at or below 1,000 feet; subject to “nuisance” noise (generally within the ultimate 55- to 65-dB CNEL); Zone 5 is considered a low to moderate risk and moderate noise area; Zone 5a is considered a low to moderate risk and low to moderate noise area; in Zone 5, medium-intensity development permitted, but large concentrations of people are discouraged; retail uses (40–50% of space) and single-family residences and apartments allowed, but no high-intensity uses; Zone 5a also discourages large assemblages of people but has no special development constraints

- # Zone 6—Other Lands in the ALUP: encompasses all other lands within the airport plan boundaries not previously identified; although noise and safety are not primary considerations for this zone, this area is within major flight corridors and is subject to height restrictions of the FAA Part 77—Approach Surface; no special development constraints apply to this zone

The ALUP is intended to regulate land around airports to ensure the continued viability of each facility. The plan identifies policies and regulations that discourage land uses that would be inconsistent with safe airport operations. High-occupancy land uses, such as apartments, hospitals, and schools, and land uses that would be sensitive to noise, such as residences, are prohibited in certain zones around the airport because of noise exposure and safety issues.

San Luis Obispo Local Agency Formation Commission

The San Luis Obispo Local Agency Formation Commission (LAFCO) was created to help organize, manage, and regulate the provision of public services for development in San Luis Obispo County. LAFCO reviews and approves proposals for boundary changes or governmental reorganizations of cities, including annexations. Additionally, LAFCO determines spheres of influence for each local government agency within the county. LAFCO policies relevant to the project are discussed below.

Applicable Policies

The San Luis Obispo LAFCO Policies and Procedures Guide contains policies that specifically address the Airport and Margarita planning areas and the facilities master plans. The following policies are from LAFCO’s updated Policies and Procedures Manual (updated January 16, 2003).

- # **General Policy 17:** In any proposal requiring water service, LAFCO requires that the agency to which the annexation is proposed should demonstrate the availability of an adequate, reliable, and sustainable supply of water.
- # **Policy for City Annexations 1:** The boundaries of a proposed annexation must be definite and certain and must conform to lines of assessment whenever possible.
- # **Policy for City Annexations 2:** The boundaries of an area to be annexed will not result in any areas difficult to serve.
- # **Policy for City Annexations 3:** There is a demonstrated need for governmental services and controls in the area proposed for annexation.
- # **Policy for City Annexations 4:** The municipality has the resources capable of meeting the need for services in the area proposed for annexation and has submitted studies and information documenting its ability to serve.
- # **Policy for City Annexations 5:** There is a mutual, social, and economic community of interest between the residents of the municipality and the proposed territory.
- # **Policy for City Annexations 6:** The proposed annexation is compatible with the municipality's general plan. The proposed annexation represents a logical and reasonable expansion of the annexing municipality.

Regional Setting

The project area is located outside and adjacent to the southernmost boundary of the City of San Luis Obispo. The ~~577~~ ~~620~~-hectare (~~1,415~~ ~~1,520~~-acre) area represents the balance of the unincorporated land area that remains between the city's southern limits and its URL. The URL delineates the area designated by the City for its ultimate urban expansion.

The city's incorporated area borders the project area on three sides. The South Street Hills open space area forms the northern boundary of the project area; urban development along the South Higuera Street and Broad Street (State Route 227) corridors borders the project area to the west and east, respectively. The agricultural lands of the Edna Valley border the area to the south and southeast, and the Davenport Hills and Irish Hills are located to the south and southwest. U.S. Highway 101 lies west of and generally parallels the project area, and the Southern Pacific Railroad corridor parallels the east side of the project area.

Airport Area

Existing Land Uses. Existing urban development generally is located in the eastern and western portions of the Airport area, near the Broad Street and South Higuera Street corridors. This development includes the San Luis Obispo County Airport and airport-related uses in the southeastern corner of the area, plus a variety of industrial, light industrial, and service uses unevenly dispersed along the two corridors. The central portion of the Airport area, which is occupied by the 150-hectare (368-acre) Unocal Tank Farm property, is generally undeveloped. In the early part of this century, the site was developed with below-grade reservoirs and above-grade tanks for storing and distributing crude oil. However, the use of the site has declined since 1926, when lightning ignited a major fire, resulting in the spilling of large amounts of oil and tar across and under much of the site. Most of the site is now decommissioned, and most of the tanks have been dismantled. Unocal still maintains offices in the northwestern portion of the property and leases other parts of the site for grazing cattle.

Although the current uses in the eastern and western portions of the Airport area consist of a mixture of manufacturing, warehousing, wholesaling, storage, and commercial service uses, the land use and development character of the two portions is different. The development in the western portion of the area (along Suburban Road, Vachell Lane, and Tank Farm Road) tends to be more industrial and manufacturing in character, with lower development intensities and less emphasis on nonessential improvements or amenities (e.g., street improvements, architectural character, landscaping, and coordinated signage). The area includes two larger manufacturing facilities interspersed with multitenant complexes, as well as large construction and storage yards.

The eastern portion of the area, although having open storage yards and warehousing facilities, appears to be building out in a denser, more capital-intensive fashion. It has fewer traditional industrial uses and more research and development (R&D) and high-technology uses (e.g., Howard Strasbaugh, Seagate Software, and Computer Technology International). The development of multitenant complexes, such as those on Fiero Lane, and large single-tenant businesses, such as Howard Strasbaugh, result in much higher employment densities than exist in the western planning area.

Current Land Use Designations. The city general plan designates the area for primarily employment-generating uses compatible with the airport and its operations. The airport, which is designated for Government Facilities, uses almost one-quarter of the Airport area. Approximately half of the area is designated for light industrial, commercial service, light manufacturing, office, and storage and maintenance facility uses. These uses are accommodated under the Services and Manufacturing and Business Park designations, with Services and Manufacturing being the predominant designation.

Slightly more than one-quarter of the land area in the central portion of the Airport area is designated for Recreation. This designation, which largely coincides with the site of the former petroleum storage facility, is in response to potential soil contamination (which remains from the tank farm facility fire) and existing riparian and wetland features that occupy the area. A small

portion of the Airport area has been designated for Medium-Density Residential to accommodate the existing mobile home park along the north side of Tank Farm Road. The city general plan designations for the planning area are shown in Figure 3A-1.

Surrounding Land Uses. The Airport area is generally bounded by development on the east and west and by open space on the north and south. Along the west side, the area north of Suburban Road is bounded by commercial and industrial business park development (primarily the Higuera Commerce Park). With completion of the current development at the southeastern corner of South Higuera Street and Tank Farm Road, this area north of Suburban Road will be largely built out. South of Suburban Road, South Higuera Street forms the western boundary of the area, with low- and medium-density residential development located along the west side of the roadway.

Broad Street/Highway 227 forms the eastern boundary of the Airport area, with retail commercial uses (e.g., the Marigold Shopping Center) located opposite the northeastern portion of the planning area. From El Capitan Way south to Wisberg Lumber, the east side of Broad Street has a mixture of service commercial uses, residential uses, and open space.

From Aero Drive south to Buckley Road, the area opposite the airport is open agricultural land. Similarly, the southern edge of the planning area is bounded by open agricultural land, except for an area of rural residential development between Mello Lane and Davenport Creek Road. These unincorporated areas south and southeast of the planning area are designated in the city general plan to remain as part of the permanent greenbelt that defines the ultimate urban boundary.

The Margarita Area Specific Plan area bounds the Airport area on the north. The draft Margarita Area Specific Plan proposes business park uses adjacent to the northwestern corner of the Airport area, and park and open space uses adjacent to the northeastern corner. The proposed extension of Prado Road forms the middle section of the boundary between the two specific plan areas, with residential uses ~~and an elementary school~~ located along the north side of the road corridor.

Existing Visual Conditions. As described above, the Airport area may be characterized as semi-rural, with grazing land intermixed with occasional one- and two-story industrial and business park development. Views in the planning area include the Santa Lucia Range and Islay Hill to the east. In addition, a small range of low hills separates the planning area from the City of San Luis Obispo to the north.

Travel corridors are considered important viewing corridors because they define the vantage point for the largest number of viewers in a specific area. The primary viewing corridors in the Airport area include U.S. Highway 101, State Route 227, Tank Farm Road, Buckley Road, and the Southern Pacific Railroad corridor. With the exception of Tank Farm and Buckley Roads, all the roadways and the Southern Pacific Railroad corridor are identified as scenic corridors in the City of San Luis Obispo's Scenic Highways Element.

Margarita Area

Existing Land Uses. The 170-hectare (420-acre) Margarita area consists of predominantly undeveloped land, most of which is used for grazing cattle. Topography ranges from steep, rocky hillsides to nearly level alluvial soils. Existing development generally is located in the west-central portion of the area, with all uses accessed from Prado Road. The largest concentration of development occurs along the south side of Prado Road and includes a rendering plant, a pet-grooming and boarding business, and a self-storage facility. The only other development includes two rural residences/farm compounds. The remnant of a former quarry is located in the southeastern part of the area, adjacent to the Airport area.

Current Land Use Designations. The city general plan (Figure 3A-1) designates the Margarita area for a mixture of Residential, Business Park, and Open Space uses. The central portion of the area, slightly less than half of the total area, is designated for Residential Neighborhood to accommodate development of a variety of housing types with supporting uses such as parks, ~~elementary schools~~, and convenience shopping. The South Street Hills, which occupy the northern third of the area, are designated for Open Space to protect visual and biological resource values. The southwestern corner of the Margarita area (approximately 17.40 hectares [43 acres]), adjacent to the Higuera Business Park and the Airport area, is designated for Business Park to accommodate employment-generating uses in a campuslike setting. The southeastern corner (approximately 11.33 hectares [28 acres]), adjacent to Broad Street and the Airport area, is designated for Park and for Recreation to accommodate the development of a public park and recreation facilities. Two smaller areas along the southern boundary also are designated for Open Space in anticipation of area needs for stormwater detention basins.

Surrounding Land Uses. The Margarita area is bordered on the north by the South Street Hills. This open space area provides a permanent buffer between the Margarita area and the urban core of San Luis Obispo. The Airport area forms the southern boundary of the Margarita area. Although undeveloped, the Airport area is proposed for a mixture of Business Park, Services and Manufacturing, and Open Space uses along the southern boundary of the Margarita area. The area west of the Margarita area generally is built out, with the Higuera Commerce Park in the area south of Prado Road and with residential development north of Prado Road. Broad Street borders the Margarita area on the east, with a mixture of service commercial and business park uses, as well as undeveloped parcels distributed along the east side of Broad Street opposite the planning area.

Existing Visual Conditions. The Margarita area is currently developed as semi-rural areas with a mix of agricultural and grazing land. Views are similar to those from the Airport area and include the Santa Lucia Range, Islay Hill, and the hills located at the north end of the Margarita area that separate it from the city to the north.

Views from Tank Farm Road are a mix of one- and two-story warehouse structures interspersed with agricultural fields, grazing land, and agricultural businesses. The low hills north of the project area are generally visible from along Tank Farm Road. Views from Buckley Road are generally of agricultural lands with views of the hills to the north and south.

IMPACTS AND MITIGATION

Introduction and Methodology

The land use impacts associated with the proposed specific plans and related facilities master plans were evaluated based on the plans' consistency with existing plans and policies and their compatibility with existing land uses in the project vicinity. Various nuisance factors can be considered when determining compatibility. Compatibility issues related to noise, traffic, and air quality have been evaluated in detail in other chapters of this EIR.

Criteria for Determining Significance

Appendix G of the State CEQA Guidelines, city and county plans and policies, and professional judgment were used to determine whether implementing the proposed project would have a significant impact on land use and aesthetics. It was determined that implementation of the proposed project would have a significant impact on land use and aesthetics if it would:

- # physically divide an established community;
- # conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect;
- # convert to nonagricultural use Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared under the Farmland Mapping and Monitoring Program of the California Resources Agency;
- # conflict with existing zoning for agricultural use or conflict with a Williamson Act contract;
- # involve other changes in the existing environment that, because of their location or nature, could result in conversion of Farmland to nonagricultural use;
- # substantially degrade the existing visual character or quality of the area and its surroundings;
- # create a new source of substantial light or glare that would adversely affect nighttime views in the area; or

have a substantial adverse effect on a scenic vista.

Summary of Impacts

This section evaluates land use and aesthetic impacts related to the proposed project and the three land use alternatives. Revised Table 3A-1 provides an overview of the significance findings made for the proposed project and each of the alternatives.

Proposed Project

Impact LU-1: Consistency of Proposed Specific Plans with Applicable City Plans, Policies, and Agreements

Implementation of the proposed specific plans does not conflict with applicable city plans and policies. In fact, the specific plans are the implementation tools identified in the City General Plan for achieving several of the City's identified goals. The greater level of detail in the analysis and planning for the project area has resulted in refinements of the land use designations, the acreage allocated to each designation, and the land use distribution. Such changes are normal in the process of moving from general policy to more specific implementation. None of the refinements has altered the intent of existing city policy. The General Plan Land Use Element text (i.e., Policies 7.1 through 7.14) and Land Use Map will need to be revised to reflect changes made by the two specific plans and the facility master plans, but these changes would not be substantive in nature.

Given that the proposed project would help to implement the relevant goals and policies of the City General Plan, and is in compliance with other applicable plans, policies, and agreements, the proposed project would have a *less-than-significant* impact *beneficial* impact.

Mitigation

No mitigation is required.

Impact LU-2: Consistency of Proposed Specific Plans with County General Plan Policy

As discussed under "Policy Consistency," the proposed project, which has been developed in conformance with the City General Plan, is in conflict with county policy regarding the land use designation in the Avila Ranch area immediately south of the planning area.

City growth management policies establish the URL as the "final edge for urban development" (Policy 1.1) as a means of protecting agricultural and scenic rural lands. The County's designation of the Avila Ranch, which is outside of the URL, for Industrial uses is not consistent with this concept. While this inconsistency already exists between the City and County General

Plans, and is not a direct result of the proposed project, the proposed project's failure to address the inconsistency represents a *significant* impact because it allows a condition that is not in conformance with its policies to protect agriculture and open space lands to persist.

The proposal is consistent with the City's policies regarding land uses within the URL. The land outside the URL is under County land use jurisdiction and is subject to County plans and ordinances. The inconsistency between the City's URL policies, which call for areas outside the URL to remain open, and County general plan designations, which provide for commercial and light industrial development in some areas adjoining the URL, is a pre-existing, baseline condition.

In summary, the proposed project requires mitigation to address inconsistencies with county plans and policies concerning the Airport area, which represent a significant impact. No mitigation is required for the Margarita area. Changes to County general plan designations are the responsibility of the County and are outside the City's authority. Mitigation calls for the County to reassess its approach to the areas adjoining the proposed specific plan. Reconciliation of these existing policy differences may not be possible. Nonetheless, the effort to reach reconciliation would mitigate the impact to a less than significant level.

Alternative 3, described in Chapter 5, would shift the Airport Area URL southward, to encompass adjoining County lands that are inconsistent with the City policies. This shift should be done with County concurrence.

Mitigation

Implementation of the following mitigation measure would reduce the Airport area impact to a *less-than-significant* level.

Mitigation Measure LU-2.1: Resolve Discrepancy regarding Disposition of Lands Immediately South of Project Area

~~The City shall work with the County to~~ shall work with the City to resolve the discrepancy regarding the disposition of lands immediately south of the project area. ~~The City and County need to reach consensus on~~ must consider whether: (1) ~~the desired~~ current land use designation for the Avila Ranch property is desired; (2) ~~whether the City's URL should be amended to include the property;~~ (3) if (2) because the property is to have ~~has~~ an urban designation, ~~should it~~ should ultimately be annexed to the City; and (4) ~~should or,~~ (3) the property should be included in the Airport area project and be subject to specific plan development standards and guidelines. These questions should be answered ~~prior to~~ within two years of adoption of the Airport Area Specific Plan.

Funding Source: ~~City~~ County of San Luis Obispo

Implementing Party: ~~City~~ County of San Luis Obispo

Monitoring Agency: City of San Luis Obispo

Revised Table 3A-1. Summary of Land Use and Aesthetic Impacts by Alternative

Impact	Impact after Mitigation	Mitigation	Airport Area	Margarita Area	Facility Master Plans
Proposed Project					
LU-1: City Policy Consistency	B -LTS	None required	B -LTS	B -LTS	B -LTS
LU-2: County Policy Consistency	LTS	LU-2.1	S	No impact	LTS
LU-3: County Airport Policy Consistency	LTS	LU-3.1 None required	No impact	S	LTS
LU-4: Land Use Compatibility	No impact	None required	No impact	No impact	No impact
LU-5: Agricultural land conversion	SU	LU-5.1	SU	LTS	SU
LU-6: Change in views	SU	None feasible	SU	SU	SU
LU-7: Increase in light and glare	LTS	LU-7.1	S	S	S
Alternative 1					
LU-1: City Policy Consistency	LTS	None required	LTS	No impact	LTS
LU-2: County Policy Consistency	LTS	LU-2.1	S	No impact	S
LU-3: County Airport Policy Consistency	LTS	LU-3.1	No impact	S	S
LU-4: Land Use Compatibility	No impact	None required	No impact	No impact	No impact
LU-5: Agricultural land conversion	SU	LU-5.1	SU	LTS	SU
LU-6: Change in views	SU	None feasible	SU	SU	SU
LU-7: Increase in light and glare	LTS	LU-7.1	S	S	S
Alternative 2					
LU-1: City Policy Consistency	S	None feasible	S	B	S
LU-2: County Policy Consistency	LTS	None required	LTS	No impact	LTS
LU-3: County Airport Policy Consistency	LTS	LU-3.1	No impact	S	S
LU-4: Land Use Compatibility	No impact	None required	No impact	No impact	No impact
LU-5: Agricultural land conversion	LTS	None required	LTS	LTS	LTS
LU-6: Change in views	SU	None feasible	SU	SU	SU
LU-7: Increase in light and glare	LTS	LU-7.1	S	S	S
Alternative 3					
Alternative 3 will have the same impacts as Alternative 2, except that Impact LU-1 is significant and unavoidable					
Alternative 4					
Alternative 4 would not result in any new land use or aesthetic impacts					
Notes:	B	=	beneficial.		
	LTS	=	less than significant.		
	S	=	significant.		
	SU	=	significant and unavoidable.		

Timing: Prior to adoption of the Airport Area Specific Plan Within 2 years of adoption of Airport Area Specific Plan

Impact LU-3: Consistency of Proposed Specific Plans with County Airport Land Use Plan

The City and County General Plans require that project area development be compatible with airport operations and the policies contained in the ALUP. The existing ALUP was adopted in ~~1973~~ June 2002. ~~The ALUC has prepared a revised draft ALUP that has yet to be adopted. Both the As described above, under “County of San Luis Obispo Airport Land Use Commission,” the adopted ALUP identifies and the revised draft identify a total of six~~ airport safety zones for use in planning compatible land uses near the airport. Land uses are allowed in each zone based on compatibility and proximity to airport runways and aircraft flight paths.

~~The safety zones in the updated draft ALUP differ from those in the adopted ALUP. The type and distribution of land uses in the Airport Area Specific Plan Area are generally consistent with the safety zone restrictions set forth in both the County’s existing 1973 2002 adopted ALUP. and the proposed draft. In the draft versions of the Margarita Area Specific Plan, a portion of the residential uses proposed in the western area of the Margarita area (between the Prado Road extension and Margarita Avenue) would be have been located in Zone 3 under the adopted ALUP. Zone 3 does not permit the residential densities proposed by the Margarita Area Specific Plan. Also, multifamily dwellings are classified as incompatible in Zone 4. The Margarita Area Specific Plan’s inconsistency with what is permitted within the airport safety zones would result in a significant impact. However, the City has modified the Margarita Area Specific Plan land use designations, acreages, and locations to ensure consistency with the adopted ALUP (i.e., medium and high-density residential uses are no longer proposed to be located within Safety Zone 3, and multifamily dwellings are no longer proposed to be located in Safety Zone 4). Therefore, the impact is considered less than significant.~~

Mitigation

No mitigation is required.

~~Implementation of the following mitigation measure would reduce the impact to a less-than-significant level:~~

~~**Mitigation Measure LU-3.1: Revise the Margarita Area Specific Plan to Be Consistent with the Adopted or Proposed ALUP**~~

~~The City shall revise the Margarita Area Specific Plan to be consistent with the adopted or proposed ALUP.~~

~~**Funding Source:** City of San Luis Obispo~~

~~**Implementing Party:** City of San Luis Obispo~~

~~Monitoring Agency: City of San Luis Obispo~~

~~Timing: Prior to adoption of the Margarita Area Specific Plan~~

Impact LU-4: Compatibility with Surrounding Land Uses

The proposed project is generally consistent with the land use patterns designated in the City General Plan and does not introduce any new juxtapositions of land uses or development types that would result in conflicts between uses, including potential conflicts with nearby airport operations. The two specific plans generally locate similar uses adjacent to each other or provide some form of buffer between different types of uses.

In the Airport area, the Broad Street corridor provides a buffer between business park uses proposed for the planning area and existing service commercial and industrial uses east of Broad Street. Along the west side of the planning area, services and manufacturing uses are proposed for location adjacent to similar existing uses or to South Higuera Street. Existing residential uses west of South Higuera Street are buffered from proposed uses by the width of the travel corridor and existing sound walls. Open space and agricultural lands border the planning area to the south.

In the Margarita area, the South Street Hills and park open spaces serve as a buffer between new residential development and existing uses to the north and east. Along the west side of the area, new residential uses are placed adjacent to existing residential development, and business park uses are proposed for location adjacent to the existing South Higuera Commerce Park. To the south, business park uses are proposed for location adjacent to each other on the west side of both planning areas, and to the east, the Prado Road extension and open space provides a continuous buffer between proposed development areas in the Margarita and Airport areas.

In summary, land uses proposed under the proposed project are considered compatible with surrounding uses. Consequently, the proposed project will have *no impact* on land use compatibility.

Mitigation

No mitigation is required.

Impact LU-5: Conversion of Prime Agricultural Land to Urban Uses

The 1993 Land Use Element and Circulation Element Update EIR addressed the fact that annexation and development of the area in accordance with the City General Plan designations would result in the loss of agricultural resources. That loss was identified as a significant and irreversible adverse impact that could not be mitigated. Policies were incorporated into the Land Use Element to help compensate for productivity lost as a result of the conversion of agricultural lands within the urban reserve. Specifically, city policy requires direct dedication of open space areas, or payment of an in-lieu fee, for annexed land.

The primary target of this exaction is to protect open space and agricultural lands outside, but especially those contiguous to, the City's URL. The concept is to create a permanent open space buffer/greenbelt around the city that prevents continued expansion of the urban area onto valuable agricultural and open space resources. For certain locations, the general plan calls for the open space protection area to be equal in size to the developed area or to be four times the size of the developed area. The ratio for the Margarita area follows from the land use designations (approximately 40% open space, excluding parks). The general plan does not set a specific ratio for the Airport area. The in-lieu fee that has been set for the so-called interim annexations probably can achieve a ratio of 1:1 on average.

Based on a review of mapping of the State's Department of Conservation farmland categories, the majority of the proposed project area (347.2 hectares [858 acres], or 61%) consists of lands with little or no agricultural value (i.e., designated by the state for Urban/Built-up or Other). Table 3A-2 shows the acreage breakdown for the project area by category. ~~As shown in the figure,~~ The project area has relatively limited amounts of Prime Farmland (26.3 hectares [65 acres], or 5%) and Farmland of Local Importance (16.1 hectares [40 acres], or 3%), and no lands designated for Farmlands of Statewide Importance or Unique Farmland. Farmland of Local Potential and Grazing Land, two categories with lower agricultural value, compose a larger percentage of the area (21% and 11%, respectively). Although past development and current use result in relatively low farmland classifications under the California Department of Conservation categories, the underlying soils types have the characteristics of prime soil, according to the U.S. Natural Resources Conservation Service, for most of the gently sloping part of the Margarita area and for nearly all the Airport area, excluding the Unocal property affected by the 1926 explosion.

The specific plan shows urban use for approximately 12.1 hectares (30 acres) of prime farmland that is being cultivated north of Tank Farm Road. There are also cultivated lands just west of the middle of the Margarita area.

Table 3A-2. Proposed Project Acreage by California Department of Conservation Farmland Categories

Farmland Category	Airport Area	Margarita Area	Total
	Hectares (acres)	Hectares (acres)	Hectares (acres)
Prime Farmland	26.3 (65)	0 (0)	26.3 (65)
Farmland of Statewide Importance	0 (0)	0 (0)	0 (0)
Unique Farmland	0 (0)	0 (0)	0 (0)
Farmland of Local Importance	16.1 (40)	0 (0)	16.1 (40)
Farmland of Local Potential	46.5 (115)	74.8 (185)	121.4 (300)
Grazing Land	0 (0)	60.7 (150)	60.7 (150)
Urban/Built-up Land	222.5 (550)	0 (0)	222.5 (550)
Other	<u>99.1 (230)</u>	<u>32.3 (80)</u>	<u>131.4 (310)</u>
Totals	410.4 (1,000)	167.8 (415)	578.2 (1,415)

Source: California Department of Conservation 1999.

The proposed project is consistent with the City General Plan, so, as anticipated in the 1993 EIR, annexation and development of the area will adversely affect agricultural resources. Altogether, the proposed project will result in the loss of approximately 14.1 hectares (35 acres) of Prime Farmland (in the northwest corner of the Airport area), and 109.2 hectares (270 acres) of Farmland of Local Potential (primarily in the Margarita area and along Broad Street). No land that has been in active cultivation in recent years will experience impacts. Agricultural lands that will be lost to development have been used primarily for grazing. The Airport Area Specific Plan's designation for Open Space in the central portion of the Airport area will protect areas of Prime Farmland and Farmlands of Local Importance that are actively cultivated. No areas under Williamson Act contracts are affected by the proposed project.

In addition to the loss of farmlands within the proposed project area, the construction of the detention basin south of Buckley Road will result in the agricultural productivity being removed from 9.7 hectares (24 acres) of Prime Farmland. Although the detention basin will remain as planted open space, it will not be available for active cultivation as long as it is needed for flood control purposes.

While the loss of prime agricultural land is limited, the conversion of any lands containing prime agricultural soils associated with the proposed project is considered a *significant and unavoidable* impact.

Mitigation

While the loss of prime agricultural soils to urban uses is irreversible and cannot be mitigated, the following mitigation is recommended to help compensate for the loss of agricultural productivity. The intent of the mitigation is to enhance the opportunities for continued agriculture in the unincorporated areas outside the City's URL.

Mitigation Measure LU-5.1: Dedicate Open Space Land or Pay In-Lieu Fees to Secure Open Space Easements on Agricultural Land outside the URL at Ratio of No Less than 1:1

As a condition of annexation and development within the Airport and Margarita areas, developers shall be required to dedicate open space land or pay in-lieu fees to secure open space easements on agricultural land outside the URL at a ratio of no less than 1:1.

Funding Source: City of San Luis Obispo

Implementing Party: City of San Luis Obispo

Monitoring Agency: City of San Luis Obispo

Timing: Prior to adoption of the Airport and Margarita Area Specific Plans

Impact LU-6: Change in Views

The proposed project will result in the change of character of the plan areas from a generally semi-rural setting to an urban developed setting. The issue of aesthetic impacts was reviewed during the adoption of the General Plan. The conclusion was reached within Section 9.0 of the General Plan EIR that urbanization would irreversibly change the visual character of the south end of the city from that of a low density semi-rural area to a more intensely developed, suburban area (Fugro 1995). While substantial design standards are contained in the Airport Area Specific Plan, Margarita Area Specific Plan, and the City General Plan (including the preservation of open space, hills, and development design standards), these do not change this fundamental conclusion of the General Plan EIR. No feasible mitigation exists to eliminate the impact associated with the conversion of a semi-rural landscape to an urban landscape. The impact is considered *significant and unavoidable*.

Mitigation

No mitigation measures are feasible.

Impact LU-7: Potential Increase in Daytime/Nighttime Light and Glare

The development of the Airport and Margarita areas for urban uses will result in an increase in daytime/nighttime light and glare within the area. These increases will be the result of new lighting at commercial, business park, and residential uses, as well as at new park facilities. Development of these sites would increase the amount of light and glare associated with development of urban uses, such as additional parking lots, building lights, and streetlights. While

the types of lighting and their specific locations are not specified at this point, development proposed under this alternative would increase the amount of light into adjacent areas, including airport lands. The potential increase in light and glare is considered to be a *significant impact*.

Mitigation

Implementation of the following mitigation measure would reduce the impact to a *less-than-significant* level.

Mitigation Measure LU-7.1: Incorporate Lighting Design Standards into Margarita and Airport Area Specific Plans

The City shall incorporate lighting design standards into the Margarita and Airport Area Specific Plans. The standards shall contain specific measures to limit the amount of light trespass associated with development within the project area. Specific measures shall include the use of shielding and/or directional lighting methods to ensure that spillover light does not exceed 0.5 foot candles at adjacent property lines.

Funding Source: City of San Luis Obispo
Implementing Party: City of San Luis Obispo
Monitoring Agency: City of San Luis Obispo
Timing: Prior to adoption of the Margarita and Airport Area Specific Plans

Alternative 1

Impact LU-1: Consistency of Proposed Specific Plans with Applicable City Plans, Policies, and Agreements

For the Airport area, Alternative 1 is generally consistent with city plans and policies. The primary exception is that Alternative 1 removes all land owned by the County in the planning area, including the airport and adjacent properties, in anticipation of possible opposition to their annexation by the County Board of Supervisors. Consequently, in this alternative, the URL has been realigned to the north of these properties under the assumption that they would no longer be considered for annexation.

The removal of County-owned properties from the planning area would result in the removal from the planning area of non-County-owned properties south of Buckley Road given their lack of contiguity with city boundaries. Although the removal of the airport and surrounding lands from the planning area is inconsistent with existing city and county plans and policies regarding urban expansion, the reduction in area in the city's urban reserve represents a *less-than-significant* impact. However, eliminating the possibility of annexation for the non-County-owned areas may be inconsistent with landowners' desires for incorporation into the city.

Under Alternative 1, implementation of the Margarita Area Specific Plan is consistent with city plans and policies, as previously discussed for the proposed project.

In summary, Alternative 1, for the Airport Area, is consistent with City and County plans and policies for urban expansion. This impact is *less than significant* and requires no mitigation. For the Margarita Area, Alternative 1 is consistent with City and County plans and policies. This impact is also *less than significant* and requires no mitigation. ~~for both the Airport and Margarita areas is consistent with city plans and policies, and requires no mitigation.~~

Mitigation

No mitigation is required.

Impact LU-2: Consistency of Proposed Specific Plans with County General Plan Policy

For the Airport area, Alternative 1 is not consistent with county plans and policies. The County General Plan designates substantial areas south of and east of the planning area for urban uses. This inconsistency represents a *significant* impact because it allows a condition to persist which is not in conformance with city policies to provide a greenbelt of agriculture and open space lands at the city's perimeter.

Under Alternative 1, implementation of the Margarita Area Specific Plan is consistent with county plans and policies, as previously discussed for the proposed project.

In summary, Alternative 1 requires mitigation to address inconsistencies with county plans and policies concerning the Airport area, which represent a significant impact. No mitigation is required for the Margarita area.

Mitigation

Implementation of the following mitigation measure would reduce the impact to a *less-than-significant* level.

Mitigation Measure LU-2.1: Resolve Discrepancy regarding Disposition of Lands Immediately South of Project Area

This mitigation measure is described above.

Impact LU-3: Consistency of Proposed Specific Plans with County Airport Land Use Plan

For the Airport area, Alternative 1 land use patterns are consistent with both the 1973 and draft ALUP safety zones.

~~As in the proposed project,~~ However, Alternative 1 for the Margarita area land use patterns

are not consistent with the adopted 1973 ALUP. ~~The Margarita Area Specific Plan's inconsistency with what is permitted within the airport safety zones would result in a *significant* impact.~~ Under Alternative 1, a portion of the residential uses proposed in the western area of the Margarita Area (between the Prado Road extension and Margarita Avenue) would be have been located in Zone 3 under the adopted ALUP. Zone 3 does not permit the residential densities proposed in the Margarita Area Specific Plan. Also, multifamily dwellings are classified as incompatible in Zone 4. The Margarita Area Specific Plan's inconsistency with what is permitted within the airport safety zones is considered a *significant* impact.

In summary, land use patterns proposed for the Margarita area under Alternative 1 represent inconsistencies with the existing ALUP which require mitigation, although no inconsistencies arise under Alternative 1 for the Airport area.

Mitigation

Implementation of the following mitigation measure would reduce the impact to a *less-than-significant* level.

Mitigation Measure LU-3.1: ~~Revise the Margarita Area Specific Plan to Be Consistent with the Adopted or Proposed~~ ALUP

~~This mitigation measure is described above.~~

The City shall revise the Margarita Area Specific Plan to be consistent with the adopted ALUP.

Funding Source: City of San Luis Obispo
Implementing Party: City of San Luis Obispo
Monitoring Agency: City of San Luis Obispo
Timing: Prior to adoption of the Margarita Area Specific Plan

Impact LU-4: Compatibility with Surrounding Land Uses

For both the Airport and Margarita areas, Alternative 1 is generally consistent with the land use patterns designated in the City General Plan and does not introduce any new juxtapositions of land uses or development types that would result in conflicts between uses; therefore, it has *no impact*.

Mitigation

No mitigation is required.

Impact LU-5: Conversion of Prime Agricultural Land to Urban Uses

For both the Airport and Margarita areas, Alternative 1 would have the same impact on prime agricultural land as the proposed project. Although the loss of prime agricultural land would be limited, the conversion of any lands containing prime agricultural soils is considered a *significant unavoidable* impact. The same mitigation measure recommended for the proposed project (Mitigation Measure LU-5.1) would also apply to Alternative 1. These measures would not reduce the impact to a level of insignificance, but would help to compensate for the loss.

Mitigation

Implementation of the following mitigation measures would reduce the impact to a *less-than-significant* level.

Mitigation Measure LU-5.1: Dedicate Open Space Land or Pay In-Lieu Fees to Secure Open Space Easements on Agricultural Land outside the URL at Ratio of No Less than 1:1

This mitigation measure is described above.

Impact LU-6: Change in Views

Impacts would be similar to the proposed project. No feasible mitigation exists to eliminate the impact associated with the conversion of a semi-rural landscape to an urban landscape. The impact is considered *significant and unavoidable*.

Mitigation

No mitigation measures are feasible.

Impact LU-7: Potential Increase in Daytime/Nighttime Light and Glare

Impacts would be similar to the proposed project. The potential increase in daytime/nighttime light and glare is considered a *significant impact*.

Mitigation

Implementation of the following mitigation measure would reduce the impact to a *less-than-significant* level.

Mitigation Measure LU-7.1: Incorporate Lighting Design Standards into Margarita and Airport Area Specific Plans

This mitigation measure is described above.

Alternative 2

Impact LU-1: Consistency of Proposed Specific Plans with Applicable City Plans, Policies, and Agreements

To be able to annex the areas south of Buckley Road without having to also annex the county airport, Alternative 2 expands the city's urban reserve so that it wraps around the southern end of the airport, creating a contiguous connection between the areas south of the airport and the Edna-Islay area. This expansion of the urban reserve, and the redesignation of lands within that area from Open Space to Services and Manufacturing, would be inconsistent with city policy to limit urban expansion to its current urban reserve and to maintain an open space greenbelt around the city. This inconsistency represents a *significant and unavoidable* impact.

While not consistent with current city plans and policies, the urban reserve and areas with urban land use designations in Alternative 2 are consistent with those designated in the County General Plan.

In summary, implementation of the Airport Area Specific Plan would have a significant impact requiring mitigation under Alternative 2; however, implementation of the Margarita Area Specific Plan is consistent with city plans and policies, as previously discussed for the proposed project, and would have a ~~beneficial~~ less-than-significant impact requiring no mitigation.

Mitigation

No mitigation measures are feasible.

Impact LU-2: Consistency of Proposed Specific Plans with County General Plan Policy

Alternative 2 is generally consistent with county plans and policies regarding land use and the urban reserve designation at the southeastern corner of the Airport area, although it is not consistent with city policies (see preceding discussion of Impact LU-1 for Alternative 2). The only difference is that the County General Plan Land Use map designates the southernmost property (south of Buckley Road and west of State Route 272) for Industrial uses and Alternative 2 designates it for Services and Manufacturing. ~~This~~Since both land use classifications allow similar uses, this inconsistency is a *less-than-significant* impact.

In summary, implementation of the Airport and Margarita Area Specific Plans requires no mitigation because it would result in either no impact or a less-than-significant impact.

Mitigation

No mitigation is required.

Impact LU-3: Consistency of Proposed Specific Plans with County Airport Land Use Plan

For the Airport area, Alternative 2 land use patterns are consistent with ~~both the 1973 and the draft~~ adopted ALUP safety zones, and would have *no impact*.

For the Margarita area, Alternative 2 duplicates the proposed project and requires mitigation of *significant* inconsistencies with the existing ALUP.

Mitigation

Implementation of the following mitigation measure would reduce the impact to a *less-than-significant* level.

Mitigation Measure LU-3.1: Revise the Margarita Area Specific Plan to Be Consistent with the Adopted ~~or Proposed~~ ALUP

This mitigation measure is described above.

Impact LU-4: Compatibility with Surrounding Land Uses

Alternative 2 is generally consistent with the land use patterns designated in the City General Plan and does not introduce any new juxtapositions of land uses or development types that would result in conflicts between uses. The additional Services and Manufacturing uses designated southeast of the airport would be compatible with adjacent similar uses and agricultural open space.

In summary, land uses proposed under Alternative 2 for both the Airport and Margarita areas are considered compatible with surrounding uses. Consequently, the proposed project will have *no impact* on land use compatibility.

Mitigation

No mitigation is required.

Impact LU-5: Conversion of Prime Agricultural Land to Urban Uses

Alternative 2 would result in the conversion of approximately 58.6 hectares (145 acres) more of Farmland of Local Importance and Farmland of Local Potential than would the proposed project. However, based on the significance criteria and requirements for dedication and in-lieu fees, this would be a *less-than-significant* impact.

Mitigation

No mitigation is required.

Impact LU-6: Change in Views

Impacts would be similar to the proposed project, however conversion of semi-rural to urban would occur further to the south and east of the airport. No feasible mitigation exists to eliminate the impact associated with the conversion of a semi-rural landscape to an urban landscape. The impact is considered *significant and unavoidable*.

Mitigation

No mitigation measures are feasible.

Impact LU-7: Potential Increase in Daytime/Nighttime Light and Glare

Impacts would be similar to those under the proposed project; however, conversion of cultivated and grazing land to urban would occur further to the south and east of the airport. The potential increase in daytime/nighttime light and glare is considered a *significant impact*.

Mitigation

Implementation of the following mitigation measure would reduce the impact to a *less-than-significant* level.

Mitigation Measure LU-7.1: Incorporate Lighting Design Standards into Margarita and Airport Area Specific Plans

This mitigation measure is described above.

Alternative 3

Impact LU-1: Consistency of Proposed Specific Plans with Applicable City Plans, Policies, and Agreements

Alternative 3 expands the urban reserve to encompass all land designated for urban use by the County, excluding the Airport property. Thus, the URL wraps around the southern end of the airport as in Alternative 2, but also extends down to Buckley Road in the area west of the airport. This expansion of the urban reserve, and the redesignation of lands in that area from Open Space to Business Park and Services and Manufacturing, would be inconsistent with city policy to limit urban expansion to its current urban reserve and to maintain existing open space as a greenbelt around the city. This inconsistency represents a *significant and unavoidable* impact.

Although not consistent with current city plans and policies, the urban reserve and areas with urban land use designations in Alternative 3 are generally consistent with those designated in the

County General Plan, and with current development proposals that are being considered for the Avila Ranch property adjacent to the southwestern corner of the planning area. By designating a buffer of Agriculture/Open Space along the north side of Buckley Road and within the URL, this scenario attempts to implement city policy for providing a permanent greenbelt along its southern boundary.

In summary, implementation of the Airport Area Specific Plan would have a significant impact requiring mitigation under Alternative 3; however, implementation of the Margarita Area Specific Plan is consistent with city plans and policies, as previously discussed for the proposed project, and would have a less-than-significant ~~beneficial~~ impact requiring no mitigation.

Mitigation

No mitigation is available.

Impact LU-2: Consistency of Proposed Specific Plans with County General Plan Policy

Alternative 3 is generally consistent with county plans and policies regarding land use and the urban reserve designation south and east of the Airport area, although it is not consistent with city policies for this area (see preceding discussion of Impact LU-1 for Alternative 3). The most significant difference is that the County General Plan Land Use map designates more land for Industrial and Commercial Service uses south of the Airport planning area than is shown in Alternative 3. This inconsistency is considered a *less-than-significant* impact since it would bring city and county plans for the area into closer conformance.

Implementation of the Margarita Area Specific Plan is consistent with county plans and policies, as previously discussed for the proposed project.

In summary, implementation of the Airport and Margarita Area Specific Plans require no mitigation, as it would result in either no impact or a less-than-significant impact.

Mitigation

No mitigation is required.

Impact LU-3: Consistency of Proposed Specific Plans with County Airport Land Use Plan

For the Airport area, Alternative 3 land use patterns are consistent with ~~both the 1973 and draft the adopted~~ ALUP safety zones, and would have *no impact*.

For the Margarita area, Alternative 3 duplicates the proposed project and requires mitigation of *significant* inconsistencies with the existing ALUP.

Mitigation

Implementation of the following mitigation measure would reduce the impact to a *less-than-significant* level.

Mitigation Measure LU-3.1: Revise the Margarita Area Specific Plan to Be Consistent with the Adopted or Proposed ALUP

This mitigation measure is described above.

Impact LU-4: Compatibility with Surrounding Land Uses

For both the Airport and Margarita areas, Alternative 3 is generally consistent with the land use patterns designated in the City General Plan, and does not introduce any new juxtapositions of land uses or development types that would result in conflicts between uses; therefore, it has *no impact*. The additional Services and Manufacturing and Business Park uses designated south and east of the planning area would be compatible with adjacent like uses and agricultural open space.

Mitigation

No mitigation is required.

Impact LU-5: Conversion of Prime Agricultural Land to Urban Uses

Alternative 3 would result in the conversion of approximately 86.6 hectares (214 acres) more of Farmland of Local Importance and Farmland of Local Potential than would the proposed project. Although past development and current use result in relatively low farmland classifications under the California Department of Conservation categories, the underlying soil types have the characteristics of prime soil, according to the U.S. Natural Resources Conservation Service, for most of the gently sloping part of the Margarita area and for nearly all the Airport area, excluding the Unocal property affected by the 1926 explosion. However, based on the significance criteria, this would be a *less-than-significant* impact.

Mitigation

No mitigation is required.

Impact LU-6: Change in Views

Impacts would be similar to those under the proposed project; however, conversion of cultivated and grazing land to urban would occur further to the south, east, and west of the airport. No feasible mitigation exists to eliminate the impact associated with the conversion of a semi-rural landscape to an urban landscape. The impact is considered *significant and unavoidable*.

Mitigation

No mitigation measures are feasible.

Impact LU-7: Potential Increase in Daytime/Nighttime Light and Glare

Impacts would be similar to those under the proposed project; however, conversion of cultivated and grazing land to urban would occur further to the south, east, and west of the airport. The potential increase in daytime/nighttime light and glare is considered a *significant impact*.

Mitigation

Implementation of the following mitigation measure would reduce the impact to a *less-than-significant* level.

Mitigation Measure LU-7.1. Incorporate Lighting Design Standards into Margarita and Airport Area Specific Plans.

This mitigation measure is described above.

Alternative 4 (No-Project Alternative)

Implementation of Alternative 4 would not result in any new land use or aesthetic impacts.

Section 3B. Hydrology and Water Quality

INTRODUCTION

This section describes the hydrology and water quality changes associated with the proposed project. For a discussion of water services, please see Section 3H, “Public Services and Utilities”, of this draft EIR. The information in this section is based on a review of previously prepared environmental studies provided by the City. Topics discussed in this section include impacts on:

- # surface water quality,
- # surface water drainages, and
- # floodflows and floodplains

SETTING

Regulatory Setting

The Central Coast Regional Water Quality Control Board (RWQCB) has primary authority for ensuring that the quality of surface water and groundwater is protected from degradation. It administers the Phase I National Pollutant Discharge Elimination System (NPDES) stormwater permit system for general construction activity. Phase I NPDES stormwater permits are required for construction projects that disturb more than 2.0 hectares (5 acres) of land. Beginning in late 2002, Phase II rules will apply NPDES requirements to construction disturbing more than 0.4 hectare (1 acre).

To receive an NPDES permit, an entity must file a public notice of intent (NOI) to discharge stormwater with the RWQCB and must prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP includes a site map and description of construction activities, and it identifies the best management practices (BMPs) that will be employed to prevent soil erosion and discharge of other construction-related pollutants (e.g., petroleum products, solvents, paints, cement) that could contaminate nearby water resources. Monitoring is required to ensure that the BMPs are implemented according to the SWPPP and are effective in controlling discharges of stormwater-related pollutants. ~~Despite its name, the~~ The stormwater permit applies to non-stormwater discharges too.

The Phase I stormwater permit system also applies to 10 categories of industrial activities, including manufacturing facilities, oil and gas facilities, recycling facilities, transportation facilities that conduct any kind of vehicle maintenance, and light industry where activities are exposed to storm water. Permit holders are required to prepare a SWPPP, implement site-specific BMPs, and monitor storm water runoff. Monitoring results must be filed with the RWQCB on an annual basis.

The RWQCB also is responsible for discharge requirements applicable to the operation of the wastewater reclamation facility.

Under Section 303(d) of the Federal Clean Water Act, the State has prepared a list of impaired water bodies requiring water quality-based controls, or Total Maximum Daily Loads (TMDLs). Listed water bodies are those where technology-based effluent limits or other legally required pollution control mechanisms have not been sufficient or stringent enough to implement the water quality standards applicable to those waters. Often, these are water bodies where point source controls have been insufficient to achieve the water quality standards set out in either the Regional Water Quality Control Board's (RWQCB's) Basin Plan or other regulation. A TMDL is a plan developed by the RWQCB, through a public process, which sets out means of attaining the applicable standards.

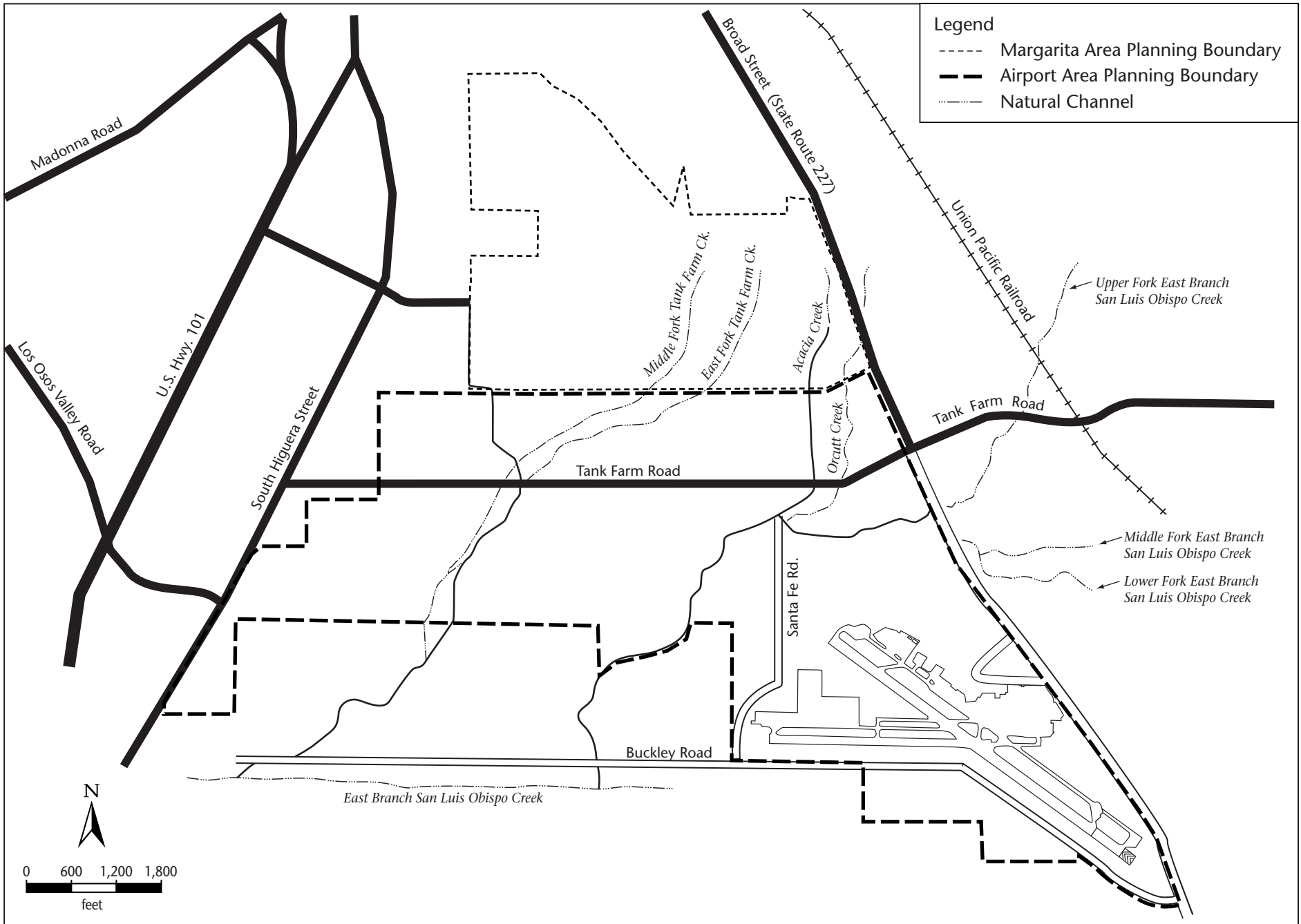
Regional Setting

Drainages

Figure 3B-1 shows the principal creeks within the Airport and Margarita areas. The principal drainage for the areas is the East Branch San Luis Obispo Creek, which joins San Luis Obispo Creek southwest of the project area. Drainage from most of the Margarita area is transported to the East Branch San Luis Obispo Creek via the West, Middle, and East Forks of Tank Farm Creek, which join the East Branch San Luis Obispo Creek at the southwest corner of the Airport area. The remaining Margarita area drainage is collected in Acacia Creek and Orcutt Creek, which join the East Branch San Luis Obispo Creek near the intersection of Tank Farm Road and Santa Fe Road. Drainage from the Airport area is collected into Tank Farm Creek and the East Branch San Luis Obispo Creek. Drainage travels through the area on a generally southwesterly course until the East Branch San Luis Obispo Creek joins San Luis Obispo Creek.

Precipitation Rates

Table 3B-1 shows the estimated rainfall depth in the planning area for a 10-year, 25-year, and 100-year storm event.



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Table 3B-1. Rainfall Depth (in Inches) for Various Durations

Storm Event	5 minutes	15 minutes	1 hour	2 hours	3 hours	6 hours	12 hours	24 hours
10-year	0.26	0.47	1.04	1.56	1.94	2.74	3.66	4.51
25-year	0.31	0.57	1.25	1.88	2.35	3.31	4.43	5.46
100-year	0.39	0.71	1.57	2.35	2.94	4.14	5.53	6.81

Source: Boyle Engineering Corporation 1999.

Floodplain

As shown in Table 3B-2, many of the existing channels within the project area, including Acacia Creek, portions of Orcutt Creek, the East Branch San Luis Obispo Creek, and Tank Farm Creek, have insufficient capacity to handle existing flows resulting from rainfall. Additionally, as shown in Table 3B-3, many of the existing conveyance structures are inadequate to satisfy current design frequency criteria. Figure 3B-2 shows the boundaries of the existing 100-year floodplains for the Margarita and Airport areas.

Water Quality

The main body of San Luis Obispo Creek is identified as an impaired water body on the State Water Resources Control Board's most recent 303(d) list (SWRCB 1998). Identified pollutants are nutrients (municipal point sources, agriculture, irrigated crop production, and agriculture-storm runoff), pathogens (urban runoff/storm sewers), and priority organics (industrial point sources). The Central Coast RWQCB is currently considering delisting some of the priority organics identified in San Luis Obispo Creek in 1998. The original listing was based on excessive amounts of hexachlorocyclohexane (HCH), chlordane, and polychlorinated biphenyl (PCB) being found in two animals living in the creek (a clam and a goldfish). Since then, more intensive monitoring/sampling of the creek by the RWQCB has not found HCH in detectable levels at any sampling station. Chlordane was found in minute amounts, but at lower levels than either the maximum tissue residue level (MTRL) or California Toxic Rule (CTR) quality objectives. These low levels meet the objectives of the Central Coast Basin Plan and both HCH and chlordane are recommended for delisting.

PCB levels in fish collected in San Luis Obispo Creek during monitoring/sampling exceeded the MTRL, although water samples produced no detectable readings. As a result, although the PCB level meets the Basin Plan's objectives, it exceeds CTR objectives and PCB will continue to be listed (RWQCB 2001).

IMPACTS AND MITIGATION

Introduction and Methodology

The impacts associated with the project were evaluated for their potential to generate surface water pollution, to increase the amount of runoff, to modify the course of existing drainages, and to expose people and/or property to flooding hazards.

The primary hydrologic issues of the proposed project include modifications in surface water absorption and drainage discharge characteristics and associated changes in the quantity of stormwater drainage from the area and impacts on flooding hazards. The primary water quality issues include temporary increases in construction-related pollutant discharges and the long-term effects of using the project area for urban development. The potential impacts were identified and qualitatively evaluated based on the intensity and duration of project disturbances.

Criteria for Determining Significance

Appendix G of the State CEQA Guidelines, city and county plans and policies, and professional judgment were used to determine whether implementing the proposed project would have a significant impact on hydrology and water quality. It was determined that implementation of the proposed project would have a significant impact on hydrology and water quality if it would:

- # substantially degrade water quality;
- # result in changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff which cannot be avoided by existing policies or plans;
- # result in changes to the course or direction of water movement; or
- # substantially increase surface water runoff which may create (or contribute to an existing) drainage and/or flooding problem.

Summary of Impacts

This section evaluates hydrology and water quality impacts related to the proposed project and the three land use alternatives. For this evaluation, impacts have been assessed in four categories. Table 3B-4 provides an overview of the significance findings for the proposed project and each of the alternatives.

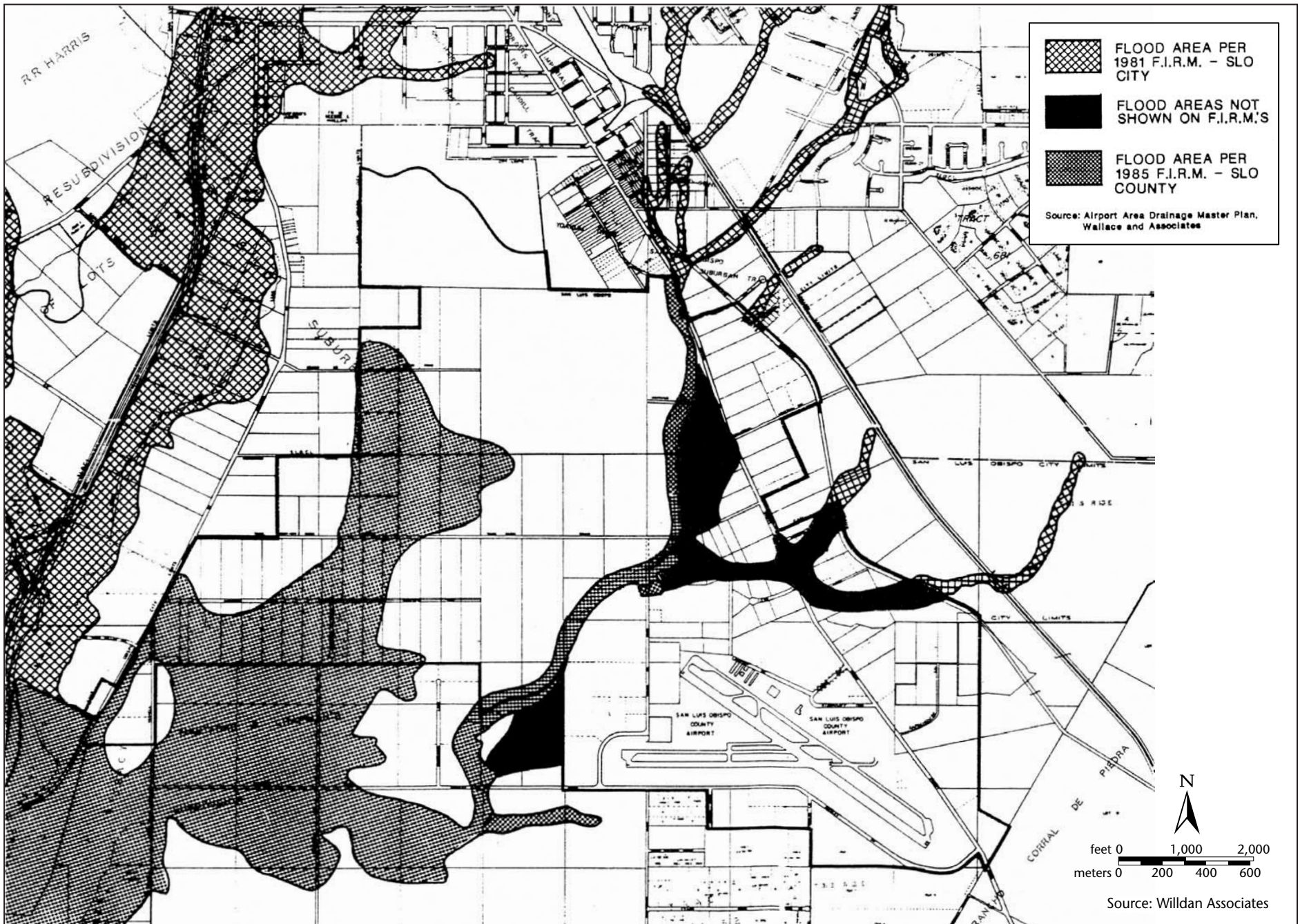


Figure 3B-2
Existing 100-Year Floodplains for Margarita and Airport Areas

Table 3B-2. Capacity Evaluation for Existing Channels

Channel Reach	Estimated Existing Capacity (cubic feet per second)	Design Frequency Criteria (years)	Design Criteria Existing Conditions (cubic feet per second)	Capacity Status
Acacia Creek				
Broad Street to Tank Farm Road	600	25	850	Deficient
Tank Farm Road to East Branch San Luis Obispo Creek	800	25	840	Deficient
Orcutt Creek				
Broad Street to Tank Farm Road	40	10	220	Deficient
Tank Farm Road to Acacia Creek	250	10	220	Good
East Branch San Luis Obispo Creek				
Broad Street to Santa Fe Road	1,500	100	3,450	Deficient
Santa Fe Road to Buckley Road	2,500	100	5,000	Deficient
West Fork Tank Farm Creek				
Prado Road to Tank Farm Creek	30	10	200	Deficient
Middle Fork Tank Farm Creek				
Project Boundary to Tank Farm Creek	40	10	50	Deficient
East Fork Tank Farm Creek				
Project Boundary to Tank Farm Road	80	10	60	Good
Tank Farm Road to Tank Farm Creek	200	10	120	Good
Tank Farm Creek				
West/Middle Fork Confluence to Tank Farm Road	50	10	250	Deficient
Tank Farm Road to East Fork Confluence	180	10	240	Deficient
East Fork Confluence to Project Area Boundary	50	25	660	Deficient
Project Area Boundary to Buckley Road	340	25	760	Deficient

Source: Boyle Engineering Corporation 1999.

Table 3B-3. Capacity Evaluation for Existing Conveyance Structures

Structure Location	Conveyance Structure	Estimated Existing Capacity (cubic feet per second)	Design Frequency Criteria (years)	Design Criteria Existing Conditions (cubic feet per second)	Capacity Status
Acacia Creek					
at Broad Street	Two 8' x 10' RCB culverts	2,000	25	750	Good
at Tank Farm Road	Bridge	960	25	850	Good
Orcutt Creek					
at Broad Street	Two 64" x 52" RCB culverts	300	10	180	Good
at Tank Farm Road	Two 4' x 6' RCB culverts	360	10	850	Good
at Private Road	Two 18" CMP culverts	20	10	850	Deficient
at Santa Fe Road	Bridge	240	10	850	Good
East Branch San Luis Obispo Creek					
at Broad Street	Bridge	>6,000	100	3390	Good
at Santa Fe Road	Bridge	2870	100	3450	Deficient
at Buckley Road	Bridge	6800	100	5000	Good
West Fork Tank Farm Creek					
at Prado Road	Two 2.25' x 8' RCB culverts	290	10	200	Good
East Fork Tank Farm Creek					
at Tank Farm Road	Two 4' x 6' RCB culverts	380	10	60	Good
Tank Farm Creek					
at Tank Farm Road	Two 48" steel culverts	260	10	250	Good
at Flow Control Structure	Two 36" slide gates	100	25	510	Deficient
at Horizon Lane	4' x 4' RCB culvert	120	25	660	Deficient
at Buckley Road	3' x 22' RCB culvert	660	25	760	Deficient
at Vachell Lane	Bridge	540	25	760	Deficient

Source: Boyle Engineering Corporation 1999.

Table 3B-4. Summary of Hydrology and Water Quality Impacts

Impact	Impact after Mitigation	Mitigation	Airport Area	Margarita Area	Facility Master Plans
Proposed Project					
H-1: Increased Discharges of Surface-Water Pollutants related to Construction Activities	LTS	None required	LTS	LTS	LTS
H-2: Increased Discharges of Surface-Water Pollutants related to Ongoing Use of the Project Area	LTS	None required	LTS	LTS	LTS
H-3: Changes in Absorption Rates, Drainage Patterns, and the Rate and Amount of Surface Runoff	LTS	None required	LTS	LTS	LTS
H-4: Changes in the Course or Direction of Water Movements	SU	None feasible	SU	SU	SU
H-5: Exposure of People and/or Property to Flooding Hazards	LTS	None required	LTS	LTS	LTS
Alternative 1					
Alternative 1 would have the same level of impacts as the proposed project.					
Alternative 2					
Alternative 2 would have the same level of impacts as the proposed project.					
Alternative 3					
Alternative 3 would have the same level of impacts as the proposed project.					
Alternative 4					
Alternative 4 would not result in any new hydrology or water quality impacts.					
Impacts:					
LTS = less than significant.					
S = significant.					
SU = significant and unavoidable.					

Proposed Project

Impact H-1: Increased Discharges of Surface Water Pollutants related to Construction Activities

Construction activities resulting from the implementation of the proposed project would include grading and clearing operations that can temporarily impair water quality by discharging disturbed and eroded soil, petroleum products, and miscellaneous wastes to receiving waters. Soil and associated contaminants that enter stream channels can increase turbidity, stimulate the growth of nuisance algae, increase sedimentation of aquatic habitat, and introduce compounds toxic to aquatic organisms. The extent of the impacts would depend on the potential for soil erosion, types of construction practices, extent of disturbed area, timing of rain, and proximity to drainage channels. Development associated with the proposed project would require issuance of an NPDES general construction activity stormwater permit by the Central Coast RWQCB. Completion of this permit process would ensure that construction-related discharges were limited. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact H-2: Increased Discharges of Surface Water Pollutants related to Ongoing Use of the Project Area

Ongoing use of the project area for residences, commerce, industry, and parks would increase the potential for the discharge of chemicals, oils and fuels, and waste into project area waterways. However, the requirement for the employment of BMPs to avoid site runoff that would otherwise impact waterways will greatly reduce this potential. BMPs are established in the SWPPP that is prepared for qualifying construction or industrial projects and are designed with that project in mind. Pursuant to the RWQCB's Phase I Construction and Industrial storm water permit requirements, BMPs must be designed to avoid the discharge of pollutants to impaired waterways, such as San Luis Obispo Creek. Construction sites and industrial permittees must monitor to ensure that the BMPs are effective. Industrial permits require an annual report of monitoring and sampling results to be submitted to the RWQCB each year.

Typical construction BMPs may include the use of a silt fence or hay bale barriers to contain erosion on site, mulching or seeding to stabilize graded land, equipment wash stations, fuel storage controls, and erosion control blankets. Industrial BMPs may include storage controls, filtration systems for water leaving the site, and sedimentation basins.

In addition, policies 3.41 (remove, isolate, or stabilize petroleum contamination in areas intended for open space) and 3.42 (remove, isolate, or stabilize petroleum contamination in areas intended for development) of the proposed Airport Area Specific Plan will require oversight of activities by the RWQCB. This will ensure that water quality will be maintained.

This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact H-3: Changes in Absorption Rates, Drainage Patterns, and the Rate and Amount of Surface Runoff

The proposed project would result in an increase in impervious surfaces within the project area because of the construction of urban facilities and roadways. Such an increase would cause the timing and amount of surface water runoff (such as stormwater) to increase. The revised Storm Drain Master Plan prepared for the City discusses the improvements required to ensure adequate transmission and detention of stormwater flow and to address current system deficiencies and deficiencies created by new development within the Airport and Margarita areas. The revised plan proposes to contain all stormwater runoff over undeveloped levels in detention basins and to drain the stored water at a rate not to exceed the 2-year undeveloped flow rate. This approach ensures that runoff levels will be equal to or less than existing levels. Implementation of this plan is assumed and would address impacts resulting from construction in the project area. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact H-4: Changes in the Course or Direction of Water Movements

Implementation of the proposed project includes minor modifications to drainages and provision for construction of detention basins in the project area, as proposed under the revised Storm Drain Master Plan. These modifications include replacement of bridges that cross Acacia and East Branch San Luis Obispo Creeks and replacement and improvement of culvert facilities at Tank Farm Creek. Also, individual onsite or subregional detention basins would be constructed. ; including the Storm Drain Master Plan, would result in modifications to drainages within the project area. Channel improvements would be made and diversion drainages to stormwater detention basins would be constructed. These drainage modifications would be made to address existing stormwater conveyance deficiencies and new deficiencies created by development of the Airport and Margarita areas. The modifications proposed under the revised Storm Drain Master Plan would not significantly change the course or direction of water movements. There would be a less-than-significant impact on water movements under the Storm Drain Master Plan, Airport Area Specific Plan, Margarita Area Specific Plan, and Wastewater Facilities Master Plan. However, as described in Chapter 2, implementation of the Water System Master Plan includes recommendations for construction of a new dam and water impoundment in the Prefumo Canyon area, which would permanently alter water movement in the proposed reservoir and downstream areas. The impact of the drainage modifications and the resulting changes in the course or direction of water movements under the Water System Master Plan are considered *significant and unavoidable*.

Mitigation

No feasible mitigation is available.

Impact H-5: Exposure of People and/or Property to Flooding Hazards

The conversion of land to urban uses has the potential to increase flooding hazards through the construction of new buildings within the 100-year flood hazard area. The specific plans include explicit requirements for flood channel improvements that will avoid flooding impacts by providing enhanced control of floodwaters. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 1

Impact H-1: Increased Discharges of Surface Water Pollutants related to Construction Activities

This impact is the same as that of the proposed project. Development of the project area would require issuance of an NPDES general construction activity stormwater permit by the Central Coast RWQCB. Completion of this permit process would ensure that construction-related discharges were limited. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact H-2: Increased Discharges of Surface Water Pollutants related to Ongoing Use of the Project Area

This impact is the same as that of the proposed project. Ongoing use of the project area for residences, commerce, industry, and parks would increase the potential for the discharge of chemicals, oils and fuels, and waste into project area waterways. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact H-3: Changes in Absorption Rates, Drainage Patterns, and the Rate and Amount of Surface Runoff

This impact is the same as that of the proposed project. The revised Storm Drain Master Plan prepared for the City (City of San Luis Obispo 1999) discusses the improvements required to ensure adequate transmission and detention of stormwater flow to ~~and~~ address ~~current system deficiencies and~~ deficiencies created by this alternative. The revised plan proposes to contain all stormwater runoff over undeveloped levels in detention basins and to drain the stored water at a rate not to exceed the 2-year undeveloped flow rate. This approach ensures that runoff levels will be equal to or less than existing levels. ~~Implementation of this plan is assumed and would address impacts resulting from construction in the project area.~~ Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact H-4: Changes in the Course or Direction of Water Movements

~~This impact is the same as that of the proposed project. Implementation of Alternative 1, including the Storm Drain Master Plan, would result in modifications to drainages within the project area. Channel improvements would be made and diversion drainages to stormwater detention basins would be constructed. These drainage modifications would be made to address existing stormwater conveyance deficiencies and new deficiencies created by development of this alternative. The impact of the drainage modifications and the resulting changes in the course or direction of water movements are considered *significant and unavoidable*.~~

The impact is the same as under the proposed project. The modifications proposed under the revised Storm Drain Master Plan would not significantly change the course or direction of water movements. There would be a less-than-significant impact on water movements under the Storm Drain Master Plan, Airport Area Specific Plan, Margarita Area Specific Plan, and Wastewater Facilities Master Plan. However, as described in Chapter 2, implementation of the Water System Master Plan includes recommendations for construction of a new dam and water impoundment in the Prefumo Canyon area, which would permanently alter water movement in the proposed reservoir and downstream areas. The impact of the drainage modifications and the resulting changes in the course or direction of water movements under the Water System Master Plan are considered *significant and unavoidable*.

Mitigation

No feasible mitigation is available.

Impact H-5: Exposure of People and/or Property to Flooding Hazards

This impact is the same as that of the proposed project. The conversion of land to uses has the potential to increase flooding hazards through the construction of new buildings within the 100-year flood hazard area (see discussion from project). This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 2

Impact H-1: Increased Discharges of Surface Water Pollutants related to Construction Activities

The impact is the same as that of the proposed project. Development of the project area would require issuance of an NPDES general construction activity stormwater permit by the Central Coast RWQCB. Completion of this permit process would ensure that construction-related discharges were limited. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact H-2: Increased Discharges of Surface Water Pollutants related to Ongoing Use of the Project Area

This impact is the same as that of the proposed project. Ongoing use of the project area for residences, commerce, industry, and parks would increase the potential for the discharge of chemicals, oils and fuels, and waste into project area waterways. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact H-3: Changes in Absorption Rates, Drainage Patterns, and the Rate and Amount of Surface Runoff

This impact is the same as that of the proposed project. The revised Storm Drain Master Plan prepared for the City (City of San Luis Obispo 1999) discusses the improvements required to ensure adequate transmission and detention of stormwater flow to and address current system deficiencies and deficiencies created by this alternative. The revised plan proposes to contain all stormwater

runoff over undeveloped levels in detention basins and to drain the stored water at a rate not to exceed the 2-year undeveloped flow rate. This approach ensures that runoff levels will be equal to or less than existing levels. ~~Implementation of this plan is assumed and would address impacts resulting from construction in the project area. Therefore, this impact is considered *less than significant*.~~

Mitigation

No mitigation is required.

Impact H-4: Changes in the Course or Direction of Water Movements

~~This impact is the same as that of the proposed project. Implementation of Alternative 2, including the Storm Drain Master Plan, would result in modifications to drainages within the project area. Channel improvements would be made and diversion drainages to stormwater detention basins would be constructed. These drainage modifications would be made to address existing stormwater conveyance deficiencies and new deficiencies created by development of this alternative. The impact of the drainage modifications and the resulting changes in the course or direction of water movements are considered *significant and unavoidable*.~~

The impact is the same as under the proposed project. The modifications proposed under the revised Storm Drain Master Plan would not significantly change the course or direction of water movements. There would be a less-than-significant impact on water movements under the Storm Drain Master Plan, Airport Area Specific Plan, Margarita Area Specific Plan, and Wastewater Facilities Master Plan. However, as described in Chapter 2, implementation of the Water System Master Plan includes recommendations for construction of a new dam and water impoundment in the Prefumo Canyon area, which would permanently alter water movement in the proposed reservoir and downstream areas. The impact of the drainage modifications and the resulting changes in the course or direction of water movements under the Water System Master Plan are considered *significant and unavoidable*.

Mitigation

No feasible mitigation is available.

Impact H-5: Exposure of People and/or Property to Flooding Hazards

This impact is the same as that of the proposed project. The conversion of land to uses has the potential to increase flooding hazards through the construction of new buildings within the 100-year flood hazard area. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 3

Impact H-1: Increased Discharges of Surface Water Pollutants related to Construction Activities

This impact is the same as that of the proposed project. Development of the project area would require issuance of an NPDES general construction activity stormwater permit by the Central Coast RWQCB. Completion of this permit process would ensure that construction-related discharges were limited. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact H-2: Increased Discharges of Surface Water Pollutants related to Ongoing Use of the Project Area

This impact is the same as that of the proposed project. Ongoing use of the project area for residences, commerce, industry, and parks would increase the potential for the discharge of chemicals, oils and fuels, and waste into project area waterways. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact H-3: Changes in Absorption Rates, Drainage Patterns, and the Rate and Amount of Surface Runoff

This impact is the same as that of the proposed project except that the project area extends to the south, east, and west of the airport. These areas are not reviewed within the Storm Drain Master Plan. The proposed project would result in an increase in impervious surfaces within the project area described under Alternative 3 because of the construction of urban facilities and roadways. The increase in impervious surface would result in increases in the frequency, rate, and amount of surface water runoff. The revised Storm Drain Master Plan prepared for the City addresses the improvements required to ensure adequate transmission and detention of stormwater flow to and address ~~current system deficiencies and~~ deficiencies created by a portion of this alternative; however, it does not address flow related to development to the east, south, and west of the airport. Because not all of the project area would be provided with adequate storm drain facilities under Alternative 3, this impact is considered *significant*.

Mitigation

Implementation of the following mitigation measure would reduce the impact to a *less-than-significant* level.

Mitigation Measure H-3.1. Modify the Storm Drain Master Plan to Include Infrastructure Recommendations for Development to the East, South, and West of the Airport (As Described under the Land Use Map for Alternative 3).

Funding Source: City of San Luis Obispo
Implementing Party: City of San Luis Obispo
Monitoring Agency: City of San Luis Obispo
Timing: Before project approval or annexation

Impact H-4: Changes in the Course or Direction of Water Movements

~~This impact is the same as that of the proposed project. Implementation of Alternative 3, including the Storm Drain Master Plan, would result in modifications to drainages within the project area. Channel improvements would be made and diversion drainages to stormwater detention basins would be constructed. These drainage modifications would be made to address existing stormwater conveyance deficiencies and new deficiencies created by development of this alternative. The impact of the drainage modifications and the resulting changes in the course or direction of water movements are considered *significant and unavoidable*.~~

The impact is the same as under the proposed project. The modifications proposed under the revised Storm Drain Master Plan would not significantly change the course or direction of water movements. There would be a less-than-significant impact on water movements under the Storm Drain Master Plan, Airport Area Specific Plan, Margarita Area Specific Plan, and Wastewater Facilities Master Plan. However, as described in Chapter 2, implementation of the Water System Master Plan includes recommendations for construction of a new dam and water impoundment in the Prefumo Canyon area, which would permanently alter water movement in the proposed reservoir and downstream areas. The impact of the drainage modifications and the resulting changes in the course or direction of water movements under the Water System Master Plan are considered *significant and unavoidable*.

Mitigation

No feasible mitigation is available.

Impact H-5: Exposure of People and/or Property to Flooding Hazards

This impact is the same as that of the proposed project. The conversion of land to uses has the potential to increase flooding hazards through the construction of new buildings within the 100-year flood hazard area. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 4 (No-Project Alternative)

Implementation of Alternative 4 would not result in any new hydrology or water quality impacts.

Section 3C. Biological Resources

INTRODUCTION

This section describes vegetation and wildlife resources associated with the proposed project. This information is based on a prefield investigation, a reconnaissance-level field survey conducted on January 12 and 13, 1998, a review of pertinent literature in December 2001, and contacts with knowledgeable individuals. Impact topics assessed in this section include:

- # loss or temporary disturbance of all of the following:
 - S annual grassland,
 - S valley needle grass grassland,
 - S serpentine bunchgrass grasslands,
 - S coyote brush scrub,
 - S open-water habitat,
 - S freshwater marsh,
 - S seasonal wetland,
 - S riparian woodland scrub,
 - S agricultural field, and
 - S ruderal and developed areas;

- # impacts on special-status plant species;

- # mortality or disturbance of the California red-legged frog;

- # mortality of or indirect impacts on vernal pool fairy shrimp or California tiger salamander;

- # mortality of or indirect impacts on the southwestern pond turtle;

- # disturbance of the white-tailed kite;

- # disturbance of the northern harrier;

- # disturbance of the American peregrine falcon;

- # disturbance of the sora;

- # disturbance of the burrowing owl;

- # disturbance of the belted kingfisher;
- # disturbance of the least Bell's vireo;
- # disturbance of the California horned lark;
- # disturbance of the yellow-breasted chat;
- # disturbance of the grasshopper sparrow; and
- # disturbance of the tricolored blackbird.

SETTING

Regulatory Setting

This section summarizes the laws and regulations that apply to the proposed project. A brief explanation of the application of each regulation is also provided.

Clean Water Act, Section 404

The U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) regulate the placement of fill into "waters of the United States" under Section 404 of the Clean Water Act (CWA). Waters of the United States include lakes, rivers, streams and their tributaries, and wetlands. Wetlands are defined for regulatory purposes as areas "inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 Code of Federal Regulations [CFR] 328.3, 40 CFR 230.3). Before proceeding with a proposed action, project proponents must obtain a permit from the Corps for all discharges of fill material into waters of the United States, including wetlands.

The Corps may either issue individual permits on a case-by-case basis or general permits on a program level. General permits are authorized in advance and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. A nationwide permit (NWP) is a type of general permit that is issued to cover a particular fill activity. All NWPs have a general set of conditions that must be met for the permits to apply to a particular project, as well as specific conditions that apply to each NWP.

Executive Order 11990: Protection of Wetlands

Executive Order 11990 (issued May 24, 1977) directs all federal agencies to refrain from assisting in or giving financial support to projects that encroach on publicly or privately owned wetlands.

California Fish and Game Code, Sections 1601–1607

Under Sections 1601–1607 of the California Fish and Game Code, the California Department of Fish and Game (DFG) regulates projects that divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake. Proponents of such projects must notify DFG and enter into a streambed alteration agreement with DFG. Sections 1601–1607 typically do not apply to drainages that lack a defined bed and banks, such as vernal swales.

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over species listed as threatened or endangered under Section 9 of the federal Endangered Species Act (ESA). The act protects listed species from harm, or “take”, which is broadly defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct”. For any project with a federal component that would affect a listed species, the federal agency must consult with USFWS under Section 7 of ESA. USFWS issues a biological opinion and, if the project would not jeopardize the continued existence of that species, issues an incidental take permit. When the project has no federal component, proponents of the project affecting a listed species must consult with USFWS and apply for an incidental take permit under Section 10 of ESA. Section 10 requires an applicant to submit a conservation plan that specifies project impacts and mitigation measures.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 U.S.C. 703-711) prohibits the “take” of any migratory bird; and any part, nest, or eggs of any such bird. “Take” under the Act is defined as the action of or attempt to “pursue, hunt, shoot, capture, collect, or kill.” This Act applies to all persons in the U.S. including federal agencies.

The Executive Order 13186 for Conservation of Migratory Birds (January 11, 2001) requires that any project with federal involvement address impacts of federal actions on migratory birds. The Executive Order is designed to assist Federal Agencies in their efforts to comply with the Migratory Bird Treaty Act (MBTA), and does not constitute any legal authorization to “take” migratory birds. The Order also requires federal agencies to work with the U.S. Fish and Wildlife Service to develop a Memorandum of Understanding (MOU). Protocols developed under the MOU shall promote the conservation of migratory bird populations through the following means:

- # avoid and minimize, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions;
- # restore and enhance habitat of migratory birds, as practicable; and
- # prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable.

California Endangered Species Act

DFG has jurisdiction over species listed as threatened or endangered under Section 2080 of the California Fish and Game Code. Section 2080 prohibits the take of a species listed as threatened or endangered by DFG. The state definition of take is similar to the federal definition, except that Section 2080 does not prohibit indirect harm to listed species by way of habitat modification. Proponents of a project affecting a state-listed species must consult with DFG and enter into a management agreement and take permit under Section 2081.

City of San Luis Obispo General Plan

The City General Plan contains several goals and policies that apply to the protection of natural resources within City boundaries. The key goals and policies of the plan applying to natural resources are outlined below.

City Policy OS 1.1.2. Protect Resources

Policy. *Protect resources (such as creeks, sensitive habitat, and agriculture), and be sensitive to the factors which allow these resources to remain viable.*

City Policy OS 2.1.1. Geologic Features

Policy. *Preserve mountains and hills, ridgelines, scenic rock outcroppings, and other important geologic features as open space.*

City Policy OS 2.1.2. Mountain and Hill Resources

Policy. *Preserve and enhance the aesthetic quality of mountain and hill resources.*

City Policy OS 3.1.1. Creek Corridors

Policy. *Preserve creek corridors as a regional network of open space.*

City Policy OS 3.1.2. Riparian Vegetation Corridors

Policy. *Establish healthy, continuous, riparian vegetation corridors that extend from within the City to the perimeter of the Outer Planning Area.*

City Policy OS 3.1.3. Creek Restoration

Policy. *Restore degraded creeks to provide high quality habitat and to augment aesthetic resources, and to reverse the historical trend of creek channelization and modification.*

City Policy OS 4.1.1. Preservation

Policy. *Preserve marshes, vernal pools, seeps, lakes, ponds and similar wetland areas as open space.*

City Policy OS 4.1.2. Restoration

Policy. *Restore wetland areas that have been degraded.*

City Policy OS 4.1.3. Permitted Uses

Policy. *Permit uses on wetland sites which are consistent with the nature of the resource being protected.*

City Policy OS 5.1.1. Grassland Protection within City Limits

Policy. *Protect grassland communities within the city limits.*

City Policy OS 5.1.2. Grassland Protection within the City Greenbelt

Policy. *Retain grasslands found within the Greenbelt area at their current level of use. They are valuable economically (providing food/fiber), aesthetically (providing a scenic boundary to the City), and biologically by providing habitat, distribution corridors and forage for the plants and animals associated with the quality of life found in the San Luis Obispo area.*

City Policy OS 6.1.1. Plant and Animal Protection

Policy. *Protect plant and animal resources for their functional and ecological value, to maintain wildlife diversity and community beauty.*

City Policy OS 6.1.2. Wildlife Corridors

Policy. *Provide wildlife corridors to allow wildlife migration, increase species diversity, and provide wildlife viewing opportunities.*

Special-Status Plant and Wildlife Species

Definitions of Special-Status Species. Special-status species are plants and animals that are legally protected under the California and federal ESAs or other regulations, and species that are considered sufficiently rare by the scientific community to qualify for such listing. Special-status plants and animals are species in the following categories:

- # species listed or proposed for listing as threatened or endangered under ESA (50 CFR 17.12 [listed plants], 50 CFR 17.11 [listed animals], and various notices in the *Federal Register* (FR) [proposed species]);
- # species that are candidates for possible future listing as threatened or endangered under ESA (61 FR 7596–7613, February 28, 1996);
- # species listed or proposed for listing by the State of California as threatened or endangered under the California ESA (14 CCR 670.5);
- # species that meet the definitions of rare, threatened, or endangered under CEQA (State CEQA Guidelines, Section 15380);
- # plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.);
- # plants considered by the California Native Plant Society (CNPS) to be “rare, threatened, or endangered in California” (Lists 1B and 2 in Skinner and Pavlik 1994);
- # plants listed by CNPS as plants about which more information is needed to determine their status and plants of limited distribution (Lists 3 and 4 in Skinner and Pavlik 1994), which may be included as special-status species on the basis of local significance or recent biological information;
- # animal species of special concern to DFG (PRBO and DFG 2001 [birds], Williams 1986 [mammals], and Jennings and Hayes 1994 [amphibians and reptiles]); and
- # animals fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

Definitions of Sensitive Natural Communities. Sensitive natural communities are communities that are especially diverse, regionally uncommon, or of special concern to local, state, and federal agencies. Elimination or substantial degradation of these communities would constitute a significant impact under CEQA. The valley needlegrass grassland, riparian woodland and scrub, freshwater marsh, and serpentine bunchgrass grassland communities described below would qualify as sensitive natural communities in the planning area.

Regional Setting

The project area is located adjacent to San Luis Obispo and encompasses the County Airport. It is bordered by South Higuera Street to the west and Broad Street to the east and is crossed by Tank Farm Road. The southern boundary of the Unocal property and the County Airport broadly define the southern boundary of the project area. A steep serpentine hillside referred to as the South Hills forms the northern boundary of the project area.

The project area is characterized by a Mediterranean climate, with mild winters and hot summers. Temperatures are controlled largely by the Pacific Ocean. Average annual precipitation in San Luis Obispo is 20 inches; most of it falls between November and April. The majority of the project area is located in a valley with flat terrain.

General Setting

The project area is characterized by a mosaic of open space and developed areas. The plant communities occurring in the project area are non-native grassland, valley needlegrass grassland, serpentine bunchgrass grassland, coyote brush scrub, open water, freshwater marsh, seasonal wetland, riparian woodland and scrub, agricultural fields, and developed and ruderal areas. Each of these habitat types is briefly described below, and areas of its occurrence in the project area are indicated. Figure 3C-1 provides an overview of the biological communities occurring in the project area. Table 3C-1 provides the approximate acreage of each habitat type within the proposed project and the land use alternative areas.

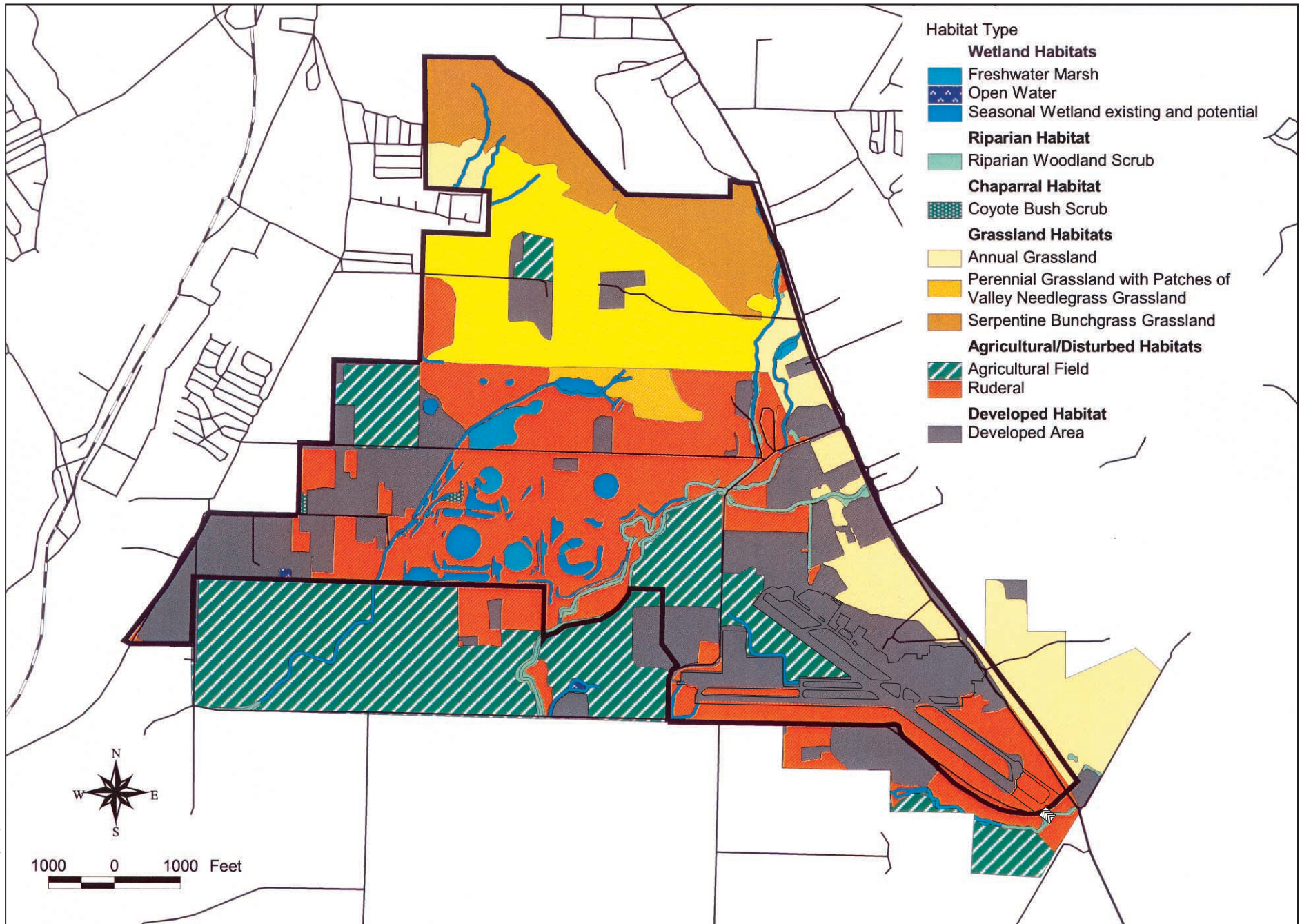
Revised Table 3C-1. Approximate Acreage By Habitat Type under Existing Conditions

Habitat Type	Proposed Project	Alternative 1	Alternative 2	Alternative 3
	Hectares (acres)	Hectares (acres)	Hectares (acres)	Hectares (acres)
Annual grassland	119.48 (295.24)	110.62 (273.35)	152.32 (376.40)	147.08 (363.44)
Serpentine bunchgrass grassland	53.91 (133.22)	52.53 (129.80)	56.09 (138.59)	54.16 (133.82)
Perennial grassland	8.59 (21.22)	8.37 (20.68)	8.94 (22.08)	8.63 (21.32)
Coyote bush scrub	0.76 (1.88)	0.74 (1.83)	0.80 (1.96)	0.76 (1.89)
Open water	0.28 (0.69)	0.27 (0.67)	0.29 (0.72)	0.46 (1.13)
Freshwater marsh	7.43 (18.35)	7.24 (17.88)	8.55 (21.13)	8.26 (20.40)
Wetland (existing and potential)	23.88 (59.02)	21.91 (54.13)	23.88 (59.02)	25.18 (62.21)
Riparian woodland and scrub	8.65 (21.38)	8.43 (20.83)	10.09 (24.93)	11.86 (29.31)
Agricultural field	42.65 (105.39)	16.01 (39.55)	26.45 (65.36)	130.77 (323.14)
Ruderal	161.49 (399.04)	124.76 (308.29)	145.05 (358.43)	149.94 (370.52)
Developed area	<u>144.58 (357.26)</u>	<u>81.50 (201.39)</u>	<u>99.83 (246.68)</u>	<u>104.94 (259.32)</u>
Total acreage	571.70 (1,412.70)	432.37 (1,068.40)	532.29 (1,315.30)	642.03 (1,586.50)

Annual Non-Native Grassland. Non-native grasslands are found throughout the Unocal property south and north of Tank Farm Road. The majority of the Margarita area is also covered with non-native grassland. Non-native grasslands are dominated by a mixture of introduced annual grasses such as soft chess, ripgut brome, and hare barley, and native and introduced forbs such as filarees, clovers, shortpod mustard, dove’s foot geranium, and English plantain.

Non-native grasslands provide foraging habitat and cover for many wildlife species in the project area. Burrowing animals, such as California ground squirrels and Botta’s pocket gophers, are abundant in the grassland areas. These burrowing animals provide food for other animals in the area, including red-tailed hawks, coyotes, gray fox, and gopher snakes. They also provide nesting structures for the burrowing owl. Other wildlife species observed using the non-native grasslands include the turkey vulture, American kestrel, western meadowlark, savannah sparrow, American pipit, house finch, and lesser goldfinch. Grassland also provides breeding habitat for the white-tailed kite, burrowing owl, California horned lark, and grasshopper sparrow, and foraging habitat for the tricolored blackbird.

Valley Needlegrass Grassland. Patchy occurrences of native bunchgrasses were observed on the Unocal property north of Tank Farm Road within a matrix of non-native grassland. These patches appeared to be dominated by purple needlegrass and are quite extensive on places. They would qualify as valley needlegrass grassland, which is considered a sensitive biological community by DFG. Although formerly extensive around the Sacramento, San Joaquin, and Salinas Valleys, this community has undergone extensive losses as a result of agricultural conversion and other human-induced effects.



Valley needlegrass grassland has high wildlife value because it is dominated by native plants and occurs in extensive areas. Because the needlegrass grassland occurs in a matrix of non-native grassland, many wildlife species occur in both habitats.

Serpentine Bunchgrass Grassland. Serpentine bunchgrass grassland covers the serpentine ridge that forms the northern boundary of the study area. Common species of the serpentine bunchgrass grassland include purple needlegrass, California melic grass, Selaginella, and California poppy, as well as violets, morning glories, miner's lettuce, California milkmaids, and many other species of native forbs. Serpentine bunchgrass grasslands often support a remarkable number of species and frequently provide suitable habitat for special-status plant species. Serpentine bunchgrass grassland is considered a sensitive biological community by DFG.

Serpentine bunchgrass grassland has high wildlife value because it is dominated by native plants and is contiguous with other grassland habitats in the area.

Coyote Brush Scrub. Coyote brush scrub occurs throughout the Unocal property south of Tank Farm Road. The community is interspersed with the non-native grassland at the site and also occurs on levees and berms that were artificially created at the site to impound water and surround oil tanks. Coyote brush scrub is characterized by an open to dense overstory of coyote brush and an understory composed of species typical of the non-native grassland described above. Other shrub species interspersed in this community include Hazardia and California sagebrush. Limited numbers of black sage plants were also observed in the coyote brush scrub. Coyote brush scrub is locally and regionally common and is not considered a sensitive biological resource.

Coyote brush scrub provides foraging habitat, structure for nests, and cover for many wildlife species, including white-tailed kites, red-tailed hawks, Costa's hummingbirds, Anna's hummingbirds, bushtits, spotted towhee, white-crowned sparrows, lesser goldfinches, house finches, gopher snakes, and western fence lizards

Open Water. Open-water habitat occurs at the Unocal property south of Tank Farm Road in areas that were formerly occupied by oil tanks. The circular berms and remains of the tanks have filled with water from precipitation and runoff from surrounding areas, creating seasonal open water areas. Some of these are underlain by concrete, while others appear to be on natural substrates. Open-water habitat also exists along the drainage channel that traverses the site's western boundary and on ponds created by berms. Open-water habitat may be considered "other waters of the United States" and could be subject to Corps jurisdiction under Section 404 of the CWA.

The open-water habitats in the project area have substantial wildlife value. They provide winter and summer foraging habitat and breeding and rearing habitat for many species of waterbirds. Several species of waterfowl winter in the open-water habitats, including mallards, buffleheads, and northern shovelers. Other species of waterbirds occur in the open-water areas and along the edges of open water, including great blue herons, cinnamon teal, American coots, greater yellowlegs, and killdeer. Pacific treefrogs also breed in open-water ponds.

Freshwater Marsh. Freshwater marshes are dominated by emergent herbaceous vegetation. Freshwater marshes in the planning area are dominated by cattails. Other species encountered include patches of tule, umbrella sedge, and curly dock. Freshwater marshes occur around the margin of the open-water habitat described above; they are most common at the Unocal property at the south side of Tank Farm Road. However, a large complex of freshwater marsh habitat occurs at the Unocal property north of Tank Farm Road. Patches of freshwater marsh also occur within the channel of Tank Farm Creek. Freshwater marshes qualify as wetlands subject to Corps jurisdiction under Section 404 of the CWA. They are considered sensitive biological communities by DFG. In addition, DFG has adopted a no-net-loss policy for wetlands (California Fish and Game Commission 1987).

Freshwater marsh provides high-quality winter and summer habitat for wildlife. Many species of wildlife use the freshwater marsh for foraging, breeding, or cover, including pied-billed grebes, mallards, northern shovelers, ruddy ducks, common snipes, great blue herons, great egrets, soras, American coots, song sparrows, tricolored and red-winged blackbirds, garter snakes, and Pacific treefrogs. Several species of wildlife breed and rear their young in the marsh habitats, including mallards, pied-billed grebes, and song sparrows.

Seasonal Wetlands. Seasonal wetlands are dominated by herbaceous vegetation. In the planning area, seasonal wetlands occur around the edges of open-water habitats as well as adjacent to freshwater marsh vegetation; as isolated occurrences, they are interspersed in non-native grassland. Seasonal wetlands support a sparse to dense cover of Baltic rush, curly dock, popcorn flowers, Bermuda grass, and prickly lettuce. Small patches of saltgrass can be observed as well. Seasonal wetlands are subject to Corps jurisdiction under Section 404 of the CWA. In addition, DFG has adopted a no-net-loss policy for wetlands (California Fish and Game Commission 1987).

Seasonal wetlands provide high-quality foraging and breeding habitat for wildlife. Many species of wildlife forage in seasonal wetlands during the winter and spring, including great blue herons, great egrets, greater yellowlegs, western sandpipers, killdeer, common snipes, American pipits, Pacific treefrogs, and garter snakes. Many animals also breed in or adjacent to seasonal wetlands, including pacific treefrogs, garter snakes, mallards, and killdeer. The seasonal wetlands in this study area also contain substantial populations of Congdon's tarplant or spikeweed, a state and federal candidate species of special concern.

Riparian Woodland and Scrub. Riparian woodland and scrub occurs along the channels of the East Fork of San Luis Obispo Creek, Tank Farm creek, which flanks the eastern side of the Unocal property, and along an artificially excavated basin at the south side of the Unocal property. Riparian woodland and scrub at the project site is dominated by arroyo willow with occasional interspersed cottonwoods and sycamores. Other species observed along the riparian woodland include poison oak, toyon, and teasel. Riparian woodland and scrub may be subject to Corps jurisdiction under Section 404 of the CWA. These communities are also considered sensitive natural communities by DFG.

Riparian woodland and scrub provides high-quality foraging and breeding habitat for wildlife. Riparian woodland and scrub has high biological productivity and species diversity because

of its multilayered vegetation and the presence of surface water. Wildlife species observed during the field survey include yellow-rumped warbler, Anna's hummingbird, lesser goldfinch, sharp-shinned hawk, downy woodpecker, white-crowned sparrow, and song sparrow.

Agricultural Fields. There are agricultural fields producing row crops in the Airport area north of Tank Farm Road and east of the Unocal property. Agricultural fields are locally and regionally common and are not considered sensitive resources.

Overall, agricultural fields have low to moderate value for wildlife because they have low biological diversity and are disturbed by human activity, and because pesticides are applied to them. Despite this fact, agricultural fields provide foraging habitat for common wildlife species, including red-tailed hawks, killdeer, American pipits, western meadowlarks, savanna sparrows, and house finches.

Ruderal and Developed Areas. Ruderal and developed areas can be found throughout the planning area. The County Airport and all associated facilities, the area between the airport and Broad Street, existing developments along Broad Street and South Higuera Street, and all existing roads and a few open fields dispersed among currently developed areas are characterized by ruderal vegetation. Ruderal and developed areas are locally and regionally common and are not considered sensitive resources.

Ruderal and developed areas have low wildlife value because they consist of non-native plants and occur in disturbed areas. These areas support common wildlife species including red-tailed hawks, American pipits, savanna sparrows, and house finches.

Airport Area Specific Plan Setting

The Airport area contains the following natural communities (Table 3C-2): non-native grasslands, including several large patches of valley needlegrass grassland; and a matrix of coyote brush scrub, open water, freshwater marsh and seasonal wetland, riparian woodland and scrub, agricultural fields, and developed and ruderal areas.

Table 3C-2. Airport Area Approximate Acreage by Habitat Type

Habitat Type	Hectares (Acres)
Annual grassland	26.45 (65.35)
Serpentine bunchgrass grassland	0.47 (1.17)
Valley needlegrass	8.48 (20.96)
Coyote bush scrub	0.76 (1.88)
Open water	0.28 (0.69)
Freshwater marsh	6.78 (16.76)
Wetland (existing and potential)	20.12 (49.72)
Riparian woodland and scrub	8.39 (20.72)
Agricultural field	39.52 (97.66)
Ruderal	156.38 (386.42)
Developed area	<u>136.61 (337.56)</u>
Total acreage	404.24 (998.90)

Margarita Area Specific Plan Setting

The Margarita area contains serpentine bunchgrass grassland, and non-native grassland that may include patches of valley needlegrass grassland as well as seasonal wetlands. The area also contains ruderal and developed area and riparian woodland and scrub habitat (Table 3C-3).

Table 3C-3. Margarita Area Approximate Acreage by Habitat Type

Habitat Type	Hectares (Acres)
Annual grassland	93.03 (229.89)
Serpentine bunchgrass grassland	53.44 (132.05)
Perennial grassland	0.11 (0.26)
Coyote bush scrub	0 (0)
Open water	0 (0)
Freshwater marsh	0.64 (1.59)
Wetland (existing and potential)	3.76 (9.30)
Riparian woodland and scrub	0.27 (0.66)
Agricultural field	3.13 (7.73)
Ruderal	5.11 (12.62)
Developed area	<u>7.97 (19.70)</u>
Total acreage	167.45 (413.80)

Special-Status Plant Species

A list of special-status plants species with the potential to occur in the project area was compiled based on information from DFG's California Natural Diversity Database (CNDDDB). This list is presented in Table 3C-4. Three special-status plant occurrences are currently known within the project area. Populations of rayless ragwort and San Luis Obispo Mariposa lily occur in the South Hill area. A large population of Congdon's tarplant was discovered in 1998 on the Unocal property. Most of the plants occur south of Tank Farm Road, but patches of the plant are also present in wetlands and low-lying areas north of Tank Farm Road. The rayless ragwort and San Luis Obispo Mariposa lily populations occur in an area designated as Open Space.

Special-Status Wildlife Species

Three special-status wildlife species are known to occur in or near the planning area on a regular basis (Table 3C-5). California red-legged frogs have been detected along San Luis Obispo Creek and Miozzi Creek, at El Chorro Regional Park, and at Camp San Luis Obispo National Guard Reservation. All streams and ponds in the planning area are considered red-legged frog aquatic habitat and the adjacent uplands are considered suitable upland habitat (e.g., dispersal corridors). The southwestern pond turtle has been detected in the streams around San Luis Obispo and in Acacia Creek. The streams in the planning area are considered suitable aquatic habitat and the upland grasslands in the planning area are considered suitable nesting habitat. Wintering monarch butterflies have been observed roosting in eucalyptus trees along Prefumo Creek south of Madonna Road and west of U.S. Highway 101 (U.S. 101) and about 0.25 mile north of Madonna Road near U.S. 101 and Higuera Street. There are no known wintering monarch butterfly sites in the planning area.

Twenty special-status wildlife species have potential to occur in the planning area because suitable habitat is present (Table 3C-5). Vernal pool fairy shrimp, California tiger salamander, western spadefoot toad, northern harrier, white-tailed kite, American peregrine falcon, sora, western burrowing owl, California horned lark, grasshopper sparrow, and tricolored blackbird could occur on the seasonal wetland and grassland habitat complexes in the planning area. The coast range newt, arroyo southwestern toad, silvery legless lizard, two-striped garter snake, white-tailed kite, belted kingfisher, least Bell's vireo, and yellow-breasted chat could occur along riparian and stream corridors in the planning area. The Pacific Townsend's big-eared bat could occur in abandoned buildings in the planning area.

IMPACTS AND MITIGATION

Introduction and Methodology

The proposed project's impacts on biological resources in the project area were evaluated based on a reconnaissance field survey conducted by a Jones & Stokes botanist and wildlife biologist in January 1998, review of habitat maps and pertinent literature, and the project description.

Before the field visit, a search of DFG's NDDDB was conducted for the U.S. Geological Survey (USGS) 7.5-minute San Luis Obispo and Pismo Beach topographic quadrangles to develop a list of special-status plant and wildlife species and sensitive natural communities with potential to occur in the project area. During the survey, a botanist, wildlife biologist, and the City's natural resources manager conducted a reconnaissance-level survey of the Unocal properties located in the center of the planning area. During the survey, the botanist and biologist walked the site and recorded plant and wildlife species encountered, habitat types occurring at the site, and general site conditions. A reconnaissance-level survey was also conducted of all other undeveloped areas in the project area. Habitat types were subsequently described and mapped (Figure 3C-1). Lists of plant and wildlife species encountered during the survey or mentioned in the text are included in Appendix B. Definitions of special-status species and sensitive natural communities are provided above. Another NDDDB search was conducted in December 2001.

Criteria for Determining Significance

Appendix G of the State CEQA Guidelines, city and county plans and policies, and professional judgment were used to determine whether implementing the proposed project would have a significant impact on biological resources. The City determined that implementation of the proposed project would have a significant impact on biological resources if it would:

- # substantially affect a special-status plant or animal species or the species' habitat;
- # interfere substantially with the movement of any resident wildlife species;
- # substantially affect, reduce the number of, or restrict the range of an endangered species, or the habitat of the species;
- # substantially diminish the acreage or value of local habitat for wildlife or plants;
- # cause the deterioration of existing wildlife habitat;
- # adversely affect significant riparian lands, wetlands, or other wildlife habitats;

Revised Table 3C-4. Special-Status Plant Species with the Potential to Occur at within the Project Area San Luis Obispo Airport and Margarita Area Project Sites

Common and Scientific Names	Status Federal/State/CNPS	Distribution	Habitat	Period Identifiable
Chorro Creek bog thistle <i>Cirsium fontinale</i> var. <i>obispoense</i>	E/E/1B	San Luis Obispo County	Serpentine seeps in chaparral and cismontane woodland	Feb - Jul
Jones' layia <i>Layia jonesii</i>	SC/--/1B	Monterey and San Luis Obispo Counties	Clay or serpentine outcrops in chaparral or valley and foothill grassland	Mar - May
Blockman's dudleya <i>Dudleya blochmaniae</i> ssp. <i>blockmaniae</i>	SC/--/1B	Coastal California from San Luis Obispo County south to Baja California	Coastal bluff scrub, coastal scrub, valley and foothill grassland; open rocky slopes, often on clay or serpentine substrates, below 450 meters elevation	Apr - Jun
San Luis Obispo mariposa lily <i>Calochortus obispoensis</i>	--/--/1B	San Luis Obispo County	Chaparral, coastal scrub, valley and foothill grassland, often on serpentine substrates, between 75 and 665 meters elevation	May - Jul
Gambel's watercress <i>Rorippa gambelii</i>	E/T/1B	San Luis Obispo County, Baja California; extirpated from Los Angeles, Orange and San Diego Counties	Freshwater or brackish marshes and swamps	Apr - Jun
San Luis Obispo sedge <i>Carex obispoensis</i>	--/--/1B	San Luis Obispo County	Closed cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland, often on serpentine seeps	Apr - Jun
Adobe sanicle <i>Sanicula maritima</i>	SC/R/1B	Monterey and San Luis Obispo Counties; extirpated from San Francisco and Alameda Counties	Chaparral, coastal prairie, meadows, valley and foothill grassland; on clay or serpentine substrates	Apr - May
Congdon's tarplant <i>Hemizonia parryi</i> ssp. <i>congdonii</i>	--/--/1B	Monterey and San Luis Obispo Counties; extirpated from Alameda, Contra Costa, Santa Cruz, Solano and possibly Santa Clara Counties	Valley and foothill grassland on alkaline substrates	Jun - Nov
Cambria morning glory <i>Calystegia subacaulis</i> ssp. <i>episcopalis</i>	SC/--/1B	San Luis Obispo County	Chaparral and cismontane woodland	Apr

Common and Scientific Names	Status Federal/State/CNPS	Distribution	Habitat	Period Identifiable
San Luis serpentine dudleya <i>Dudleya abramsii</i> ssp. <i>bettinae</i>	SC/--/1B	San Luis Obispo County	Chaparral, coastal scrub, valley and foothill grassland on serpentine substrates	May - Jul

^a Status explanations:

Federal

- E = listed as endangered under the federal Endangered Species Act.
- SC = species of concern; species for which existing information indicates it may warrant listing but for which substantial biological information to support a proposed rule is lacking.
- = no listing.

State

- E = listed as endangered under the California Endangered Species Act.
- R = listed as rare under the California Native Plant Protection Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.
- = no listing.

California Native Plant Society

- 1B = List 1B species: rare, threatened, or endangered in California and elsewhere.

Revised Table 3C-5. Special-Status Wildlife Species with the Potential to occur within the Project Area and Species of Concern That Are Known to Occur or Could Occur in the Plan Area

Common Name and Scientific Name	Status ^a	California Distribution	Habitats	Reason for Decline or Concern	Occurrence in Study Area
	Federal/State				
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T/--	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County; isolated populations also in Riverside County	Common in vernal pools; also found in sandstone rock outcrop pools	Habitat loss to agricultural and urban development	No records; potential habitat occurs in seasonal wetlands in the Plan Area
Monarch butterfly <i>Danaus plexippus</i>	--/SSR	Overwintering colonies along the California coast from Mendocino County in the north, to San Diego County in the south	Roosts in trees, such as eucalyptus, Monterey pine, and Monterey cypress	Loss, disturbance, and degradation of overwintering sites	No records in the Plan Area; Nearest known overwintering sites are near: Higuera Street and South Street; and along Prefumo Creek near Madonna Street and U.S. Highway 101; marginal potential roosting sites occur in the Plan Area
California tiger salamander <i>Ambystoma californiense</i>	C/SSC	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to Santa Barbara County	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy	Loss of grasslands, vernal pools, and other wetlands to agricultural development and urbanization	No records; the grasslands in the Plan Area are suitable upland habitat; the seasonal wetlands are suitable breeding and rearing habitat
Coast range newt <i>Taricha torosa torosa</i>	--/SSC	Historically from Mendocino County south to San Diego County	Frequents terrestrial habitats, but breed in ponds, reservoirs, and slow-moving streams	commercial exploitation; loss and degradation of stream habitats; stream sedimentation has resulted in greater filling and less frequent scouring of pools	No records in Plan Area; extinct and extant records further to the northwest and southwest; potential breeding habitat exists in the East Branch San Luis Obispo Creek, Acacia Creek, and Orcut Creek; upland areas could be used during seasonal movements
Western spadefoot <i>Scaphiopus hammondi</i>	SC/SSC	Sierra Nevada foothills, Central Valley, Coast Ranges, coastal counties in southern California	Shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands	Alteration of stream habitats by urbanization and hydroelectric projects, loss of seasonal wetlands and vernal pools	No records; seasonal wetlands and adjacent grasslands are suitable habitats
Arroyo southwestern toad <i>Bufo microscaphus californicus</i>	E/SSC	Along the coast and foothills from San Luis Obispo County to San Diego County and inland to San Bernardino County	Prefers sandy arroyos and river bottoms with open riparian vegetation in inland valleys and foothills; also may use flooded agricultural fields and irrigation ditches	Habitat loss from altered water flows, predation by non-native fishes	Nearest record is along the Salinas River; it is not clear at this time if the species-range includes the Plan Area

Common Name and Scientific Name	Status ^a	California Distribution	Habitats	Reason for Decline or Concern	Occurrence in Study Area
	Federal/State				
California red-legged frog <i>Rana aurora draytoni</i>	T/SSC	Found along the coast and coastal mountain ranges of California from Humboldt County to San Diego County; Sierra Nevada (midelevations [above 1,000 feet] from Butte County to Fresno County)	Permanent and semipermanent aquatic habitats, such as creeks and coldwater ponds, with emergent and submergent vegetation and riparian species along the edges; may estivate in rodent burrows or cracks during dry periods	Alteration of stream and wetland habitats, overharvesting (historically), habitat destruction, competition and predation by fish and bullfrogs	This species has been recorded in the vicinity of the Planning Area (i.e., San Luis Obispo Creek); the creeks, freshwater marshes, and ponds in the Plan Area are considered suitable breeding habitat for this species; individuals of this species could also move overland in the Plan Area.
Southwestern pond turtle <i>Clemmys marmorata pallida</i>	SC/SSC	Occurs along the central coast of California east to the Sierra Nevada and along the southern California coast inland to the Mojave and Sonora Deserts; range overlaps with that of the northwestern pond turtle throughout the Delta and in the Central Valley from Sacramento County to Tulare County	Woodlands, grasslands, and open forests; aquatic habitats, such as ponds, marshes, or streams, with rocky or muddy bottoms and vegetation for cover and food	Loss and alteration of aquatic and wetland habitats, habitat fragmentation	Has been recorded in a tributary of East Branch of San Luis Obispo Creek; the creeks in the Planning Area are suitable aquatic habitat and the grasslands are suitable nesting habitat
California horned lizard <i>Phrynosoma coronatum frontale</i>	SC/SSC	Sacramento Valley, including foothills, south to southern California; Coast Ranges south of Sonoma County; below 4,000 feet in northern California	Grasslands, brushlands, woodlands, and open coniferous forest with sandy or loose soil; requires abundant ant colonies for foraging	Loss and fragmentation of suitable habitats	No records; the Plan Area is probably marginal quality habitat
Silvery legless lizard <i>Anniella pulchra pulchra</i>	SC/SSC	Along the Coast, Transverse, and Peninsular Ranges from Contra Costa County to San Diego County with spotty occurrences in the San Joaquin Valley	Habitats with loose soil for burrowing or thick duff or leaf litter; often forages in leaf litter at plant bases; may be found on beaches, sandy washes, and in woodland, chaparral, and riparian areas	Loss and fragmentation of suitable habitats	No records; potential low-quality habitat exists along riparian corridors
Two-striped garter snake <i>Thamnophis hammondi</i>	SC/SSC	Coast Range from Monterey County to San Diego County	Perennial and intermittent streams with rocky beds bordered with willows or other thickets	Habitat loss and alteration	No records; potential habitat exists along streams in the Plan Area
White-tailed kite <i>Elanus leucurus</i>	--/FP	Lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging	Loss of grassland and wetland habitats to agriculture and urban development	No records; grasslands and seasonal wetlands are suitable foraging habitat in the Plan Area; the riparian habitats are potential nesting habitats; none observed during the field survey

Common Name and Scientific Name	Status ^a	California Distribution	Habitats	Reason for Decline or Concern	Occurrence in Study Area
	Federal/State				
Northern harrier <i>Circus cyaneus</i>	--/SSC2	Throughout lowland California; has been recorded in fall at high elevations	Grasslands, meadows, marshes, and seasonal and agricultural wetlands providing tall cover	Loss of habitat to agricultural and urban development	No records; none observed during the field survey; seasonal wetlands and grassland are suitable foraging habitats; low-quality nesting habitat exists in the grasslands
American peregrine falcon <i>Falco peregrinus anatum</i>	delisted/E	Permanent resident on the north and south Coast Ranges; may summer on the Cascade and Klamath Ranges south through the Sierra Nevada to Madera County; winters in the Central Valley south through the Transverse and Peninsular Ranges and the plains east of the Cascade Range	Nests and roosts on protected ledges of high cliffs, usually adjacent to lakes, rivers, or marshes that support large populations of other bird species	Pesticide contamination; population recovering	Potential occasional visitor
Sora <i>Porzana carolina</i>	--/SSC3	Resident and winter visitor in lowlands and foothills throughout California; rare on coastal slope north Humboldt County occurring only in winter; rare breeder on coastal slope south of Monterey County	Requires freshwater for breeding and in winter will also inhabit salt water marsh	Loss of habitat	No records; the freshwater marsh is suitable foraging and nesting habitat; potential nester in the Plan Area
Burrowing Owl <i>Athene cunicularia</i>	--/SSC1	Resident and winter visitor in lowlands and foothills throughout California; rare on coastal slope north Sonoma County, occurring only in winter	Prefers open habitats with scattered shrubs, posts, fences or other perches. Requires existing mammalian burrows for nesting; often found within ground squirrel colonies	Loss of habitat and pesticide use	No records; the grasslands are suitable foraging and nesting habitat; potential nester in the Plan Area
Belted Kingfisher <i>Ceryle alcyon</i>	--/SSC3	Resident and winter visitor near open water throughout California except for high elevations in the mountains	Found near open water. Requires existing suitable banks and/or cavities for nesting	Loss of habitat and aquatic prey	No records; the creek and marsh are suitable foraging and nesting habitat; potential nester in the Plan Area
Least Bell's vireo <i>Vireo bellii pusillus</i>	E/E	Small populations remain in southern Inyo, southern San Bernardino, Riverside, San Diego, Orange, Los Angeles, Ventura, and Santa Barbara Counties	Riparian thickets either near water or in dry portions of river bottoms; nests along margins of bushes and forages low to the ground; may also be found using mesquite and arrow weed in desert canyons	Loss of riparian breeding habitats, nest parasitism by brown-headed cowbirds	No records; the riparian habitats are probably unsuitable because the vegetation is sparse
California horned lark <i>Eremophila alpestris actia</i>	--/SSC3	San Joaquin Valley and the coast range from southern Humboldt County south to northern Baja California	Grasslands and other habitats with sparse vegetation throughout its range in California, usually where tall grass/herbaceous vegetation, large trees and shrubs are absent	Loss of habitat	No records; potential occasional visitor; open woodlands are absent in the Plan Area

Common Name and Scientific Name	Status ^a		California Distribution	Habitats	Reason for Decline or Concern	Occurrence in Study Area
	Federal/State					
Grasshopper Sparrow <i>Ammodramus savannarum</i>	--/SSC2		Local throughout its range in the Central Valley and adjacent foothills and the coast range from southern Humboldt County south to northern Baja California	Grasslands throughout its range in California, usually with tall grass and often with scattered herbaceous vegetation and shrubs.	Loss of habitat	No records; potential breeding bird in the Plan Area
Yellow-breasted Chat <i>Ammodramus savannarum</i>	--/SSC3		Common throughout its range in the western Sierra Nevada foothills and the coast range from Del Norte County south Sonoma County and becoming rare and local south to northern Baja California and in the Central Valley south through the desert regions	Dense riparian thickets; often with blackberry brambles	Loss of habitat	No records; potential breeding bird in the Plan Area
Tricolored blackbird <i>Agelaius tricolor</i>	--/SSC1		Central Valley and the coast range from central Humboldt County south to northern Baja California; rare north of Sonoma County	Freshwater marshes/ponds, blackberry brambles and sometime alfalfa fields for nesting colonies; grasslands, agricultural fields (alfalfa and row crops) and dairies for foraging.	Loss of habitat; disturbance of nesting colonies	No records; potential breeder and non-breeding visitor.
Pacific Townsend's (western) big-eared bat <i>Plecotus townsendii townsendii</i>	SC/SSC		Coastal regions from Del Norte County south to Santa Barbara County	Roosts in caves, tunnels, mines, and dark attics of abandoned buildings; very sensitive to disturbances and may abandon a roost after onsite visit	Unclear; possibly human disturbance to roost sites	No records; no caves, tunnels are present; if abandoned buildings are present in the ranch area, they could be present; otherwise the species probably does not occur in the Plan Area

^a Status definitions:

Federal

- E = listed as endangered under the federal Endangered Species Act.
- T = listed as threatened under the federal Endangered Species Act.
- C = species for which USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded.
- SC = species of concern; species for which existing information indicates it may warrant listing but for which substantial biological information to support a proposed rule is lacking.
- = no listing.

State

- E = listed as endangered under the California Endangered Species Act.
- R = listed as rare under the California Native Plant Protection Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.
- FP = fully protected under the California Fish and Game Code.
- SSC = species of special concern in California.
- = no listing.

- # result in the filling of jurisdictional wetlands; or
- # reduce the acreage of any agricultural crop that serves as valuable foraging or nesting habitat.

Summary of Impacts

This section evaluates biological resource impacts related to the proposed project and the three land use alternatives. For this evaluation, impacts have been assessed in 16 categories. Table 3C-6 provides an overview of the significance findings made for the proposed project and each of the alternatives. Mitigation measures identified below are in addition to the protective policies under Airport Area and Margarita Area Specific Plans. For example, policies under Airport Area Specific Plan Goals 3.1, 3.2, and 3.3 will protect and enhance riparian areas; policies under Goal 3.4 will protect and enhance wetlands; and policies under Goal 3.6 will protect special status species.

Proposed Project

Impact BIO-1: Loss or Temporary Disturbance of Annual Grassland

The Margarita area contains 93.03 hectares (229.89 acres) of annual grassland. Implementation of this portion of the project would result in the loss or temporary disturbance of annual grassland. Annual grassland is common locally and regionally; therefore, the loss of annual grassland is typically considered less than significant. However, large portions of the project area, including areas identified for facilities master plan improvements, have not been surveyed, and sensitive resources like seasonal wetlands and drainages, patches of valley needlegrass grassland, and populations of special-status species may be found interspersed in the annual grassland. Therefore, this impact is considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. Applications for subdivisions and development in grassland areas must include the result of the following surveys and studies:

- # surveys and mapping of special-status plants identified in Table 3C-4 during the appropriate identification periods;
- # surveys and mapping of special-status wildlife identified in Table 3C-5 during the

appropriate seasons;

- # mapping and quantification of valley needlegrass grassland inclusions;
- # delineation and quantification of waters of the United States, including wetlands, using the Corps' 1987 wetland delineation manual (Environmental Laboratory 1987);
- # identification of special-status species and species of local concern as identified in the (forthcoming) Conservation Element; and
- # mapping and quantification of habitat loss.

For areas of annual grassland that are determined to contain no special-status species, inclusions of valley needlegrass grassland, or seasonal wetland, no further mitigation is required. If sensitive resources are identified, please refer to the mitigation measures below to avoid, minimize, or compensate for significant impacts on these resources. This is not intended to limit other measures that the City may take regarding nonlisted species.

Funding Source: Developer
Implementing Party: Developer
Monitoring Agency: Corps, USFWS, DFG, City
Timing: Before any ground-disturbing activities

Impact BIO-2: Loss or Temporary Disturbance of Valley Needlegrass Grassland

Valley needlegrass grassland is found within annual grassland and ruderal areas of the Airport and Margarita areas. Patches of valley needlegrass grassland have been identified on the Unocal property of the Airport area. There may be additional patches within the annual grassland matrix of unsurveyed portions of the Airport and Margarita planning areas and facilities master plan service areas. Valley needlegrass grassland has suffered extensive losses statewide and is considered a sensitive natural community by DFG. The elimination or substantial degradation of this community is considered a *significant* impact.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Impact	Impact after Mitigation	Mitigation	Airport Area	Margarita Area	Facility Master Plans
Proposed Project					
BIO-1: Loss or Temporary Disturbance of Annual Grassland	LTS	BIO-1.1	S	S	S
BIO-2: Loss or Temporary Disturbance of Valley Needlegrass Grassland	LTS	BIO-1.1 BIO-2.1	S	S	S
BIO-3: Loss or Temporary Disturbance of Serpentine Bunchgrass Grassland	LTS	None required	N/A	LTS	LTS
BIO-4: Loss or Temporary Disturbance of Coyote Brush Scrub	LTS	None required	LTS	N/A	LTS
BIO-5: Loss or Temporary Disturbance of Open-Water Habitat	LTS	BIO-1.1 BIO-6.1	S	S	S
BIO-6: Loss or Temporary Disturbance of Freshwater Marsh	LTS	BIO-1.1 BIO-6.1	S	S	S
BIO-7: Loss or Temporary Disturbance of Seasonal Wetlands	LTS	BIO-1.1 BIO-6.1	S	S	S
BIO-8: Loss or Temporary Disturbance of Riparian Woodland and Scrub	LTS	BIO-8.1	S	S	S
BIO-9: Loss or Temporary Disturbance of Agricultural Fields <u>and Congdon's Tarplant</u>	LTS	BIO-1.1 BIO-9.1 BIO-9.2	S	N/A	S
BIO-10: Loss or Temporary Disturbance of Ruderal and Developed Areas	LTS	None required	LTS	LTS	LTS
BIO-11: Impacts on Special-Status Plant Species	LTS	BIO-1.1 BIO-9.1	S	S	S
BIO-12: Impacts on Non-Listed Special-Status Wildlife	LTS	BIO-1.1 <u>BIO-12.1</u> BIO-9.2	S	S	S
BIO-13: Potential Direct Mortality or Disturbance of California Red-Legged Frogs	LTS	BIO-13.1 BIO-13.2	S	S	S

Impact	Impact after Mitigation	Mitigation	Airport Area	Margarita Area	Facility Master Plans
BIO-14: Potential Direct Mortality of or Indirect Impacts on Vernal Pool Fairy Shrimp and California Tiger Salamanders	LTS	BIO-14.1	S	S	S
BIO-15: Potential Disturbance of American Peregrine Falcons	LTS	None required	LTS	LTS	LTS
BIO-16: Potential Disturbance of Least Bell's Vireo	LTS	BIO-16.1 BIO-16.2 BIO-16.3	S	S	S
BIO-17: Potential Direct Mortality of or Indirect Effects on Southwestern Pond Turtle	LTS	BIO-17.1 BIO-17.2	S	S	S
BIO-18: Potential Disturbance of Loggerhead Shrikes	LTS	None required	LTS	N/A	LTS
BIO-19: Potential Direct Mortality or Disturbance of California Horned Larks	LTS	None required	LTS	LTS	LTS

Alternative 1

Alternative 1 would have the same impacts as the proposed project.

Alternative 2

Alternative 2 would have the same impacts as the proposed project.

Alternative 3

Alternative 3 would have the same impacts as the proposed project.

Alternative 4

Alternative 4 would not result in any new biological resource impacts.

Impacts:

B = Beneficial

LTS = Less than significant

S = Significant

SU = Significant and Unavoidable

N/A = Not applicable

Mitigation Measure BIO-2.1. Avoid and Minimize Impacts on Valley Needlegrass Grassland. After areas of valley needlegrass grassland are mapped and quantified (Mitigation Measure BIO-1.1), the following steps should be implemented in order of preference:

- # Avoid stands of valley needlegrass grassland whenever possible; this may be achieved by setting aside areas that contain significant stands of valley needlegrass grassland as ecological buffers or nature preserves.
- # Minimize impacts on valley needlegrass grassland in areas that cannot be avoided completely; this may be achieved by placing orange construction barrier fencing or stakes and flags around the perimeter of needlegrass grassland stands and by restricting the operation of heavy equipment and other construction-related activities to the outside of these exclusion zones.
- # Compensate for unavoidable losses of valley needlegrass grassland with replacement plantings at an alternative mitigation site. The project proponent should develop a mitigation and monitoring plan in coordination with DFG that specifies replacement ratios, success criteria, monitoring and reporting needs, and remediation measures. Replacement plantings should be placed adjacent to existing preserved stands to encourage natural regeneration, ensure future preservation, and create enhanced habitat values.

Funding Source: Developer

Implementing Party: Developer

Monitoring Agency: DFG, City

Timing: Complete surveys, mapping, and mitigation plan before construction; implement replacement planting concurrent with construction; monitor, report, and implement remediation plantings as specified in mitigation and monitoring plan

Impact BIO-3: Loss or Temporary Disturbance of Serpentine Bunchgrass Grassland

Serpentine bunchgrass grassland occurs in the South Hills, which form the northern boundary of the Margarita area. Serpentine bunchgrass grasslands frequently provide suitable habitat for special-status plant species. The loss or temporary disturbance of serpentine bunchgrass grasslands is considered significant. However, the South Hills area would not be developed under the Margarita Area Specific Plan. Consequently, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-4: Loss or Temporary Disturbance of Coyote Brush Scrub

The Airport area contains approximately 0.76 hectare (1.88 acres) of coyote brush scrub. Coyote brush scrub is common locally and regionally; therefore, the loss or temporary disturbance of coyote brush scrub is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-5: Loss or Temporary Disturbance of Open-Water Habitat

The Airport area contains approximately 0.28 hectare (0.69 acre) of open-water habitat. There is open-water habitat on the Unocal property in the Airport area and in limited areas in the Margarita area and facilities master plan areas. Open-water habitat may qualify as other waters of the United States subject to Corps jurisdiction under Section 404 of the CWA. The potential loss of open-water habitat is considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-6.1. Avoid and Minimize Impacts on Wetland Habitat. This mitigation measure is described below.

Impact BIO-6: Loss or Temporary Disturbance of Freshwater Marsh

The Airport area contains approximately 6.78 hectares (16.76 acres) and the Margarita area contains approximately 0.64 hectares (1.59 acres) of freshwater marsh. Freshwater marsh is considered a sensitive natural community by DFG and is also considered a wetland subject to Corps jurisdiction under Section 404 of the CWA. Extensive stands of freshwater marsh have been documented on the Unocal property. Additional stands also occur along drainage ditches throughout the project area, including the facilities master plan areas, as well as in low-lying landscape positions throughout the area. Loss or temporary disturbance of freshwater marsh is considered a *significant* impact.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-6.1. Avoid and Minimize Impacts on Wetland Habitat. To avoid and minimize impacts to freshwater marsh and other wetland habitats, the project proponent will do all of the following:

- # obtain a qualified wetland ecologist to conduct a delineation of waters of the United States, including wetlands, at the project site;
- # obtain verification of the delineation from the Corps;
- # avoid identified waters of the United States and wetlands during project design to the extent possible and establish a buffer zone around jurisdictional features to be preserved;
- # obtain a permit from the Corps for any unavoidable “fill” of wetlands or other waters of the United States; and
- # develop and implement a mitigation and monitoring plan in coordination with the agencies to compensate for losses and to ensure no net loss of wetland habitat functions and values.

Funding Source: Developer

Implementing Party: Developer

Monitoring Agency: Corps, City

Timing: Before any ground-disturbing activities

Impact BIO-7: Loss or Temporary Disturbance of Seasonal Wetlands

The Airport area contains approximately 20.12 hectares (49.72 acres) and the Margarita area contains 3.76 hectares (9.30 acres) of existing and potential seasonal wetlands. Seasonal wetlands have been documented throughout the Unocal property in the Airport area and are likely present throughout unsurveyed portions of the planning area, including the facilities master plan service areas. Seasonal wetlands are considered sensitive natural communities by DFG and qualify as wetlands subject to Corps jurisdiction under Section 404 of the CWA. Impacts on seasonal wetlands are considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-6.1. Avoid and Minimize Impacts on Wetland Habitat. This mitigation measure is described above.

Impact BIO-8: Loss or Temporary Disturbance of Riparian Woodland and Scrub

The Airport area contains approximately 8.39 hectares (20.72 acres) of riparian woodland and scrub. Riparian woodland and scrub are found on the Unocal property, along the East Branch of Acacia Creek, and in other localized occurrences along unmapped drainage ditches or low-lying areas throughout the planning area and facilities master plan service areas. Additionally, the Margarita area contains 0.27 hectare (0.66 acre) of riparian woodland and scrub. Riparian woodland and scrub are considered sensitive natural communities by DFG and are likewise protected by the City General Plan and proposed Specific Plans' policies. The riparian woodland and scrub may also qualify as a wetlands subject to Corps jurisdiction under Section 404 of the CWA. Impacts on riparian woodland and scrub are considered *significant*.

Mitigation

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

Mitigation Measure BIO-8.1. Avoid Temporary Disturbance to Impacts on Riparian Forest-Woodland and Scrub by Complying with DFG and City General Plan Guidelines and Specific Plan requirements for Setbacks Regarding Riparian Corridors. The project proponent will do all of the following:

- # retain a qualified biologist to identify and map riparian woodland and scrub in the project area;
- # establish a buffer zone around the edge of the riparian habitat at a distance to be determined in cooperation with DFG and the City by installing orange construction fencing or poles and flags; and
- # restrict construction activities to the outside of the fenced buffer zone.

Funding Source: Developer

Implementing Party: Developer

Monitoring Agency: DFG, City

Timing: Before any ground-disturbing activities

Impact BIO-9: Loss or Temporary Disturbance of Agricultural Fields and Congdon's Tarplant

The Airport area contains approximately 39.52 hectares (97.66 acres) and the Margarita area contains approximately 2.97 hectares (7.33 acres) of agricultural fields. Agricultural fields are locally and regionally common. The loss or temporary disturbance of agricultural fields is generally considered less than significant from a biological standpoint. However, Congdon's tarplant, a special-status plant species, has been observed in fallow agricultural fields in the planning area. Therefore, impacts on agricultural fields and Congdon's tarplant are considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-9.1. Avoid or Minimize Impacts on Special-Status Plant Species. To avoid or minimize impacts on special-status plant species, the project proponent will do all of the following:

- # Whenever possible, set aside as nature preserve areas known to support large populations of special-status plants.
- # Ensure that a qualified botanist conducts surveys for special-status plant species in all portions of the planning area at the appropriate time when the plants are clearly identifiable. The botanist should document and map encountered populations.
- # Avoid or minimize impacts on special-status plant populations to the extent possible.
- # Compensate for the unavoidable loss or disturbance of special-status plant species. Compensation shall be implemented under a mitigation plan developed in conjunction with DFG and USFWS. The requirements for a mitigation plan will depend on the species affected by the project and the extent of impacts on the populations. Mitigation shall be implemented onsite whenever possible. Possible mitigation locations (but not required locations) for Congdon's tarplant include those areas of the Unocal site set aside as Open Space.

Funding Source: Developer

Implementing Party: Developer
Monitoring Agency: DFG, USFWS, City
Timing: Before any ground-disturbing activities

~~**Mitigation Measure BIO-9.2. Avoid or Minimize Impacts on Non-Listed, Special-Status Wildlife Species.** To avoid or minimize impacts on non-listed, special-status wildlife species (Table 3C-5), the project proponent will do all of the following:~~

- ~~# Ensure that a qualified biologist conducts surveys for non-listed special-status wildlife species in all portions of the planning area at the appropriate time for each species. The biologist should document and map encountered individuals.~~
- ~~# Avoid or minimize impacts on non-listed special-status wildlife populations and individuals to the extent possible.~~
- ~~# Ensure that a qualified biologist conducts protocol-level surveys for burrowing owls and if presence is confirmed, develops a mitigation plan following DFG guidelines.~~
- ~~# Surveys would be conducted at suitable breeding habitat for nesting tricolored blackbirds before construction begins. Surveys would be conducted 2–3 times during the nesting season (April 1–July 15). If nesting tricolored blackbirds are found, the project proponent shall avoid impacts on the species by one of two methods: avoiding construction within 500 feet of an active nesting colony during the nesting season or constructing the interceptor during the nonbreeding season (July 15–March 31). Barrier fencing would be used to establish buffer zones around the active colonies. Removal of suitable breeding habitat should also be minimized through the project design. If nesting habitat is unoccupied, construction in the area could occur at any time; however, removal of suitable breeding habitat should be minimized.~~
- ~~# Compensate for the unavoidable loss or disturbance of non-listed special-status wildlife species. Compensation shall be implemented under a mitigation plan developed in conjunction with DFG and USFWS. The requirements for a mitigation plan will depend on the species affected by the project and the extent of impacts on the populations. Mitigation shall be implemented onsite whenever possible.~~

~~**Funding Source:** Developer
Implementing Party: Developer
Monitoring Agency: DFG, USFWS, City
Timing: Before any ground-disturbing activities~~

Impact BIO-10: Loss or Temporary Disturbance of Ruderal and Developed Areas

Ruderal and developed areas are common locally and regionally and are not considered sensitive resources. They typically do not provide habitat for special-status species. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-11: Impacts on Special-Status Plant Species

Several occurrences of special-status plant species have been reported in the Margarita and Airport areas and the facilities master plan service areas. Populations of rayless ragwort and San Luis Obispo mariposa lily occur in the South Hills, which are part of the Margarita area. These occurrences are located in areas to be designated as Open Space; therefore, *no impact* on these populations is expected.

Many occurrences of Congdon's tarplant have recently been documented in the Margarita and Airport areas. Although most populations occur in wetland conditions in a grassland matrix, several populations have also been documented in disturbed areas, including fallow fields. Impacts on special-status plant species are considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-9.1. Avoid or Minimize Impacts on Special-Status Plant Species. This mitigation measure is described above.

Impact BIO-12: Impacts on Non-Listed Special-Status Wildlife Species

Several occurrences of special-status species have been reported in the Margarita and Airport areas. Many more special-status species have the potential for occurrence in these areas (Table 3C-5). Impacts on special-status wildlife species are considered *significant*.

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-9.2. Avoid or Minimize Impacts on Special-Status Wildlife Species. This mitigation measure is described above.

Mitigation Measure BIO-12.1. Avoid or Minimize Impacts on Non-Listed, Special-Status Wildlife Species. To avoid or minimize impacts on non-listed, special-status wildlife species (Table 3C-5), the project proponent will do all of the following:

- # Ensure that a qualified biologist conducts surveys for non-listed special-status wildlife species in all portions of the planning area at the appropriate time for each species. The biologist should document and map encountered individuals.
- # Avoid or minimize impacts on non-listed special-status wildlife populations and individuals to the extent possible.
- # Ensure that a qualified biologist conducts protocol-level surveys for burrowing owls and, if presence is confirmed, develops a mitigation plan following DFG guidelines.
- # Surveys would be conducted at suitable breeding habitat for nesting tricolored blackbirds before construction begins. Surveys would be conducted 2–3 times during the nesting season (April 1–July 15). If nesting tricolored blackbirds are found, the project proponent shall avoid impacts on the species by one of two methods: avoiding construction within 500 feet of an active nesting colony during the nesting season or constructing the interceptor during the nonbreeding season (July 15–March 31). Barrier fencing would be used to establish buffer zones around the active colonies. Removal of suitable breeding habitat should also be minimized through the project design. If nesting habitat is unoccupied, construction in the area could occur at any time; however, removal of suitable breeding habitat should be minimized.
- # Compensate for the unavoidable loss or disturbance of non-listed special-status wildlife species. Compensation shall be implemented under a mitigation plan developed in conjunction with DFG and USFWS. The requirements for a mitigation plan will depend on the species affected by the project and the extent of impacts on the populations. Mitigation shall be implemented onsite whenever possible.

Funding Source: Developer

Implementing Party: Developer

Monitoring Agency: DFG, USFWS, City

Timing: Before any ground-disturbing activities

Impact BIO-13: Potential Direct Mortality or Disturbance of California Red-Legged Frogs

California red-legged frogs have been observed in the creeks in the San Luis Obispo area, including Acacia Creek, the perennial stream on the eastern and southern edge of the Tank Farm. Implementing construction activities or projects in the Airport area, including the facilities master

plans could require removal of riparian or marsh vegetation or disturbance of stream habitat along the South Fork of Acacia Creek or ponds and marshes in the area. This could cause direct mortality of red-legged frogs or removal of their habitat. This potential impact on the California red-legged frog is considered *significant* because the Airport area, and to a lesser extent the Margarita area, are within the range of the species, suitable habitat is present, and the species has been recorded in the vicinity.

Mitigation

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

Mitigation Measure BIO-13.1. Avoid Potential Direct Mortality and Loss of California Red-Legged Frogs.

- # Prior to the initial site investigation and subsequent ground disturbing activities, a qualified biologist will instruct all project personnel in worker awareness training, including recognition of California red-legged frogs and their habitat.
- # A qualified biologist will conduct pre-construction surveys within the project area no earlier than 2 days before ground-disturbing activities.
- # No activities shall occur after October 15 or the onset of the rainy season, whichever occurs first, until May 1 except for during periods greater than 72 hours without precipitation. Activities can only resume after site inspection by a qualified biologist. The rainy season is defined as: a frontal system that results in depositing 0.25 inches or more of precipitation in one event.
- # Vehicles to and from the project site will be confined to existing roadways to minimize disturbance of habitat.
- # Prior to movement of a backhoe in the project area, a qualified biologist will make sure the route is clear of California red-legged frogs.
- # If a California red-legged frog is encountered during excavations, or any project activities, activities will cease until the frog is removed and relocated by a USFWS-approved biologist. Any incidental take will be reported to the USFWS immediately by telephone at (916) 414-6600.
- # If suitable wetland habitat is disturbed or removed, the project proponent will restore the suitable habitat back to its original value by covering bare areas with mulch and revegetating all cleared areas with wetland species that are currently found in the project area.

Funding Source: Developer
Implementing Party: Developer
Monitoring Agency: DFG, USFWS, City
Timing: Before any ground-disturbing activities

Impact BIO-14: Potential Direct Mortality of or Indirect Impacts on Vernal Pool Fairy Shrimp and California Tiger Salamanders

Implementing the specific plans could result in the loss of, or disturbance to, vernal pool fairy shrimp and California tiger salamanders (if they occur in the planning area) if there are vernal pools or other suitable seasonal wetlands within 250 feet of project activities. Direct or indirect impacts on vernal pool fairy shrimp and tiger salamanders are considered *significant* because the species are listed under the federal ESA and a candidate for federal listing, respectively.

Mitigation

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

Mitigation Measure BIO-14.1. Compensate for Direct and Indirect Impacts on Vernal Pool and Seasonal Wetland Vernal Pool Fairy Shrimp and California Tiger Salamander Habitat. If vernal pool fairy shrimp or tiger salamander habitat is present and cannot be avoided, the project proponent will compensate for direct and indirect effects on the habitat. The project proponent will conduct an onsite visit with USFWS and DFG to determine whether potential vernal pools or seasonal wetlands in the Airport and Margarita areas are suitable fairy shrimp and tiger salamander habitat. If there is no suitable fairy shrimp and tiger salamander habitat, no additional mitigation is needed. If there is suitable habitat, the project proponent can assume that it is occupied and mitigate the loss of habitat, or can retain a qualified biologist to conduct USFWS protocol-level surveys and determine presence or absence. These surveys typically require two seasons of surveys during the winter wet season; therefore, most project proponents assume presence and mitigate the loss of fairy shrimp and tiger salamander habitat. This compensation will be achieved by implementing the following measures, as described in the programmatic agreement between USFWS and the Corps:

- # Create suitable fairy shrimp habitat (i.e., vernal pools or other suitable seasonal wetlands) at a 1:1 ratio or other ratio approved by the USFWS. The habitat must be created at a location approved by USFWS.
- # Preserve suitable fairy shrimp habitat at a 2:1 ratio or other ratio approved by the USFWS. The habitat must be preserved at a location approved by USFWS.
- # Before construction starts, the project proponent will obtain authorization from USFWS to take listed fairy shrimp species that would be affected by the project. A biological opinion under the federal ESA may be needed from USFWS before construction begins.

This is not intended to limit mitigation should USFWS and the Corps require a different approach.

Funding Source: Developer
Implementing Party: Developer
Monitoring Agency: DFG, USFWS, City
Timing: Before any ground-disturbing activities

Impact BIO-15: Potential Disturbance of American Peregrine Falcons

The American peregrine falcon may occasionally hunt within the Airport Area and Margarita Area Specific Plan areas, including the facilities master plan areas. However, potential adverse impacts to prey populations, foraging habitat and to the falcons themselves is negligible and therefore is *less-than-significant*.

Mitigation

No mitigation is required.

Impact BIO-16: Potential Disturbance of Least Bell's Vireos

The least Bell's vireo may breed in dense riparian vegetation in the Airport Area and Margarita Area Specific Plan areas, including the facilities master plan areas. This bird is a rare breeding species in San Luis Obispo County. Because the least Bell's vireo habitat may be reduced, this impact is considered *significant*.

Mitigation

Mitigation Measure BIO-16.1. Conduct Protocol-Level Surveys for Least Bell's Vireo. If the species or appropriate habitat is present, then the project proponent will implement Mitigation Measure BIO-16.2.

Mitigation Measure BIO-16.2. Avoid Potential Direct Mortality and Loss of Least Bell's Vireo. The project proponent will consult with USFWS and DFG and possibly conduct a site visit with these agencies to develop measures to avoid and minimize potential impacts on this species along the stream in the Airport and Margarita areas. If potential impacts on least Bell's vireos can be avoided, no additional mitigation is needed. If potential impacts on the least Bell's vireo cannot be avoided, the project proponent will implement Mitigation Measure BIO-16.3.

Funding Source: Developer
Implementing Party: Developer
Monitoring Agency: DFG, USFWS, City
Timing: Before any ground-disturbing activities

Mitigation Measure BIO-16.3. Develop and Implement a Least Bell's Vireo Mitigation Plan. If potential impacts on the least Bell's vireo cannot be avoided along the creeks in the Airport area in the planning area, the project proponent will prepare and implement a mitigation plan and obtain the appropriate federal ESA permits, if necessary. The project proponent will consult with USFWS and DFG to determine whether additional mitigation is needed, and USFWS will assist the project proponent in determining whether incidental take authorization under the federal ESA is needed. The plan will need to include measures that would avoid and minimize impacts on the least Bell's vireo and additional habitat creation, enhancement, and management in the planning area.

Funding Source: Developer

Implementing Party: Developer

Monitoring Agency: DFG, USFWS, City

Timing: Before any ground-disturbing activities

Impact BIO-17: Potential Direct Mortality of or Indirect Impacts on Southwestern Pond Turtle

The southwestern pond turtle is known to occur in the tributaries of San Luis Obispo Creek, and it has been observed in riparian vegetation on the Tank Farm site (Entrix 1996). Pond turtles could occur in ponds in the Airport area; they could also nest in the grasslands there, especially at the Tank Farm. Implementing construction activities or projects in the Airport area could require removal or disturbance of riparian habitats, ponds, or grasslands, but a substantial amount of habitat would not be disturbed. This could cause short-term impacts on pond turtles in the Airport area. Depending on the year and the season, eliminating the reach of Orcutt Creek, modifying Acacia Creek (including mitigation enhancements for loss at Orcutt Creek), and developing the sports fields and Prado Road extension could have adverse impacts on pond turtles. Therefore, these potential impacts on the southwestern pond turtle are considered *significant*.

Mitigation

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

Mitigation Measure BIO-17.1. Avoid Potential Direct Mortality and Loss of Southwestern Pond Turtle. The project proponent will consult with USFWS and DFG and possibly conduct a site visit with these agencies to develop measures to avoid and minimize potential impacts on this species along the stream and wetlands (including ponds) in the Airport and Margarita areas. If potential impacts on the southwestern pond turtle can be avoided, no additional mitigation is needed. If potential impacts on the southwestern pond turtle cannot be avoided, the project proponent will implement Mitigation Measure BIO-17.2.

Funding Source: Developer

Implementing Party: Developer

Monitoring Agency: DFG, USFWS, City

Timing: Before any ground-disturbing activities

Mitigation Measure BIO-17.2. Develop and Implement a Southwestern Pond Turtle Mitigation Plan. If potential impacts on the southwestern pond turtle cannot be avoided along the creeks in the Airport area and marsh and other wetlands in the planning area, the project proponent will prepare and implement a mitigation plan and obtain the appropriate federal ESA permits, if necessary. The project proponent will consult with USFWS and DFG to determine whether additional mitigation is needed, and USFWS and the Corps will assist the project proponent in determining whether incidental take authorization under the federal ESA is needed. The plan will need to include measures that would avoid and minimize impacts on the southwestern pond turtle and additional habitat creation, enhancement, and management in the planning area.

Funding Source: Developer

Implementing Party: Developer

Monitoring Agency: DFG, USFWS, City

Timing: Before any ground-disturbing activities

Impact BIO-18: Potential Disturbance of Loggerhead Shrikes

The loggerhead shrike winters in grassland and agricultural lands in the Airport area and Margarita area, and it has been observed building a nest at the Tank Farm, which suggests that at least one breeding pair occurs in the area. This bird is an uncommon breeding species in San Luis Obispo County. Construction of the 27.28-hectare (67.4-acre) business park and 7.89-hectare (19.5-acre) Services and Manufacturing areas would eliminate 35.17 hectares (86.9 acres) of suitable loggerhead shrike habitat (grasslands and other herbaceous habitats) in the Airport area including the facilities master plan areas. The Airport Area Specific Plan would place 109.67 hectares (271 acres) in a Resource Protection area that would protect about 76% of the foraging habitat and protect the stream on the east side of the Tank Farm, which is considered potential nesting habitat for loggerhead shrikes. Because the majority of loggerhead shrike habitat would remain protected, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-19: Potential Direct Mortality or Disturbance of California Horned Larks

The California horned lark winters in grassland and agricultural lands in the Airport and Margarita areas. This species could also breed in the planning areas. This species is relatively common on the central coast. Construction of the 27.28-hectare (67.4-acre) business park and 7.89-hectare (19.5-acre) Services and Manufacturing areas would eliminate 35.17 hectares (86.9 acres) of suitable horned lark habitat (grasslands and other herbaceous habitats) in the Airport area. The Airport Area Specific Plan would place 109.67 hectares (271 acres) in a Resource Protection area

that would protect about 76% of the foraging and potential breeding habitat. Because the majority of horned lark habitat would remain protected, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 1

Implementation of Alternative 1 would result in impacts on biological resources similar to those covered by the proposed project analysis.

Impact BIO-1: Loss or Temporary Disturbance of Annual Grassland

Similar to the proposed project, Alternative 1 would result in the potential loss and temporary disturbance of annual grassland. The approximate acreage affected would be 110.62 hectares (273.35 acres). This is approximately 8.86 hectares (21.89 acres) less than the proposed project. However, large portions of the Alternative 1 site have not been surveyed, and sensitive resources like seasonal wetlands and drainages, patches of valley needlegrass grassland, and populations of special-status species may be found interspersed in the annual grassland. Therefore, this impact is considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Impact BIO-2: Loss or Temporary Disturbance of Valley Needlegrass Grassland

Similar to the proposed project, Alternative 1 would result in the potential loss and temporary disturbance of valley needlegrass grassland. The approximate acreage affected under this alternative would be approximately 45.58 hectares (112.64 acres) less than under the proposed project, as a smaller amount of annual grassland and ruderal area would be affected by Alternative 1. Valley needlegrass grassland has undergone extensive losses statewide and is considered a sensitive natural community by DFG. The elimination or substantial degradation of this community is considered a *significant* impact.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-2.1. Avoid and Minimize Impacts on Valley Needlegrass Grassland. This mitigation measure is described above.

Impact BIO-3: Loss or Temporary Disturbance of Serpentine Bunchgrass Grassland

Similar to the proposed project, Alternative 1 would result in the potential loss and temporary disturbance of serpentine bunchgrass grassland. The approximate acreage affected under this alternative would be approximately 1.38 hectares (3.42 acres) less than under the proposed project. Serpentine bunchgrass grasslands frequently provide suitable habitat for special-status plant species. The loss or temporary disturbance of serpentine bunchgrass grasslands is considered significant. However, the South Hills area would not be developed under Alternative 1. Consequently, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-4: Loss or Temporary Disturbance of Coyote Brush Scrub

Similar to the proposed project, Alternative 1 would result in the potential loss and temporary disturbance of coyote brush scrub. The approximate acreage affected under this alternative would be approximately 0.02 hectare (0.05 acre) less than under the proposed project. Coyote brush scrub is common locally and regionally. The loss or temporary disturbance of coyote brush scrub is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-5: Loss or Temporary Disturbance of Open-Water Habitat

Similar to the proposed project, Alternative 1 would result in the potential loss and temporary disturbance of open-water habitat. The approximate acreage affected under this alternative would be approximately 0.008 hectare (0.02 acre) less than under the proposed project. Open-water habitat may qualify as other waters of the United States subject to Corps jurisdiction under Section 404 of the CWA. The potential loss of open-water habitat is considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-6.1. Avoid and Minimize Impacts on Wetland Habitat. This mitigation measure is described above.

Impact BIO-6: Loss or Temporary Disturbance of Freshwater Marsh

Similar to the proposed project, Alternative 1 would result in the potential loss and temporary disturbance of freshwater marsh. The approximate acreage affected under this alternative would be approximately 0.19 hectare (0.47 acre) less than under the proposed project. Freshwater marsh is considered a sensitive natural community by DFG and is also considered a wetland subject to Corps jurisdiction under Section 404 of the CWA. Loss or temporary disturbance of freshwater marsh is considered a *significant* impact.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-6.1. Avoid and Minimize Impacts on Wetland Habitat. This mitigation measure is described above.

Impact BIO-7: Loss or Temporary Disturbance of Seasonal Wetlands

Similar to the proposed project, Alternative 1 would result in the potential loss and temporary disturbance of seasonal wetlands. The approximate acreage affected under this alternative would be approximately 1.98 hectares (4.89 acres) less than under the proposed project. Seasonal wetlands are considered sensitive natural communities by DFG and qualify as wetlands subject to Corps jurisdiction under Section 404 of the CWA. Impacts on seasonal wetlands are considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-6.1. Avoid and Minimize Impacts on Wetland Habitat. This mitigation measure is described above.

Impact BIO-8: Loss or Temporary Disturbance of Riparian Woodland and Scrub

Similar to the proposed project, Alternative 1 would result in the potential loss and temporary disturbance of seasonal wetlands. The approximate acreage affected under this alternative would be approximately 1.98 hectares (4.89 acres) less than under the proposed project. Riparian woodland and scrub are considered sensitive natural communities by DFG and are likewise protected by the City General Plan and proposed Specific Plans' policies. The riparian woodland and scrub may also qualify as a wetlands subject to Corps jurisdiction under Section 404 of the CWA. Impacts on riparian woodland and scrub are considered *significant*.

Mitigation

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

Mitigation Measure BIO-8.1. Avoid Temporary Disturbance to Impacts on Riparian Forest Woodland and Scrub by Complying with DFG and City General Plan Guidelines for Setbacks Regarding Riparian Corridors. This mitigation measure is described above.

Impact BIO-9: Loss or Temporary Disturbance of Agricultural Fields and Congdon's Tarplant

Similar to the proposed project, Alternative 1 would result in the potential loss and temporary disturbance of agricultural field habitat. The approximate acreage affected under this alternative would be approximately 26.64 hectares (65.84 acres) less than under the proposed project. The loss or temporary disturbance of agricultural fields is generally considered less than significant from a biological standpoint. However, Congdon's tarplant, a special-status plant species, has been observed in fallow agricultural fields in the planning area. Therefore, impacts on agricultural fields and Congdon's tarplant are considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-9.1. Avoid or Minimize Impacts on Special-Status Plant Species. This mitigation measure is described above.

~~**Mitigation Measure BIO-9.2. Avoid or Minimize Impacts on Non-Listed Special-Status Wildlife Species.** This mitigation measure is described above.~~

Impact BIO-10: Loss or Temporary Disturbance of Ruderal and Developed Areas

Similar to the proposed project, Alternative 1 would result in the potential loss and temporary disturbance of ruderal habitat. The approximate acreage affected under this alternative would be approximately 36.73 hectares (90.75 acres) less than under the proposed project. Ruderal and developed areas are common locally and regionally and are not considered sensitive resources. They typically do not provide habitat for special-status species. The loss or temporary disturbance of ruderal and developed areas is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-11: Impacts on Special-Status Plant Species

Potential impacts of Alternative 1 are similar to those of the proposed project except that the total area potentially affected is reduced from 571.70 hectares (1,412.7 acres) to 432.37 hectares (1,068.4 acres). Impacts on special-status plant species are considered *significant*.

Mitigation

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

Mitigation Measure BIO-9.1. Avoid or Minimize Impacts on Special-Status Plant Species. This mitigation measure is described above.

Impact BIO-12: Impacts on Non-Listed Special-Status Wildlife Species

Several occurrences of special-status species have been reported in the Margarita and Airport areas. Many more special-status species have the potential for occurrence in these areas (Table 3C-5). Impacts on special-status wildlife species are considered *significant*.

Mitigation Measure BIO-12.1-9.2: Avoid or Minimize Impacts on Special-Status Wildlife Species. This mitigation measure is described above.

Impact BIO-13: Potential Direct Mortality or Disturbance of California Red-Legged Frogs

Potential impacts of Alternative 1 are similar to those of the proposed project except that the total area potentially affected is reduced from 571.70 hectares (1,412.7 acres) to 432.37 hectares (1,068.4 acres). This is considered a *significant* impact.

Mitigation

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

Mitigation Measure BIO 13.1. Avoid Potential Direct Mortality and Loss of California Red-Legged Frogs. This mitigation measure is described above.

Mitigation Measure BIO-13.2. Develop and Implement a California Red-Legged Frog Mitigation Plan. This mitigation measure is described above.

Impact BIO-14: Potential Direct Mortality of or Indirect Impacts on Vernal Pool Fairy Shrimp and California Tiger Salamanders

Potential impacts of Alternative 1 are similar to those of the proposed project except that the total area potentially affected is reduced from 571.70 hectares (1,412.7 acres) to 432.37 hectares (1,068.4 acres). Direct or indirect impacts on vernal pool fairy shrimp and tiger salamanders are considered *significant* because the species are listed under the federal ESA and a candidate for federal listing, respectively.

Mitigation

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

Mitigation Measure BIO-14.1. Compensate for Direct and Indirect Impacts on Vernal Pool and Seasonal Wetland Vernal Pool Fairy Shrimp and California Tiger Salamander Habitat. This mitigation measure is described above.

Impact BIO-15: Potential Disturbance of American Peregrine Falcons

The American peregrine falcon may occasionally hunt within the Airport Area and Margarita Area Specific Plan areas. However, potential adverse impacts to prey populations, foraging habitat, and to the falcons themselves is negligible and therefore is *less-than-significant*.

Mitigation

No mitigation is required.

Impact BIO-16: Potential Disturbance of Least Bell's Vireos

The least Bell's vireo may breed in dense riparian vegetation in the Airport Area and Margarita Area Specific Plan areas. This bird is a rare breeding species in San Luis Obispo County. Because the least Bell's vireo habitat may be affected by flood control activities, this impact is considered *significant*.

Mitigation

Mitigation Measure BIO-16.1. Conduct Protocol-Level Surveys for Least Bell's Vireo. This mitigation measure is described above.

Mitigation Measure BIO-16.2. Avoid Potential Direct Mortality and Loss of Least Bell's Vireo. This mitigation measure is described above.

Mitigation Measure BIO-16.3. Develop and Implement a Least Bell's Vireo Mitigation Plan. This mitigation measure is described above.

Impact BIO-17: Potential Direct Mortality of or Indirect Impacts on Southwestern Pond Turtle

The southwestern pond turtle is known to occur in the tributaries of San Luis Obispo Creek, and it has been observed in riparian vegetation on the Tank Farm site (Entrix 1996). Pond turtles could occur in ponds in the Airport area; they could also nest in the grasslands there, especially at the Tank Farm. Implementing construction activities or projects in the Airport area could require removal or disturbance of riparian habitats, ponds, or grasslands, but a substantial amount of habitat would not be disturbed. This could cause short-term impacts on pond turtles in the Airport area. Depending on the year and the season, eliminating the reach of Orcutt Creek, modifying Acacia Creek (including mitigation enhancements for loss at Orcutt Creek), and developing the sports fields and Prado Road extension could have adverse impacts on pond turtles. Therefore, these potential impacts on the southwestern pond turtle are considered *significant*.

Mitigation

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

Mitigation Measure BIO-17.1. Avoid Potential Direct Mortality and Loss of Southwestern Pond Turtle. This mitigation measure is described above.

Mitigation Measure BIO-17.2. Develop and Implement a Southwestern Pond Turtle Mitigation Plan. This mitigation measure is described above.

Impact BIO-18: Potential Disturbance of Loggerhead Shrikes

The loggerhead shrike winters in grassland and agricultural lands in the Airport area and Margarita area, and it has been observed building a nest at the Tank Farm, which suggests that at least one breeding pair occurs in the area. This bird is an uncommon breeding species in San Luis Obispo County. Construction of the 27.28-hectare (67.4-acre) business park and 7.89-hectare (19.5-acre) Services and Manufacturing areas would eliminate 35.17 hectares (86.9 acres) of suitable loggerhead shrike habitat (grasslands and other herbaceous habitats) in the Airport area. The Airport Area Specific Plan would place 109.67 hectares (271 acres) in a Resource Protection area that would protect about 76% of the foraging habitat and protect the stream on the east side of the Tank Farm, which is considered potential nesting habitat for loggerhead shrikes. Because the majority of loggerhead shrike habitat would remain protected, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-19: Potential Direct Mortality or Disturbance of California Horned Larks

The California horned lark winters in grassland and agricultural lands in the Airport and Margarita areas. This species could also breed in the planning areas. This species is relatively common on the central coast. Construction of the 27.28-hectare (67.4-acre) business park and 7.89-hectare (19.5-acre) Services and Manufacturing areas would eliminate 35.17 hectares (86.9 acres) of suitable horned lark habitat (grasslands and other herbaceous habitats) in the Airport area. The Airport Area Specific Plan would place 109.67 hectares (271 acres) in a Resource Protection area that would protect about 76% of the foraging and potential breeding habitat. Because the majority of horned lark habitat would remain protected, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 2

Implementation of Alternative 2 would result in impacts on biological resources similar to those covered by the proposed project analysis.

Impact BIO-1: Loss or Temporary Disturbance of Annual Grassland

Similar to the proposed project, Alternative 2 would result in the potential loss and temporary disturbance of annual grassland. The approximate acreage affected under this alternative would be 152.32 hectares (376.40 acres). This is approximately 32.84 hectares (81.16 acres) more than the proposed project. However, large portions of the project area under Alternative 2 have not been surveyed, and sensitive resources such as seasonal wetlands and drainages, patches of valley needlegrass grassland, and populations of special-status species may be found interspersed in the annual grassland. Therefore, this impact is considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Impact BIO-2: Loss or Temporary Disturbance of Valley Needlegrass Grassland

Similar to the proposed project, Alternative 2 would result in the potential loss and temporary disturbance of valley needlegrass grassland. The approximate acreage affected under this alternative would be approximately 16.39 hectares (40.5 acres) more than under the proposed project, as a larger amount of annual grassland and ruderal area would be affected by Alternative 2. Valley needlegrass grassland has undergone extensive losses statewide and is considered a sensitive natural community by DFG. The elimination or substantial degradation of this community is considered a *significant* impact.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-2.1. Avoid and Minimize Impacts on Valley Needlegrass Grassland. This mitigation measure is described above.

Impact BIO-3: Loss or Temporary Disturbance of Serpentine Bunchgrass Grassland

Similar to the proposed project, Alternative 2 would result in the potential loss and temporary disturbance of serpentine bunchgrass grassland. The approximate acreage affected under this alternative would be approximately 2.17 hectares (5.37 acres) more than under the proposed project. Serpentine bunchgrass grasslands frequently provide suitable habitat for special-status plant species. The loss or temporary disturbance of serpentine bunchgrass grasslands is considered significant. However, the South Hills area would not be developed under Alternative 2. Consequently, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-4: Loss or Temporary Disturbance of Coyote Brush Scrub

Similar to the proposed project, Alternative 2 would result in the potential loss and temporary disturbance of coyote brush scrub. The approximate acreage affected under this alternative would be approximately 0.03 hectare (0.08 acre) more than under the proposed project. Coyote brush scrub is common locally and regionally. The loss or temporary disturbance of coyote brush scrub is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-5: Loss or Temporary Disturbance of Open-Water Habitat

Similar to the proposed project, Alternative 2 would result in the potential loss and temporary disturbance of open-water habitat. The approximate acreage affected under this alternative would be approximately 0.01 hectare (0.03 acre) more than under the proposed project. Open-water habitat may qualify as other waters of the United States subject to Corps jurisdiction under Section 404 of the CWA. The potential loss of open-water habitat is considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-6.1. Avoid and Minimize Impacts on Wetland Habitat. This mitigation measure is described above.

Impact BIO-6: Loss or Temporary Disturbance of Freshwater Marsh

Similar to the proposed project, Alternative 2 would result in the potential loss and temporary disturbance of freshwater marsh. The approximate acreage affected under this alternative would be approximately 1.13 hectares (2.78 acres) more than under the proposed project. Freshwater marsh is considered a sensitive natural community by DFG and is also considered a wetland subject to Corps jurisdiction under Section 404 of the CWA. Loss or temporary disturbance of freshwater marsh is considered a *significant* impact.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-6.1. Avoid and Minimize Impacts on Wetland Habitat. This mitigation measure is described above.

Impact BIO-7: Loss or Temporary Disturbance of Seasonal Wetlands

Similar to the proposed project, Alternative 2 would result in the potential loss and temporary disturbance of seasonal wetlands. The approximate acreage affected under this alternative would be approximately the same as under the proposed project. Seasonal wetlands are considered sensitive natural communities by DFG and qualify as wetlands subject to Corps jurisdiction under Section 404 of the CWA. Impacts on seasonal wetlands are considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-6.1. Avoid and Minimize Impacts on Wetland Habitat. This mitigation measure is described above.

Impact BIO-8: Loss or Temporary Disturbance of Riparian Woodland and Scrub

Similar to the proposed project, Alternative 2 would result in the potential loss and temporary disturbance of riparian woodland and scrub. The approximate acreage affected under this alternative would be approximately 1.44 hectares (3.55 acres) more than under the proposed project. Riparian woodland and scrub are considered sensitive natural communities by DFG and are likewise protected by the City General Plan and proposed Specific Plans' policies. The riparian woodland and scrub may also qualify as a wetlands subject to Corps jurisdiction under Section 404 of the CWA. Impacts on riparian woodland and scrub are considered *significant*.

Mitigation

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

Mitigation Measure BIO-8.1. Avoid Temporary Disturbance to Impacts on Riparian Forest Woodland and Scrub by Complying with DFG and City General Plan Guidelines for Setbacks Regarding Riparian Corridors. This mitigation measure is described above.

Impact BIO-9: Loss or Temporary Disturbance of Agricultural Fields and Congdon's Tarplant

Similar to the proposed project, Alternative 2 would result in the potential loss and temporary disturbance of agricultural field habitat. The approximate acreage affected under this alternative would be approximately 16.20 hectares (40.03 acres) less than under the proposed project. The loss or temporary disturbance of agricultural fields is generally considered less than significant from a biological standpoint. However, Congdon's tarplant, a special-status plant species, has been observed in fallow agricultural fields in the planning area. Therefore, impacts on agricultural fields and Congdon's tarplant are considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-9.1. Avoid and Minimize Impacts on Special-Status Plant Species. This mitigation measure is described above.

~~**Mitigation Measure BIO-9.2. Avoid or Minimize Impacts on Non-Listed Special-Status Wildlife Species.** This mitigation measure is described above.~~

Impact BIO-10: Loss or Temporary Disturbance of Ruderal and Developed Areas

Similar to the proposed project, Alternative 2 would result in the potential loss and temporary disturbance of ruderal habitat. The approximate acreage affected under this alternative would be approximately 16.43 hectares (40.61 acres) less than under the proposed project. Ruderal and developed areas are common locally and regionally and are not considered sensitive resources. They typically do not provide habitat for special-status species. The loss or temporary disturbance of ruderal and developed areas is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-11: Impacts on Special-Status Plant Species

Potential impacts of Alternative 2 are similar to those of the proposed project except that the total area potentially affected is reduced from 571.70 hectares (1,412.7 acres) to 532.29 hectares (1,315.3 acres). Impacts on special status-plant species are considered *significant*.

Mitigation

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

Mitigation Measure BIO-9.1. Avoid or Minimize Impacts on Special-Status Plant Species. This mitigation measure is described above.

Impact BIO-12: Impacts on Non-Listed, Special-Status Wildlife Species

Several occurrences of special-status species have been reported in the Margarita and Airport areas. Many more special-status species have the potential for occurrence in these areas (Table 3C-5). Impacts on special-status wildlife species are considered *significant*.

Mitigation Measure BIO-12.1-9.2. Avoid or Minimize Impacts on Special-Status Wildlife Species. This mitigation measure is described above.

Impact BIO-13: Potential Direct Mortality or Disturbance of California Red-Legged Frogs

Potential impacts of Alternative 2 are similar to those of the proposed project except that the total area potentially affected is reduced from 571.70 hectares (1,412.7 acres) to 532.29 hectares (1,315.3 acres). This is considered a *significant* impact.

Mitigation

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

Mitigation Measure BIO 13.1. Avoid Potential Direct Mortality and Loss of California Red-Legged Frogs. This mitigation measure is described above.

Mitigation Measure BIO-13.2. Develop and Implement a California Red-Legged Frog Mitigation Plan. This mitigation measure is described above.

Impact BIO-14: Potential Direct Mortality of or Indirect Impacts on Vernal Pool Fairy Shrimp and California Tiger Salamanders

Potential impacts of Alternative 2 are similar to those of the proposed project except that the total area potentially affected is reduced from 571.70 hectares (1,412.7 acres) to 532.29 hectares (1,315.3 acres). Direct or indirect impacts on vernal pool fairy shrimp and tiger salamanders are considered *significant* because the species are listed under the federal ESA and a candidate for federal listing, respectively.

Mitigation

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

Mitigation Measure BIO-14.1. Compensate for Direct and Indirect Impacts on Vernal Pool and Seasonal Wetland Vernal Pool Fairy Shrimp and California Tiger Salamander Habitat. This mitigation measure is described above.

Impact BIO-15: Potential Disturbance of American Peregrine Falcons

The American peregrine falcon may occasionally hunt within the Airport Area and Margarita Area Specific Plan areas. However, potential adverse impacts to prey populations, foraging habitat and to the falcons themselves is negligible and therefore is *less-than-significant*.

Mitigation

No mitigation is required.

Impact BIO-16: Potential Disturbance of Least Bell's Vireos

The least Bell's vireo may breed in dense riparian vegetation in the Airport Area and Margarita Area Specific Plan areas. This bird is a rare breeding species in San Luis Obispo County. Because the least Bell's vireo habitat may be affected by flood control activities, this impact is considered *significant*.

Mitigation

Mitigation Measure BIO-16.1. Conduct Protocol-Level Surveys for Least Bell's Vireo. This mitigation measure is described above.

Mitigation Measure BIO-16.2. Avoid Potential Direct Mortality and Loss of Least Bell's Vireo. This mitigation measure is described above.

Mitigation Measure BIO-16.3. Develop and Implement a Least Bell's Vireo Mitigation Plan. This mitigation measure is described above.

Impact BIO-17: Potential Direct Mortality of or Indirect Impacts on Southwestern Pond Turtle

The southwestern pond turtle is known to occur in the tributaries of San Luis Obispo Creek, and it has been observed in riparian vegetation on the Tank Farm site (Entrix 1996). Pond turtles could occur in ponds in the Airport area; they could also nest in the grasslands there, especially at the Tank Farm. Implementing construction activities or projects in the Airport area could require removal or disturbance of riparian habitats, ponds, or grasslands, but a substantial amount of habitat would not be disturbed. This could cause short-term impacts on pond turtles in the Airport area. Depending on the year and the season, eliminating the reach of Orcutt Creek, modifying Acacia Creek (including mitigation enhancements for loss at Orcutt Creek), and developing the sports fields and Prado Road extension could have adverse impacts on pond turtles. Therefore, these potential impacts on the southwestern pond turtle are considered *significant*.

Mitigation

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

Mitigation Measure BIO-17.1. Avoid Potential Direct Mortality and Loss of Southwestern Pond Turtle. This mitigation measure is described above.

Mitigation Measure BIO-17.2. Develop and Implement a Southwestern Pond Turtle Mitigation Plan. This mitigation measure is described above.

Impact BIO-18: Potential Disturbance of Loggerhead Shrikes

The loggerhead shrike winters in grassland and agricultural lands in the Airport area and Margarita area, and it has been observed building a nest at the Tank Farm, which suggests that at least one breeding pair occurs in the area. This bird is an uncommon breeding species in San Luis Obispo County. Construction of the 27.28-hectare (67.4-acre) business park and 7.89-hectare (19.5-acre) Services and Manufacturing areas would eliminate 35.17 hectares (86.9 acres) of suitable loggerhead shrike habitat (grasslands and other herbaceous habitats) in the Airport area. The Airport

Area Specific Plan would place 109.67 hectares (271 acres) in a Resource Protection area that would protect about 76% of the foraging habitat and protect the stream on the east side of the Tank Farm, which is considered potential nesting habitat for loggerhead shrikes. Because the majority of loggerhead shrike habitat would remain protected, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-19: Potential Direct Mortality or Disturbance of California Horned Larks

The California horned lark winters in grassland and agricultural lands in the Airport and Margarita areas. This species could also breed in the planning areas. This species is relatively common on the central coast. Construction of the 27.28-hectare (67.4-acre) business park and 7.89-hectare (19.5-acre) Services and Manufacturing areas would eliminate 35.17 hectares (86.9 acres) of suitable horned lark habitat (grasslands and other herbaceous habitats) in the Airport area. The Airport Area Specific Plan would place 109.67 hectares (271 acres) in a Resource Protection area that would protect about 76% of the foraging and potential breeding habitat. Because the majority of horned lark habitat would remain protected, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 3

Implementation of Alternative 3 would result in impacts on biological resources similar to those covered by the proposed project analysis.

Impact BIO-1: Loss or Temporary Disturbance of Annual Grassland

Similar to the proposed project, Alternative 3 would result in the potential loss and temporary disturbance of annual grassland. The approximate acreage affected under this alternative would be 147.08 hectares (363.44 acres). This is approximately 27.60 hectares (68.2 acres) more than the proposed project. However, large portions of the project area under Alternative 3 have not been surveyed, and sensitive resources such as seasonal wetlands and drainages, patches of valley needlegrass grassland, and populations of special-status species may be found interspersed in the annual grassland. Therefore, this impact is considered *potentially significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Impact BIO-2: Loss or Temporary Disturbance of Valley Needlegrass Grassland

Similar to the proposed project, Alternative 3 would result in the potential loss and temporary disturbance of valley needlegrass grassland. The approximate acreage affected under this alternative would be approximately 16.06 hectares (39.68 acres) more than under the proposed project, as a larger amount of annual grassland and ruderal area would be affected by Alternative 3. Valley needlegrass grassland has undergone extensive losses statewide and is considered a sensitive natural community by DFG. The elimination or substantial degradation of this community is considered a *significant* impact.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-2.1. Avoid and Minimize Impacts on Valley Needlegrass Grassland. This mitigation measure is described above.

Impact BIO-3: Loss or Temporary Disturbance of Serpentine Bunchgrass Grassland

Similar to the proposed project, Alternative 3 would result in the potential loss and temporary disturbance of serpentine bunchgrass grassland. The approximate acreage affected under this alternative would be approximately 0.24 hectare (0.6 acre) more than under the proposed project. Serpentine bunchgrass grasslands frequently provide suitable habitat for special-status plant species. The loss or temporary disturbance of serpentine bunchgrass grasslands is considered significant. However, the South Hills area would not be developed under Alternative 3. Consequently, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-4: Loss or Temporary Disturbance of Coyote Brush Scrub

Similar to the proposed project, Alternative 3 would result in the potential loss and temporary disturbance of Coyote Brush Scrub. The approximate acreage affected under this alternative would be approximately 0.004 hectare (0.01 acre) more than under the proposed project. Coyote brush scrub is common locally and regionally. The loss or temporary disturbance of coyote brush scrub is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-5: Loss or Temporary Disturbance of Open-Water Habitat

Similar to the proposed project, Alternative 3 would result in the potential loss and temporary disturbance of open-water habitat. The approximate acreage affected under this alternative would be approximately 0.18 hectare (0.44 acre) more than under the proposed project. Open-water habitat may qualify as other waters of the United States subject to Corps jurisdiction under Section 404 of the CWA. The potential loss of open-water habitat is considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-6.1. Avoid and Minimize Impacts on Wetland Habitat. This mitigation measure is described above.

Impact BIO-6: Loss or Temporary Disturbance of Freshwater Marsh

Similar to the proposed project, Alternative 3 would result in the potential loss and temporary disturbance of freshwater marsh. The approximate acreage affected under this alternative would be approximately 0.83 hectare (2.05 acres) more than under the proposed project. Freshwater marsh is considered a sensitive natural community by DFG and is also considered a wetland subject to Corps jurisdiction under Section 404 of the CWA. Loss or temporary disturbance of freshwater marsh is considered a *significant* impact.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-6.1. Avoid and Minimize Impacts on Wetland Habitat. This mitigation measure is described above.

Impact BIO-7: Loss or Temporary Disturbance of Seasonal Wetlands

Similar to the proposed project, Alternative 3 would result in the potential loss and temporary disturbance of seasonal wetlands. The approximate acreage affected under this alternative would be approximately 1.29 hectares (3.19 acres) more than under the proposed project. Seasonal wetlands are considered sensitive natural communities by DFG and qualify as wetlands subject to Corps jurisdiction under Section 404 of the CWA. Impacts on seasonal wetlands are considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-6.1. Avoid and Minimize Impacts on Wetland Habitat. This mitigation measure is described above.

Impact BIO-8: Loss or Temporary Disturbance of Riparian Woodland and Scrub

Similar to the proposed project, Alternative 3 would result in the potential loss and temporary disturbance of riparian woodland and scrub. The approximate acreage affected under this alternative would be approximately 3.21 hectares (7.93 acres) more than under the proposed project. Riparian woodland and scrub are considered sensitive natural communities by DFG and are likewise protected by the City General Plan and proposed Specific Plans' policies. The riparian woodland and scrub may also qualify as a wetlands subject to Corps jurisdiction under Section 404 of the CWA. Impacts on riparian woodland and scrub would be considered *significant*.

Mitigation

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

Mitigation Measure BIO-8.1. Avoid Temporary Disturbance to Impacts on Riparian Forest Woodland and Scrub by Complying with DFG and City General Plan Guidelines for Setbacks Regarding Riparian Corridors. This mitigation measure is described above.

Impact BIO-9: Loss or Temporary Disturbance of Agricultural Fields and Congdon's Tarplant

Similar to the proposed project, Alternative 3 would result in the potential loss and temporary disturbance of agricultural field habitat. The approximate acreage affected under this alternative would be approximately 88.12 hectares (217.75 acres) more than under the proposed project. The loss or temporary disturbance of agricultural fields is generally considered less than significant from a biological standpoint. However, Congdon's tarplant, a special-status plant species, has been observed in fallow agricultural fields in the planning area. Impacts on agricultural fields and Congdon's tarplant are considered *significant*.

Mitigation

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

Mitigation Measure BIO-1.1. Conduct Surveys for Wetland Resources, Sensitive Natural Communities, and Special-Status Species. This mitigation measure is described above.

Mitigation Measure BIO-9.1. Avoid and Minimize Impacts on Special-Status Plant Species. This mitigation measure is described above.

Mitigation Measure BIO-9.2. Avoid or Minimize Impacts on Non-Listed Special-Status Wildlife Species. This mitigation measure is described above.

Impact BIO-10: Loss or Temporary Disturbance of Ruderal and Developed Areas

Similar to the proposed project, Alternative 3 would result in the potential loss and temporary disturbance of ruderal habitat. The approximate acreage affected under this alternative would be approximately 11.54 hectares (28.52 acres) less than under the proposed project. Ruderal and developed areas are common locally and regionally and are not considered sensitive resources. They typically do not provide habitat for special-status species. The loss or temporary disturbance of ruderal and developed areas is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-11: Impacts on Special-Status Plant Species

Potential impacts of Alternative 3 are similar to those of the proposed project except that the total area potentially affected is increased from 571.70 hectares (1,412.7 acres) to 642.04 hectares (1,586.5 acres). Impacts on special-status plant species are considered *significant*.

Mitigation

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

Mitigation Measure BIO-9.1. Avoid or Minimize Impacts on Special-Status Plant Species. This mitigation measure is described above.

Impact BIO-12: Impacts on Non-Listed, Special-Status Wildlife Species

Several occurrences of special-status species have been reported in the Margarita and Airport areas. Many more special-status species have the potential for occurrence in these areas (Table 3C-5). Impacts on special-status wildlife species are considered *significant*.

Mitigation Measure BIO-12.1 9.2. Avoid or Minimize Impacts on Special-Status Wildlife Species. This mitigation measure is described above.

Impact BIO-13: Potential Direct Mortality or Disturbance of California Red-Legged Frogs

Potential impacts of Alternative 3 are similar to those of the proposed project except that the total area potentially affected is increased from 571.70 hectares (1,412.7 acres) to 642.04 hectares (1,586.5 acres). This is considered a *significant* impact.

Mitigation

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

Mitigation Measure BIO 13.1. Avoid Potential Direct Mortality and Loss of California Red-Legged Frogs. This mitigation measure is described above.

Mitigation Measure BIO-13.2. Develop and Implement a California Red-Legged Frog Mitigation Plan. This mitigation measure is described above.

Impact BIO-14: Potential Direct Mortality or Indirect Effects on Vernal Pool Fairy Shrimp and California Tiger Salamanders

Potential impacts of Alternative 3 are similar to those of the proposed project except that the total area potentially affected is increased from 571.70 hectares (1,412.7 acres) to 642.04 hectares (1,586.5 acres). Direct or indirect impacts on vernal pool fairy shrimp and tiger salamanders are considered *significant* because the species are listed under the federal ESA and a candidate for federal listing, respectively.

Mitigation

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

Mitigation Measure BIO-14.1. Compensate for Direct and Indirect Impacts on Vernal Pool and Seasonal Wetland Vernal Pool Fairy Shrimp and California Tiger Salamander Habitat. This mitigation measure is described above.

Impact BIO-15: Potential Disturbance of American Peregrine Falcons

The American peregrine falcon may occasionally hunt within the Airport Area and Margarita Area Specific Plan areas. However, potential adverse impacts to prey populations, foraging habitat, and to the falcons themselves is negligible and therefore is *less-than-significant*.

Mitigation

No mitigation is required.

Impact BIO-16: Potential Disturbance of Least Bell's Vireos

The least Bell's vireo may breed in dense riparian vegetation in the Airport Area and Margarita Area Specific Plan areas. This bird is a rare breeding species in San Luis Obispo County. Because the least Bell's vireo habitat may be affected by flood control activities, this impact is considered *significant*.

Mitigation

Mitigation Measure BIO-16.1. Conduct Protocol-Level Surveys for Least Bell's Vireo. This mitigation measure is described above.

Mitigation Measure BIO-16.2. Avoid Potential Direct Mortality and Loss of Least Bell's Vireo. This mitigation measure is described above.

Mitigation Measure BIO-16.3. Develop and Implement a Least Bell's Vireo Mitigation Plan. This mitigation measure is described above.

Impact BIO-17: Potential Direct Mortality of or Indirect Impacts on Southwestern Pond Turtle

The southwestern pond turtle is known to occur in the tributaries of San Luis Obispo Creek, and it has been observed in riparian vegetation on the Tank Farm site (Entrix 1996). Pond turtles could occur in ponds in the Airport area; they could also nest in the grasslands there, especially at the Tank Farm. Implementing construction activities or projects in the Airport area could require removal or disturbance of riparian habitats, ponds, or grasslands, but a substantial amount of habitat would not be disturbed. This could cause short-term impacts on pond turtles in the Airport area. Depending on the year and the season, eliminating the reach of Orcutt Creek, modifying Acacia Creek (including mitigation enhancements for loss at Orcutt Creek), and developing the sports fields and Prado Road extension could have adverse impacts on pond turtles. Therefore, these potential impacts on the southwestern pond turtle are considered *significant*.

Mitigation

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

Mitigation Measure BIO-17.1. Avoid Potential Direct Mortality and Loss of Southwestern Pond Turtle. This mitigation measure is described above.

Mitigation Measure BIO-17.2. Develop and Implement a Southwestern Pond Turtle Mitigation Plan. This mitigation measure is described above.

Impact BIO-18: Potential Disturbance of Loggerhead Shrikes

The loggerhead shrike winters in grassland and agricultural lands in the Airport area and Margarita area, and it has been observed building a nest at the Tank Farm, which suggests that at least one breeding pair occurs in the area. This bird is an uncommon breeding species in San Luis Obispo County. Construction of the 27.28-hectare (67.4-acre) business park and 7.89-hectare (19.5-acre) Services and Manufacturing areas would eliminate 35.17 hectares (86.9 acres) of suitable loggerhead shrike habitat (grasslands and other herbaceous habitats) in the Airport area. The Airport Area Specific Plan would place 109.67 hectares (271 acres) in a Resource Protection area that would protect about 76% of the foraging habitat and protect the stream on the east side of the Tank Farm, which is considered potential nesting habitat for loggerhead shrikes. Because the majority of loggerhead shrike habitat would remain protected, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact BIO-19: Potential Direct Mortality or Disturbance of California Horned Larks

The California horned lark winters in grassland and agricultural lands in the Airport and Margarita areas. This species could also breed in the planning areas. This species is relatively common on the central coast. Construction of the 27.28-hectare (67.4-acre) business park and 7.89-hectare (19.5-acre) Services and Manufacturing areas would eliminate 35.17 hectares (86.9 acres) of suitable horned lark habitat (grasslands and other herbaceous habitats) in the Airport area. The Airport Area Specific Plan would place 109.67 hectares (271 acres) in a Resource Protection area that would protect about 76% of the foraging and potential breeding habitat. Because the majority of horned lark habitat would remain protected, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 4 (No-Project Alternative)

Implementation of Alternative 4 would not result in any new impacts on biological resources.

Chapter 3D. Traffic and Circulation

INTRODUCTION

This section addresses the existing transportation system serving the Airport and Margarita Specific Plan areas and assesses the impacts of the proposed project at buildout and of alternatives (Alternatives 1, 2, and 3), including the No-Project Alternative (Alternative 4). The Airport and Margarita Specific Plan areas are located in the area denoted in Figure 2-2 roughly encompassing South Street to the north, Buckley Road to the south, Highway 101 to the west, and Broad Street to the east. This area is henceforth termed the study area.

The transportation system serving the study area is comprised of the roadway system, transit and public transportation, and alternative modes including carpooling, bicycling, and walking. Several major routes provide access to the study area: Highway 101, Broad Street (Highway 227), South Higuera Street, Tank Farm Road, and Los Osos Valley Road. Highway 101 is the primary regional transportation route serving San Luis Obispo. In the study area, access to and from Highway 101 is provided at three interchanges, Los Osos Valley Road, Prado Road and Madonna Road. From the interchanges, a system of streets collects and distributes traffic to and from the study area.

Public transit serving the study area is provided by SLO Transit (the city of San Luis Obispo's transit agency) and the San Luis Obispo Regional Transit Agency (SLORTA) (the countywide transit agency which operates the Central Coast Area Transit [CCAT]). Both agencies provide fixed-route bus service within San Luis Obispo, and provide bus routes and stops within the study area. CCAT's routes and stops within the study area are limited to two routes with three stops along South Higuera Street. AmTrak provides regional rail service in San Luis Obispo, with a station located near the City's Central Business District.

While the City of San Luis Obispo has a relatively comprehensive bicycle system, the study area is on the outskirts of the system and is not fully served by existing bicycle lanes or paths. Bicycle lanes, or paved shoulders, are located along South Higuera and Broad Streets, with minimal-width lanes on Tank Farm Road.

As described in the impact analysis, the road improvements planned required under the General Plan and required under the Specific Plans largely mitigate the potential impacts of the project on traffic and circulation. Impact topics assessed in this section are:

- # secondary impacts of road improvements;

- # LOS in excess of LOS D;
- # degradation of level of service at five intersections to LOS F during the p.m. peak-hour under no-project conditions;
- # capacity of current two-lane roads exceeded on an average weekday under no-project alternative;
- # addition of substantial traffic to existing roadways without adequate pedestrian and bicycle facilities and generation of pedestrian and bicycle travel on roadways and intersections without adequate and appropriate facilities for safe nonmotorized mobility under no-project alternative; and
- # increased demand for transit service under no-project alternative.

REGULATORY SETTING

City of San Luis Obispo 1994 Circulation Element

The City of San Luis Obispo 1994 Circulation Element of the General Plan adopted the following level of service (LOS) policies on city streets. Table 3D-1 presents the standard definitions of levels of service. The desired LOS for each of the roadways within the study area is LOS D. At LOS D drivers can expect delays of 25 to 40 seconds and sometimes have to wait through more than one cycle of a traffic signal.

The Circulation Element for San Luis Obispo's General Plan includes a management strategy so that levels of congestion do not exceed the peak-hour standard LOS D. To maintain these standards the City pursues the following strategy (General Plan Policy CI7.1):

- a. When traffic reaches LOS C, the City will pursue the following:
 - (1) Limit increases in all traffic via traffic management programs identified in the General Plan.
 - (2) Institute programs that require the use of alternative forms of transportation and establish policies and programs that act as disincentives to the use of vehicle.
 - (3) Make minor changes within existing roadways to improve pedestrian and bicycling safety while improving traffic flow.
- b. When traffic reaches LOS E, the City will consider the selective widening of arterial streets, regional routes and highways when improvements to public safety and traffic

flow outweigh the fiscal and environmental costs, and do not hinder the General Plan's alternative transportation policies.

Transportation Demand Management Programs

Employers provide Transportation Demand Management (TDM) to reduce the amount of peak period traffic, and employees are encouraged to use modes other than the single-occupant automobile as their primary mode of transportation to the workplace and to travel during non-peak times.

The City of San Luis Obispo has established a TDM program for its workforce of over 300 employees. Over the first 18 months of its existence, the City's program was successful in increasing AVR (average vehicle ridership) from 1.45 to 1.62. Additionally, the City is a member of the Ride-on Transportation Management Association with vanpool services being provided to some City employees. TDM measures being used and being considered to reduce the demand for downtown parking and traffic include:

- # providing preferential parking for vanpools and carpools,
- # reducing monthly pass costs based on vehicle occupancy,
- # lowering van pool fares,
- # increasing fees for long-term vehicle parking,
- # restructuring parking rates to foster use of underutilized parking spaces,
- # designating passenger pickup and discharge areas,
- # providing dedicated bike lanes,
- # changing codes to eliminate restrictions on working at home,
- # amending codes to require TDM measures in new development projects,
- # initiating telecommuting for City and County workers, and
- # increasing compressed work schedules.

The City's General Plan Circulation Element contains a traffic reduction component that specifies a number of policies and programs that support and encourage implementation of TDM measures for private employers. One program (Transit service program 2.9) in the General Plan encourages employers to purchase bulk transit passes and make these passes available to employees.

This will be an important TDM measure for the Airport Area due to its employee intensive land use plan.

The California Polytechnic State University is also currently operating a TDM program in cooperation with Ride-on Transportation. Shuttle rides and vanpools are provided for free or a discounted rate to medical centers, restaurants, the airport, Amtrak, and other locations. SLO Transit and SLORTA also participate in the TDM program by offering free rides or discounted fares to employees and students of the university.

These future and ongoing TDM programs may affect the residents and employees of the study area by providing TDM services for one end of their trip.

REGIONAL SETTING

Because of the interconnectivity of traffic on roadways, the discussion of traffic and circulation is not presented in separate discussions of the Airport and Margarita areas but instead is presented in a single discussion of the region.

Roadway System

The existing transportation system, planned expansions, and current operating levels are described in this section. In addition to the physical attributes of the system, the role of regulatory agencies is also described. The transportation discussion begins with a description of the roadway system.

Existing Roadway Conditions

Highway 101 is the major facility providing access to the City of San Luis Obispo and the study area. Additional regional access is provided via Santa Rosa Street (SR 1) and Broad Street (SR 227). Highway 1 is a north-south facility that extends through the City of San Luis Obispo to the northern and southern borders of the state of California. Highway 1 serves as a major recreational route between the Northern California, the Central Coast area, and Southern California. Highway 227 is primarily a rural highway that connects San Luis Obispo to Arroyo Grande and provides an alternative to Highway 101. Within San Luis Obispo, Highway 227 (Broad Street) serves as a major arterial street.

The roadway system within the City of San Luis Obispo and the study area is based on a conventional hierarchy of streets. The top of the hierarchy consists of the higher level arterial streets which carry large volumes of traffic to and from the freeway and between various areas in the City.

Collector streets that collect traffic from minor roadways in the residential, commercial and industrial areas feed the arterials. Collector streets are fed by local streets which are low volume, low speed streets intended primarily to provide access to adjacent property. These roadway designations are defined in the City's General Plan Circulation Element. All of the General Plan street designations are described below. While the study area does not presently contain all of the designated street types, many of these street types may be included in the development plans for the Specific Plan areas. A map of the roadway system serving the subject area, identifying the current and proposed roadway classifications, is presented in Figure 3D-1.

The streets are described as follows:

- # **Freeways.** Freeways are regional routes of significance with highly controlled access. Their purpose is to carry regional through traffic, and connect major communities and destinations. Access is provided by interchanges typically spaced one-mile or greater in urban areas. San Luis Obispo has numerous interchanges spaced substantially less than one mile. Highway 101 is the only freeway within the study area.
- # **Highway/regional route.** Highways or regional routes connect the City with other parts of the county and are used by people traveling throughout the county. These facilities are designated as primary traffic carriers. Segments of these routes leading into San Luis Obispo should include landscaped medians and roadside areas to better define them as community entryways. Broad Street (Highway 227) and Prado Road are the only designated highway/regional routes in the subject site. Los Osos Valley Road is also a regionally significant route connecting the study area to the communities of Baywood-Los Osos, and serves as regional access to Montana De Oro State Park.
- # **Arterial streets.** Arterial streets provide circulation between major activity centers and residential areas. Arterials have two to four-lane travel lanes with traffic signals at major intersections. Arterials in multi-lane form are divided by raised medians and provide limited access to adjoining development. Within the study area, the City's General Plan Circulation Element designates Buckley Road, South Higuera Street, and Los Osos Valley Road as arterials.
- # **Parkway arterials.** Parkway arterials are arterial streets with landscaped medians and roadside areas, where the number of cross streets is limited and direct access from fronting properties is discouraged. Within the study area Tank Farm Road and Los Osos Valley Road are designated as parkway arterials.
- # **Commercial collector streets.** Commercial collector streets collect traffic from commercial areas and channel it to arterials. Traffic is generally controlled at intersections along these facilities by signals but sometimes by all-way stops. Within the study area, Santa Fe Road, Industrial Way, and Sacramento Drive are designated as commercial collector streets.

- # **Residential collector streets.** Residential collector streets collect traffic from residential areas and channel it to arterials. Traffic is generally controlled at intersections along these facilities by signals but sometimes by all-way stops. Margarita Avenue is the only residential collector street in the study area.

- # **Local residential streets.** Local residential streets directly serve the residences front them and channel traffic to collector streets. These streets usually have low speeds and low volumes, and traffic control at intersections is generally limited to two-way or all-way stop control. There are various local residential streets in the northern end of the study area.

Existing Traffic Volumes

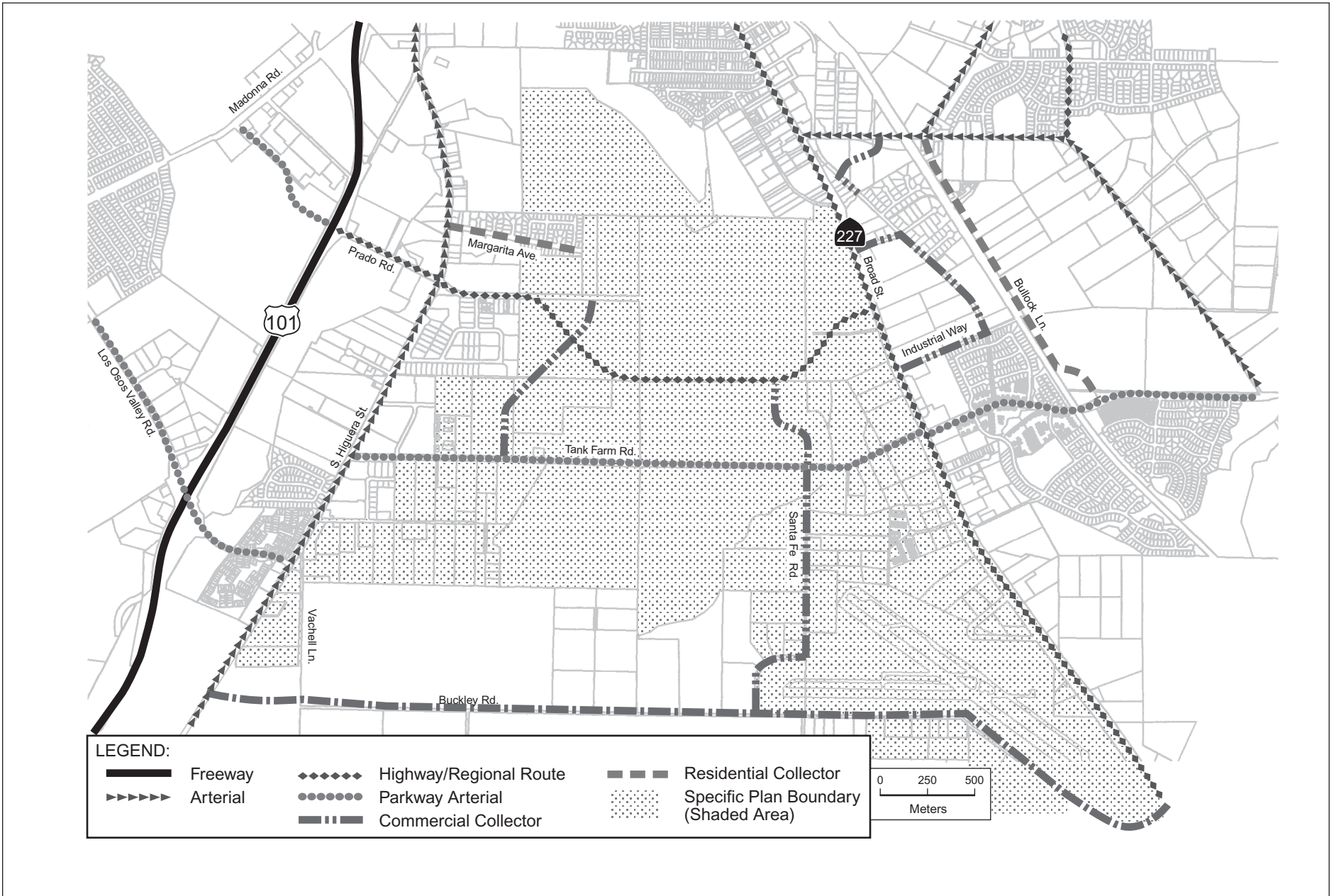
Traffic data used to define existing roadway and intersection service levels include average daily traffic (ADT) and peak-hour traffic volumes. The ADT is defined as the total number of vehicles passing a point on a roadway, in both directions, throughout a typical weekday. Figure 3D-2 presents the existing average daily traffic volumes. Peak-hour traffic is defined as the total number of vehicles passing a point on a roadway during the busiest one hour of a typical weekday. The peak-hour turning movement volumes are commonly used in traffic analysis to evaluate intersection operations. The intersection operations analyses in this study use the peak hour occurring between 4 and 6 p.m. Figure 3D-3 presents the existing p.m. peak-hour traffic volumes.

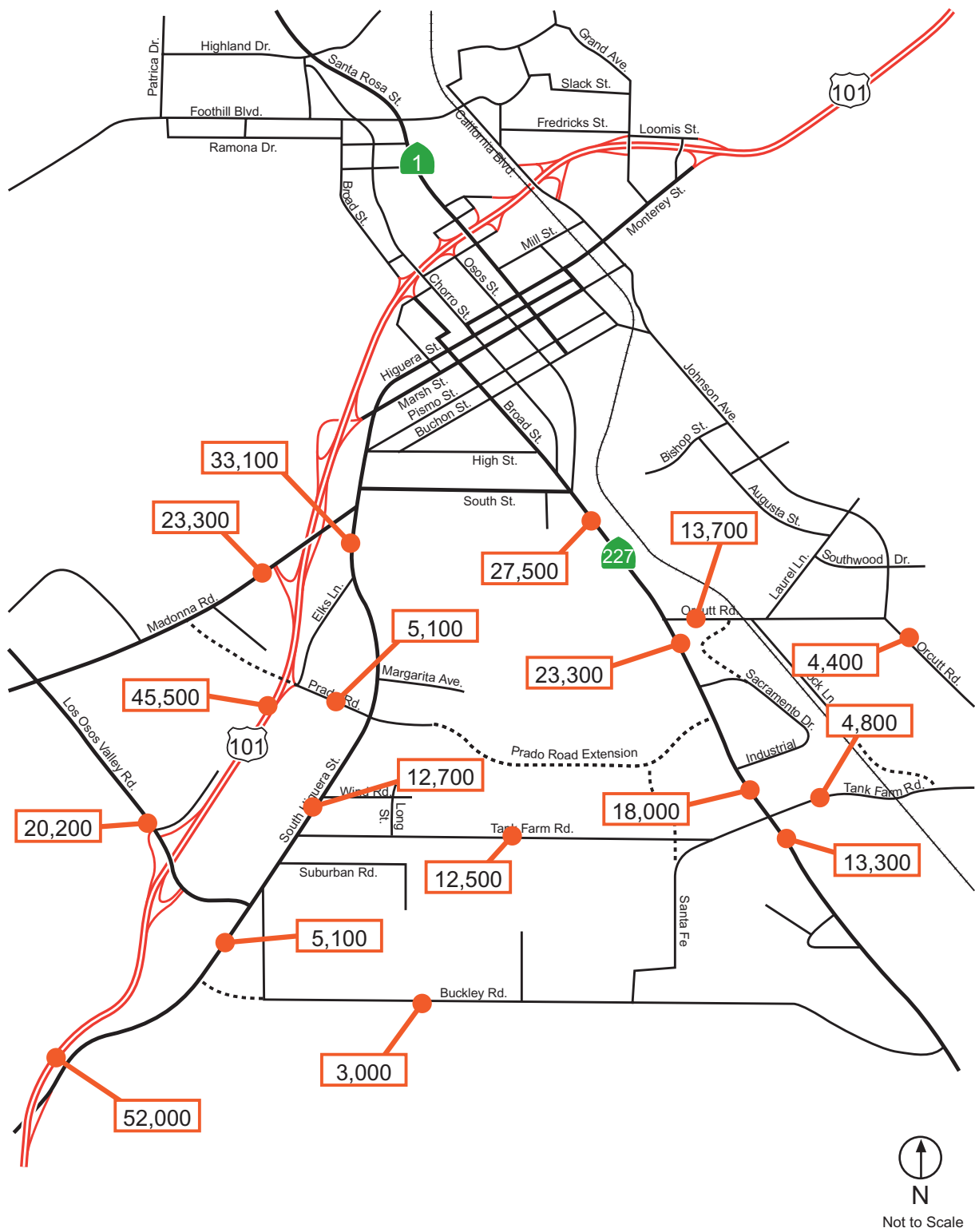
Peak-hour turning movement counts in the vicinity of the study area were collected for evaluation of intersection operations. The source of existing traffic volumes are (1) the 1996/97 count program undertaken the San Luis Obispo Model Update, (2) traffic counts conducted in 1996 for the 40 Prado Road Traffic Impact Study (March 26, 1996), (3) traffic counts conducted for the Devaul Ranch Traffic Impact Study (August, 1997), and (4) recent traffic counts (April 2001) at many of the study intersections. Figure 3D-3 presents the existing p.m. peak-hour traffic volumes at the study intersections.

Existing Traffic Operations

The operation of roadways and intersections are described by levels of service, which are qualitative descriptions ranging from Level A, or free flow operations with little or no delay, to Level F, or oversaturated conditions with excessive delays. LOS E represents conditions that border on the capacity of a roadway or intersection. The City of San Luis Obispo has adopted LOS D as the peak-hour standard for its signalized intersections. Table 3D-1 describes each LOS grade and the level of delay associated with each grade.

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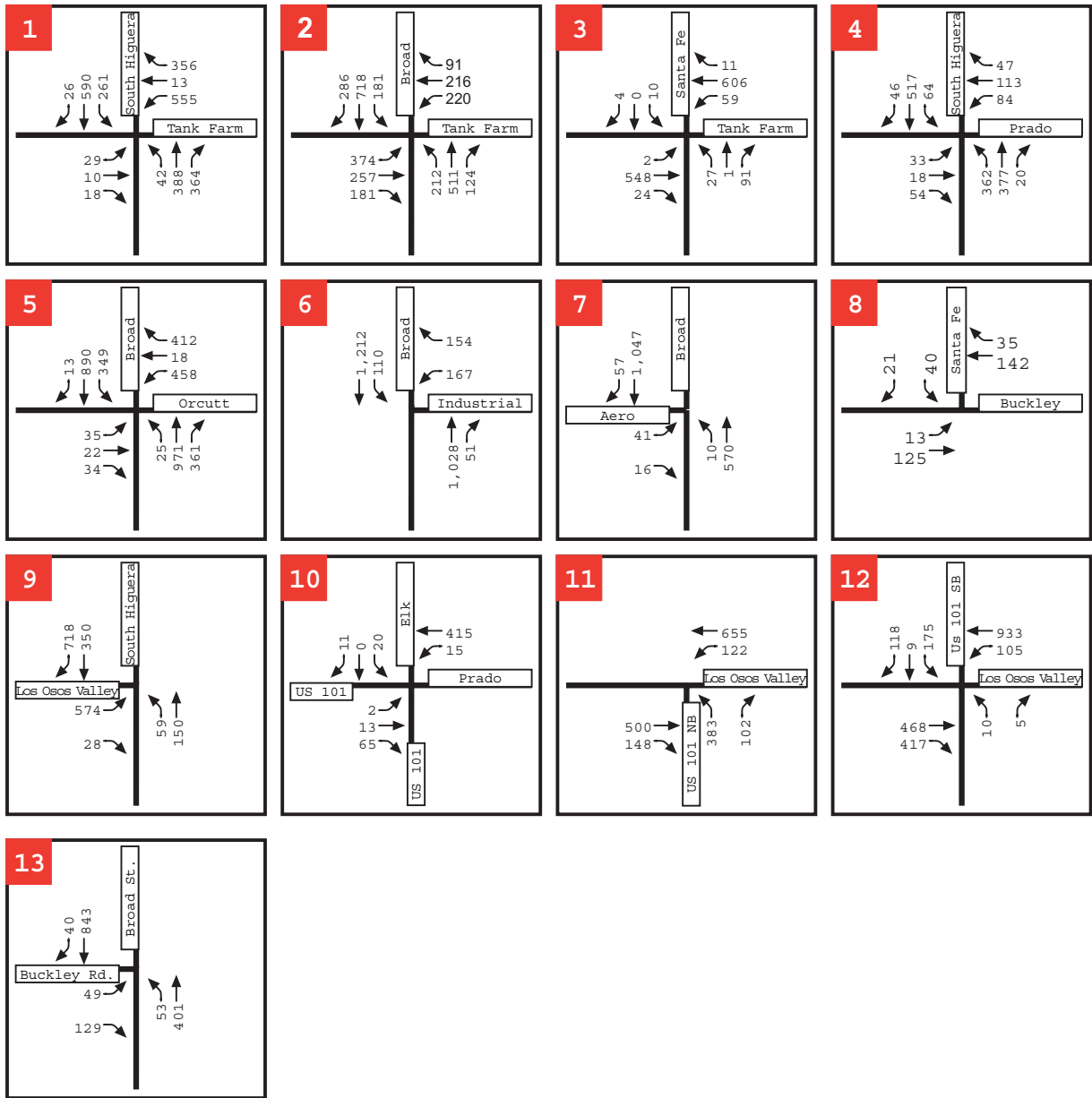


Table 3D-1. Intersection Service Level Criteria

Level of Service	Description	Average Stopped Delay Per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	≤ 5.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	5.1 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	15.1 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop and individual cycle failures are noticeable.	25.1 to 40.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	40.1 to 60.0
F	Operations with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 60.0

Source: Transportation Research Board, Highway Capacity Manual, 1994.

Intersection Operations. The peak hour is used for analysis purposes because it represents that period during the day when traffic levels are at their highest and capacity constraints are most noticeable. Figure 3D-4 presents the existing intersection configurations for the local streets (see intersections 1 through 9 and 13) as well as freeway interchange configurations (see intersections 10, 11, and 12). The p.m. peak-hour operation of the key intersections was evaluated using level of service methodology from the 1994 Highway Capacity Manual.

Table 3D-2 presents the existing p.m. peak-hour service levels at local intersections in the vicinity of the study area (i.e., intersections 1 through 9 and 13, as shown in Figure 3D-4; analysis of the freeway interchanges [intersections 10, 11, and 12] is shown in Table 3D-3 and discussed below, under “Freeway and Corridor Operations”). All of the signalized study intersections are operating at LOS C or better. The unsignalized study intersections operate at LOS B or better under the measure of overall intersection average delay. Some individual movements, however, operate at LOS D, LOS E, or LOS F as shown in Table 3D-2.

Revised Table 3D-2. Existing Intersection Level of Service for Local Intersections

Intersection	P.M. Peak Hour	
	Intersection Delay ^a	Intersection Level of Service
Tank Farm Road/South Higuera Street	12	B
Tank Farm Road/Broad Street	25	C
South Higuera Street/Los Osos Valley Road	19	C
Prado Road/South Higuera Street	18	C
Broad Street/Orcutt Road	20	C
Broad Street/Industrial Way	8	B
Broad Street/Aero Drive ^b	2	A
	(60)	(F EBL)
Broad Street/Buckley Road ^b	7	B
	(77)	(F W EBL)
Buckley Road/Santa Fe Road ^b	1	A
Tank Farm Road/Santa Fe Road ^b	2	A
	(25)	(D NBL)

^a For signalized intersections, average intersection delay per vehicle is reported. For side-street stop-controlled intersections, average intersection delay per vehicle and worst movement delay per vehicle is reported in parenthesis. E.g. (77) = seconds per vehicle, and (F WBL) = westbound left turn operates at LOS F.

^b Side street stop controlled intersection.

Traffic counts conducted in April 2001.

Source: Fehr & Peers Associates 2001. Source: Fehr & Peers Associates 2001.

Freeway and Corridor Operations. Highway 101 is the only freeway in the vicinity of the study area, with an ADT of 45,000 vehicles per day (vpd). Daily traffic volume thresholds¹ are often used to evaluate the LOS of freeways and other roadway segments. Based on this method, Highway 101 presently operates at LOS C. Arterial street corridors within the study area were evaluated to determine existing levels of service. Based on average daily traffic volume thresholds, the LOS for key roadways in the study area presented in Table 3D-3. All of the roadway segments are operating at LOS D or better.

¹ Level of service thresholds are based on maximum ADT volumes from the Florida Department of Transportation capacity tables. These tables are based on the methodologies of the Transportation Research Board Highway Capacity Manual.

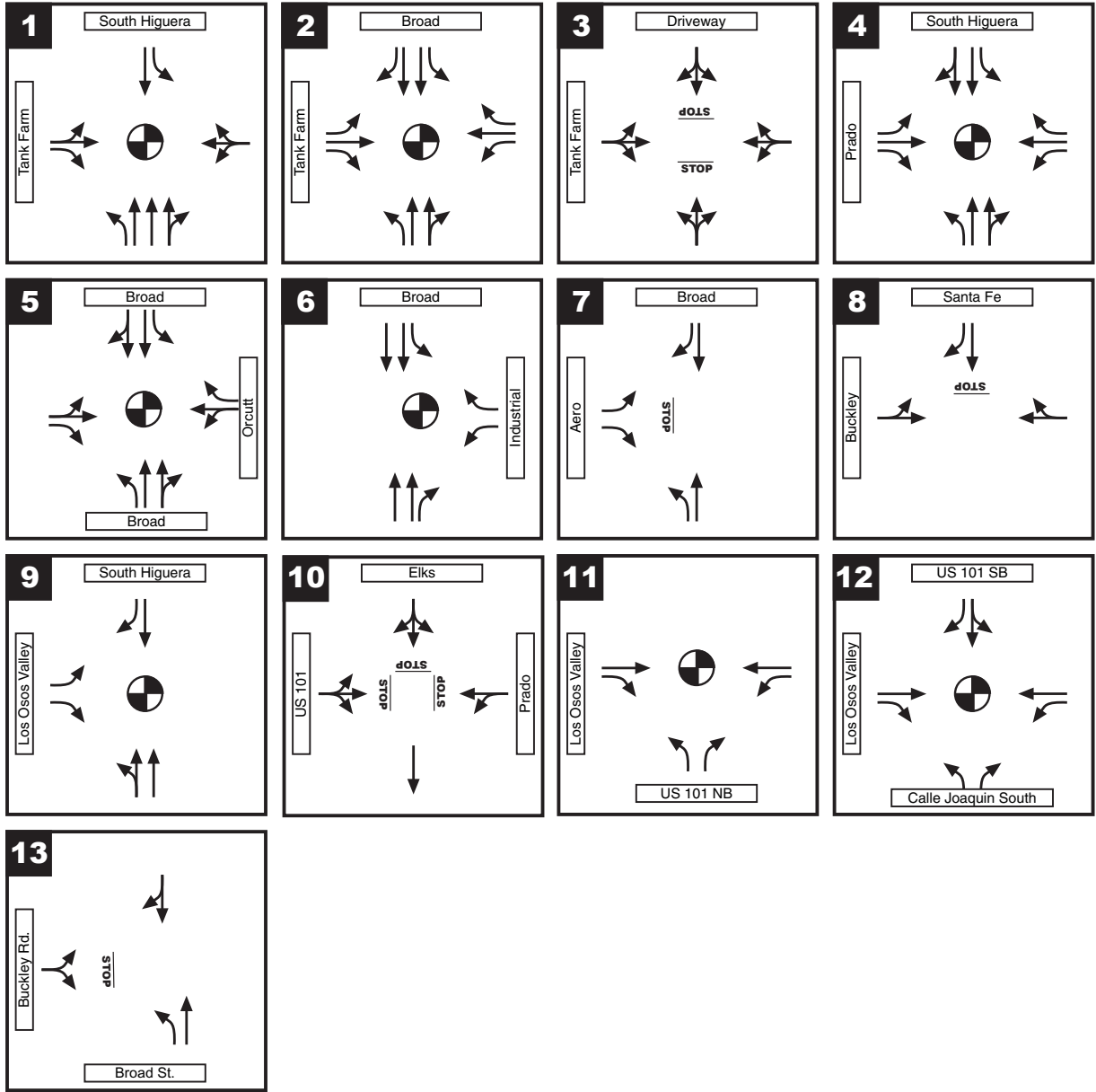


Table 3D-3. Corridor Level of Service

Corridor	P.M. Peak Hour		
	Number of Lanes	Average Daily Traffic	Corridor Level of Service ^a
Broad Street			
Orcutt Road to Tank Farm Road	4	23,300	D
Tank Farm Road to 4 km south of Buckley Road	2	13,300	B
South Higuera Street			
Highway 101 to Los Osos Valley Road	2	5,100	B
Los Osos Valley Road to Tank Farm Road	4	15,000	B
Tank Farm Road to Prado Road	4	12,700	B
Tank Farm Road			
Broad Street to Higuera Street	2-4	12,500	B

^a Level of service thresholds are based maximum ADT volumes from the Florida Department of Transportation capacity tables. These tables are based on the methodologies of the Transportation Research Board Highway Capacity Manual.

Mode Split and Commute Patterns

This section describes citywide commuter travel characteristics. While broader in scope, this information generally reflects travel patterns within the study area. An analysis of the locations where San Luis Obispo residents work, and where those who work in the City live, can help focus future transportation and transit planning efforts.

San Luis Obispo's residents and employees use a variety of modes for travel. Census data from 1990 (2000 census data is not yet available), presented in Table 3D-4, show most people who reside in San Luis Obispo drive alone to work (73.5%), with a moderate share using carpools and vanpools (8.9%), and small shares using public transit (2.0%). A comparatively high proportion of San Luis Obispo residents travel to work by foot (7.6%) and bicycle (4.8%). People traveling to jobs in San Luis Obispo primarily use single-occupant vehicles (75.2%), with carpools/vanpools providing the second highest mode share at 13.3%. Approximately 1.4% of San Luis Obispo workers use transit as their mode of travel to work. Again, walking and bicycling account for a comparatively high proportion of travel to work. In 1990 bicycles accounted for 2.9% of travel while walking represented a 5.1% share.

Table 3D-4. Modal Shares of San Luis Obispo Residents and Employees

Transportation Mode	Share (%)	
	Residents ^a	Workers ^b
Drive alone	73.5	75.2
Carpool/vanpool	8.9	13.3
Bus	2.0	1.4
Rail	0	0
Bicycle	4.8	2.9
Walk	7.6	5.1
Other	3.2 ^c	2.1 ^d

^a Residents of San Luis Obispo 16 and older; may work in San Luis Obispo or elsewhere.

^b People employed in San Luis Obispo; may live in San Luis Obispo or elsewhere.

^c Motorcycle 2.5%, other 0.7%

^d Motorcycle 1.5%; other 0.6%.

Source: U.S. Census 1990.

Table 3D-5 shows the primary work locations for San Luis Obispo residents in 1990, based on U.S. Census data. In 1990, 75% of the City's residents worked in San Luis Obispo. The remaining 25% worked in many communities within the county, but no more than 2% at any given location. The data indicates that the vast majority of commute trips made by San Luis Obispo residents remain internal to the City.

The data in Table 3D-5 also indicate that there is a greater potential for San Luis Obispo residents to use alternative forms of transportation to travel to and from work, than is currently being used.

Table 3D-6 identifies the primary cities where those working in San Luis Obispo resided in 1990. The most notable findings are that of the top cities; 73% of employees working in San Luis Obispo live in San Luis Obispo County and a large proportion (44%) live in the City of San Luis Obispo. Again, this finding supports the potential for increased use of alternative modes for travel to and from work.

Table 3D-5. San Luis Obispo Residents Top Places of Work: 1990

Place of Work	Share %	
	Residents	% of Total
San Luis Obispo	14,920	75.0
Atascadero	316	1.6
Pismo Beach	315	1.6
Arroyo Grande	267	1.3
Morro Bay	236	1.2
El Paso de Robles	203	1.0
Santa Maria	179	0.9
Baywood-Los Osos	166	0.8
Cambria	117	0.6
Grover City	108	0.5
Total	16,827	

Source: U.S. Census 1990.

Table 3D-6. San Luis Obispo Workers Top Places of Residence: 1990

Place of Residence	Share (%)	
	Workers	% of Total
San Luis Obispo	14,920	44.4
Baywood-Los Osos	2,701	8.0
Atascadero	2,368	7.0
Grover City	1,406	4.2
Morro Bay	1,377	4.1
Arroyo Grande	1,193	3.6
Pismo Beach	1,177	3.5
El Paso de Robles	696	2.1
Oceana	624	1.9
Santa Maria	514	1.5
Total	26,976	

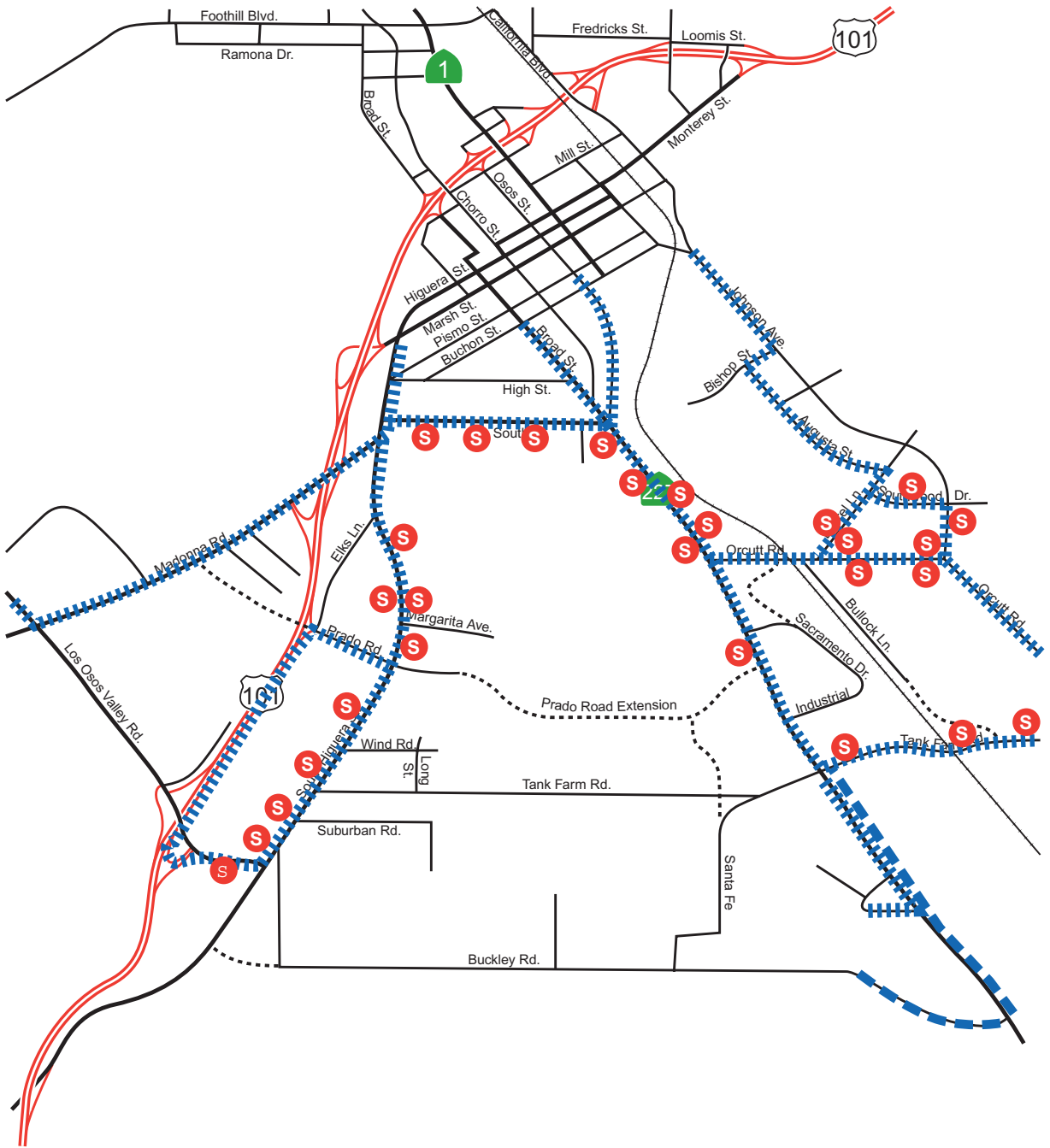
Source: U.S. Census 1990.

Public Transportation

Regional and local public transportation serves City of San Luis Obispo with bus services provided by SLO Transit and SLORTA. Each transit service is described below. Existing and planned transit routes are presented in Figure 3D-5.


San Luis Obispo Transit

SLO Transit serves the City of San Luis Obispo, Cal Poly University, the County Airport, and the Foothill-O'Conner Way residential area in the County. These areas are served by six bus routes. Four of these routes (Routes 1, 2, 3, and 6) serve the study area with 15- to 30-minute frequencies. The SLO Transit route system was substantially modified and expanded starting in 1999, and now serves a greater area with equal or higher frequencies than previously.



Key:

- - - - - SLO-Tran Transit Routes
- - - - - Possible Future Transit Routes
- S Bus Stop


 N
 Not to Scale

San Luis Obispo Regional Transit Authority

SLORTA is a Joint Powers Agency made up of the incorporated cities (Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Roble, Pismo Beach, and San Luis Obispo) and the County of San Luis Obispo, which represents all unincorporated areas. Funding for SLORTA is from federal and local sources, including funds from the Transportation Development Act (TDA). TDA revenues are derived from a state tax on gasoline and diesel fuel. TDA is apportioned to the cities and unincorporated areas in San Luis Obispo County by the Council of Governments based upon population.

SLORTA's CCAT service provides regional access to the City of San Luis Obispo via Highways 1 and 101, and on City surface streets. These routes terminate in the City at the City Hall transfer station. CCAT provides ~~two~~ three routes that have stops within the study area, with three stops along South Higuera Street.

Paratransit Services

Paratransit is a demand-responsive service utilizing vans and small buses to provide door to door service for those who cannot or choose not to drive. Paratransit services are provided by SLORTA and by Ride-On Transportation. Ride-on Transportation is a community based, cooperative organization of local employers and transportation providers whose purpose is to provide affordable transportation to the people and employers of San Luis Obispo County. Both of these organizations provide paratransit services for passengers with special needs, such as the disabled and elderly. Additionally, SLO Transit accommodates a significant number of mobility impaired people on its fixed bus route system, and all buses are equipped with wheelchair lifts.

Bicycle Facilities

Figure 3D-6 illustrates existing and planned bicycle facilities within the study area. Bicycle facilities include bike paths, bike lanes, and bike routes:

- # **Bike paths** are paved facilities designated for bicycle use that are physically separated from roadways used by motor vehicles by either space or a barrier.
- # **Bike lanes** are lanes on the outside edge of roadways reserved for the exclusive use of bicycles, so designated with special signing and pavement markings.
- # **Bike routes** are roadways recommended for use by bicycles and often connect roadways with bike lanes and bike paths. Bike routes are designated with signs only.

There are many bicycle facilities within San Luis Obispo. A bicycle transportation map in the City's Bicycle Transportation Plan illustrates existing and proposed bike paths, bike lanes, and

bike routes. Within the study area bicycle lanes currently exist along Los Osos Valley Road, Tank Farm Road, and South Higuera Street. The bike lanes on Tank Farm Road are minimal-width facilities (1.2 meters) and do not meet the City's 2-meter width standard. Within the study area Broad Street has paved shoulders north of Tank Farm Road. The City's Bicycle Transportation Plan proposes bike lanes on Vachell Lane, Prado Road, Buckley Road, and on Broad Street (to replace paved shoulders and where shoulders do not exist). Within the study area are two bike routes along Santa Fe Road and Margarita Avenue. Bike paths are also proposed throughout the study area which connect to the surrounding bike lanes and routes. Many of the City's signalized intersections contain bicycle detector loops within the bike lane, permitting bicycles to actuate signals without forcing bicyclists to press the pedestrian pushbutton. At signalized intersections along South Higuera Street, in-pavement-loops have been replaced by video systems, which detect bicycles as well as motor vehicles. The City coordinates its bicycle planning with the regional transportation authority, ensuring a continuous bicycle transportation system.

Pedestrian Facilities

Pedestrian facilities include sidewalks, paths, pedestrian bridges, crosswalks, and pedestrian signals. Existing streets include integral sidewalks along older arterial street frontages and detached sidewalks along newly developed frontages such as the east side of South Higuera Street from Prado Road to Suburban Road and along the new segments of Tank Farm Road. To encourage walking, the City requires sidewalks on both sides of the street in any new development or new street construction. In addition, the City encourages and promotes development of open space within and surrounding development projects that contain pedestrian trail systems. Trail systems are connected to other pedestrian facilities to create a seamless transportation system.

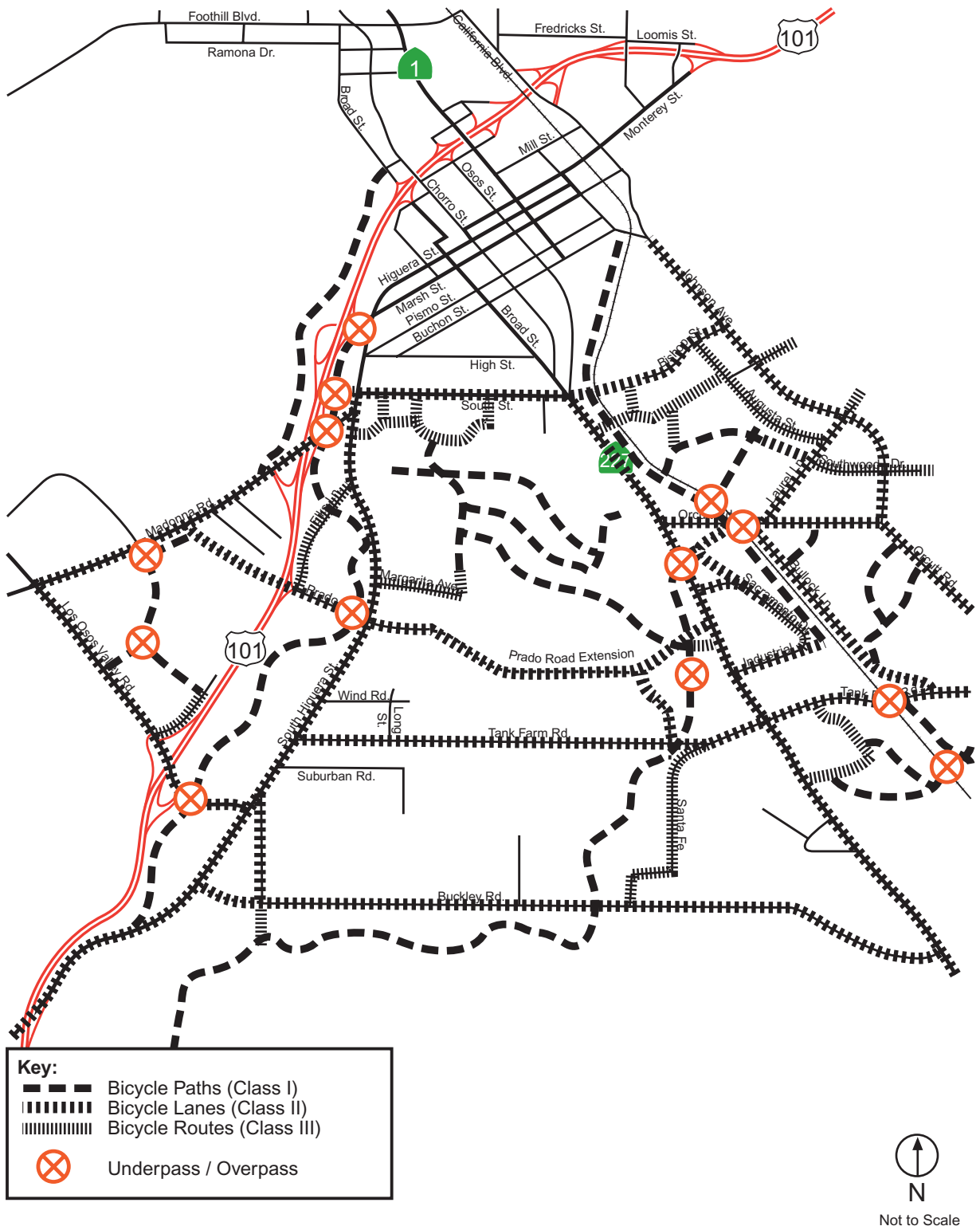
Within the study area, there are numerous gaps in the pedestrian transportation system. This is due to the rural characteristics of the area with older streets. Any development of the area will include new integral pedestrian facilities and linkages to existing facilities.

Truck Routes

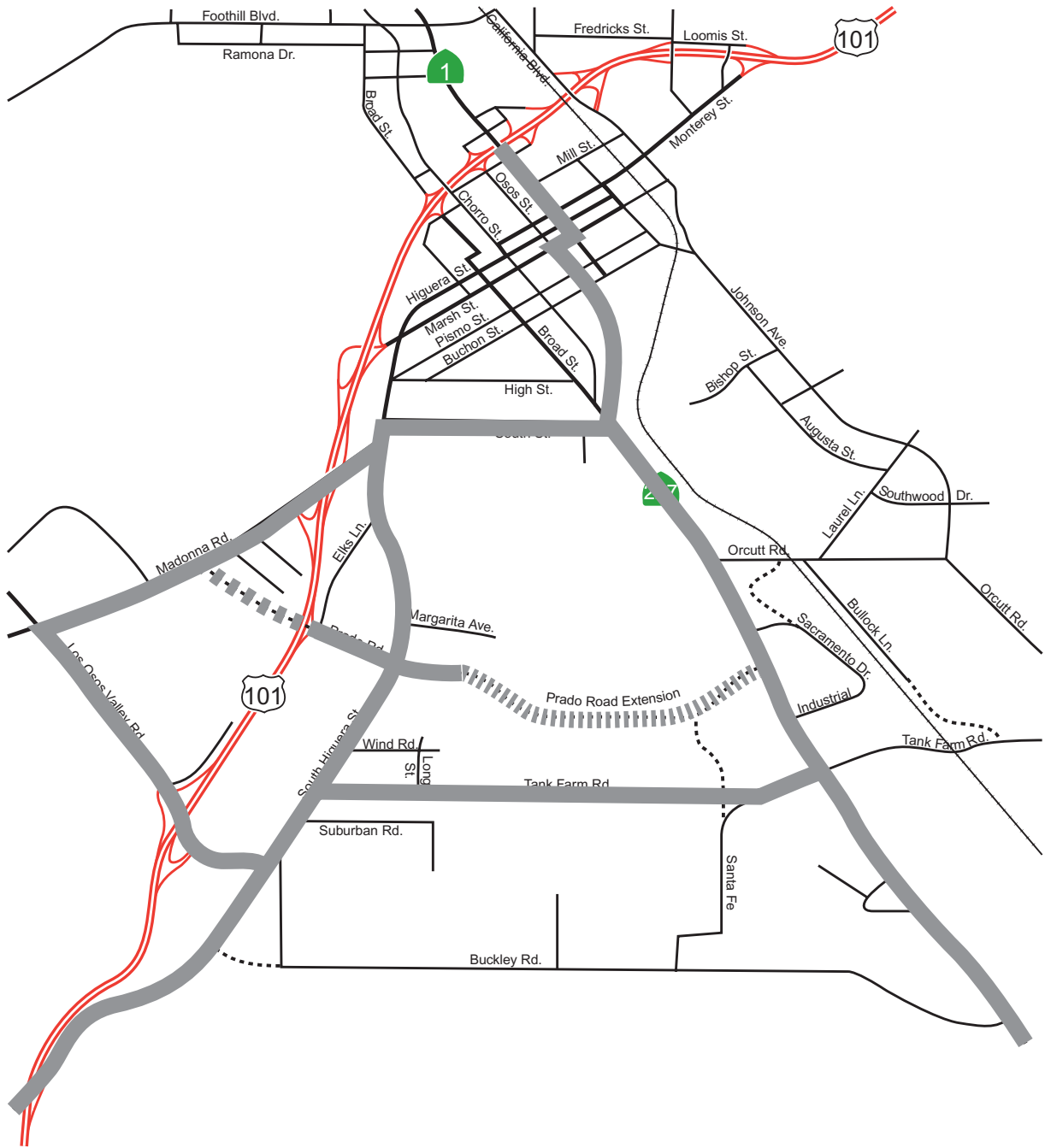
Truck routes within the study area are limited to major arterial roadways. Figure 3D-7 shows existing and planned truck routes. The only planned truck route is the utilization of the Prado Road extension which, when implemented, will relieve truck traffic on Tank Farm Road and South Street.

Parking


The City's zoning ordinance has parking requirements to ensure that an adequate parking supply is provided for on-site use of most land uses. Intensification of the downtown area could



Source: City of San Luis Obispo 1993.



Key:
 Truck Routes
 (Dashed lines represent proposed improvements)


 N
 Not to Scale

increase parking pressures, but also present an opportunity to institute shared parking policies. The City has several municipal parking lots in the downtown. Standard zoning ordinance requirements should suffice for proposed land uses within the study area, although opportunities for shared parking should be maximized to reduce parking lot size and impermeable surfaces.

PLANNED IMPROVEMENTS

The City of San Luis Obispo and state and regional transportation authorities have planned a number of transportation improvements in the vicinity of, or affecting, the study area. The City of San Luis Obispo describes several major roadway improvements in the area in the Circulation Element of the General Plan to accommodate traffic projected at buildout. The improvements in the Circulation Element are subject to specific development projects and availability of funding. The specific plans are a furtherance of the general plan planning process. The specific plans will set the framework for specific development projects, with funding of the specific improvements provided by sponsors of the specific development projects. The planned improvements within the study area are shown in Figure 3D-8 and described below.

City of San Luis Obispo General Plan Circulation Element and Traffic Mitigation Fee Improvement Projects

Road Extensions

- # Extend Prado Road as a highway/regional route from its terminus to Broad Street.
- # Extend Prado Road as a parkway arterial from Highway 101 to Madonna Road.
- # Extend Buckley Road as an arterial from its terminus to South Higuera Street.
- # Extend Santa Fe Road as a commercial collector from south of Tank Farm Road to the Prado Road extension.
- # Extend a commercial connector from Tank Farm Road to Prado Road.

Road Widening Projects

- # Widen Tank Farm Road (Broad Street to South Higuera Street) to parkway arterial standards (from two to four lanes).
- # Widen Prado Road and bridge over San Luis Creek (South Higuera Street to Highway 101) to highway/regional route standards (from two to four lanes).

- # Widen South Higuera Street (north of Tank Farm Road to city limits) to arterial standards (from two to four lanes).
- # Widen Los Osos Valley Road (Madonna to Highway 101) to parkway arterial standards (from four to six lanes).
- # Widen Orcutt Road (Broad Street to Johnson Avenue) to arterial standards (from two to four lanes).

Freeway Interchange Improvements

- # Construct a full interchange at Prado Road and Highway 101.
- # Modify ramps and widen bridge at the Highway 101/Los Osos Valley Road.

Other Projects

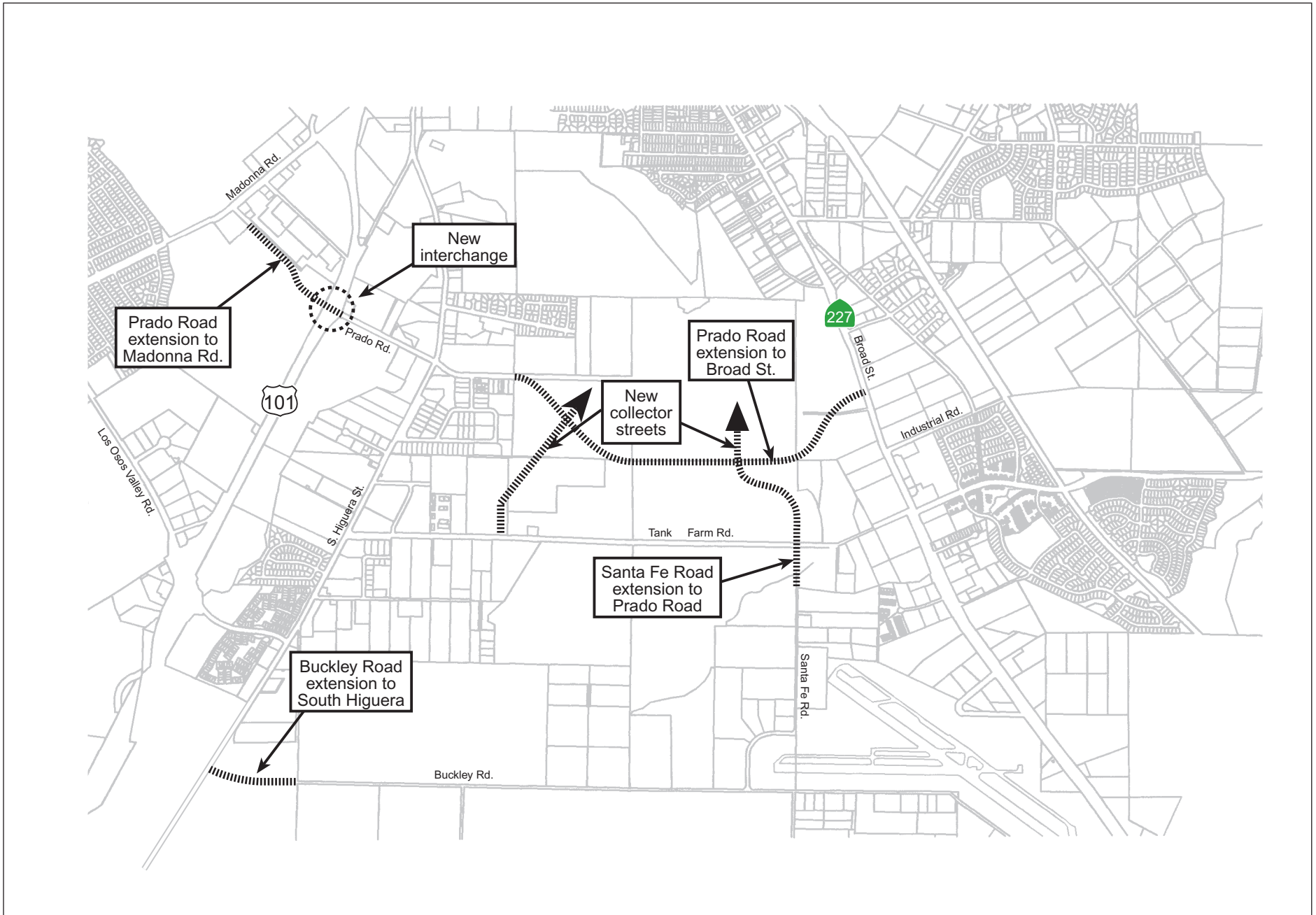
- # Construct railroad grade separation of Orcutt Road over Union Pacific Railroad.
- # Miscellaneous bicycle facility improvements including a Class I bikeway along the Union Pacific Railroad.

Many of the above projects identified in the Circulation Element include bicycle and pedestrian facilities within the roadway right-of-way. Funding for the above projects is primarily through traffic mitigation fees, developer contributions and dedications, and discretionary transportation grant sources.

Prado Road Project Study Report Proposed Improvements

A Project Study Report (PSR) was prepared for the Prado Road interchange in 1994 in response to active development plans for the Dalidio property on the west side of Highway 101. The PSR evaluated several interchange configurations, the widening of Prado Road to a four-lane arterial and redesignation of the Prado Road extension as Highway 227. In addition to interchange configurations, the PSR evaluated the potential widening of Highway 101 to six lanes and the need to construct auxiliary lanes between the new interchange and the adjacent interchanges.

The PSR concluded that, regardless of the number of mainline lanes, auxiliary lanes would be required between the Prado and Madonna Road interchanges. Auxiliary lanes were not determined necessary between the Prado and Los Osos Valley Road interchanges. However, the PSR was prepared when the San Luis Obispo Congestion Management Program (CMP) was in effect. Auxiliary lane determinations were based on the CMP LOS E standard for state facilities.



Since California repealed the CMP mandate, the LOS E standard is no longer in effect. As a consequence, Caltrans has indicated that a LOS D standard should be used in planning for state facilities. A LOS D standard may trigger the need for auxiliary lanes between the Prado and Los Osos Valley Road interchanges. This issue needs to be re-visited in any future planning for the Prado Road interchange.

Highway 101 Major Investment Study Proposed Improvements

In 1997, SLOCOG completed a Major Investment Study (MIS) for Highway 101 between San Luis Obispo and Arroyo Grande. An MIS is a federally required comprehensive planning study to address corridor improvements and feasible alternatives to highway widening. The Highway 101 MIS evaluated several packages of improvements ranging from Transportation Demand Management to increased highway capacity to combinations of measures. The MIS recommended packages of near-term and long-term improvements for the Highway 101 corridor. Near-term improvements include the following:

- # Implement an expanded Transportation Demand Management program to reduce automobile travel demand and promote use of alternative transportation modes.
- # Develop a Corridor Development Plan to implement the expanded TDM strategy, a series of park and ride lots with timed transit service, additional pedestrian and bicycle facilities, and auxiliary lanes between interchanges.

Long-term recommendations in the Highway 101 MIS include the selective addition of auxiliary lanes.

The MIS does not recommend widening Highway 101 to provide additional travel lanes or high-occupancy vehicle (HOV) lanes. The recommendations in the MIS affect the study area in that large employers should develop and manage TDM programs for their employees.

2001 Regional Transportation Plan Planned Improvements

The 2001 Regional Transportation Plan (RTP) Update prepared by SLOCOG provides a seven-year Capital Improvement Program for the entire County. Projects are categorized as short-term (0–5 years), mid-term (5–10 years), or long-term (11–20 years). Many of the projects specified in the RTP are eligible for state and federal funding, but local and developer matching is required for some projects. The RTP addresses all modes of transportation and facilities including public transportation; highways streets and roads; bikeways; and rail, maritime and commodities movement. Projects identified in the RTP that may affect the study area include the following.

Transit and TDM Improvements

- # “Smart bus stops” providing real time arrival information displays at bus stops (short-term project).
- # Bus access improvements, replacing lifts on four older vehicles (short-term project).
- # Transit coach replacement (mid-term project).

Roadway and Interchange Improvements

- # Highway 101 northbound auxiliary lane at Prado Road (mid-term project).
- # Highway 101/Los Osos Valley Road interchange improvements (mid-term project).
- # Highway 101/Los Osos Valley Road project study report (short-term project).
- # Highway 101/Los Osos Valley Road interchange and ramp reconstruction (mid-term project).
- # Highway 101/Los Osos Valley Road roadside rehabilitation (mid-term project).
- # Highway 227 (Broad Street) widening from 2-lanes to 4-lanes south of Tank Farm Road (mid-term project).
- # Highway 227 (Broad Street) pavement rehabilitation (short-term project).
- # Prado Road interchange (short-term project).
- # Prado Road widening to four lanes (short-term project).
- # South Higuera Street pavement rehabilitation (short-term project).
- # Prado Road connector from Highway 101 to Broad Street (mid-term project).
- # Buckley Road extension to South Higuera (long-term project).
- # Santa Fe Road northerly realignment and extension (mid-term project).

Pedestrian and Bikeway Improvements

- # Install sidewalks and crosswalks on South Higuera Street (short-term project).
- # Construct Class II bike lanes on Prado Road west of South Higuera Street (mid-term project).
- # Construct Class II bike lanes on Prado Road extension (long-term project).

Transportation Improvements Proposed in Previous Planning Documents

The Preliminary Specific Plan Analysis for the San Luis Obispo County Airport Area Specific Plan (1988) identified a number of proposed roadway system changes to accommodate the traffic generated by the plan's land use assumptions. The land use plan (including expansion of the airport, but not the Margarita Specific Plan area) was estimated to generate an additional 122,000 average daily trips. This level of traffic, plus cumulative traffic growth, led to the following transportation improvements in addition to the City's Circulation Element improvements:

- # Extend Suburban Road northeast to intersect Tank Farm Road.
- # Realign Vachell Lane to form a four-way intersection with Los Osos Valley Road.
- # Widen Broad Street to six lanes (Orcutt Road to south of Airport).
- # Widen Tank Farm Road to four lanes (South Higuera Street to Suburban Road).
- # Widen Tank Farm Road to six lanes (Suburban Road to Broad Street).
- # Widen Tank Farm Road to four lanes (Broad Street to Orcutt Road).
- # Widen Sante Fe Road to four lanes (entire length).

The Margarita Area Specific Plan (1997) presents a circulation element that reflects the Preliminary Airport Area Specific Plan. The primary circulation elements include extension of Prado Road to Broad Street and extension of Margarita Avenue to connect with Prado Road via various collector streets. The Margarita Area Specific Plan circulation plan supercedes the Preliminary Airport Area Specific Plan circulation plan.

IMPACTS AND MITIGATION

Introduction and Methodology

Impacts resulting from the implementation of the proposed project were evaluated for two future scenarios: (1) buildout of the City's General Plan (Year 2020), and (2) buildout of the City's General Plan with the preferred land use plan. Traffic projections are based on buildout of the City's General Plan land uses and includes the most recent land use projections for the Airport Specific Plan Area, the Orcutt Area, and the Margarita Specific Plan area. Outside of the City (County land), employment and population forecasts do not reflect buildout, but represent the years 2020 to 2025. For all intents and purposes, the traffic projections represent buildout of San Luis Obispo in the year 2020.

Assignment of the projected traffic volumes utilized the Citywide traffic model. This analytical tool is valuable in measuring the effect of new roads, changes in travel patterns, and determining intersection turning movements for detailed traffic operations analysis. This report provides traffic projections and analysis for the project and the four alternatives to it in the following ways:

Roadway traffic projections include two-way average daily and p.m. peak-hour volumes on key roadways; and

Intersection LOS calculations describe how much delay will be experienced by motorists using key intersections based on the project's land use and circulation assumptions.

No-Project versus Project Network Assumptions

Table 3D-7 ~~shows~~ compares the planned roadway improvements assumed in the no-project and project scenarios that are evaluated in this EIR. The no-project scenario includes planned improvements that are not located in the Airport and Margarita Specific Plan areas or improvements that are entirely the responsibility of other development projects. The project network includes all no-project network assumptions plus those specific to the project.

Revised Table 3D-7. Roadway Network Assumptions
No-Project and ~~vs.~~ Project Conditions

No-Project Network Assumptions	Project Network Assumptions
<u>1.</u> New Prado Road interchange with U.S. 101	New Prado Road interchange with U.S. 101
<u>2.</u> Prado Road extension west to Madonna Road to parkway arterial standards (4 lanes)	Prado Road extension west to Madonna Road to parkway arterial standards (4 lanes)
<u>3.</u> Prado Road extension east to Broad Street	Prado Road extension east to Broad Street intersecting north of Industrial Road to parkway arterial standards (4 lanes)
<u>4.</u> Widen South Higuera Street (from Tank Farm Road south to City Limits) to arterial standards (from 2 to 4 lanes)	<u>1.</u> Northerly extension of Santa Fe Road to Tank Farm Road and to Prado Road extension to commercial collector standards (2 lanes)
<u>5.</u> Widen Los Osos Valley Road (Madonna to Highway 101) to parkway arterial standards (from 4 to 6 lanes)	<u>2.</u> New diagonal collector street connecting Tank Farm road to Prado Road extension (2 lanes)
<u>6.</u> Widen Orcutt Road (Broad Street to Johnson Avenue) to arterial standards (from 2 to 4 lanes)	<u>3.</u> Westerly extension of Buckley Road to South Higuera Street to arterial standards (2 lanes)
<u>7.</u> Construct railroad grade separation of Orcutt Road over Union Pacific Railroad	<u>4.</u> New collector streets internal to the Margarita and Airport Area Specific Plan areas (2 lanes)
<u>8.</u> Widen Tank Farm Road to parkway arterial standards (from 2 lanes to 4 lanes)	Widen Orcutt Road (Broad Street to Johnson Avenue) to arterial standards (from 2 to 4 lanes) Construct railroad grade separation of Orcutt Road over Union Pacific Railroad

For purposes of identifying traffic impacts and determining mitigation measures in this EIR, the network assumptions described above are considered baseline roadway systems. Impacts on existing intersections in the baseline roadway systems are determined through analysis of existing intersection configurations. Impacts on future intersections in the baseline roadway systems are determined through analysis of projected lane requirements. Mitigation measures for existing intersections include additional lanes or traffic control required for the intersection to operate at LOS D or better. Mitigation measures for future intersections include the full intersection configuration required to operate at LOS D or better.

Some planned roadway widening, extensions and new collector streets are also considered mitigation measures for the Airport and Margarita Specific Plan areas. These facilities are required to access new land development and provide connections to the existing transportation system. Since many of these roadways are considered part of the project description, the project itself is a self-mitigating plan.

Criteria for Determining Significance

Based on the State CEQA Guidelines and professional judgment, it was determined that a significant impact on traffic and circulation would occur if:

- # an intersection's level of service would degrade from LOS D or better to LOS E or F in the peak hour of operation;
- # any amount of project traffic would be added to an intersection or roadway segment already operating at an unacceptable level (i.e., LOS E or F);
- # traffic would be added to any roadway or intersection where there is pedestrian and bicycle demand but no appropriate pedestrian or bicycle facilities, such as sidewalks, crosswalks, traffic signals, or bike lanes;
- # pedestrian and bicycle demand would be created without provision of adequate and appropriate facilities for safe, nonmotorized mobility;
- # substantial congestion would be created and vehicle delay would be increased on roadways that would require a change in the bus headways to maintain adequate service;
or
- # potential transit trips would be generated and adequate facilities would not be provided for pedestrians and bicyclists to access transit routes and stops to the extent feasible.

Proposed Project

The project scenario evaluates traffic impacts in the study area under buildout of the City's General Plan Land Use Element and development of the proposed land uses within the Airport and Margarita Specific Plan areas. Land uses within the Airport and Margarita Specific Plan areas reflect higher levels of development than in the City's General Plan. The project scenario is evaluated under the project circulation system with substantial planned improvements described above. Major roadway extensions and new collector streets within the study area are assumed in the project scenario. Projected traffic levels under the proposed project and alternatives are shown in Table 3D-8. Traffic impacts on existing intersections are based on the planned circulation assumptions and existing intersection lane configurations. Traffic impacts on future intersections are based on the planned circulation improvements and assumed baseline intersection lane configurations. Mitigation measures are the required improvements to existing and future intersections and the existing and future circulation system. The Airport Area and Margarita Area Specific Plans detail the design standards for streets, necessary improvements to be required, and bus and bicycle lane provisions.

Table 3D-8. Average Daily Traffic and Peak-Hour Roadway Projections (Project Land Use)

Roadway	Average Daily Traffic				P.M. Peak-Hour Traffic			
	Project	1	2	3	Project	1	2	3
Prado Road								
East of South Higuera	30,100	30,100	31,400	29,000	3,245	3,245	3,170	2,981
West of Broad	16,200	16,200	19,800	9,900	1,728	1,728	2,133	984
Tank Farm Road								
East of South Higuera	19,000	19,000	19,700	11,500	1,932	1,932	2,035	1,172
West of Broad	19,700	19,700	N/A ^a	23,900	1,916	1,916	N/A ^a	2,599
Buckley Road								
East of South Higuera	5,000	5,000	7,900	8,600	834	834	721	616
West of Broad	3,100	3,100	2,900	3,000	362	362	369	365
Los Osos Valley Road Extension								
East of South Higuera	N/A	N/A	N/A	15,100	N/A	N/A	N/A	1,598
South of Tank Farm	N/A	N/A	N/A	11,200	N/A	N/A	N/A	1,206
Santa Fe Road								
South of Prado	5,600	5,600	4,000	1,200	685	685	432	1,204
North of Buckley	1,300	1,300	2,100	1,300	151	151	225	136
South of Higuera Street								
North of Prado	10,500	10,500	9,800	9,600	1,004	1,004	1,053	917
North of Tank Farm	14,800	14,800	12,600	13,300	1,272	1,272	1,297	1,248
North of Los Osos Valley	22,700	22,700	22,700	13,500	2,046	2,046	2,332	1,166
Broad Street								
North of Prado	34,500	34,500	N/A	35,600	3,418	3,418	N/A	3,685
North of Tank Farm	31,800	31,800	22,000	25,100	3,074	3,074	2,282	2,619
North of Buckley	26,200	26,200	25,500	24,600	2,711	2,711	2,721	2,705

N/A = not applicable.

Project and Alternative 1 have identical traffic projections. Project and Alternative 1 differ only in the alignment of Prado Road at Broad Street. In the project scenario, Prado Road intersects Broad Street about 300 meters north of Industrial Way, while in Alternative 1, Prado Road intersects Broad Street at Industrial Way.

^a Tank Farm Road and the Prado Road extension merge into the existing Tank Farm Road alignment in Alternative 2.

Transportation Plans Integrated into Specific Plans

The Airport and Margarita Area Specific Plans integrate transportation plans that accommodate the circulation, capacity, and access needs of the proposed land uses. The transportation plans are self-mitigating in that roadway alignments, road extensions, and new intersections were developed in response to the traffic projected at buildout of the specific plan's land use programs. The transportation plans are part of the project description, and integral to the implementation of the specific plans. The Margarita and Airport Area Specific Plans' circulation and transportation plans integrate the following new roadway and capacity enhancing improvements:

- # **Tank Farm Road** – improved to a two to four lane parkway arterial
- # **Prado Road** – extended as a four-lane regional highway between Broad Street and South Higuera Street, along the alignment approved by the City in January 2001, and improved as a regional highway between South Higuera Street and the proposed U.S. 101 Prado Road interchange
- # **Santa Fe Road** – realigned and extended from Buckley Road to the Prado Road extension as a commercial collector street
- # **Buckley Road** – improved to a two-lane arterial and extended to South Higuera Street
- # **Broad Street** – improved to a four-lane regional highway from Buckley Road to Tank Farm Road
- # **Unocal Property Collector** – new commercial collector connecting Tank Farm Road and the Prado Road extension

The levels of service projected for the proposal project and alternatives with proposed improvements are illustrated in Table 3-D9.

Revised Table 3D-9. Intersection Levels of Service Projections Project Conditions
Comparison of for Proposed Project and with Network Alternatives

Intersection	P.M. Peak-Hour			
	Project	Alt. 1	Alt. 2	Alt. 3
Prado Road/South Higuera Street	D	D	F	E
Tank Farm Road/South Higuera Street	C	C	B	B
Tank Farm Road/Broad Street	D	D	D	F
Los Osos Valley Road /US 101 SB Ramps	C	C	A	C
Los Osos Valley Road /US 101 NB Ramps	C	C	C	F
Buckley Road/Broad Street	B	D	B	B
Los Osos Valley Road/ South Higuera Street	B	B	B	B
Tank Farm Road/Santa Fe Road	C	B	B	B
Prado Road/Broad Street	B	N/A	C	B
Prado Road/Santa Fe Road	C	C	A	B
Buckley Road/South Higuera Street	B	B	B	B
Orcutt Road/Broad Street	C	D	B	B
Prado Road/Broad/Industrial	N/A	D	N/A	B
Industrial/Broad	B	N/A	B	N/A

Intersection level of service comparison based on equivalent lane configurations.

N/A = Not Applicable

Improvements required under the Specific Plans. Funding will come from developer fees, assessments, and dedications, as provided in City ordinance and the Airport Area and Margarita Area Specific Plans' financing sections.

To ensure that the Prado Road/South Higuera Street intersection does not exceed LOS D operation (delay of 38 seconds per vehicle), development projects in the Airport and Margarita Area Specific Plans ~~areas~~ shall contribute their fair share, as determined by the City, to the following improvements:

- # Add second westbound through lane.
- # Add second northbound left-turn lane.

- # Add second eastbound through lane.
- # Provide the cross-section shown in Figure 3D-9 on the westbound and northbound approaches of Prado Road and South Higuera Street to provide the appropriate lands within 84- and 86-foot rights-of-way.

To ensure that the Tank Farm Road/South Higuera Street intersection does not exceed LOS C operation (delay of 25 seconds per vehicle), development projects in the Airport and Margarita Area Specific Plans areas shall contribute their fair share, as determined by the City, to the following measures:

- # Add a northbound through/right-turn lane and a second northbound right-turn lane, or
- # Add a second northbound right-turn lane, or
- # Reconfigure the westbound approach to provide two right-turn lanes, two left-turn lanes, and a single westbound through lane.

To ensure that the Tank Farm Road/Broad Street intersection will not exceed LOS D operation (delay of 26 seconds per vehicle), development projects in the Airport and Margarita Area Specific Plans areas shall contribute their fair share, as determined by the City, to the following improvements:

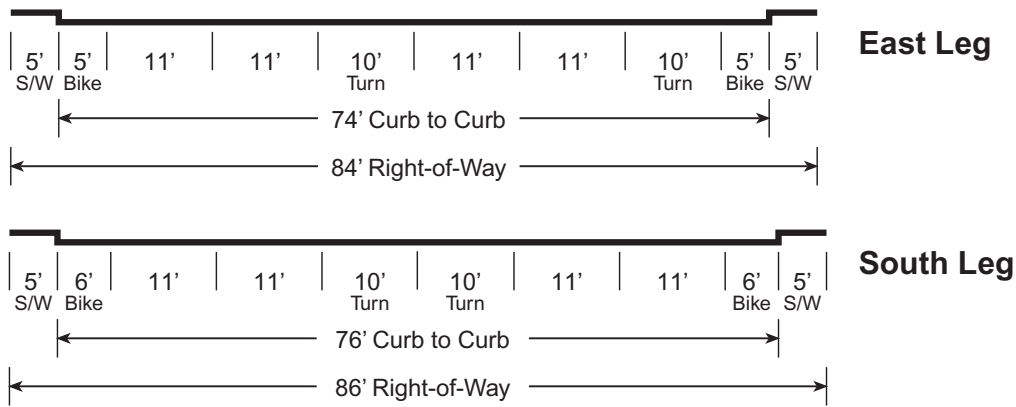
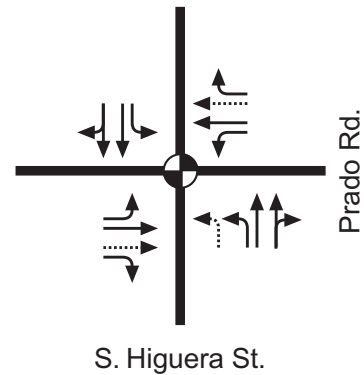
- # Add second northbound left-turn lane.
- # ~~Add westbound right-turn lane.~~
- # Widen and reconfigure eastbound approach to provide two left-turn lanes, two through lanes (one of which could be used as a shared right-turn lane), and an exclusive right-turn lane.
- # Add northbound right-turn lane.
- # Add southbound right-turn overlap phase during eastbound left and through phases.

To ensure that the Los Osos Valley Road/U.S. 101 southbound and northbound ramp intersections do not exceed LOS C operations (delays of 16 and 25 seconds per vehicle), development projects in the Airport and Margarita Area Specific Plans areas shall contribute their fair share, as determined by the City, to the following improvements:

- # Reconstruct the Los Osos Valley Road bridge over U.S. 101, widening to four lanes.
- # Reconfigure and widen the U.S. 101 southbound off-ramp to provide an exclusive left- and right-turn lane and a shared left-turn/through/right-turn lane.

Prado Road/South Higuera Street

- Add second westbound through lane
- Add second northbound left-turn lane
- Add second eastbound through lane
- Provide following cross-sections on east and south legs of intersection:

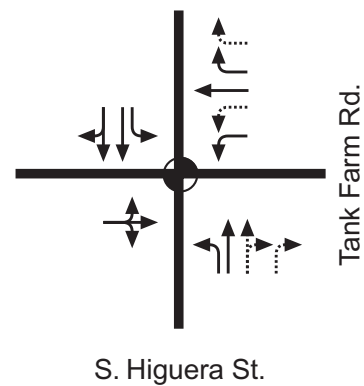


Mitigated LOS: D

Tank Farm Road/South Higuera Street

- Add northbound through/right-turn lane and second northbound right-turn lane
- Provide two right-turn lanes, two left-turn lanes, and single westbound through lane

Mitigated LOS: C



- # Add second northbound left-turn lane at the northbound off-ramp.
- # Widen bridge structure (to four lanes) east of the northbound off-ramp intersection.

To ensure that the Buckley Road/Broad Street intersection does not exceed LOS B operation (delay of 11 seconds per vehicle), development projects in the Airport and Margarita Area Specific Plans areas shall contribute their fair share, as determined by the City, to the following improvements:

- # Add northbound and southbound through lane.
- # Add southbound right-turn lane.
- # Reconfigure eastbound approach to provide a left- and right-turn lane.
- # Signalize the intersection (this improvement is currently underway).

This intersection has been improved recently because of development at the regional airport. Although the same numbers of lanes and turning movements are needed, the degree of the needed improvements could be less by the time the proposed project is implemented.

To ensure that the Tank Farm Road/Santa Fe Road intersection does not exceed LOS C operation (delay of 15 seconds per vehicle), development projects in the Airport and Margarita Area Specific Plans areas shall contribute their fair share, as determined by the City, to the following improvements:

Construct intersection to provide:

- # signalized intersection;
- # left-turn, right-turn, and two through lanes on eastbound approach;
- # left-turn, right-turn, and two through lanes on westbound approach, plus transition to single westbound lane west of Santa Fe Road;
- # left-turn, right-turn, and through lane on northbound approach; and
- # left-turn, right-turn, and through lane on southbound approach.

To ensure that the Prado Road/Broad Street intersection will not exceed LOS B operation (delay of 14 seconds per vehicle), development projects in the Airport and Margarita Area Specific Plans areas shall contribute their fair share, as determined by the City, to the following improvements:

Construct intersection to provide:

- # signalized intersection;
- # two left-turn lanes and one right-turn lane on eastbound approach;
- # southbound right-turn lane; and
- # northbound left-turn lane.

To ensure that the Prado Road/Santa Fe Road intersection will not exceed LOS C operation (delay of 20 seconds per vehicle), development projects in the Airport and Margarita Area Specific Plans areas shall contribute their fair share, as determined by the City, to the following improvements:

Construct intersection to provide:

- # signalized intersection, or other approved traffic control device;
- # left-turn, right-turn, and two through lanes on eastbound approach;
- # left-turn, right-turn, and two through lanes on westbound approach;
- # two left-turn, one right-turn, and one through lane on northbound approach; and
- # left-turn, right-turn, and through lane on southbound approach.

For the proposed Buckley Road extension to South Higuera Street, the following improvements will be implemented to ensure LOS B operation (delay of 8 seconds per vehicle). Development projects in the Airport and Margarita Area Specific Plans areas shall contribute their fair share, as determined by the City, to the following improvements:

Construct intersection to provide:

- # signalized intersection,
- # left-turn and one through lane on southbound approach,
- # right-turn and one through lane on northbound approach,
- # left- and right-turn lanes on westbound approach, and
- # Class II bicycle facilities and detection on all approaches.

Table 3D-10 summarizes the mitigated intersection service levels for the project scenario.

Table 3D-10. Intersection Levels of Service:
Project Conditions with Planned Lane Configurations

Intersection	P.M. Peak Hour	
	Average Stopped Delay	Intersection Level of Service
Existing Intersections		
Prado Road/South Higuera Street	38	D
Tank Farm Road/South Higuera Street	25	C
Tank Farm Road/Broad Street	26	D
Los Osos Valley Road /US 101 SB Ramps	16	C
Los Osos Valley Road /US 101 NB Ramps	25	C
Buckley Road/Broad Street	11	B
<u>Tank Farm Road/Santa Fe Road</u>	<u>15</u>	<u>C</u>
Future Intersections		
Tank Farm Road/Santa Fe Road	15	C
Prado Road/Broad Street	14	B
Prado Road/Santa Fe Road	20	C
Buckley Road/South Higuera Street	8	B

Development projects in the Airport and Margarita Specific Plans areas will also contribute their fair share through fees, assessments, and dedications to the following roadway improvements:

- # Extend Prado Road east to Broad Street intersecting about 300 meters north of Industrial Way to regional highway standards (4 lanes)
- # Widen existing Prado Road to regional highway standards (4 lanes) from South Higuera Street to its existing eastern terminus
- # Realign and Extend Santa Fe Road north to Tank Farm Road and to the Prado Road extension to commercial collector standards (2 lanes)
- # Construct a new diagonal collector street connecting Tank Farm Road to Prado Road extension (2 lanes)

- # Construct new commercial collector street between Tank Farm Road and Prado Road.
- # Construct new collector streets internal to the Margarita and Airport Area Specific Plan areas (2 lanes) per Specific Plan design guidelines
- # Widen Prado Road from South Higuera to the U.S. 101 interchange to regional highway standards (4 lanes), with sufficient right-of-way reserved for 6 lanes
- # Widen Broad Street from Buckley Road to Tank Farm Road to a 4-lane arterial
- # Widen Tank Farm Road to parkway arterial standards (4 lanes) from South Higuera to 1,320 feet east and from the Santa Fe Road extension to Broad Street
- # Extend Buckley Road from Vachell Lane to South Higuera Street to rural arterial standards (2 lanes)
- # Widen Vachell Lane from South Higuera Street to Buckley Road to arterial standards (2 lanes).

Most intersections within the study area have pedestrian facilities (sidewalks, crosswalks and signalized crossings) where there are current pedestrian demands. Many of the roadways within the study area do not currently have sidewalks due to their rural character.

The impact on roadways is *less than significant*.

~~To avoid significant transit-related impacts in the proposed project,~~ Furthermore, as part of the Airport Area Specific Plan and Margarita Area Specific Plan, development projects in the Airport and Margarita areas will be required to fund the capital expenditures and projects identified in the short-range transit plans to implement the transit plan described in the Airport Area Specific Plan. The funding mechanism for transit capital needs is specified in the Airport Area financing plan. Development adjacent to existing or proposed bus stops (per transit plan) is required to construct turnouts and bus stops (including shelters) conforming to the bus stop standards in SLO Transit's Short Range Transit Plan. Impact is *less than significant*. No mitigation is necessary.

Impact T-1: Secondary Impacts of Road Improvements

The improvements necessary to achieve vehicular flow at the intersections listed above could cause secondary impacts on pedestrians and bicyclists. To avoid significant pedestrian and bicycle impacts, development projects in the Airport and Margarita Specific Plan areas shall include pedestrian and bicycle facilities in the design of the intersection and roadway improvements. Pedestrian facilities shall include sidewalks along both sides of all newly constructed streets and reconstructed streets, crosswalks at new intersections and reconstructed intersections, and pedestrian signals at all new and reconstructed signalized intersections. Bicycle facilities shall include Class II bike lanes on all new and reconstructed streets per the San Luis Obispo Bicycle Transportation

Plan and the Specific Plans. Bike lanes shall be included in the widening and extension of the following streets.

- # South Higuera Street (Tank Farm to Buckley)
- # Broad Street (Buckley to Tank Farm Road)
- # Prado Road (Broad Street to US 101 interchange)
- # Santa Fe Road (Buckley to Prado road extension)

The road improvements in the Margarita and Airport Area Specific Plans will result in substantial widening of roadways and intersection approaches to accommodate vehicle traffic and maintain LOS D or better. Widening of streets and intersections can result in secondary *significant* impacts on pedestrians and bicyclists by increasing crossing distance and introducing conflicts at intersections with multiple turning lanes unless designed properly.

Mitigation Measure T-1.1: Design Features.

The following design features will mitigate these secondary impacts to *less than significant* at widened intersections:

- # On approaches to intersections where exclusive right-turn lanes are recommended and Class II bikeways are proposed, the design of the intersection shall provide bike lanes (1.2 meters in width) for through travel along the left edge of the right-turn lane.
- # At intersection approaches where pedestrian crossing distance exceeds six travel lanes (22 meters), the intersection design shall include an Americans with Disabilities Act (ADA) compliant median refuge island (raised concrete) with pushbutton to activate the pedestrian signal. The minimum width of the median refuge shall be 1.2 meters if integral with a raised median along the entire length of the street, or 1.8 meters wide by 6 meters long if an isolated median refuge. Exceptions for this measure include locations where existing right-of-way constraints make it infeasible to widen the street for the refuge.
- # All signalized intersections shall be designed with pedestrian signal heads and pushbutton activation.
- # Intersections with exclusive right-turn lanes shall be designed to reduce the speed of right-turning vehicles and reduce the pedestrian crossing distance. The curb return radius should be 15 meters or less. Raised pedestrian refuges (porkchop islands) may be installed between exclusive right-turn lanes and through lanes on streets with crossings that exceed 22 meters, but the approach angle of the right turn shall be designed to minimize turning speed.

Mitigation Measure T-1.2: New Signalized Intersection for Aero Drive and Broad Street. To mitigate significant effects on this intersection, a new signalized intersection shall be installed on Broad Street south of Aero Drive, as identified in the Airport Master Plan. With this mitigation measure, the impact will be reduced to a *less-than-significant* level.

Funding Source: Developer fees, assessments and dedications
Implementing Party: County, Caltrans
Monitoring Agency: County, Caltrans
Timing: When average intersection delay of unsignalized intersection exceeds 38 seconds per vehicle, and signal is warranted based on standard Caltrans warrants

Alternative 1

Alternative 1 includes the same road extensions as the proposed project, minus the proposed new collector street connecting Tank Farm Road to the extension of Prado Road, and with the eastern end of Prado Road aligned to intersect Broad Street at Industrial Road rather than creating a new intersection. The Alternative 1 road system is otherwise the same as under the current City general plan. (Figure 3D-10).

This alternative offers the advantage over the proposed project of utilizing an existing signalized intersection for the proposed Prado Road/Broad Street intersection, thereby avoiding the need to install another signalized intersection along this busy thoroughfare. The Alternative would require two creek crossings along the Prado Road alignment, rather than the one needed under the proposed project. This Prado Road alignment does not, however, conform to the General Plan Prado Road alignment adopted by the City in January 2001. In addition, it may conflict with existing approved development.

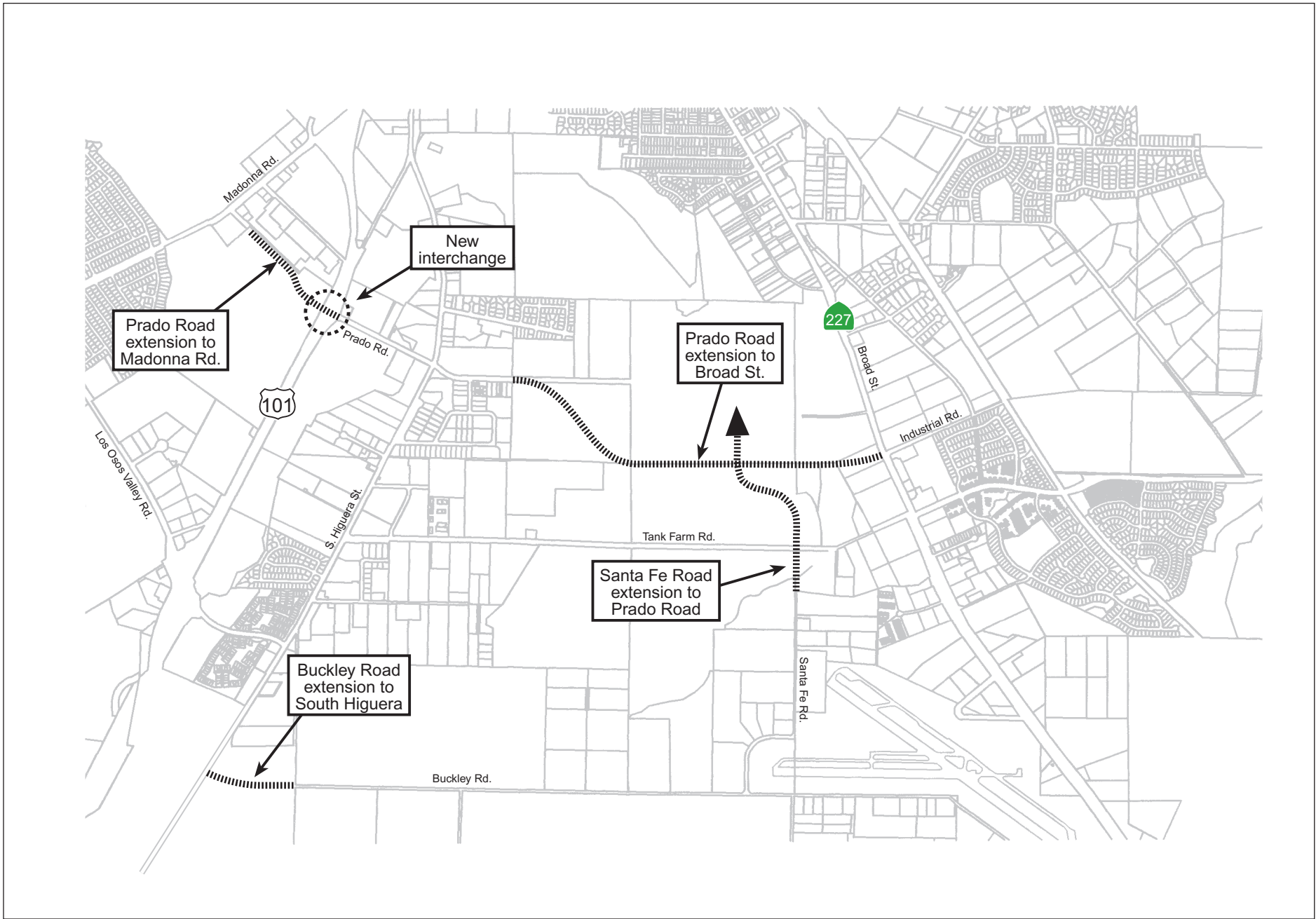
As shown on Table 3D-9, Alternative 1 would result in intersection levels of service similar to the proposed project. Exceptions are:

- # The Buckley Road/Broad Street intersection would be LOS D under Alternative 1 and LOS B under the proposed project.
- # The Orcutt Road/Broad Street intersection would be LOS D under Alternative 1 and LOS C under the proposed project.

Applying the improvements required under the specific plans, as discussed above, the impacts of Alternative 1 would be *less than significant*.

Impact T-1: Secondary Impacts of Road Improvements

See discussion of Impact T-1 for the proposed project.



Mitigation Measure T-1.1: Design Features. This mitigation measure is described above.

Alternative 2

Alternative 2 includes the Buckley Road extension to South Higuera, the Prado Road extension from Madonna Road to Highway 101 and the Highway 101 interchange identified in the proposed project. It does not include the other road extensions proposed in the project. Instead, it would extend Prado Road further south to the Tank Farm Road alignment, then to a connection with Broad Street. Santa Fe Road would be extended northward to the new Prado Road alignment. Further, Tank Farm Road would be extended northward to the Prado Road alignment to connect to Broad Street at Industrial Road. (Figure 3D-11)

This alternative would offer a cost savings over the proposed project by utilizing a portion of the Tank Farm Road alignment. Disadvantages of the alternative are that all east-west traffic would be concentrated along one corridor, there would be increased potential for encountering contaminated soils during road construction, and the alternative is inconsistent with existing Circulation Element policy.

As shown on Table 3D-9, Alternative 2 would result in intersection levels of service that are, with two exceptions, the same or better than the proposed project.

- # The Prado Road/South Higuera Street intersection would operate at LOS F under Alternative 2, in comparison to LOS D under the proposed project. This is a *significant* effect.
- # The Prado Road/Broad Street intersection would operate at LOS C under Alternative 2, compared to LOS B under the proposed project. Because LOS C is an acceptable level of congestion, this is a *less-than-significant* effect.

Impact T-1: Secondary Impacts of Road Improvements

See discussion of Impact T-1 for the proposed project.

Mitigation Measure T-1.1: Design Features. This mitigation measure is described above.

Impact T-2: LOS in Excess of LOS D

The Prado Road/South Higuera Street intersection would operate at LOS F.

Mitigation

No mitigation is feasible.

Alternative 3

Alternative 3 is similar to Alternative 1, with three primary differences. First, Buckley Road would not be extended to South Higuera Street. Second, Los Osos Valley Road would be extended along an alignment north of Buckley Road to connect to Tank Farm Road. Tank Farm Road would be maintained as a minor through street. Third, a connector road would be extended from Buckley Road to the extended Los Osos Valley Road. As with Alternative 1, the Prado Road alignment does not conform to the Circulation Element. (Figure 3D-12)

An advantage of Alternative 3 is that it provides an east-west high capacity corridor (Los Osos Valley Road) that would connect to an existing US 101 interchange. The Los Osos Valley Road alignment would have the disadvantage of providing access to land south of the City's urban reserve, creating a **growth-inducing impact**.

As shown in Table 3D-9, Alternative 3 would result in intersection levels of service that are, with three exceptions, the same or better than the proposed project.

- # The Prado Road/South Higuera Street intersection would operate at LOS E. This is a *significant* effect.
- # The Tank Farm Road/Broad Street intersection would operate at LOS F. This is a *significant* effect.
- # The Los Osos Valley Road/US 101 northbound ramps would operate at LOS F. This is a *significant* effect.

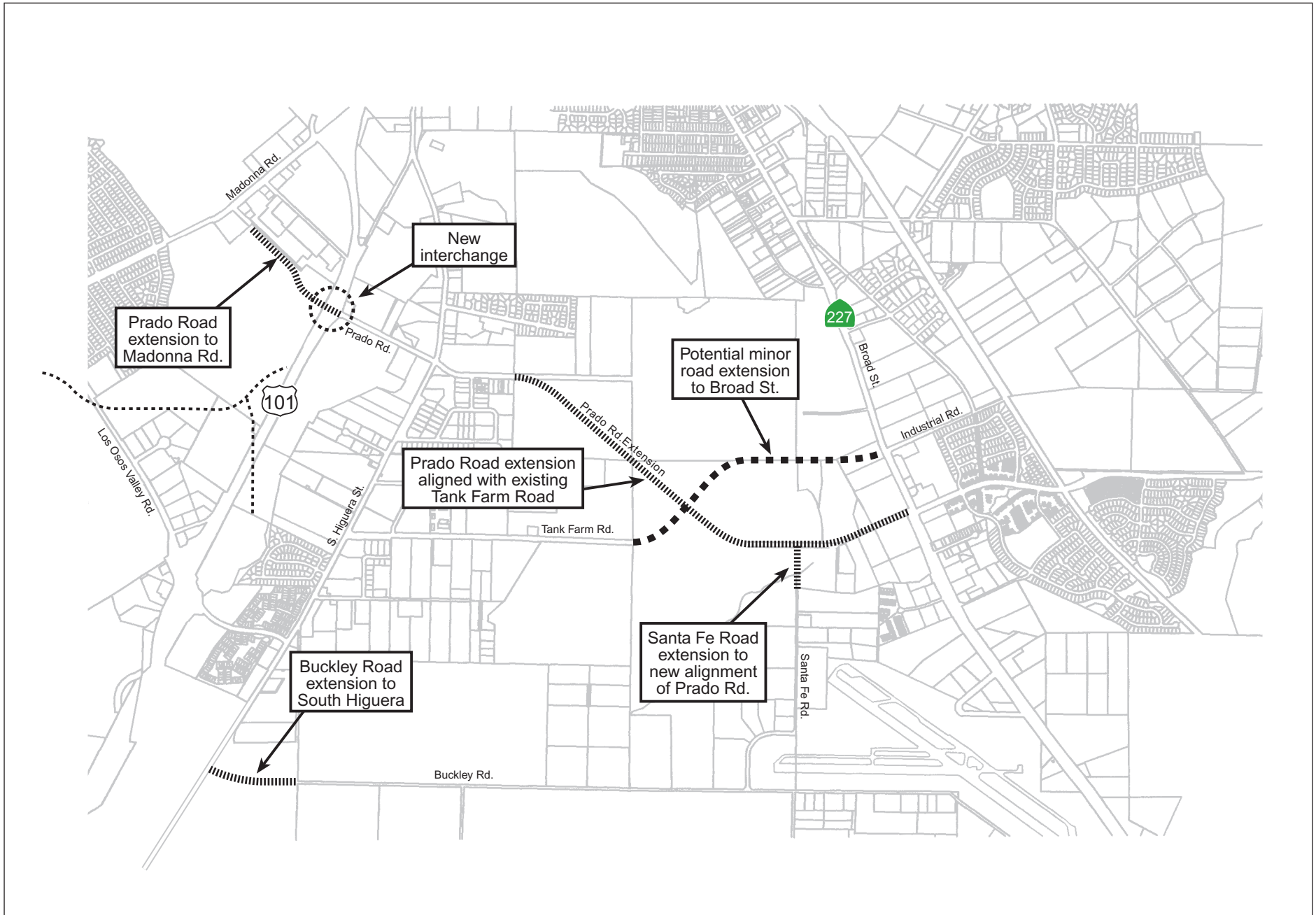
Impact T-1: Secondary Impacts of Road Improvements

See discussion of Impact T-1 for the proposed project.

Mitigation Measure T-1.1: Design Features. This mitigation measure is described above.

Impact T-2: LOS in Excess of LOS D

The Prado Road/South Higuera Street intersection would operate at LOS E. The Tank Farm Road/Broad Street intersection and the Los Osos Valley Road/U.S. 101 northbound ramps would operate at LOS F.



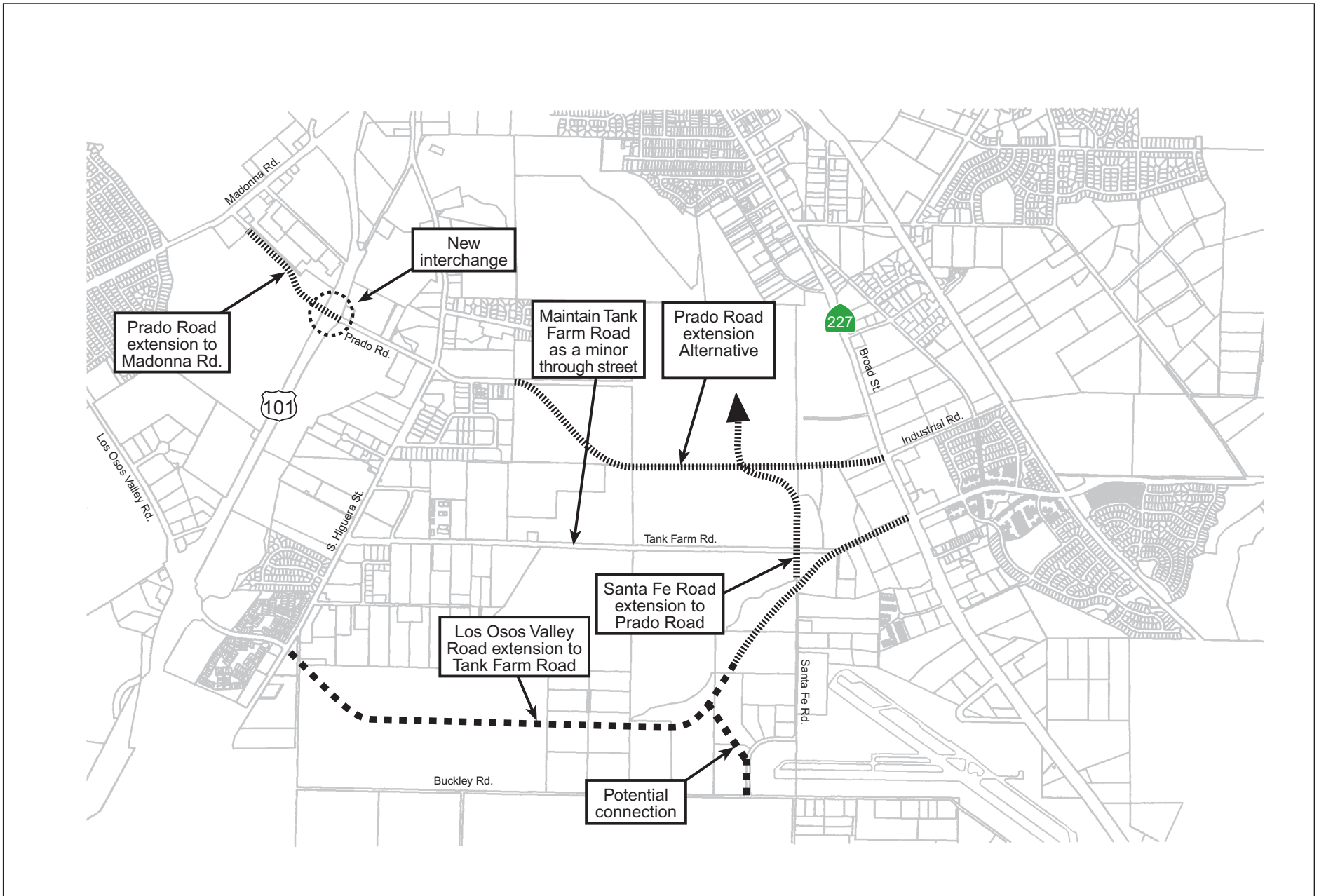


Figure 3D-12
Alternative 3 – General Plan Alignment Plus Extension
of Los Osos Valley Road to Tank Farm Road

Mitigation

No mitigation is feasible.

Alternative 4 (No-Project Alternative)

The no-project alternative assumes that if the proposed project is not approved, then development would proceed as allowed under the City's General Plan. Accordingly, the no-project scenario evaluates traffic impacts in the study area under buildout of the City's General Plan Land Use Element. Land uses within the Airport and Margarita Specific Plan areas reflect General Plan assumptions with less intensive development than proposed in the project scenario. The no-project scenario is evaluated under the existing circulation system with only those planned improvements described above. Major roadway extensions and new collector streets within the study area are not assumed in the no-project scenario. Traffic impacts are based on existing intersection lane configurations. Mitigation measures are the required improvements to existing intersections and the existing circulation system.

Table 3D-11 summarizes the no-project traffic operations at existing intersections within the study area. At buildout of the City's General Plan Land Use Element, traffic projections at several existing intersections will exceed capacity causing the intersections to operate at LOS F.

Table 3D-11. Intersection Levels of Service:
No-Project Conditions with Existing Lane Configurations

Intersection	P.M. Peak Hour	
	Average Stopped Delay	Intersection Level of Service
Prado Road/South Higuera Street	> 60	F
Tank Farm Road/South Higuera Street	37	D
Los Osos Valley Road/ South Higuera Street	13	B
Tank Farm Road/Broad Street	> 60	F
Los Osos Valley Road /U.S. 101 southbound ramps	12	B
Los Osos Valley Road /U.S. 101 northbound ramps	> 60	F
Orcutt/Broad Street	13	B
Aero Drive/Broad Street (unsignalized)	> 45	F
Buckley Road/Broad Street (unsignalized)	> 45	F

Impact T-3: Degradation of Level of Service at Five Intersections to LOS F during the P.M. Peak Hour under No-Project Conditions

Because of substantial growth in traffic at buildout of the City's General Plan, the following five intersections are expected to operate at LOS F during the p.m. peak hour without the proposed project:

- # Prado Road/South Higuera Street,
- # Tank Farm Road/Broad Street,
- # Aero Drive/Broad Street,
- # Buckley Road/Broad Street, and
- # Los Osos Valley Road /U.S. 101 northbound ramps.

Because the transportation improvements that would be required by the Specific Plans would not apply in the no-project alternative, this impact is considered *significant*.

Mitigation

Implementation of the following mitigation measures would reduce the impact to a *less-than-significant* level.

Mitigation Measure T-3.1: Fair Share Measures at Prado Road/South Higuera Street. To mitigate significant impacts on the Prado Road/South Higuera Street intersection, development projects shall contribute their fair share, as determined by the City, to the following measures:

- # Add second eastbound through lane.
- # Add second northbound left-turn lane.
- # Add second westbound through lane.
- # Provide the cross-section shown in Figure 3D-9 on the westbound and northbound approaches of Prado Road and South Higuera Street to provide the appropriate lanes within 84- and 86-foot rights-of-way.

The mitigation measures are illustrated in Figure 3D-13.

Funding Source: Developer fees, assessments and dedications
Implementing Party: City, Developer
Monitoring Agency: City
Timing: Concurrent with construction of the Prado Road extension or when average intersection delay exceeds 38 seconds per vehicle

Mitigation Measure T-3.2: Fair Share Measures at Tank Farm Road/Broad Street.

To mitigate significant impacts on the Tank Farm Road/Broad Street intersection, development projects shall contribute their fair share, as determined by the City, to the following measures:

- # Add westbound right-turn lane.
- # Add eastbound left- and right-turn through lanes.
- # Add two southbound right-turn lanes.
- # Add second northbound left-turn lane.
- # Add eastbound right-turn overlap signal timing improvement.

The mitigation measures are illustrated in Figure 3D-13.

Funding Source: Developer fees, assessments and dedications
Implementing Party: City, Caltrans, Developer
Monitoring Agency: City, Caltrans
Timing: Concurrent with widening of Tank Farm Road or when average intersection delay exceeds 38 seconds per vehicle

Mitigation Measure T-3.3: New Signalized Intersection for Aero Drive and Broad Street. To mitigate significant effects to this intersection, a new signalized intersection shall be installed on Broad Street south of Aero Drive, as identified in the Airport Master Plan.

Funding Source: Developer fees, assessments and dedications
Implementing Party: County, Caltrans
Monitoring Agency: County, Caltrans
Timing: When average intersection delay of unsignalized intersection exceeds 38 seconds per vehicle, and signal is warranted based on standard Caltrans warrants

Mitigation Measure T-3.4: Fair Share Measures at Buckley Road/Broad Street. To mitigate significant impacts on the Buckley Road/Broad Street intersection, development projects shall contribute their fair share, as determined by the City, to the following measures:

- # Add northbound and southbound through lane.
- # Add southbound right-turn lane.
- # Reconfigure eastbound approach to provide a left- and right-turn lane.
- # Signalize intersection (currently underway).

The mitigation measures are illustrated in Figure 3D-13.

<i>Funding Source:</i>	Developer fees, assessments and dedications
<i>Implementing Party:</i>	County, Caltrans
<i>Monitoring Agency:</i>	County, Caltrans
<i>Timing:</i>	When average intersection delay of unsignalized intersection exceeds 38 seconds per vehicle, and signal is warranted based on standard Caltrans warrants (signal planned to be installed in 2002)

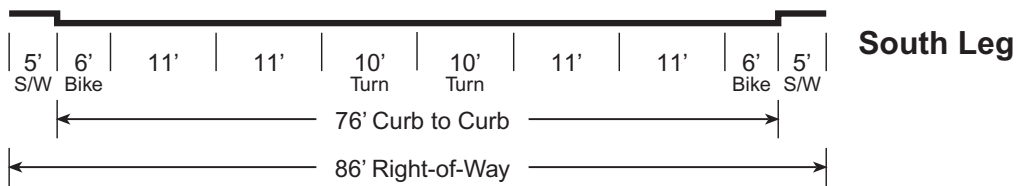
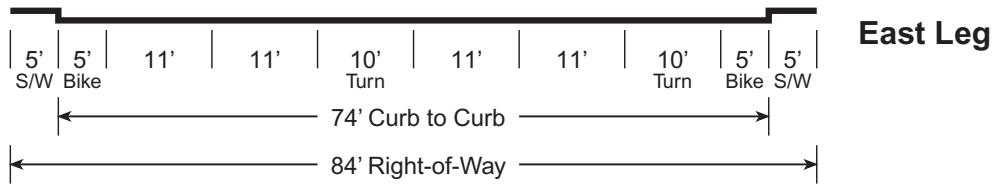
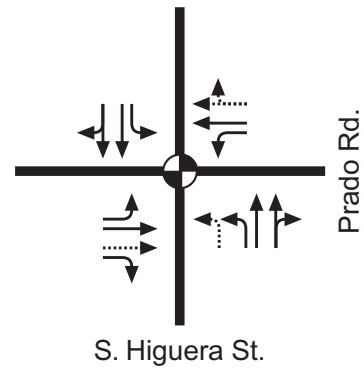
Mitigation Measure T-3.5: Fair Share Measures at Los Osos Valley Road/U.S. 101. To mitigate significant impacts on the Los Osos Valley Road/U.S. 101 northbound ramp intersection, development projects shall contribute their fair share, as determined by the City, to the following measures:

- # Add westbound through lane.
- # Add eastbound through lane.
- # Add second northbound left-turn lane.

Widen Los Osos Valley Road in conjunction with full interchange improvements, bridge widening, and improvements to the southbound ramp intersection. The mitigation measures are illustrated in Figure 3D-14.

Prado Road/South Higuera Street

- Add second eastbound through lane
- Add second northbound left-turn lane
- Add second westbound through lane
- Provide following cross-sections on east and south legs of intersection:

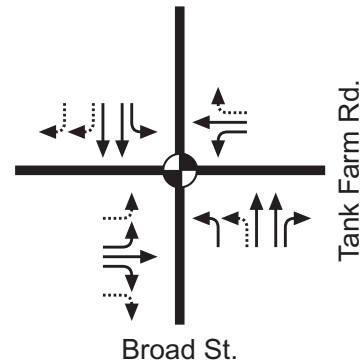


Mitigated LOS: C

Tank Farm Road/Broad Street

- Add westbound right-turn lane
- Add eastbound left- and right-turn lane
- Add two southbound right-turn lanes
- Add northbound left-turn lane

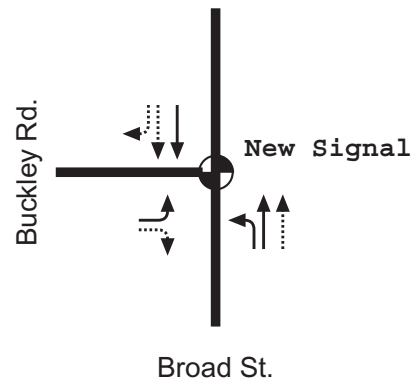
Mitigated LOS: C



Buckley Road/Broad Street

- Add northbound and southbound through lane
- Add southbound right-turn lane
- Reconfigure eastbound approach to provide left- and right-turn lane
- Signalize intersection

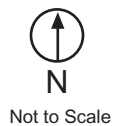
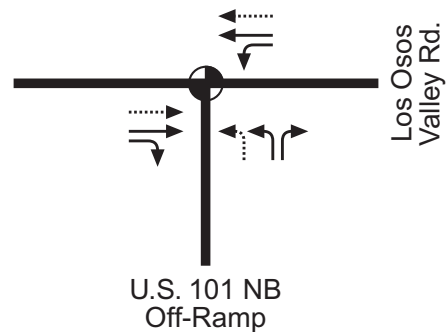
Mitigated LOS: B



Los Osos Valley Road/U.S. 101 Northbound Ramps

- Add westbound through lane
- Add eastbound through lane
- Add second northbound left-turn lane
- * Widen Los Osos Valley Road in conjunction with full interchange improvements, bridge widening, and improvements to southbound ramp intersection.

Mitigated LOS: B



Funding Source: Developer fees, assessments and dedications, potentially regional funds

Implementing Party: City, Caltrans, SLOCOG

Monitoring Agency: City, Caltrans, SLOCOG

Timing: When average delay at either ramp intersection exceeds City threshold of significance, LOS D. This mitigation will be implemented in conjunction with other development projects in the area.

Table 3D-12 summarizes the mitigated intersection service levels for no-project conditions.

Table 3D-12. Intersection Levels of Service:
No-Project Conditions with Mitigated Lane Configurations

Intersection	P.M. Peak Hour	
	Average Stopped Delay	Intersection Level of Service
Prado Road/South Higuera Street	24	C
Tank Farm Road/Broad Street	28	D
Los Osos Valley Road/U.S. 101 northbound ramps	15	B
Aero Drive/Broad Street	9	B
Buckley Road/Broad Street	9	B

Impact T-4. Capacity of Current Two-Lane Roads Exceeded on an Average Weekday under No-Project Alternative

Mitigation

Implementation of the following mitigation measure would reduce impacts to a *less-than-significant* level.

Mitigation Measure T-4.1: Fair Share Road Improvements

To mitigate significant impacts on roadways, development projects shall contribute their fair share to the following roadway improvements:

- # Widen Tank Farm Road to a four-lane parkway along its entire length.
- # Widen Prado Road (from South Higuera to the US 101 interchange) to a 4-lane arterial.

Widen South Higuera Street (from Tank Farm to Los Osos Valley Road) to a 4-lane arterial (already completed).

Widen Broad Street (from Buckley to Tank Farm) to a 4-lane arterial.

Funding Source:	Developer fees, assessments and dedications
Implementing Party:	City, County, Caltrans, Developer
Monitoring Agency:	City, County, Caltrans
Timing:	For each roadway, with bi-yearly review of LOS levels under the specific plans

Impact T-5. Addition of Substantial Traffic to Existing Roadways without Adequate Pedestrian and Bicycle Facilities and Generation of Pedestrian and Bicycle Travel on Roadways and Intersections without Adequate and Appropriate Facilities for Safe Nonmotorized Mobility under No-Project Alternative

Impacted roadways in the study area that are planned to contain Class II on-street bicycle facilities, but presently do not have adequate facilities include:

- # Tank Farm Road (South Higuera to Broad),
- # South Higuera Street (Tank Farm to Buckley),
- # Broad Street (Buckley to Orcutt),
- # Orcutt Road (Broad to Johnson),
- # Prado Road (South Higuera to US 101),
- # Industrial Way (Broad to Bullock), and
- # Buckley Road (Broad to Vachell).

Most intersections within the study area have pedestrian facilities (sidewalks, crosswalks and signalized crossings) where there are current pedestrian demands. Many of the roadways within the study area do not have sidewalks due to their rural character.

This impact is considered *significant*.

Mitigation

Implementation of the following mitigation measures would reduce impacts to a *less-than-significant* level.

Mitigation Measure T-5.1: Pedestrian and Bicycle Facilities

To mitigate the significant pedestrian and bicycle impacts of the no-project scenario, development projects shall include pedestrian and bicycle facilities in the design of the intersection and roadway improvements described in Mitigation Measures T-3.1 and T-3.2. Pedestrian facilities shall include sidewalks along both sides of all newly constructed streets and reconstructed streets, crosswalks at new intersections and reconstructed intersections, and pedestrian signals at all new and reconstructed signalized intersections. Bicycle facilities shall include Class II bike lanes on all new and reconstructed streets per the San Luis Obispo Bicycle Transportation Plan. Bike lanes shall be included in the widening of the following streets:

- # Tank Farm Road (South Higuera to Broad),
- # South Higuera Street (Tank Farm to Buckley),
- # Broad Street (Buckley to Tank Farm Road), and
- # Prado Road (South Higuera to U.S. 101 interchange).

Funding Source:	Developer fees, assessments and dedications
Implementing Party:	City, Caltrans, Developer
Monitoring Agency:	City, Caltrans
Timing:	Bicycle and pedestrian facilities should be included in any improvement projects for the roadways listed above; all new streets serving development projects shall include pedestrian facilities per City standards

Impact T-6. Increased Demand for Transit Service under No-Project Alternative

Traffic projected by land uses in the no-project scenario will increase delay at intersections, potentially affecting existing transit headways and schedules. Additionally, land uses in the no-project scenario will generate demand for transit service in areas of the City that do not currently have transit.

This impact is considered *significant*.

Mitigation

Implementation of the following mitigation measures would reduce impacts to a *less-than-significant* level.

Mitigation Measure T-6.1: Transit Plan Measures

To mitigate significant transit-related impacts in the proposed project, development projects in the Airport and Margarita areas shall be required to fund the capital expenditures to implement the short-range and long-range transit plans. The funding mechanism for transit capital needs shall be as specified in the Airport Area financing plan. Development adjacent to existing or proposed bus stops (per transit plan) are required to construct turnouts and bus stops (including shelters) conforming to the bus stop standards in SLO Transit's Short Range Transit Plan.

<i>Funding Source:</i>	Developer fees, assessments and dedications
<i>Implementing Party:</i>	City, Developer
<i>Monitoring Agency:</i>	City, transit agencies
<i>Timing:</i>	Transit facilities shall be installed at the time of construction of development projects in coordination with the City and local and regional transit authorities

Section 3E. Air Quality

INTRODUCTION

This section describes existing air quality conditions of the planning area. Pollutants discussed in this section include carbon monoxide (CO), ozone, and particulate matter smaller than 10 microns in diameter (PM10). Because air quality is relatively uniform throughout the planning area, only areawide air quality impacts are discussed. Impact topics assessed in this section include:

- short-term construction emissions, and
- long-term operation emissions.

SETTING

Regulatory Setting

Air Quality Management

The California Clean Air Act (CCAA), adopted in 1988, requires all air pollution control districts and air quality management districts in the state to adopt and enforce regulations to achieve and maintain air quality that is within the state air quality standards. The County has been identified as a nonattainment area for the state ozone and PM10 standards. The ozone nonattainment classification has been recently changed from “serious” to “moderate” based on air quality data collected from 1989 to 1991. Emissions of these pollutants (or their precursors) must be reduced by 5% per year until air quality meets these standards, pursuant to the law. It is currently estimated that countywide emissions of nonattainment pollutants must be reduced by at least 40% from 1987 levels to meet state standards.

In response to the requirements of the CCAA, the San Luis Obispo County Air Pollution Control District (APCD) prepared the 1998 Clear Air Plan (CAP) to provide a framework for the attainment of state air quality standards by the earliest practicable date. The CAP is a comprehensive planning document intended to provide guidance to the APCD, the County, and other local agencies on how to attain and maintain state standards. The CAP describes the pollutants that affect County air quality, the sources of those pollutants, and future air quality impacts that are anticipated under current growth trends. Based on this information, the CAP also provides control strategies for reducing emissions of ozone precursors.

Included in the CAP are land use and circulation management policies and programs designed to reduce vehicular air emissions. These policies and programs are to be implemented by local jurisdictions throughout the County. Land use policies address planning compact communities, providing for mixed land use, and balancing jobs and housing. Circulation objectives are to increase transit use, promote bicycling and walking, and manage traffic flow.

Regional Setting

Climate

The climate of the County can be generally characterized as Mediterranean, with warm, dry summers and cooler, relatively damp winters. Along the coast, mild temperatures are the rule throughout the year because of the moderating influence of the Pacific Ocean. This effect is diminished inland in proportion to distance from the ocean or by major intervening terrain features such as the coastal mountain ranges. As a result, inland areas are characterized by a considerably wider range of temperatures. Maximum summer temperatures average about 70E Fahrenheit near the coast, while inland valley temperatures are often in the high 90E range. Average minimum winter temperatures range from the low 30s along the coast to the low 20s inland.

From November through April, the Pacific High pressure system tends to migrate southward, allowing northern storms to move across the County. About 90% of the total annual rainfall is received during this period. Winter conditions are usually mild, with intermittent periods of precipitation followed by mostly clear days. Rainfall amounts can vary considerably among different regions in the County. In the Coastal Plain, annual rainfall averages 16 to 28 inches, while the Upper Salinas River Valley generally receives approximately 12 to 20 inches of rain. The Carrizo Plain is the driest area of the County with less than 12 inches of rain in a typical year. Average precipitation in San Luis Obispo is about 20 inches per year.

Airflow

Airflow around the County plays an important role in the movement and dispersion of pollutants. The speed and direction of local winds are controlled by the location and strength of the Pacific High pressure system and other global patterns, by topographical factors, and by circulation patterns resulting from temperature differences between the land and sea. In spring and summer months, when the Pacific High pressure system attains its greatest strength, onshore winds from the northwest generally prevail during the day. At night, as the sea breeze dies, weak drainage winds flow down the coastal mountains and valleys to form a light, easterly land breeze.

In the fall, onshore surface winds decline and the marine layer grows shallow, allowing an occasional reversal to a weak offshore flow. This along with the diurnal alternation of land-sea breeze circulation, can sometimes produce a “sloshing” effect. Under these conditions, pollutants may accumulate over the ocean for a period of one or more days and are subsequently carried back

onshore with the return of the sea breeze. Strong inversions can form at this time, trapping pollutants near the surface.

This effect is intensified when the Pacific High pressure system weakens or moves inland to the east. This may produce a “Santa Ana” condition in which air, often pollutant-laden, is transported into the County from the east and southeast. This can occur over a period of several days until the high pressure system returns to its normal location, breaking the pattern. The breakup of a Santa Ana condition may result in relatively stagnant conditions and a buildup of pollutants offshore. The onset of the typical daytime sea breeze can bring these pollutants back onshore, where they combine with local emissions to cause high pollutant concentrations. The “post-Santa Ana” condition does not always lead to high ambient pollutant levels, but it does play an important role in the air pollution meteorology of the County.

Atmospheric Stability and Dispersion

In the atmosphere, air temperatures normally decrease as altitude increases. At varying distances above the earth’s surface, however, a reversal of this gradient can occur. This condition, termed an inversion, is simply a warm layer of air above a layer of cooler air, and it has the effect of limiting the vertical dispersion of pollutants. The height of the inversion determines the size of the mixing volume trapped below. Inversion strength or intensity is measured by the thickness of the layer and the difference in temperature between the base and the top of the inversion. The strength of the inversion determines how easily it can be broken by winds or solar heating.

Several types of inversions are common to this area. Weak, surface inversions are caused by the cooling of air in contact with the cold surface of the earth at night. In valleys and low-lying areas, this condition is intensified by the addition of cold air flowing downslope from the hills and pooling on the valley floor. Surface inversions are a common occurrence throughout the County during the winter, particularly on cold mornings when the inversion is strongest. As the morning sun warms the earth and the air near the ground, the inversion lifts, gradually dissipating as the day progresses.

During the late spring and early summer months, cool air over the ocean can intrude under the relatively warmer air over land, causing a marine inversion. These inversions can restrict dispersion along the coast, but they are typically shallow and will dissipate with surface heating.

In contrast, in the summertime, the presence of the Pacific High pressure cell can cause the air mass aloft to sink. As the air descends, compressional heating warms it to a temperature higher than the air below. This highly stable atmospheric condition, termed a subsidence inversion, is common to all of coastal California and can act as a nearly impenetrable lid to the vertical mixing of pollutants. The base of the inversion typically ranges from 1,000 to 2,500 feet above sea level; however, levels as low as 250 feet, among the lowest anywhere in the state, have been recorded on the coastal plateau in San Luis Obispo County. The strength of these inversions makes them difficult to disrupt. Consequently, they can persist for one or more days, causing air stagnation and

the buildup of pollutants. Highest or worst-case ozone levels are often associated with the presence of this type of inversion.

Air Pollution Control

Air pollution control is administered on three governmental levels in the County. EPA has jurisdiction under the Federal Clean Air Act to develop federal air quality standards and require individual states to prepare State Implementation Plans (SIPs) to attain these standards.

The California Environmental Protection Agency, Air Resources Board (ARB) has jurisdiction under the California Health and Safety Code and the CCAA to develop California air quality standards, require regional plans to attain these standards, and coordinate the preparation by local air districts of plans required under both the federal and state Clean Air Acts. ARB is also responsible for developing state emission standards for mobile and stationary emission sources.

The San Luis Obispo County APCD shares responsibility with the ARB for ensuring that all state and federal ambient air quality standards are attained throughout the County. The APCD has jurisdiction under the California Health and Safety Code to issue air pollution permits and impose emission control requirements on stationary emission sources in the County. The APCD is also responsible for overseeing the countywide attainment of state and federal air quality standards.

Ambient Air Quality Standards

State and Federal Standards

Ambient air quality standards represent the maximum levels of background air pollution considered safe, with an adequate margin of safety to protect public health and welfare. EPA has developed standards for ~~six~~ ten “criteria” pollutants that are generally recognized as the basis for the measurement of ambient air quality. These ~~include~~ are ozone, sulfur dioxide, CO, nitrogen dioxide, lead, and PM10, PM2.5, hydrogen sulfide, vinyl chloride, and sulfate particles. Table 3E-1 lists the currently applicable standards for each of these pollutants. Pollutants of concern in the project area are described further below.

Characteristics and Effects of Air Pollution

Ozone

Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Ozone is a severe

Revised Table 3E-1. Ambient Air Quality Standards Applicable in California

Pollutant	Symbol	Average Time	Standard (parts per million)		Standard (micrograms per cubic meter)		Violation Criteria	
			California	National	California	National	California	National
Ozone	O ₃	1 hour	0.09	0.12	180	235	If exceeded	If exceeded on more than 3 days in 3 years
		8 hours	NA	0.08	NA	160 157	NA	NA <u>If exceeded on more than 3 days in 3 years</u>
Carbon monoxide	CO	8 hours	9.0	9	10,000	10,000	If exceeded	If exceeded on more than 1 day per year
		1 hour	20	35	23,000	40,000	If exceeded	If exceeded on more than 1 day per year
<u>(Lake Tahoe only)</u>		<u>8 hours</u>	<u>6</u>	<u>NA</u>	<u>7,000</u>	<u>NA</u>	<u>If equaled or exceeded</u>	<u>NA</u>
Nitrogen dioxide	NO ₂	Annual average	NA	0.053	NA	100	NA	If exceeded
		1 hour	0.25	NA	470	NA	If exceeded	
Sulfur dioxide	SO ₂	Annual average	NA	0.03	NA	80	NA	If exceeded
		24 hours	0.04	0.14	105	365	If exceeded	If exceeded on more than 1 day per year
		1 hour	0.25	NA	655	NA	NA	NA
<u>Hydrogen sulfide</u>	<u>H₂S</u>	<u>1 hour</u>	<u>0.03</u>	<u>NA</u>	<u>42</u>	<u>NA</u>	<u>If equaled or exceeded</u>	<u>NA</u>
<u>Vinyl chloride</u>	<u>C₂H₃Cl</u>	<u>24 hours</u>	<u>0.010</u>	<u>NA</u>	<u>26</u>	<u>NA</u>	<u>If equaled or exceeded</u>	<u>NA</u>
Inhalable particulate matter	PM10	Annual geometric mean	NA	NA	30 20	NA	If exceeded	NA
		Annual arithmetic mean	NA	NA	NA	50	NA	If exceeded
		24 hours	NA	NA	50	150	If exceeded	If average 1% over 3 years is exceeded
	PM2.5	<u>Annual geometric mean</u>	<u>NA</u>	<u>NA</u>	<u>12</u>	<u>NA</u>	<u>If exceeded</u>	<u>NA</u>
<u>Annual arithmetic mean</u>		<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>15</u>	<u>NA</u>	<u>If exceeded</u>	
<u>24 hours</u>		<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>65</u>	<u>NA</u>	<u>If average 2% over 3 years is exceeded</u>	

Revised Table 3E-1. Continued

Pollutant	Symbol	Average Time	Standard (parts per million)		Standard (micrograms per cubic meter)		Violation Criteria	
			California	National	California	National	California	National
<u>Sulfate particles</u>	<u>SO₄</u>	<u>24 hours</u>	<u>NA</u>	<u>NA</u>	<u>24</u>	<u>NA</u>	<u>If equaled or exceeded</u>	<u>NA</u>
<u>Lead particles</u>	<u>Pb</u>	<u>Calendar quarter</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>1.5</u>	<u>NA</u>	<u>If exceeded no more than 1 day per year</u>
		<u>30 days</u>	<u>NA</u>	<u>NA</u>	<u>1.5</u>	<u>NA</u>	<u>If equaled or exceeded</u>	<u>NA</u>

Notes:

All standards are based on measurements at 25°C and 1 atmosphere pressure.

National standards shown are the primary (health effects) standards.

NA = not applicable.

Revisions shown in this table reflect current state and national air quality standards; no changes in the air quality impact conclusions result from these additions.

eye, nose, and throat irritant. Ozone also attacks synthetic rubber, textiles, plants, and other materials. Ozone causes extensive damage to plants by leaf discoloration and cell damage.

State and federal standards for ozone have been set for a 1-hour averaging time. The state 1-hour ozone standard is 0.09 parts per million (ppm), not to be exceeded. The federal 1-hour ozone standard is 0.12 ppm, not to be exceeded more than three times in any 3-year period. The EPA recently replaced the 1-hour ozone standard with an 8-hour standard of 0.08 ppm. However, areas classified as nonattainment for ozone must attain the 1-hour ozone standard. On May 14, 1999, a three-judge panel of the U.S. Court of Appeals for the District of Columbia set aside the 8-hour standard. The court prohibited EPA from enforcing the standard. As shown in Table 3E-2, the closest monitoring station to the project site has not exceeded the state 1-hour ozone standard during the 3 most recent years for which data are available.

Table 3E-2. Summary of Air Quality Monitoring Data

Monitoring Station	Parameter	Federal Standard	California Standard	Year		
				1996	1997	1998
Ozone (ppm)	1-hour maximum	0.12 ppm	0.09 ppm	0.08	0.07	0.07
Marsh Street	Days above state standard			0	0	0
Carbon Monoxide	1-hour maximum	35 ppm	20 ppm	5	6	N/A
Marsh Street	Days above state standard			0	0	
PM10 ($\mu\text{g}/\text{m}^3$)	Annual geometric mean	50 $\mu\text{g}/\text{m}^3$	30 20 $\mu\text{g}/\text{m}^3$	15	17	15
	24-hours—2nd highest	150 $\mu\text{g}/\text{m}^3$	50 $\mu\text{g}/\text{m}^3$	37	51	27
Marsh Street	Days above state standard			0	12	0

Note: Days above standard means days with one or more exceedances of the 1-hour state standard.

Source: California Air Resources Board 1999

Ozone is not emitted directly into the air but is formed by a photochemical reaction in the atmosphere. Ozone precursors, which include reactive organic gases (ROG) and oxides of nitrogen (NO_x), react in the atmosphere in the presence of sunlight to form ozone. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem. The ozone precursors, ROG and NO_x , are emitted by stationary combustion engines and mobile sources, such as automobiles, trucks, and construction equipment.

Carbon Monoxide

CO is essentially inert to plants and materials but can have significant effects on human health. CO is a public health concern because it combines readily with hemoglobin and thus reduces

the amount of oxygen transported in the bloodstream. Effects on humans range from slight headaches to nausea to death.

State and federal CO standards have been set for both 1-hour and 8-hour averaging times. The state 1-hour standard is 20 ppm by volume, and the federal 1-hour standard is 35 ppm. Both state and federal standards are 9 ppm for the 8-hour averaging period. The CO monitoring data collected for the 3 most recent years for which data are available show no violations of the state or federal CO standards.

Motor vehicles are the dominant source of CO emissions in most areas. High CO levels develop primarily during winter when periods of light winds combine with the formation of ground-level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures.

PM10 and PM2.5

Health concerns associated with suspended particulate matter focus on those particles small enough to reach the lungs when inhaled. Particulates can damage human health and retard plant growth. Particulates also reduce visibility, soil buildings and other materials, and corrode materials.

The federal ambient air quality standard for particulate matter currently applies to two classes of particulates: particulate matter 10 microns or less in diameter (generally designated as PM10) and particulate matter 2.5 microns or less in diameter (PM2.5). ~~The California ambient air quality standard applies only to PM10.~~

The state PM10 standards are 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) as a 24-hour average and ~~30~~ 20 $\mu\text{g}/\text{m}^3$ as an annual geometric mean. The federal PM10 standards are $150\mu\text{g}/\text{m}^3$ as a 24-hour average and $50\mu\text{g}/\text{m}^3$ as an annual arithmetic mean. The federal PM2.5 standards equal $15\mu\text{g}/\text{m}^3$ for the annual average and $65\mu\text{g}/\text{m}^3$ for the 24-hour average. The state PM2.5 standard is $12\mu\text{g}/\text{m}^3$ as an annual geometric mean.

The monitoring data shown in Table 3E-2 show that PM10 concentrations have exceeded the state 24-hour PM10 standard (but not the annual PM10 standard) in 1997. No PM2.5 monitoring stations have yet been established in the project area.

PM10 emissions are generated by a wide variety of sources including agricultural activities, industrial emissions, dust suspended by vehicle traffic and construction equipment, and secondary aerosols formed by reactions in the atmosphere.

IMPACTS AND MITIGATION

Introduction and Methodology

Implementation of the proposed project would result in both construction and operational emissions. Construction would generate fugitive dust (PM10) and exhaust emissions from construction equipment. Operational emissions would be generated by mobile, stationary, and area sources. Agricultural activity would also generate air emissions, particularly PM10.

The San Luis Obispo APCD CEQA Air Quality Handbook was used as a guide to assess the air quality impacts attributable to the implementation of the proposed project. An air quality consistency analysis, described in the handbook, is required for the project. The consistency analysis was performed using the San Luis Obispo County Clean Air Plan (1998), which is designed to bring the County into attainment with the California ozone ambient standards.

Criteria for Determining Significance

Appendix G of the State CEQA Guidelines, city and county plans and policies, and professional judgment were used to determine whether implementing the proposed project would have a significant impact on air quality. It was determined that implementation of the proposed project would have a significant impact on air quality if it would

- generate construction emissions greater than the San Luis Obispo APCD's thresholds of 185 pounds per day of ROG or NO_x, and 2.5 tons per quarter of ROG, NO_x, or PM10;
- violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- expose sensitive receptors to substantial pollutant concentrations; or
- be inconsistent with the APCD's CAP, which is explained in detail later in this report.

Summary of Impacts

This section evaluates air quality impacts related to the proposed project and the three land use alternatives. For this evaluation, impacts have been assessed in two categories. Table 3E-3 provides an overview of the significance findings made for the proposed project and each of the alternatives.

Table 3E-3. Summary of Air Quality Impacts

Impact Discussion	Impact after Mitigation	Mitigation	Airport Area	Margarita Area	Facility Master Plans
Proposed Project					
Air-1	LTS	AIR-1.1 AIR-1.2 AIR-1.3	S	S	S
Air-2	LTS	AIR-2.1	S	S	S
Alternative 1					
Alternative 1 will have the same impacts as the proposed project					
Alternative 2					
Alternative 2 will have the same impacts as the proposed project					
Alternative 3					
Alternative 3 will have the same impacts as the proposed project					
Alternative 4					
Alternative 4 would not result in any new air quality impacts					
<hr/>					
Notes:					
B = Beneficial					
LTS = Less than significant					
S = Significant					
SU = Significant and Unavoidable					

Proposed Project

Impact AIR-1: Short-Term Construction Emissions

Buildout under the proposed project would involve the grading and construction of residential, commercial, industrial, and recreational structures throughout the project in the Airport Area, Margarita Area, and facilities master plan service areas. All phases of site preparation and building construction would produce construction emissions. The most emissions would be generated during the initial phases of site preparation when large areas of soil would be disturbed and many large construction vehicles would be in operation. Emissions occurring during this phase would consist primarily of particulates generated by soil disturbance and combustion emissions generated by construction vehicles. The rate of particulate generation is dependent upon soil moisture and silt content, wind speed, and relative activity level.

The combustion emissions generated by construction vehicles and equipment may degrade local air quality and cause exceedances of the state nitrogen dioxide standard. In addition, emissions of ozone precursors (NO_x and ROG) would exacerbate existing high ozone levels in the County. The magnitude of combustion emissions is highly variable among construction sites because of the variability in the number of construction vehicles operating simultaneously.

While the total acreage to be developed under buildout of the proposed project could be estimated, the phasing of individual development projects is not known. Consequently, the impact of construction emissions on regional or local air quality cannot be quantified with any accuracy. The construction emissions of each specific development project must be evaluated individually and cumulatively to determine the magnitude of impacts to regional and local air quality. This impact is considered *significant*

Mitigation

Implementation of the following mitigation measure would reduce the impact to a *less-than-significant* level.

Mitigation Measure AIR-1.1. Construction-Related Combustion Emissions Mitigation

NO_x emissions will be the controlling factor in determining the application of control strategies for construction-related, combustion-related emissions. Any project requiring grading of >1,950 cubic yards/day or >50,000 cubic yards within a 3-month period will need to apply Best Available Control Technology for construction equipment combustion controls. Projects requiring >125,000 cubic yards of grading in a 3-month period will need to apply CBACT plus offsets and/or other mitigation. Examples of CBACT can be found in the San Luis Obispo APCD CEQA Air Quality Handbook. If impacts are still significant after application of CBACT, the following additional measures shall be implemented as necessary:

- use Caterpillar pre-chamber diesel engines (or equivalent), properly maintained and operated to reduce emissions of NO_x;
- use electrically powered equipment where feasible;
- maintain equipment in tune per manufacturer's specifications, except as otherwise required above;
- install catalytic converters on gasoline-powered equipment;
- substitute gasoline-powered equipment for diesel-powered equipment, where feasible;
- implement activity management techniques as described below; and

- use compressed natural gas– or propane-powered portable equipment (e.g., compressors, generators, etc.) onsite instead of diesel-powered equipment, where feasible.

Funding Source: Project Proponent

Implementing Party: Project Proponent

Monitoring Agency: City of San Luis Obispo; San Luis Obispo APCD

Timing: During construction

Mitigation Measure AIR-1.2. Construction-Related Fugitive Dust (PM10) Mitigation

Any project with a grading area greater than 1.6 hectares (4.0 acres) of continuously worked area will exceed the 2.5 ton PM10 quarterly threshold and will require the following mitigation measures where applicable. Proper implementation of these measures shall be assumed to achieve a 50% reduction in fugitive dust emissions. The use of soil binders on completed cut-and-fill areas has the potential to reduce fugitive dust emissions by 80%.

- Reduce the amount of the disturbed area where possible.
- Use water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site; increased watering frequency would be required whenever wind speeds exceed 15 miles per hour (mph); reclaimed (nonpotable) water should be used whenever possible.
- Spray all dirt stockpile areas daily as needed.
- Implement permanent dust control measures identified in the approved project revegetation and landscape plans as soon as possible following completion of any soil-disturbing activities.
- Sow exposed ground areas that are planned to be reworked at dates occurring 1 month after initial grading with a quickly germinating native grass seed and water until vegetation is established.
- Stabilize all disturbed soil areas that are not subject to revegetation using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD.
- Complete paving of all roadways, driveways, sidewalks, etc. that are to be paved as soon as possible; lay building pads as soon as possible after grading unless seeding or soil binders are used.
- Limit vehicle speeds for all construction vehicles to a maximum of 15 mph on any unpaved surface at the construction site.
- Cover all trucks hauling dirt, sand, soil, or other loose materials or maintain at least 2 feet of freeboard (minimum vertical distance between top of load and top of trailer) in

accordance with CVC Section 23114; this measure has the potential to reduce PM10 emissions by 7–14%.

- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site; this measure has the potential to reduce PM10 emissions by 40–70%.
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads; water sweepers with reclaimed water should be used where feasible; this measure has the potential to reduce PM10 emissions by 25–60%.

All PM10 mitigation measures required should be shown on grading and building plans. In addition, the contractor or builder should designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD prior to land use clearance for map recordation and land use clearance for finish grading of the structure.

Funding Source: Project Proponent
Implementing Party: Project Proponent
Monitoring Agency: City of San Luis Obispo; San Luis Obispo APCD
Timing: During construction

Mitigation Measure AIR-1.3. Construction-Related Activity Management Techniques

- Develop a comprehensive construction activity management plan designed to minimize the amount of large construction equipment operating during any given time period.
- Schedule construction truck trips during non-peak hours to reduce peak hour emissions.
- Limit the length of the construction work-day period, if necessary.
- Phase construction activities, if appropriate.

Funding Source: Project Proponent
Implementing Party: Project Proponent
Monitoring Agency: City of San Luis Obispo
Timing: During construction

Impact AIR-2: Long-Term Operation Emissions

Long-term air quality impacts would result primarily from ongoing emissions generated by the operation of motor vehicles and by natural gas combustion and electricity **consumption**.

The land uses proposed in the project would generate new vehicle trips in the air basin. Vehicle emissions were estimated using the ARB's URBEMIS7G model. The increase in vehicle emissions associated with buildout of the project for each land use is presented in Table ~~3E-1~~ 3E-4 under transportation emissions.

Development of the land uses in the project would increase the demand for electricity and natural gas for space and water heating. Electricity consumption would generate emissions from fuel combustion at powerplants. Natural gas combustion would also generate emissions directly. Emissions were estimated using URBEMIS7G and are listed in Table ~~3E-1~~ 3E-4 under area sources.

Consistency with the District's CAP. As indicated in the APCD CEQA Air Quality Handbook, a consistency analysis is required in the environmental review for projects that involve a proposed project. The consistency analysis must evaluate the following questions:

1. Are the population projections used in the plan or project equal to or less than those used in the most recent CAP for the same area?
2. Is the rate of increase in vehicle trips and miles traveled less than or equal to the rate of population growth for the same area?
3. Have all applicable land use and transportation control measures from the CAP been included in the plan or project to the maximum extent feasible?

Provided that the answer to all three of these questions is yes, the project is to be considered consistent with the CAP. If the answer to any one of the questions is no, then the emissions reductions projected in the CAP may not be achieved, which could delay or preclude attainment of the state ozone standard. This would be considered inconsistent with the CAP. The following paragraphs evaluate the proposed project based on the questions presented above.

1. Are the population projections used in the plan or project equal to or less than those used in the most recent CAP for the same area?

The CAP includes population figures for incorporated and unincorporated areas of the County for 1990, as well as population projections up to year 2010. The CAP projects that the population of the San Luis Obispo area will be 49,228 in the year 2010. The proposed project uses the population projections in the San Luis Obispo General Plan and, according to the most recent plan, the population projection for the year 2010 is also 49,228. As such, the proposed project would be consistent with the population projections in the CAP.

2. Is the rate of increase in vehicle trips and miles traveled less than or equal to the rate of population growth for the same area?

Due mainly to the additional employment generated in the area (more than anticipated by the 1994 Land Use and Circulation Elements update), VMT is expected to increase

faster than population in the area. Over the anticipated buildout period for the area, a gradual shift to vehicles with lower emissions is expected to at least partially offset air quality impacts of increased VMT. However, rapid commercial and industrial development in the early years could exceed this compensating reduction.

3. Have all applicable land use and transportation control measures from the CAP been included in the plan or project to the maximum extent feasible?

Under the San Luis Obispo Area Plan, the goals for land use were to plan compact communities, provide for mixed land use, and balance jobs and housing. The proposed project incorporated these goals from the Area Plan, which was also identified in the CAP aim to reduce the number of VMT by local residents. For example, the Margarita Area Specific Plan would allow the development of a wide variety of land uses including Residential, Park, Neighborhood Commercial, and Business Parks, ~~and Elementary School~~. These land uses would provide residents with convenient access to employment, basic shopping, recreation, and education through both the locations of land uses and the design of circulation features.

Based on these considerations, the proposed project would be consistent with the CAP and is not expected to further delay the attainment of state and federal air quality standards within the County. Therefore, this impact is considered to be *less than significant*.

Mitigation

Mitigation Measure AIR-2.1. Implement Growth-Phasing Schedule. The City will implement a growth-phasing schedule for the Airport area, to assure that nonresidential development in the urban area does not exceed the pace of residential development.

Alternatives 1–3

Impacts

The significance of the impacts of Alternatives 1–3 would be similar to those of the proposed project. Long-term operational emissions associated with different land uses would differ according to each alternative. Tables ~~3E-4 through 3E-6~~ 3E-5 through 3E-7 list the long-term operational emissions for Alternatives 1–3.

Revised Table 3E-4. Proposed Project Long-Term Emissions

Source/Land Use	Pollutant Emissions (tons/year)			
	ROG	NOx	CO	PM10
Area Source Emissions	12.18	18.73	7.84	0.03
Transportation Emissions				
Residential	5.31 <u>5.04</u>	13.21 <u>12.54</u>	38.99 <u>37.07</u>	6.87 <u>6.52</u>
Manufacturing	52.92 <u>64.23</u>	130.56 <u>158.45</u>	406.68 <u>493.55</u>	65.91 <u>79.99</u>
Business Park	64.20 <u>53.93</u>	184.69 <u>155.14</u>	586.37 <u>492.55</u>	92.48 <u>77.68</u>
Neighborhood Commercial	1.10 <u>9.74</u>	2.76 <u>24.52</u>	10.39 <u>92.37</u>	1.08 <u>9.62</u>
Elementary School	1.76	4.06	13.09	1.94
City Parks	0.73	2.59	7.60	1.25

Revised Table 3E-5 4. Alternative 1 Long-Term Emissions

Source/Land Use	Pollutant Emissions (tons/year)			
	ROG	NOx	CO	PM10
Area Source Emissions	12.18	18.73	7.84	0.03
Transportation Emissions				
Residential	5.60	13.94	41.15	7.25
Manufacturing	65.08	160.54	500.05	81.04
Business Park	29.24	84.70	269.40	42.42
Neighborhood Commercial	8.30	20.78	78.28	8.16
Elementary School	1.76	4.06	13.09	1.94
City Parks	0.73	2.59	7.60	1.25

Revised Table 3E-6 5. Alternative 2 Long-Term Emissions

Source/Land Use	Pollutant Emissions (tons/year)			
	ROG	NO _x	CO	PM10
Area Source Emissions	11.82	21.40	8.91	0.04
Transportation Emissions				
Residential	5.31 <u>5.04</u>	13.21 <u>12.54</u>	38.99 <u>37.07</u>	6.87 <u>6.52</u>
Manufacturing	97.79	241.73	752.97	122.03
Business Park	34.78 <u>36.17</u>	100.05 <u>105.05</u>	318.19 <u>334.10</u>	50.10 <u>52.61</u>
Neighborhood Commercial	1.10 <u>9.74</u>	2.76 <u>24.52</u>	10.39 <u>92.37</u>	1.08 <u>9.62</u>
Elementary School	2.05	4.67	15.05	2.23
City Parks	0.85	3.01	8.83	1.45

Revised Table 3E-7.6. Alternative 3 Long-Term Emissions

Source/Land Use	Pollutant Emissions (tons/year)			
	ROG	NO _x	CO	PM10
Area Source Emissions	13.43	43.59	17.78	0.08
Transportation Emissions				
Residential	5.31 <u>5.04</u>	13.21 <u>12.54</u>	38.99 <u>37.07</u>	6.87 <u>6.52</u>
Residential	5.31	13.21	38.99	6.87
Manufacturing	67.55	167.41	521.45	84.51
Business Park	34.78 <u>36.17</u>	100.05 <u>105.05</u>	318.19 <u>334.10</u>	50.10 <u>52.61</u>
Business Park	96.82	266.42	847.36	133.43
Neighborhood Commercial	1.10 <u>9.74</u>	2.76 <u>24.52</u>	10.39 <u>92.37</u>	1.08 <u>9.62</u>
Elementary School	2.06	4.69	15.13	2.24
City Parks	0.85	3.03	8.88	1.46

Alternative 4 (No-Project Alternative)

Implementation of Alternative 4 would not result in any new air quality impacts.

Section 3F. Noise

INTRODUCTION

This section presents information on existing baseline noise levels and sources of noise within the Airport and Margarita areas and the related facility master plan areas. Impact topics assessed in this section include:

- # exposure of land uses to traffic noise in excess of maximum allowable standards for exterior noise exposure, and
- # exposure of residential uses to aircraft noise.

Appendix E provides background information on environmental acoustics, including definitions of terms commonly used in noise analysis.

SETTING

Regulatory Setting

City of San Luis Obispo

The City General Plan Noise Element contains goals and policies for the compatibility of sensitive land uses with noise. Because the project area will ultimately be incorporated into the City, these Noise Element policies will be used to evaluate noise impacts after buildout of the specific plans. The policies identified below are applicable to the project.

City Policy N 1.2.6

Policy. *New noise-sensitive development shall be located and designed to meet the maximum outdoor and indoor noise exposure levels of Table 3F-1.*

City Policy N 1.2.7

Policy. *Noise created by new transportation noise sources, including road, railroad, and airport expansion projects, shall be mitigated to not exceed the levels specified in Table 3F-1 for outdoor activity areas and indoor spaces of noise-sensitive land uses which were established before the new transportation noise source.*

City Policy N 1.2.8

Policy. *The noise level standards in Table 3F-1 should be used as criteria for limiting traffic growth on:*

- A) *Residential Collector streets, as designated by the Circulation Element;*
- B) *Local Streets, as designated by the Circulation Element, which extend through areas designated for residential uses.*

In addition, the Noise Element specifies noise mitigation measures that are required to be implemented when the City approves new development of noise-sensitive uses or noise sources. These mitigation measures and policies are summarized below (see Figure 2 of the Noise Element for guidance on implementing City mitigation policies).

City Policy N 1.2.11. This policy stipulates that the City will require developers to implement noise mitigation measures listed in the noise element. The noise element identifies some mitigation measures as more desirable than others and requires that developers implement the most desirable measures first, or show that they are impractical.

City Policy N 1.2.12. This policy outlines measures for mitigating noise sources: using existing features to shield receptors; limiting the hours of operation, and providing noise-blocking features.

City Policy N 1.2.13. This policy outlines individual and combined measures for mitigating outdoor noise exposure: putting distance between noise sources and receivers, using earthen berms, using soundwalls, and creating barriers by combining berms, soundwalls, and other structures.

City Policy N 1.2.14. This policy outlines measures for mitigating indoor noise exposure, including the installation of air conditioning or ventilation, when necessary.

City Policy N 1.2.15. This policy provides guidance on the use of soundwalls: soundwalls should be used only if other measures are not effective and should be integrated with the aesthetic environment. This policy specifies that, in the Margarita Area, dwellings should be set back from highways, arterials, and collector streets to eliminate the need for soundwalls.

- # City Policy N 1.2.16. This policy provides guidance on how the City can address existing and cumulative noise impacts. Measures include rerouting traffic and reducing traffic speeds, constructing noise barriers, retrofitting buildings, and supporting programs to provide mitigation.
- # City Policy N 1.2.17. This policy instructs the City to approve increases in residential fence heights for noise mitigation purposes, as long as the fences are aesthetically integrated into the neighborhood.

In addition to the above policies, the Noise Element identifies programs to ensure that noise impacts are evaluated and that development complies with noise standards. These programs are summarized below.

- # Program N 1.3.1. This program requires the Community Development Department to review new development proposals and ensure their consistency with the Noise Element.
- # Program N 1.3.2. This program requires developers to prepare and submit a noise study if project noise may exceed acceptable levels.
- # Programs N 1.3.3 and N 1.3.4. These programs require the City to ensure that noise mitigation measures, including those specified in State Building Code Chapter 35 and 24 CCR, are implemented during project construction and/or after construction is complete, as appropriate.
- # Program N 1.3.5. This program requires the City to enforce California Vehicle Code restrictions on noise from exhaust systems and sound amplification systems.
- # Program N 1.3.6. This program directs the City to pursue alternatives to noisy equipment, such as leaf blowers, and to purchase equipment and vehicles only if they incorporate the best available noise reduction technology.
- # Programs N 1.3.7 and 1.3.8. These programs direct the City to review and update the Noise Element if needed to ensure that it is consistent with other policies, and to make the Noise Guidebook available to anyone involved in project design and review.

County of San Luis Obispo

The County General Plan Noise Element contains goals and policies for the compatibility of sensitive land uses with noise. The purpose of these goals and policies is to reduce the various potential effects of noise on people. These policies are included for information only; the City's policies are used to evaluate the project. The policies identified below are applicable to the project.

County Policy 3.3.2

Policy. *New development of noise-sensitive land uses shall not be permitted in areas exposed to existing or future levels of noise from transportation noise sources which exceed 60 dBA (decibels above reference noise, adjusted) L_{dn} (day-night average sound level) or CNEL (community noise equivalent level) (70 dBA L_{dn} or CNEL for outdoor sports and recreation) unless the project design includes effective mitigation measures to reduce noise in outdoor activity areas and interior spaces to or below the levels specified for the given land uses in Table 3F-1.*

County Policy 3.3.4

Policy. *New development of noise-sensitive land uses shall not be permitted where the noise level due to existing stationary noise sources will exceed [a daytime L_{eq} of 50 dBA and a nighttime L_{eq} of 45 dBA].*

County Policy 3.3.4.c

Policy. *Noise levels shall be reduced to or below [a daytime L_{eq} of 50 dBA and nighttime L_{eq} of 45 dBA] where the stationary noise source will expose vacant land in the Agriculture, Rural Lands, Residential Rural, Residential Suburban, Residential Single-Family, Residential Multi-Family, Recreation, Office and Professional and Commercial Retail land use categories to noise levels in excess of [these standards]. This policy may be waived when the Director of Planning and Building determines that such vacant land is not likely to be developed with a noise-sensitive land use.*

Table 3F-1. Maximum Allowable Noise Exposure for Transportation Noise Sources

Land Use	Outdoor Activity Areas ^a L_{dn} /CNEL, dB	Interior Spaces	
		L_{dn} /CNEL, dB	L_{eq} , dB ^b
Residential	60 ^c	45	--
Transient lodging	60 ^c	45	--
Hospitals, nursing homes	60 ^c	45	--
Theaters, auditoriums, music halls	--	--	35
Office buildings	60 ^c	--	45
Churches, meeting halls, schools	60 ^c	--	45
Libraries, museums	--	--	45
Neighborhood parks	65	--	--
Playgrounds	70	--	--

Notes: L_{dn} = day-night average sound level; CNEL = community noise equivalent level

- ^a When the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.
- ^b As determined for a typical worst-case hour during periods of use.
- ^c For other than residential uses, where an outdoor activity area is not proposed, the standard shall not apply. When it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} /CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} /CNEL may be allowed provided that available exterior noise-level reduction measures have been implemented and interior noise levels are in compliance with this table.

Regional Setting

Noise-Sensitive Land Uses and Existing Noise Conditions

Noise-sensitive land uses are those land uses that can be adversely affected by elevated or increased noise levels. Sensitive land uses generally include residences, schools, libraries, nursing homes, and churches.

The primary sources of noise within the County include traffic on major roadways and highways, the Union Pacific Railroad, which carries freight and passenger trains, and aircraft operating in and out of the County Airport. Stationary noise sources include the day-to-day activities associated with the existing land uses in the planning area.

Table 3F-2 summarizes existing traffic noise levels in the plan area based on existing traffic volumes. The traffic noise modeling methodology is discussed below.

Revised Table 3F-2. Existing Traffic Noise Levels in the Plan Area Modeling Results for Existing Conditions

Roadway	Segment	L_{dn} Noise Level at 100 feet	Distance to Noise Contour		
			70 L_{dn}	65 L_{dn}	60 L_{dn}
Prado Road	East of South Higuera	N/A	N/A	N/A	N/A
	West of Broad	N/A	N/A	N/A	N/A
Tank Farm Road	East of South Higuera	69.1	87	188	404
	West of Broad	69.1	87	188	404
Buckley Road	East of South Higuera	61.9	29	62	133
	West of Broad	61.9	29	62	133
Los Osos Valley Road	East of South Higuera	N/A	N/A	N/A	N/A
	South of Tank Farm	N/A	N/A	N/A	N/A

Santa Fe Road	South of Prado	N/A	N/A	N/A	N/A
	North of Buckley	N/A	N/A	N/A	N/A
South of Higuera Street	North of Prado	68.5	80	172	371
	North of Tank Farm	65.7	52	112	241
	North of Los Osos Valley	65.7	52	112	241
Broad Street	North of Prado	68.4	78	168	362
	North of Tank Farm	67.3	66	141	305
	North of Buckley	69.4	91	196	421

IMPACTS AND MITIGATION

Introduction and Methodology

The noise impacts associated with the proposed specific plans were evaluated for their potential to expose noise-sensitive uses to noise. The focus of the analysis is traffic noise and aircraft noise. Traffic noise conditions have been evaluated using the Federal Highway Traffic Noise Prediction Model (FHWA-RD-77-108) and traffic data provided by Fehr & Peers Associates, Inc. The model takes into account traffic volumes, speed, vehicle mix, and the acoustical absorption characteristics of the ground. The model calculates a 1-hour average equivalent (L_{eq}) traffic noise level. L_{dn} values were estimated from the L_{eq} values and an estimate of the percentage of traffic that occurs at nighttime (10 p.m. to 7 a.m.). Assessment of aircraft noise is based on information in the San Luis Obispo Airport Master Plan EA/EIR (City County of San Luis Obispo 1998).

Research into the human perception of changes in sound level indicates the following:

- # a 3-dB change is barely perceptible,
- # a 5-dB change is clearly perceptible, and
- # a 10-dB change is perceived as being twice or half as loud.

Table 3F-3 summarizes traffic noise levels predicted to occur under proposed project. Table 3F-4 summarizes traffic noise levels predicted to occur under Alternative 1. Table 3F-5 summarizes traffic noise levels predicted to occur under Alternative 2. Table 3F-6 summarizes traffic noise modeling results predicted to occur under Alternative 3.

Table 3F-3. Traffic Noise Modeling Results for the Proposed Project

Roadway	Segment	L _{dn} Noise Level at 100 Feet	Distance to Noise Contour		
			70 L _{dn}	65 L _{dn}	60 L _{dn}
Prado Road	East of South Higuera	69.5	92	199	428
	West of Broad	66.2	56	120	258
Tank Farm Road	East of South Higuera	71.1	118	253	546
	West of Broad	71.6	127	274	589
Buckley Road	East of South Higuera	66.0	54	116	250
	West of Broad	62.8	33	72	154
Los Osos Valley Road	East of South Higuera	N/A	N/A	N/A	N/A
	South of Tank Farm	N/A	N/A	N/A	N/A
Santa Fe Road	South of Prado	66.1	55	119	256
	North of Buckley	56.0	12	25	54
South of Higuera Street	North of Prado	63.1	34	74	160
	North of Tank Farm	65.2	48	103	222
	North of Los Osos Valley	68.1	74	160	345
Broad Street	North of Prado	69.6	94	202	436
	North of Tank Farm	68.7	83	178	383
	North of Buckley	72.5	147	318	684

Table 3F-4. Traffic Noise Modeling Results for Alternative 1

Roadway	Segment	L _{dn} Noise Level at 100 Feet	Distance to Noise Contour		
			70 L _{dn}	65 L _{dn}	60 L _{dn}
Prado Road	East of South Higuera	69.8	97	209	451
	West of Broad	67.1	64	138	296
Tank Farm Road	East of South Higuera	71.0	116	251	541
	West of Broad	71.0	116	249	538
Buckley Road	East of South Higuera	66.3	57	122	263
	West of Broad	62.7	32	70	151
Los Osos Valley Road	East of South Higuera	N/A	N/A	N/A	N/A
	South of Tank Farm	N/A	N/A	N/A	N/A
Santa Fe Road	South of Prado	63.1	34	74	160
	North of Buckley	56.5	13	27	58
South of Higuera Street	North of Prado	63.4	36	78	168
	North of Tank Farm	65.7	52	112	242
	North of Los Osos Valley	67.8	71	154	332
Broad Street	North of Prado	70.0	101	217	467
	North of Tank Farm	69.6	94	202	435
	North of Buckley	72.5	146	314	677

Table 3F-5. Traffic Noise Modeling Results for Alternative 2

Roadway	Segment	L _{dn} Noise Level at 100 Feet	Distance to Noise Contour		
			70 L _{dn}	65 L _{dn}	60 L _{dn}
Prado Road	East of South Higuera	69.7	96	206	444
	West of Broad	68.0	74	158	341
Tank Farm Road	East of South Higuera	71.2	121	260	560
	West of Broad	N/A	N/A	N/A	N/A
Buckley Road	East of South Higuera	65.7	51	111	238
	West of Broad	62.8	33	71	153
Los Osos Valley Road	East of South Higuera	N/A	N/A	N/A	N/A
	South of Tank Farm	N/A	N/A	N/A	N/A
Santa Fe Road	South of Prado	61.1	25	55	118
	North of Buckley	58.2	16	35	76
South of Higuera Street	North of Prado	63.6	37	80	173
	North of Tank Farm	65.8	53	114	245
	North of Los Osos Valley	68.4	78	168	362
Broad Street	North of Prado	N/A	N/A	N/A	N/A
	North of Tank Farm	68.3	77	166	357
	North of Buckley	72.5	146	315	679

Table 3F-6. Traffic Noise Modeling Results for Alternative 3

Roadway	Segment	L _{dn} Noise Level at 100 Feet	Distance to Noise Contour		
			70 L _{dn}	65 L _{dn}	60 L _{dn}
Prado Road	East of South Higuera	69.4	92	198	426
	West of Broad	64.6	44	95	204
Tank Farm Road	East of South Higuera	68.8	83	180	387
	West of Broad	72.3	142	306	659
Buckley Road	East of South Higuera	65.0	46	100	215
	West of Broad	62.7	33	70	151
Los Osos Valley Road	East of South Higuera	66.7	61	131	281
	South of Tank Farm	65.5	50	108	233
Santa Fe Road	South of Prado	65.5	50	108	233
	North of Buckley	56.0	12	25	54
South of Higuera Street	North of Prado	63.0	34	73	158
	North of Tank Farm	65.7	51	111	239
	North of Los Osos Valley	65.4	49	106	228
Broad Street	North of Prado	70.4	106	228	491
	North of Tank Farm	68.9	84	182	391
	North of Buckley	72.5	146	314	676

Criteria for Determining Significance

Appendix G of the State CEQA Guidelines, city and county plans and policies, and professional judgment were used to determine whether implementing the proposed project would have a significant impact on noise. It was determined that implementation of the proposed project would have a significant impact on noise if it would:

- # expose existing or planned land uses to noise (excluding aircraft noise) in excess of the standards for exterior noise exposure specified in Table 3F-1,
- # substantially increase (temporary or permanent) ambient noise levels above levels existing without the project, or
- # expose residential land uses to aircraft noise in excess of 65 dB-CNEL.

Summary of Noise Impacts

This section evaluates noise impacts related to the two specific plans and related facility master plans for the proposed project, as well as the three land use alternatives. Table 3F-7 provides an overview of the significance findings made for the proposed project and the three land use alternatives.

Table 3F-7. Summary of Noise Impacts

Impact	Overall Impact	Mitigation	Airport Area	Margarita Area	Facility Master Plans
Proposed Project					
N-1: Exposure of Land Uses to Traffic Noise in Excess of the Standards for Exterior Noise Exposure Specified in Table 3F-1	LTS	None required	LTS	LTS	LTS
N-2: Exposure of Residential Uses to Traffic Noise	LTS	None required	LTS	LTS	LTS
N-3: Exposure of Residential Uses to Aircraft Noise	LTS	None required	LTS	LTS	LTS
Alternative 1					
Alternative 1 would have similar impacts to the proposed project.					
Alternative 2					
Alternative 2 would have similar impacts to the proposed project.					
Alternative 3					
Alternative 3 would have similar impacts to the proposed project.					
Alternative 4					
Alternative 4 would not result in any new noise impacts.					
<hr/>					
Impacts:					
B	= Beneficial				
LTS	= Less than significant				
S	= Significant				
SU	= Significant and Unavoidable				
N/A	= Not applicable				

Proposed Project

Impact N-1: Exposure of Land Uses to Traffic Noise in Excess of the Standards for Exterior Noise Exposure Specified in Table 3F-1

As indicated in Table 3F-3, residential and business land uses are predicted to be exposed to traffic noise levels that exceed the planning standard of 60 dBA-L_{dn} for both the Airport area and the Margarita area. Also, substantial increases in noise (i.e., an increase of more than 3dB) would occur along new roadways. Without mitigation, this impact would be significant. However, the City Noise Element requires implementation of noise mitigation measures for development of new noise-sensitive uses or noise sources, as identified under “Regulatory Setting” in this chapter. Implementation of these required noise mitigation measures would reduce this impact to a *less-than-significant* level.

Mitigation

No mitigation is required.

Impact N-2: Increase in Permanent or Temporary Ambient Noise Levels as Indicated in Table 3F-3, Substantial Increases in Noise Would Occur Along Some Roadways

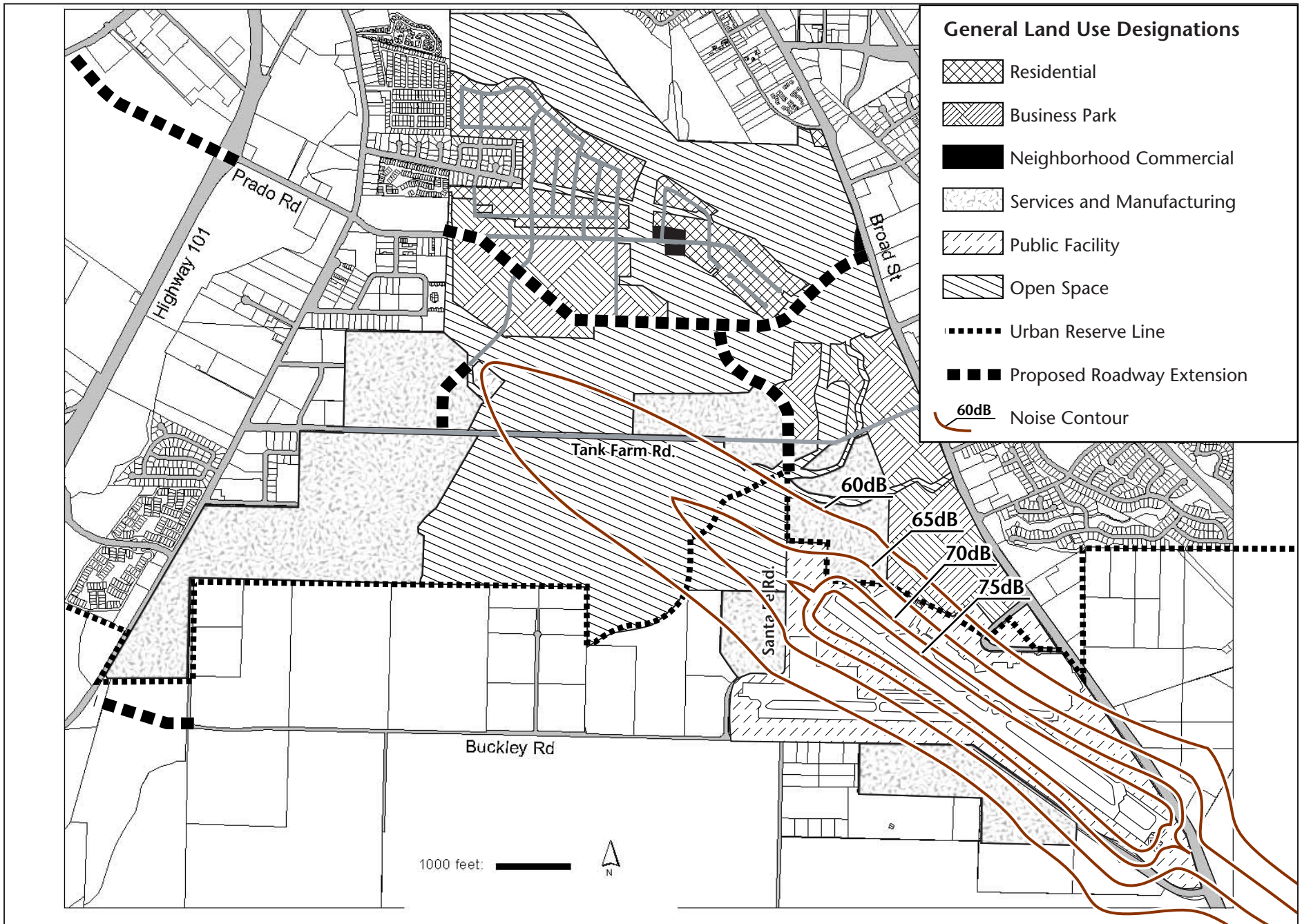
Without mitigation, this impact would be significant. However, the City Noise Element requires implementation of noise mitigation measures for development of new noise-sensitive uses or noise sources as identified under “Regulatory Setting” in this chapter. Implementation of these required noise mitigation measures would reduce this impact to a *less-than-significant* level.

Mitigation

No mitigation is required.

Impact N-3: Exposure of Residential Uses to Aircraft Noise

Figure 3F-1 shows the aircraft noise contour lines at the airport under 2015 conditions (City of San Luis Obispo 1998) as they relate to the land uses under the proposed project. As shown in the figure, residential land uses in the two planning areas are not within the 60 or 65 dBA-CNEL contour line under the proposed project. Therefore, this impact is considered *less than significant*.



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Mitigation

No mitigation is required.

Alternative 1

Impact N-1: Exposure of Land Uses to Traffic Noise in Excess of the Standards for Exterior Noise Exposure Specified in Table 3F-1

As indicated in Table 3F-4, residential and business land uses are predicted to be exposed to traffic noise levels that exceed the planning standard of 60 dBA- L_{dn} for both the Airport area and the Margarita area. Also, substantial increases in noise would occur along new roadways. Without mitigation, this impact would be significant. However, the City Noise Element requires implementation of noise mitigation measures for development of new noise-sensitive uses or noise sources as identified under “Regulatory Setting” in this chapter. Implementation of these required noise mitigation measures would reduce this impact to a *less-than-significant* level.

Mitigation

No mitigation is required.

Impact N-2: Increase in Permanent or Temporary Ambient Noise Levels as Indicated in Table 3F-3, Substantial Increases in Noise Would occur along some roadways.

Without mitigation, this impact would be significant. However, the City Noise Element requires implementation of noise mitigation measures for development of new noise-sensitive uses or noise sources as identified under “Regulatory Setting” in this chapter. Implementation of these required noise mitigation measures would reduce this impact to a *less-than-significant* level.

Mitigation

No mitigation is required.

Impact N-3: Exposure of Residential Uses to Aircraft Noise

Figure 3F-2 shows the aircraft noise contour lines at the airport under 2015 conditions (City of San Luis Obispo 1998) as they relate to the land uses under Alternative 1. As shown in the figure, residential land uses in the two planning areas are not within the 60 or 65 dBA-CNEL contour line under this alternative. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 2

Impact N-1: Exposure of Land Uses to Traffic Noise in Excess of the Standards for Exterior Noise Exposure Specified in Table 3F-1

As indicated in Table 3F-5, residential and business land uses are predicted to be exposed to traffic noise levels that exceed the planning standard of 60 dBA- L_{dn} for both the Airport area and the Margarita area. Also, substantial increases in noise would occur along new roadways. Without mitigation, this impact would be significant. However, the City Noise Element requires implementation of noise mitigation measures for development of new noise-sensitive uses or noise sources as identified under “Regulatory Setting” in this chapter. Implementation of these required noise mitigation measures would reduce this impact to a *less-than-significant* level.

Mitigation

No mitigation is required.

Impact N-2: Increase in Permanent or Temporary Ambient Noise Levels as Indicated in Table 3F-3, Substantial Increases in Noise Would Occur Along Some Roadways

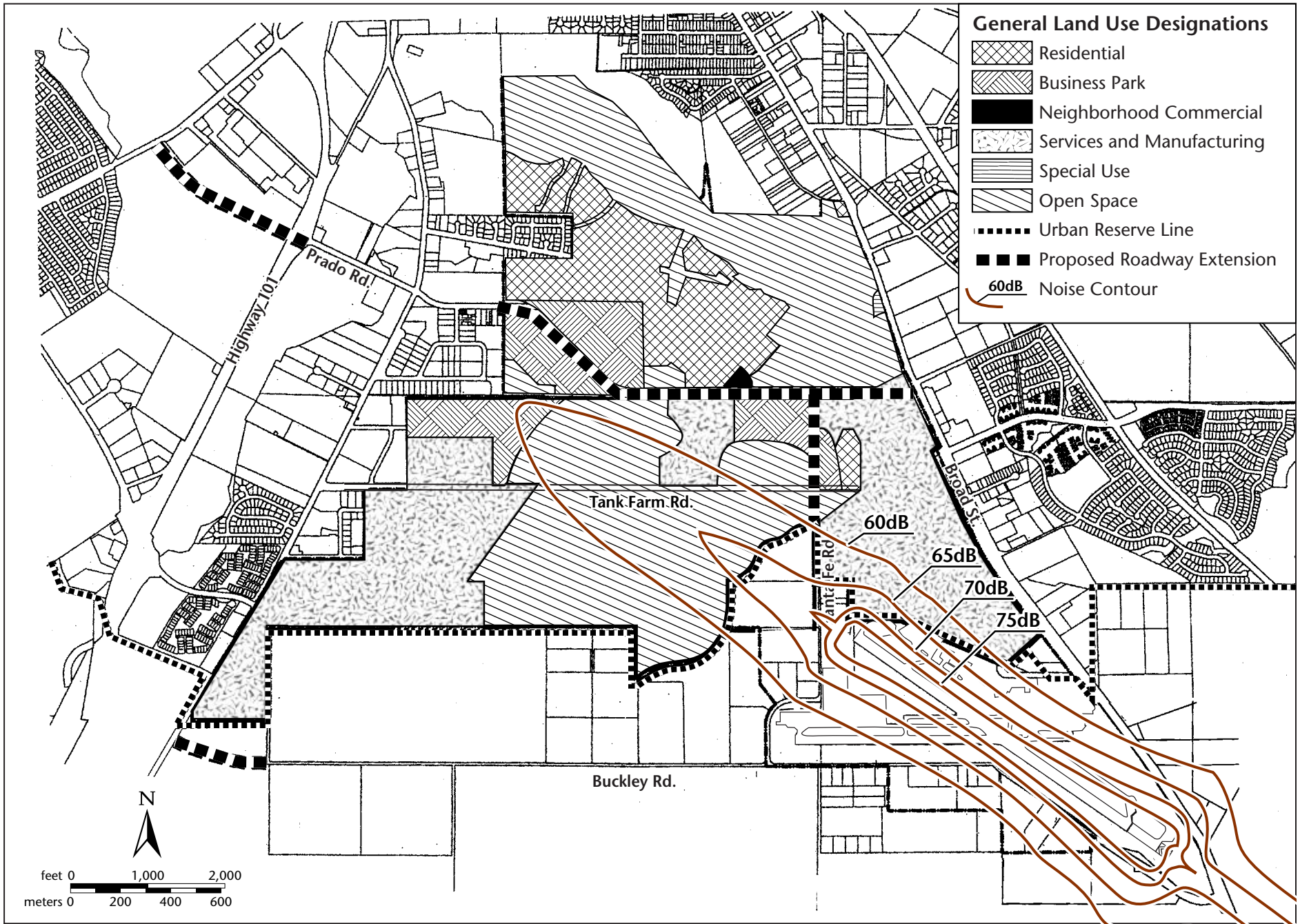
Without mitigation, this impact would be significant. However, the City Noise Element requires implementation of noise mitigation measures for development of new noise-sensitive uses or noise sources as identified under “Regulatory Setting” in this chapter. Implementation of these required noise mitigation measures would reduce this impact to a *less-than-significant* level.

Mitigation

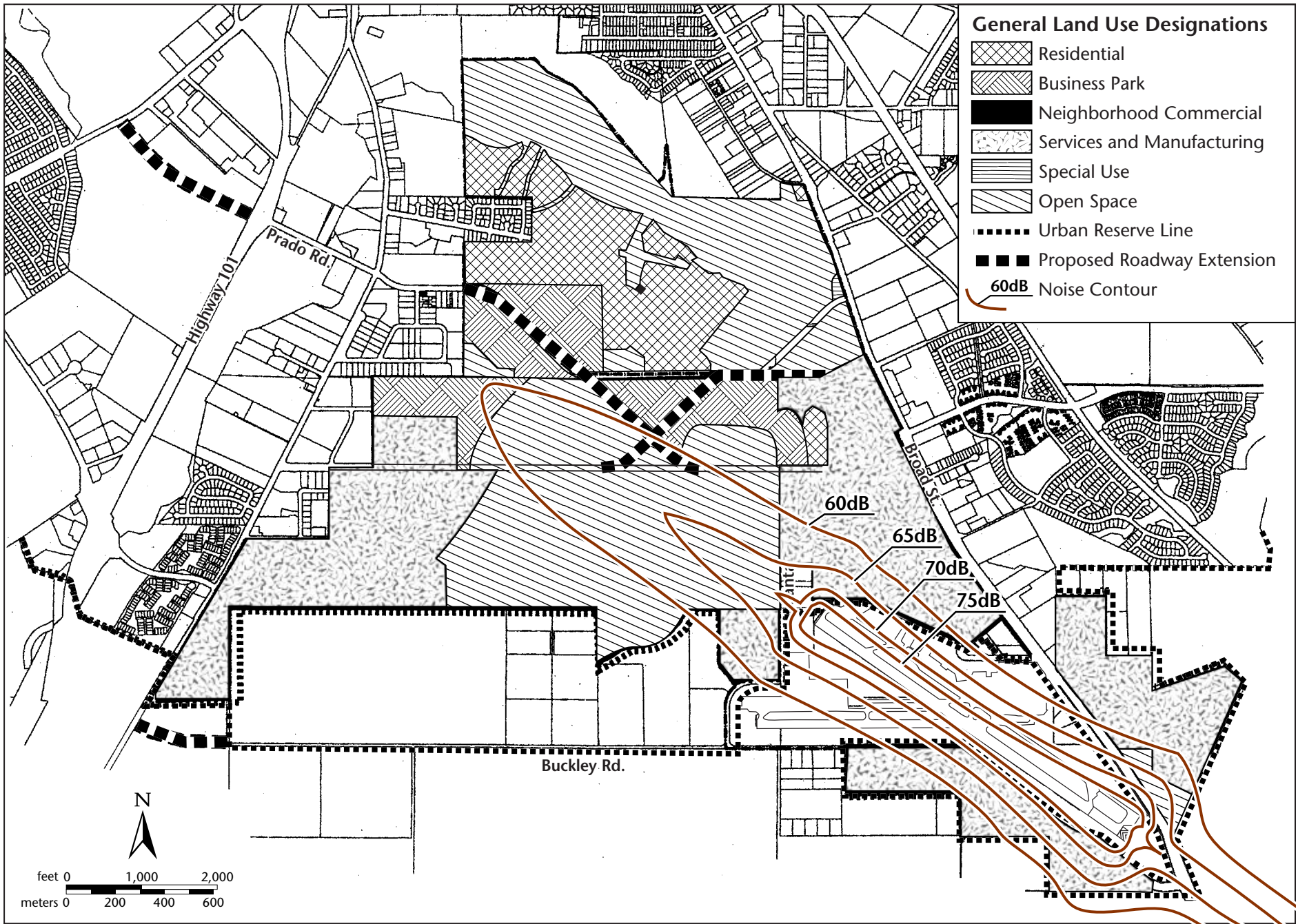
No mitigation is required.

Impact N-3: Exposure of Residential Uses to Aircraft Noise

Figure 3F-3 shows the aircraft noise contour lines at the airport under 2015 conditions (City of San Luis Obispo 1998) as they relate to the land uses under Alternative 2. As shown in the figure, residential land uses in the two planning areas are not within the 60 or 65 dBA-CNEL contour line under this alternative. Therefore, this impact is considered *less than significant*.



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Mitigation

No mitigation is required.

Alternative 3

Impact N-1: Exposure of Land Uses to Traffic Noise in Excess of the Standards for Exterior Noise Exposure Specified in Table 3F-1

As indicated in Table 3F-6, residential and business land uses are predicted to be exposed to traffic noise levels that exceed the planning standard of 60 dBA- L_{dn} for both the Airport area and the Margarita area. Also, substantial increases in noise would occur along new roadways. Without mitigation, this impact would be significant. However, the City Noise Element requires implementation of noise mitigation measures for development of new noise-sensitive uses or noise sources as identified under “Regulatory Setting” in this chapter. Implementation of these required noise mitigation measures would reduce this impact to a *less-than-significant* level.

Mitigation

No mitigation is required.

Impact N-2: Increase in Permanent or Temporary Ambient Noise Levels as Indicated in Table 3F-3, Substantial Increases in Noise Would Occur Along Some Roadways

Without mitigation, this impact would be significant. However, the City Noise Element requires implementation of noise mitigation measures for development of new noise-sensitive uses or noise sources as identified under “Regulatory Setting” in this chapter. Implementation of these required noise mitigation measures would reduce this impact to a *less-than-significant* level.

Mitigation

No mitigation is required.

Impact N-3: Exposure of Residential Uses to Aircraft Noise

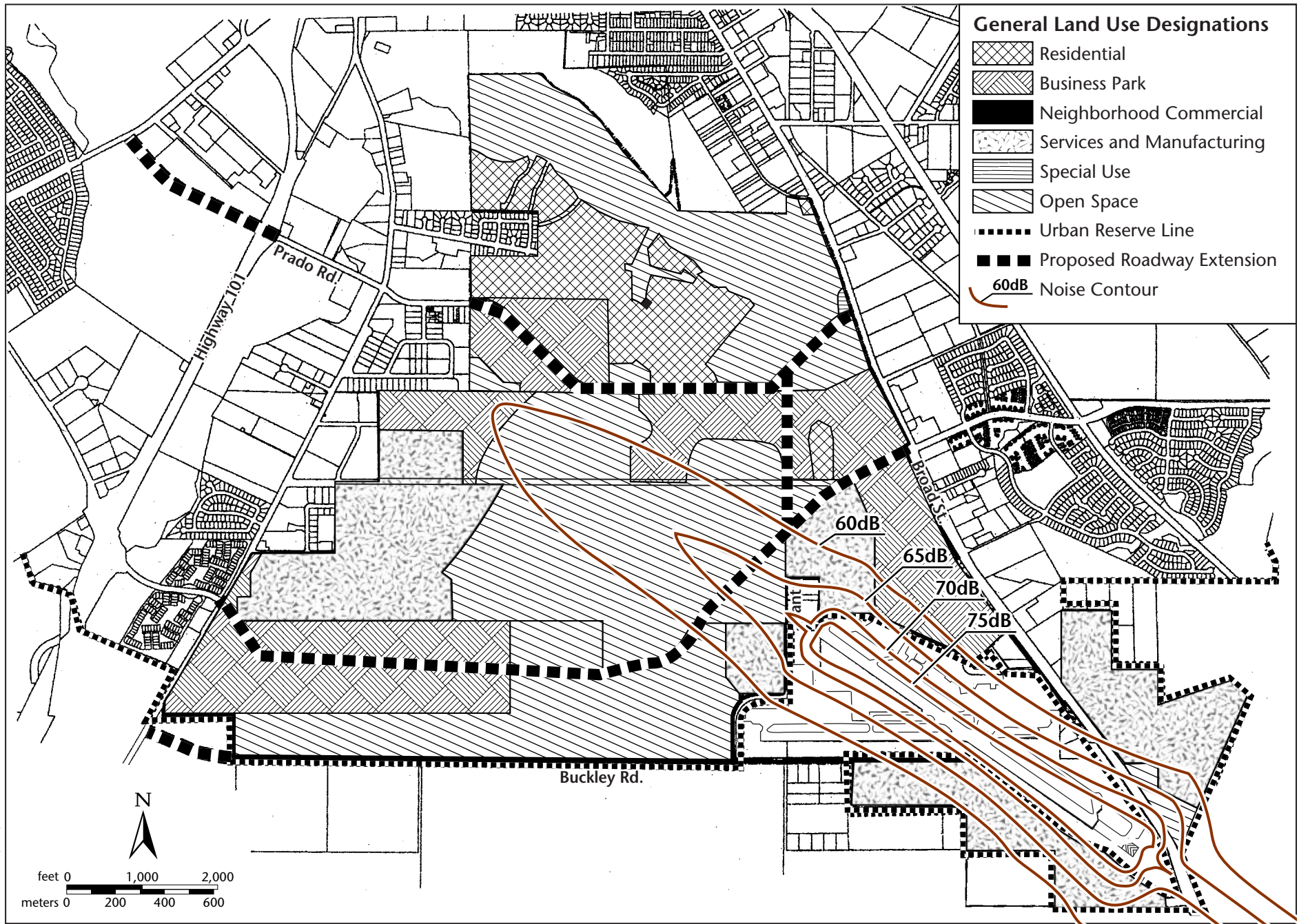
Figure 3F-4 shows the aircraft noise contour lines at the airport under 2015 conditions (City of San Luis Obispo 1998) as they relate to the land uses under Alternative 3. As shown in the figure, residential land uses in the two planning areas are not within the 60 or 65 dBA-CNEL contour line under this alternative. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 4 (No-Project Alternative)

Implementation of Alternative 4 (No-Project Alternative) would not result in any new noise impacts.



Section 3G. Hazardous Materials

INTRODUCTION

This section presents a general overview of the potential for encountering hazardous materials in the Airport and Margarita areas and the related facility master plan areas. Hazardous materials issues particularly likely to arise in the project area are discussed qualitatively, and mitigation measures are recommended. Impact topics assessed in this section include:

- # potential exposure of construction workers and residents to hazardous materials that are excavated, disturbed, or exposed during construction-related activities;
- # potential operations-related exposure of workers and residents to hazardous materials; and
- # potential short-term surface water quality degradation from accidental release of hazardous materials during construction.

SETTING

Regulatory Setting

Assessment and remediation of contaminated property proceed under different federal and state laws. At the federal level, there is the federal Superfund (Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA]) and the federal Hazardous Waste Law (Resource Conservation and Recovery Act of 1976 [RCRA]). In California, there is the state Superfund law (the Hazardous Substances Account Act), the state hazardous waste law, the underground storage tank law, and the Porter-Cologne Water Quality Act.

CERCLA was designed to remediate sites contaminated by hazardous substances before further damage occurs. It seeks to accomplish this by imposing liability on those who caused the contamination. Under CERCLA, a “liable party” is liable only for the costs of remediating “hazardous substances”. Therefore, the definition of “hazardous substances” is integral to the characterization of a contaminated property.

The term “hazardous substances” includes both hazardous materials and hazardous wastes (discarded materials). In the most general of terms, there are two types of hazardous waste: listed wastes and characteristic wastes. Listed wastes are those wastes that are specified by name in 40 CFR 261 Subpart D (federal regulations) or 22 CCR 4 (state regulations). Characteristic wastes are those wastes that display one or more of the four characteristics defined in 40 CFR Subpart C (federal regulations) or 22 CCR 3 (state regulations). The four characteristics are ignitability, corrosivity, reactivity, and toxicity.

Federal Regulations

Resource Conservation and Recovery Act of 1976. The RCRA (substantially amended in 1984), which is administered by EPA, is the principal federal legislation that regulates hazardous waste. The RCRA imposes reporting, permitting, and operation control requirements on those who generate, treat, store, or dispose of hazardous materials or hazardous waste. The RCRA is implemented by Title 40 of the Code of Federal Regulations. The recent amendments to this act involve stringent monitoring of landfills and regulation of underground storage tanks for hazardous materials and hazardous wastes.

Comprehensive Environmental Response, Compensation, and Liability Act. In response to the need to clean up hazardous waste sites in existence before the RCRA, Congress enacted CERCLA (commonly referred to as “Superfund”) in 1980. Consequently, abandoned hazardous waste sites had to be inspected and cleaned up, and the waste had to be properly disposed.

Superfund Amendments and Reauthorization Act of 1986. The risk to those exposed to hazardous waste as a result of the RCRA and CERCLA was addressed in the Superfund Amendments and Reauthorization Act of 1986 (SARA). As a result of SARA, the U.S. Occupational Safety & Health Administration (OSHA) published hazardous waste cleanup regulations (29 CFR 1910.120).

State Regulations

California’s regulations governing hazardous materials are as stringent as federal regulations or, in some cases, more stringent. The State of California (State) has been granted primacy (primary responsibility for oversight) by EPA to administer and enforce hazardous waste management programs. State regulations also have detailed planning and management requirements to ensure that hazardous materials are properly handled, stored, and disposed of to reduce human health risks. State regulations pertaining to hazardous waste management are published in the California Code of Regulations, previously called the California Administrative Code. The California Code of Regulations is updated yearly and incorporates all legislation and final regulations enacted during the year, including the agencies responsible for enforcing the various regulations. Title 26, administered by the California Environmental Protection Agency (Cal/EPA), is the largest state code; it incorporates all the regulations that deal with toxic materials from other titles.

Department of Toxic Substances Control. Regulation for hazardous waste management at the state level falls primarily under Title 22 of the California Code of Regulations, which is overseen by the Department of Toxic Substances Control (DTSC). The DTSC regulates the treatment, storage, and disposal of hazardous waste in accordance with Title 22 of the California Code of Regulations, and the federal regulations, Title 40 of the Code of Federal Regulations. The DTSC administers the state and federal Superfunds for cleanup of major hazardous waste contamination sites.

Regional Water Quality Control Boards. Responsibilities for water quality control fall primarily under Title 23 of the California Code of Regulations, which is overseen primarily by the RWQCBs. The RWQCBs are responsible for protecting beneficial uses of water. Beneficial uses, which can be actual or potential, include municipal water supply, recreation, industrial water supply, and agricultural water supply. The RWQCBs have authority to supervise hazardous waste cleanup at sites referred by local agencies and in cases where water quality is affected or threatened.

The DTSC or RWQCB may be responsible for cleanup of significant contamination by hazardous wastes. The agencies often coordinate with each other to see that the requirements from each agency are implemented and consistent.

California Occupational Safety and Health Administration. Health and safety regulations applying to investigation and cleanup of sites contaminated with hazardous waste are enforced by the California Occupational Safety and Health Administration (Cal-OSHA) under Title 8 of the California Code of Regulations, and the adopted federal regulations, 29 CFR 1910.

Regional Setting

Airport Area

Unocal's San Luis Obispo Bulk Oil Storage Facility is located north and south of Tank Farm Road, immediately north and west of the County Airport. From 1910 until the early 1980s, the 131.5-hectare (325-acre) facility was used to store San Joaquin Valley crude oil and semirefined petroleum. Storage facilities at the site included six large earthen reservoirs and as many as 21 aboveground steel storage tanks.

In 1926, a lightning strike ignited a major fire at the tank farm, destroying many of the tanks and reservoirs and releasing several million barrels of crude oil. Although much of the oil was consumed in the fire, oil released as a result of the 1926 fire and in the course of prior and subsequent site operations has affected soil and groundwater beneath the site.

Several environmental investigations, performed since June 1988, have characterized the nature and extent of soil and groundwater impacts by petroleum (Dames & Moore 1988, 1989; Earth Systems Environmental 1992; England Shahin & Associates 1992, 1994; England & Associates 1999a, 1999b; Groundwater Technology 1991, 1995). These investigations, which included the

drilling of 126 borings, the drilling and completion of 66 additional borings as groundwater monitoring wells, and the collection of shallow soil and/or tar samples from 119 locations, indicate the following:

- # The crude oil consists primarily of higher molecular weight hydrocarbons. These hydrocarbons are essentially insoluble and nonvolatile and thus are immobile in the environment.
- # Computer simulations and more than 10 years of groundwater monitoring demonstrate that the subsurface crude oil plume has achieved equilibrium and is incapable of further lateral migration.
- # An assessment of risks to human health, conducted under the oversight of the DTSC at the request of the Central Coast RWQCB, concluded that no unacceptable levels of risk are associated with the site under current conditions.

The Unocal Bulk Storage facility located on both sides of Tank Farm Road is the primary source of hazardous materials in the project area and has been under study by the RWQCB since 1988.

Unocal operations began in 1910 on 131.5 hectares (325 acres) in the Airport Area. In 1926, lightning caused an explosion and the release of 168 to 264 million gallons of crude oil to the environment. It has been estimated that from 49% to 70% of the oil burned, leaving between 77 million and 185 million gallons of oil. Of the remaining oil, a portion has remained onsite, some has flowed offsite via natural drainages, and a portion has been pumped from the site to Avila Beach storage facilities, to ships, or directly to the ocean. (RWQCB 1997).

Until 1997, Unocal conducted their regional pipeline operations from several buildings located on the west-central portion of the site. These buildings included offices, work areas, and storage buildings as well as a crude oil pump station complete with boilers and heat exchangers. The operations area also included a small petroleum testing lab and a fire school. Both of these facilities have been abandoned and currently this area of the property serves as the operational headquarters for Unocal's Central Coast Group.

As a result of the explosion and spill, there is extensive surface and subsurface contamination. Soils in the site are relatively fine grained, and migration of subsurface contamination is limited to the Unocal property except along the southern property boundary. A petroleum hydrocarbon issues study prepared in 1999 states the following conclusions:

- # Crude oil released during site operations between 1910 and the early 1980s has impacted soil and ground water beneath the site;
- # A fire in 1926 released additional oil, that accounts for most of the surface exposures found at the site;

- # The nature and extent of the crude oil impacts have been defined through the drilling of 126 borings to collect 780 soil samples. Sixty-six of these borings were converted to ground water monitoring wells. Surface soil and tar samples were collected from 119 locations;
- # Analytical results indicate that the crude oil consists primarily of higher molecular weight hydrocarbons. These hydrocarbons are essentially insoluble and nonvolatile, and thus immobile in the environment;
- # Computer simulations and more than 10 years of ground water monitoring demonstrated that the subsurface crude oil plume has achieved equilibrium and is incapable of further lateral migration; and
- # A human health risk assessment conducted under the oversight of the DTSC at the request of the Regional Water Quality Control Board, concluded that no unacceptable levels of risk are associated with the site under current conditions.

Although the Unocal facility represents one source of hazardous materials, there may be other sources of hazardous materials in the Airport area. Soil contamination exists along the pipeline adjoining Tank Farm Road. The operations associated with the County Airport store, use, and may have released to the environment gasoline, jet fuel, and other chemicals used in the operation and maintenance of aircraft. Additionally, gas stations and industrial activities near the Airport area may have also released hazardous materials to the environment.

Margarita Area

Existing land uses in the Margarita area consist primarily of open rangeland and scattered rural residential areas. Agricultural activities and surrounding industrial activities near the Margarita area may have released hazardous materials into the environment. Potential hazards in the area may include underground storage tanks, aboveground storage tanks, or other nearby properties that store or handle hazardous or toxic materials.

Determining the Presence of Hazardous Materials

To determine the full extent of possible sources of hazardous materials, Phase I and Phase II site assessments would need to be completed for parcels in and adjacent to the project area. The first step in identifying additional sources of hazardous materials would be to conduct a database search of federal, state, and local agency records.

A database search is the principal source available to determine the presence of hazardous materials/wastes in the planning area. The results of these searches include a list of sites with known, potential, or existing hazardous materials within a specified search area. The databases that

can be searched include records kept by federal, state, and local agencies. Individual sites can occur on several lists for the same reason and are sometimes repeated under different names on the same list. A summary of the lists that should be searched is presented below.

Federally Reported Environmental Data

National Priorities List of Superfund Sites. The National Priorities List (NPL) is EPA's database of more than 1,200 sites for priority cleanup under Superfund. NPL sites may encompass relatively large areas.

Resource Conservation and Recovery Information System. This is an EPA database that includes selective information on sites that generate, transport, store, treat, or dispose of hazardous waste as defined by the RCRA. Identification on this list does not indicate that there has been an impact on the environment.

Comprehensive Environmental Response, Compensation, and Liability Information System. The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) is an EPA database that contains information on potentially hazardous waste sites reported to EPA by states, municipalities, private companies, and persons, pursuant to Section 103 of CERCLA. CERCLIS contains sites proposed for listing or already included on the NPL, as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

Corrective Action Report. Also known as CORRACTS, this is an EPA database that identifies hazardous waste handlers with RCRA corrective action activity.

RCRA Administrative Action Tracking System. This is an EPA database that contains records based on enforcement actions issued under RCRA that pertain to major violators; these records also include information on administrative and civil actions brought by EPA.

PCB Activity Database System. This is an EPA database that identifies generators, transporters, commercial storers, or brokers and disposers of polychlorinated biphenyls (PCBs) who are required to notify EPA of such activities.

State Reported Environmental Data

Annual Workplan. The Annual Workplan database, formerly the Bond Expenditure Plan, is compiled by Cal/EPA and identifies known hazardous substance sites targeted for cleanup.

CalSites. The CalSites database is compiled by Cal/EPA and includes known and potential hazardous waste sites.

Notify 65. The NOTIFY 65 database is compiled by the State Water Resources Control Board (SWRCB) and contains Proposition 65 notification records about any release that could affect drinking water and thereby expose the public to a potential health risk.

The California Hazardous Material Incident Report System. This database is compiled by the Governor's Office of Emergency Services (OES) and contains information on reported hazardous material incidents (accidental spills or releases).

Cortese List. The Cortese List database is compiled by Cal/EPA and identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with known underground storage tanks having a reportable release, and solid waste disposal facilities from which there is known migration.

Toxic Pit. The Toxic Pit database is compiled by the SWRCB and identifies sites that are subject to the Toxic Pit Cleanup Act. The database contains sites suspected of containing hazardous substances where cleanup has not been completed.

Solid Waste Information System. This database is compiled by the California Integrated Waste Management Board and contains an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA criteria for solid waste landfills or disposal sites.

Leaking Underground Storage Tank. This database is compiled by the SWRCB and contains an inventory of reported leaking underground storage tanks statewide.

Underground Storage Tank. This database is compiled by the SWRCB and lists only registered underground storage tanks. Underground storage tanks are regulated under Subtitle I of the RCRA. Identification on this list does not indicate that there has been an impact on the environment.

Solid Waste Assessment Test Program. This database is compiled by the SWRCB and contains information on groundwater monitoring of sanitary landfills.

Hazardous Waste Information System. This database is compiled by Cal/EPA and identifies hazardous waste generators and hazardous waste treatment, storage, and disposal facilities. Identification on this list does not indicate that there has been an impact on the environment.

IMPACTS AND MITIGATION

Introduction and Methodology

The impact analysis for this report is based on a review of available data regarding the presence of hazardous wastes associated with the Unocal Bulk Storage facility located on Tank Farm Road.

A database search was not conducted. Therefore, assessment was limited to a qualitative evaluation of environmental concerns associated with the potential presence of hazardous materials in the project area. This site assessment does not include any sampling, site-specific review, laboratory analysis, or inspection of buildings or site surfaces. The assessment is not intended as and does not represent a Phase I site assessment (sometimes referred to as a Preliminary Site Assessment).

Criteria for Determining Significance

Appendix A of the State CEQA Guidelines, city and county plans and policies, and professional judgment were used to determine whether implementing the proposed project would have a significant impact on hazardous materials. It was determined that implementation of the proposed project would have a significant impact on hazardous materials if it would:

- # cause a potential health hazard or involve a substantial increase in the use, production, or disposal of hazardous materials in the project area;
- # substantially increase workers' or the public's actual or potential exposure to hazardous materials, wastes, or pathogens; or
- # be placed in the vicinity of a property or a group of properties with soil or groundwater known to be, or potentially, contaminated with hazardous materials.

Summary of Impacts

This section evaluates hazardous materials impacts related to the two specific plans and the related facility master plan areas for the proposed project and the three land use alternatives. For this evaluation, impacts have been assessed in two categories. Table 3G-1 provides an overview of the significance findings made for the proposed project and each of the alternatives.

Table 3G-1. Summary of Hazardous Materials Impacts

Impact	Impact after Mitigation	Mitigation	Airport Area	Margarita Area	Facility Master Plans
Proposed Project					
HAZ-1: Potential Construction-Related Exposure to Hazardous Materials	LTS	HAZ-1.1 HAZ-1.2	S	S	S
HAZ-2: Potential Operations-Related Exposure to Hazardous Materials	LTS	HAZ-2.1	S	S	N/A
HAZ-3: Short-Term Surface Water Quality Degradation from Accidental Release of Hazardous Materials during Construction-Related Activities	LTS	HAZ-1.1	S	S	S
Alternative 1					
Alternative 1 would have the same impacts as the proposed project, but acreage affected would vary.					
Alternative 2					
Alternative 2 would have the same impacts as the proposed project, but acreage affected would vary.					
Alternative 3					
Alternative 3 would have the same impacts as the proposed project, but acreage affected would vary.					
Alternative 4					
Alternative 4 would not result in any new hazardous materials impacts.					
Impacts:					
B	=	Beneficial			
LTS	=	Less than Significant			
S	=	Significant			
SU	=	Significant and Unavoidable			
N/A	=	Not Applicable			

Proposed Project

Impact HAZ-1: Potential Construction-Related Exposure to Hazardous Materials

Construction-related activities associated with specific projects in the Airport and Margarita areas and development of roadway/utility infrastructure associated with the facility master plans

would involve the use of materials that could contaminate nearby soils and water resources in the project area (e.g., petroleum-based fuels and oils, solvents, cement). Additionally, construction workers and other people could be exposed to dust or emissions containing these materials. Construction workers could also be exposed to organic pesticides, herbicides, and other hazardous materials during groundbreaking activities.

Groundwater may also occur near the surface along buried infrastructure alignments. Trenches or tunnels may encounter groundwater, which may require dewatering for pipe placement. Contaminated water encountered during construction-related activities may also require special handling and disposal procedures.

While known and potential hazardous materials/waste sites have been identified in the Airport area, the potential also exists to expose construction workers to previously undiscovered hazardous materials/waste sites during development of the Margarita area. Because construction-related activities could substantially increase the use of hazardous materials and increase the risk of exposure to hazardous materials in the project area, this impact is considered *significant*.

Mitigation

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

Mitigation Measure HAZ-1.1. Implement a Construction-Related Hazardous Materials Management Plan. Before beginning construction activities, a project proponent will submit a hazardous materials management plan for construction activities that involve hazardous materials. The plan will discuss proper handling and disposal of materials used or produced onsite, such as petroleum products, concrete, and sanitary waste. The plan will also outline a specific protocol to identify health risks associated with the presence of chemical compounds in the soil and/or groundwater and identify specific protective measures to be followed by the workers entering the work area. If the presence of hazardous materials is suspected or encountered during construction-related activities, the project proponent will implement Mitigation Measure HAZ-1.2.

Mitigation Measure HAZ-1.2. Conduct Phase I and Possibly Phase II Environmental Site Assessments to Determine Soil or Groundwater Contamination. The project proponent will complete a Phase I environmental site assessment for each proposed public facility (e.g., streets and buried infrastructure). If Phase I site assessments indicate a potential for soil and/or groundwater contamination within or adjacent to the road or utility alignments, a Phase II site assessment will be completed. The following Phase II environmental site assessments will be prepared specific to soil and/or groundwater contamination.

Soil Contamination. For soil contamination, the Phase II site assessment will include soil sampling and analysis for anticipated contaminating substances. If soil contamination is exposed during construction, the San Luis Obispo Fire Department

(SLOFD) will be notified and a workplan to characterize and possibly remove contaminated soil will be prepared, submitted, and approved.

Groundwater Contamination. For groundwater contamination, the Phase II assessment may include monitoring well installation, groundwater sampling, and analysis for anticipated contaminating substances. If groundwater contaminated by potentially hazardous materials is expected to be extracted during dewatering, the SLOFD and the Central Coast RWQCB will be notified. A contingency plan to dispose of contaminated groundwater will be developed in agreement with the SLOFD and Central Coast RWQCB before activities.

Funding Source: Project Proponent
Implementing Party: Project Proponent
Monitoring Agency: City of San Luis Obispo and/or Central Coast RWQCB
Timing: Before any ground-disturbing activities

Impact HAZ-2: Potential Operations-Related Exposure to Hazardous Materials

Implementation of the proposed project would include the development of manufacturing and business park land uses in the Airport area and the development of business park land uses in the Margarita area. Operations at the sites could involve the delivery, use, manufacture, and storage of various chemicals necessary to perform manufacturing and business park activities. Operations-related activities within both the Airport and Margarita areas could substantially increase the use of hazardous materials and increase the risk of exposure to hazardous materials in the project area. Development of the specific roadway and utility infrastructure improvements outlined in the facility master plans would not generate a substantial amount of operations-related hazardous materials. Because operations-related activities could substantially increase the use of hazardous materials and increase the risk of exposure to hazardous materials in the project area, this impact is considered *significant*.

Mitigation

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

Mitigation Measure HAZ-2.1. Implement an Operations-Related Hazardous Materials Management Plan. The project proponent will ensure that a hazardous materials management plan for operations-related activities is established and addresses the delivery, use, manufacture, and storage of various chemicals. The plan will identify the proper handling and disposal of materials used or produced onsite, such as petroleum products, concrete, and sanitary waste. In addition, the SLOFD will conduct routine fire and life-safety inspections to determine compliance with applicable health and safety codes.

Funding Source: Project Proponent
Implementing Party: Project Proponent

Monitoring Agency: City of San Luis Obispo

Timing: Before the City approves a specific site's development plan

Impact HAZ-3: Short-Term Surface Water Quality Degradation from Accidental Release of Hazardous Materials during Construction-Related Activities

Construction-related activities associated with specific projects in the Airport and Margarita areas and development of roadway/utility infrastructure associated with the facility master plans would require the installation of much buried infrastructure to support development. The proposed buried infrastructure may cross several drainages, and construction-related activities would involve the use of hazardous materials (e.g., oils, grease, lubricants) that could accidentally be released into local waterways.

Water quality impacts would largely be determined by the duration and seasonality of construction-related activities. Specific areas of concern in the Airport area include San Luis Obispo Creek, Orcutt Creek, and Davenport Creek. Areas of concern in the Margarita area include Acacia Creek. Although construction-related activities occurring during the dry season would have less potential to flush hazardous materials into a stream or drainage, low summer flows are less able to dilute hazardous materials entering the water column. Because construction-related activities would substantially increase the use of hazardous materials and increase the risk of accidental release of hazardous materials into project-area drainages, this impact is considered *significant*.

Mitigation

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

Mitigation Measure HAZ-1.1. Implement a Construction-Related Hazardous Materials Management Plan. This mitigation measure is described above.

Alternative 1

Impact HAZ-1: Potential Construction-Related Exposure to Hazardous Materials

Similar to the proposed project, construction-related activities associated with specific projects in the Airport and Margarita areas and development of roadway/utility infrastructure associated with the facility master plans under Alternative 1 would involve the use of materials that could contaminate nearby soils and water resources in the project area (e.g., petroleum-based fuels and oils, solvents, cement). Although a smaller portion of the Airport area (263.8 hectares [652 acres] versus 404.2 hectares [998.9 acres]) would be developed under this alternative, construction-related activities could substantially increase the use of hazardous materials and increase the risk of exposure to hazardous materials in the project area; therefore, this impact is considered *significant*.

Mitigation

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

Mitigation Measure HAZ-1.1. Implement a Construction-Related Hazardous Materials Management Plan. This mitigation measure is described above.

Mitigation Measure HAZ-1.2. Conduct Phase I and Possibly Phase II Environmental Site Assessments to Determine Soil or Groundwater Contamination. This mitigation measure is described above.

Impact HAZ-2: Potential Operations-Related Exposure to Hazardous Materials

Similar to the proposed project, implementation of Alternative 1 would include the development of manufacturing and business park land uses in the Airport area and the development of business park land uses in the Margarita area. However, fewer business park acres would be designated for development under Alternative 1 than under the proposed project, and a greater number of services and manufacturing acres would be designated. Operations-related activities in both the Airport and Margarita areas could substantially increase the use of hazardous materials and increase the risk of exposure to hazardous materials in the project area. Development of the specific roadway and utility infrastructure improvements outlined in the facility master plans would not generate a substantial amount of operations-related hazardous materials. Because operations-related activities could substantially increase the use of hazardous materials and increase the risk of exposure to hazardous materials in the project area, this impact is considered *significant*.

Mitigation

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

Mitigation Measure HAZ-2.1. Implement an Operations-Related Hazardous Materials Management Plan. This mitigation measure is described above.

Impact HAZ-3: Short-Term Surface Water Quality Degradation from Accidental Release of Hazardous Materials during Construction-Related Activities

Similar to the proposed project, construction-related activities associated with specific projects in the Airport and Margarita areas and development of roadway/utility infrastructure associated with the facility master plans under Alternative 1 would require the installation of much buried infrastructure to support development. The proposed buried infrastructure may cross several drainages, and construction-related activities would involve the use of hazardous materials (e.g., oils, grease, lubricants) that could accidentally be released into local waterways. Because construction-related activities would substantially increase the use of hazardous materials and increase the risk of

accidental release of hazardous materials into project-area drainages, this is considered a *significant* impact.

Mitigation

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

Mitigation Measure HAZ-1.1. Implement a Construction-Related Hazardous Materials Management Plan. This mitigation measure is described above.

Alternative 2

Impact HAZ-1: Potential Construction-Related Exposure to Hazardous Materials

Similar to the proposed project, construction-related activities associated with specific projects in the Airport and Margarita areas and development of roadway/utility infrastructure associated with the facility master plans under Alternative 2 would involve the use of materials that could contaminate nearby soils and water resources in the project area (e.g., petroleum-based fuels and oils, solvents, cement). Although a slightly smaller portion of the Airport area (365.1 hectares [902.3 acres] versus 404.2 hectares [998.9 acres]) would be developed under this alternative, construction-related activities could substantially increase the use of hazardous materials and increase the risk of exposure to hazardous materials in the project area; therefore, this impact is considered *significant*.

Mitigation

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

Mitigation Measure HAZ-1.1. Implement a Construction-Related Hazardous Materials Management Plan. This mitigation measure is described above.

Mitigation Measure HAZ-1.2. Conduct Phase I and Possibly Phase II Environmental Site Assessments to Determine Soil or Groundwater Contamination. This mitigation measure is described above.

Impact HAZ-2: Potential Operations-Related Exposure to Hazardous Materials

Similar to the proposed project, implementation of Alternative 2 would include the development of manufacturing and business park land uses in the Airport area and the development of business park land uses in the Margarita area. However, fewer business park acres would be designated for development under Alternative 2 than under the proposed project, and a greater

number of services and manufacturing acres would be designated. Operations-related activities in both the Airport and Margarita areas could substantially increase the use of hazardous materials and increase the risk of exposure to hazardous materials in the project area. Development of the specific roadway and utility infrastructure improvements outlined in the facility master plans would not generate a substantial amount of operations-related hazardous materials. Because operations-related activities could substantially increase the use of hazardous materials and increase the risk of exposure to hazardous materials in the project area, this impact is considered *significant*.

Mitigation

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

Mitigation Measure HAZ-2.1. Implement an Operations-Related Hazardous Materials Management Plan. This mitigation measure is described above.

Impact HAZ-3: Short-Term Surface Water Quality Degradation from Accidental Release of Hazardous Materials during Construction-Related Activities

Similar to the proposed project, construction-related activities associated with specific projects in the Airport and Margarita areas and development of roadway/utility infrastructure associated with the facility master plans under Alternative 2 would require the installation of much buried infrastructure to support development. The proposed buried infrastructure may cross several drainages, and construction-related activities would involve the use of hazardous materials (e.g., oils, grease, lubricants) that could accidentally be released into local waterways. Because construction-related activities would substantially increase the use of hazardous materials and increase the risk of accidental release of hazardous materials into project-area drainages, this impact is considered *significant*.

Mitigation

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

Mitigation Measure HAZ-1.1. Implement a Construction-Related Hazardous Materials Management Plan. This mitigation measure is described above.

Alternative 3

Impact HAZ-1: Potential Construction-Related Exposure to Hazardous Materials

Similar to the proposed project, construction-related activities associated with specific projects in the Airport and Margarita areas and development of roadway/utility infrastructure

associated with the facility master plans under Alternative 3 would involve the use of materials that could contaminate nearby soils and water resources in the project area (e.g., petroleum-based fuels and oils, solvents, cement). Although a slightly larger portion of the Airport area (474.5 hectares [1,172.7 acres] versus 404.2 hectares [998.9 acres]) would be developed under this alternative, construction-related activities could substantially increase the use of hazardous materials and increase the risk of exposure to hazardous materials in the project area; therefore, this effect is considered *significant*.

Mitigation

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

Mitigation Measure HAZ-1.1. Implement a Construction-Related Hazardous Materials Management Plan. This mitigation measure is described above.

Mitigation Measure HAZ-1.2. Conduct Phase I and Possibly Phase II Environmental Site Assessments to Determine Soil or Groundwater Contamination. This mitigation measure is described above.

Impact HAZ-2: Potential Operations-Related Exposure to Hazardous Materials

Similar to the proposed project, implementation of Alternative 3 would include the development of manufacturing and business park land uses in the Airport area and the development of business park land uses in the Margarita area. However, a larger number of both business park acres and services and manufacturing acres would be designated for development under Alternative 3 than under the proposed project. Operations-related activities in both the Airport and Margarita areas could substantially increase the use of hazardous materials and increase the risk of exposure to hazardous materials in the project area. Development of the specific roadway and utility infrastructure improvements outlined in the facility master plans would not generate a substantial amount of operations-related hazardous materials. Because operations-related activities could substantially increase the use of hazardous materials and increase the risk of exposure to hazardous materials in the project area, this impact is considered *significant*.

Mitigation

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

Mitigation Measure HAZ-2.1. Implement an Operations-Related Hazardous Materials Management Plan. This mitigation measure is described above.

Impact HAZ-3: Short-Term Surface Water Quality Degradation from Accidental Release of Hazardous Materials during Construction-Related Activities

Similar to the proposed project, construction-related activities associated with specific projects in the Airport and Margarita areas and development of roadway/utility infrastructure associated with the facility master plans under Alternative 3 would require the installation of much buried infrastructure to support development. The proposed buried infrastructure may cross several drainages, and construction-related activities would involve the use of hazardous materials (e.g., oils, grease, lubricants) that could accidentally be released into local waterways. Because construction-related activities would substantially increase the use of hazardous materials and increase the risk of accidental release of hazardous materials into project-area drainages, this impact is considered *significant*.

Mitigation

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

Mitigation Measure HAZ-1.1. Implement a Construction-Related Hazardous Materials Management Plan. This mitigation measure is described above.

Alternative 4 (No-Project Alternative)

Implementation of Alternative 4 (the No-Action Alternative) would not result in any new hazardous materials impacts.

Section 3H. Public Services and Utilities

INTRODUCTION

This section describes the existing levels of service of public services and utilities and analyzes the effects of the proposed project on these levels of service. This information is based on communications with City staff, conversations with local utility providers, and information contained in the City General Plan and its associated EIR. Impact topics assessed in this section include:

- # impacts on all of the following:
 - S water supply and distribution facilities;
 - S sewer mains and capacity, and expansion of treatment facilities;
 - S storm drainage capacity; and
 - S solid waste landfill capacity;

- # increased demand for law enforcement services;

- # increased demand for fire protection service;

- # adequacy of fire protection infrastructure to maintain acceptable levels of service;

- # impacts on the existing school system; and

- # impacts on park and recreation facilities.

The increase in demand for electricity and natural gas for all the land use map alternatives was within the service plans for the region and the City at the time the City General Plan was adopted (Fugro 1993). The population estimates for the proposed project and the three alternatives are consistent with the population estimates for the City General Plan. Therefore, the discussion of electricity and natural gas demand provided in the City General Plan EIR is considered adequate; this topic is not evaluated further in this EIR.

SETTING

Regulatory Setting

The City maintains an enterprise operation to serve its water users. Whale Rock and Salinas Reservoirs are governed by rules set by the SWRCB that control the amount of water released downstream, flow, and storage amounts. Salinas Reservoir is owned by the Corps and operated by the County Flood Control and Water Conservation District, which is governed by the County Board of Supervisors. Whale Rock Reservoir is owned jointly by the City and the State. The State uses its water allocation for California Polytechnic State University, San Luis Obispo (Cal Poly), and the California Men's Colony. The Whale Rock Commission, which consists of representatives of the City, Cal Poly, the California Men's Colony, and the California Department of Water Resources (DWR), sets operating policy. Whale Rock Dam is operated by City staff. The Whale Rock Commission provides, up to 600 acre-feet (af) per year of water delivered directly from the Whale Rock pipeline to a small water treatment facility located immediately downstream of the dam for the benefit of the members of the Cayucos Area Water Organization. (Fugro 1993.)

Wastewater disposal is regulated by the Central Coast RWQCB. The Central Coast RWQCB establishes standards for the City water reclamation facility to ensure that treatment plant operations will not adversely affect surface water and groundwater.

The California Public Utilities Commission (CPUC) regulates the operations of public and private purveyors of electrical power and natural gas in California.

The California Integrated Waste Management Act of 1989 (Public Resources Code Section 40000 et seq.) requires each county and its cities to adopt an Integrated Waste Management Plan that establishes standards for solid waste disposal and recycling. These plans are certified by the California Integrated Waste Management Board for compliance with the law. The California Integrated Waste Management Act requires cities and counties to reduce the amount of waste discarded in landfills, provide for the safe collection of household hazardous wastes, and expand recycling and reuse programs. The County's plan also establishes criteria for siting landfills.

California law allows schools to exempt classrooms and related facilities from City zoning requirements (Government Code Section 53094). In addition, schools are constructed under special building codes, including enhanced requirements for seismic safety, and are inspected under the auspices of the State, rather than by city building departments. New schools are financed by a combination of state funding, school district tax-based funding (including general obligation bonds and parcel taxes), and development impact fees. Development impact fees are generally limited under the provisions of Senate Bill (SB) 50/Proposition 1A legislation that was passed in 1998. The funding provided under that legislation is intended to fully mitigate school impacts, and no additional impact fees may be imposed.

The Quimby Act (Government Code Section 66477) authorizes the City to exact land or in-lieu fees for parks and recreation uses as part of the approval of new subdivisions at a ratio of up to 2.0 hectares (5 acres) per 1,000 residents.

Public services and capital improvements are financed by general and specific taxes, user fees, benefit assessments, and development impact fees. State law under Propositions 13 and 218, which establish constitutional limitations on the imposition of taxes, assessments, and service fees, and under the Mitigation Fee Act (Government Code Section 66000 et seq.) establishes the framework within which the City operates. General limitations include the following:

- # A general tax may only be levied after a majority of San Luis Obispo voters approve such a tax.
- # A special tax may only be levied after two-thirds of voters approve it.
- # Benefit assessments require majority approval by affected property owners, and each assessment must be proportional to the direct benefit that each assessed parcel receives; assessments cannot be used to finance projects with only general benefits.
- # Imposing or increasing some types of property-related service fees requires majority approval by voters.
- # Impact fees can be used only for capital improvements, not operations and maintenance costs, and each fee (e.g., road improvements, traffic signals) must be accounted for individually; the City accounts for these fees through its Development Fee Impact Study and Resolution.

Applicable Policies

The existing City General Plan and the Margarita Area Specific Plan contain several goals and policies that are designed to reduce or eliminate potential environmental impacts that may be related to the implementation of the proposed project. In evaluating the public services and utilities impacts associated with the proposed project and alternatives, it is assumed that the goals and policies in the City General Plan and the Margarita Area Specific Plan will be implemented with all future projects. This section describes the relevant public service and utilities projects that were applied to the following impact assessment.

Policies Specific to Water

City of San Luis Obispo General Plan

General Plan Land Use LU1.13.4

Policy. *Actual development in an annexed area may be approved only when adequate City services can be provided for that development, without reducing the level of services or increasing the cost of services for existing development and for buildout within the City limits as of July 1994, in accordance with the City's water management policies. Water for development in an annexed area may be made available by any one or any combination of the following:*

- A) *City water supply, including reclaimed water;*
- B) *reducing usage of City water in existing development so that there will be no net increase in long-term water usage;*
- C) *private well water, but only as an interim source, pending availability of an approved addition to City water sources, and when it is demonstrated that use of the well water will not diminish the City's municipal groundwater supply.*

General Plan Water and Wastewater Management Element WW 6.1.1

Policy. *The City shall develop additional water supplies to meet the projected demand at buildout of the City's General Plan and to establish the reliability reserve and to offset water yields lost due to siltation. The supplemental water supply amount shall be based on the adopted per capita water use figure identified for planning purposes in WW Policy 3.1.2.*

General Plan Water and Wastewater Management Element WW 6.1.3

Policy. *The cost for developing new water supplies necessary for new development will be paid by impact fees set at a rate sufficient to cover the annual debt service cost of the new water supplies attributable to new development.*

General Plan Water and Wastewater Management Element WW 8.1.2

Policy.

- A) The City will determine the water available for allocation based solely on the adopted per capita water use rate (Policy 3.1.2) times the current city population. This value is then subtracted from the adopted safe annual yield value to determine the amount of allocation available each year. Available allocations will be assigned to development in a way that supports balanced growth,

consistent with the General Plan. Allocations from a new water supply project shall be considered available at the time project construction is initiated.

- B) Any safe annual yield from new water supply projects beyond that needed to balance safe annual yield and present demand will be allocated (A) one-half to the reliability reserve and compensating for reduced yields due to siltation and (B) one-half to development, subject to the requirements in Policy 8.1.3, “Reserve for Intensification and Infill.”
- C) Until a determination is made by the City Council that essentially all toilet and showerhead fixtures in the City are replaced with low flow toilet and showerhead fixtures, projects may be built if the developer makes changes, in facilities served by the City, which will reduce long-term water usage equal to twice the water allocation required for the project.

Margarita Area Specific Plan ~~6.1.27.1.2~~

Policy. *Wastewater reclaimed by the City can be made available for a wide range of uses, as allowed by state and local regulation. The City’s reclaimed water distribution system will be extended into this area, with the basic elements as shown in Figure 19 (of the Margarita Area Specific Plan). In the Margarita Area, reclaimed water is expected to meet a large portion of the demand for landscape irrigation of parks, institutional, commercial, and industrial uses, and the common areas of multifamily dwellings. Reclaimed water also may be used for toilet flushing in commercial and industrial facilities that will have professional maintenance.*

Water may also be reclaimed on development sites, subject to requirements of the State of California. An example of onsite gray water is the use of laundry water for yard irrigation.

Margarita Specific Plan ~~6.1.37.1.3~~

Policy. *The City does not anticipate adding Margarita Area wells to its water system. Private well water may be used, subject to City policies and state requirements. It is expected that any private well water will be used mainly for landscape irrigation on large industrial or institutional parcels.*

Policies Specific to Wastewater

City of San Luis Obispo General Plan

General Plan Water and Wastewater Management Element WW 12.1.7

Policy. *The City will not annex an area unless it can meet the wastewater treatment needs of the area to be annexed, in addition to the wastewater treatment requirements for all development, consistent with the Land Use Element, within the City including the annexed area.*

Margarita Area Specific Plan

Margarita Area Specific Plan ~~6-27.2~~

Policy. *The City's sewer collection system will be extended into the area. The basic elements of this system are shown in Figure 19 (of the Margarita Area Specific Plan). As the Margarita Area and other areas of the City develop, sewage treatment (water reclamation) capacity will need to be increased. The increased capacity will be provided by adding equipment modules at the existing Water Reclamation Facility.*

Policies Specific to Storm Drainage

Margarita Area Specific Plan

Margarita Area Specific Plan 1.4

Policy. *~~The plan shows three locations for storm detention, where peak runoff from the area would be held and released gradually over a few hours to a few days. Providing these detention areas would allow development in the Margarita Area to proceed while mitigating flood impacts, independently of the downstream Airport Area. An option is to have other—probably fewer and larger—storm detention basins in the Airport Area. If the detention basins shown in the Margarita Area are not needed, they may have other uses.~~*

~~Business Park area ————— wetlands mitigation or Business Park uses~~

~~Central area ————— Medium-Density Residential development~~

~~Eastern (Acacia Creek) area ————— wetlands mitigation or sports field~~

In the long term, increased San Luis Obispo Creek flow due to runoff from development of the area is expected to be mitigated by a detention basin in or just south of the Airport Area. Development in the Margarita Area would pay a proportionate share of the cost for that facility. Development may also need to make changes to minor

waterways within and immediately downstream from the development. If areawide drainage facilities are not available, developments in the Margarita Area will need to detain peak flows on-site. Such drainage detention areas shall not substantially harm open-space resources such as creek corridors, wetlands, or native grasslands. Detention areas may be integrated with wetlands enhancement or mitigation, or they may have dry-season uses such as game courts, if approved as part of development plans. The design of detention facilities must be compatible with neighborhood character. More extensive, shallow basins with natural-appearing edges are favored over deeper basins that appear constructed.

Margarita Area Specific Plan 6.37.3

Policy. *Though much storm drainage from and through the area will be handled by natural or semi-natural features, drainage is included as a utility because some features will require construction and maintenance. Main components of the drainage system are shown in Figure 19 (of the Margarita Area Specific Plan). The basic approach is to detain peak flows originating in or upstream from the Margarita Area, so existing downstream waterways and facilities will have adequate capacity. Altered drainage patterns in the Margarita Area provide an opportunity to solve drainage problems in the previously developed El Camino Estates area along Margarita Avenue and the mobile home park on Prado Road.*

Note: If regional detention areas are provided in the Airport Area, detention areas may not be needed in the Margarita Area. The Open Space section (1.4) discusses potential alternate or future uses of detention areas.

Policies Specific to Solid Waste

City of San Luis Obispo General Plan

General Plan Land Use LU 1.15

Policy. *In addition to other requirements for adequate resources and services prior to development, the City must determine that adequate solid waste disposal capacity will be available before granting any discretionary land use approval which would increase solid waste generation.*

Margarita Area Specific Plan

Margarita Area Specific Plan 5-106.9

Policy. *The City intends that solid waste collection will continue to be provided by a private operator under a City franchise, with extensions into the Margarita Area as streets and development are completed. Disposal is expected to continue at the Cold Canyon Landfill until at least the year 2018. The City also intends that curbside collection of materials for composting or recycling will continue to be provided by a private operator under a City franchise, with extensions into the Margarita Area as streets and development are completed. The potential for automated collection of trash and recyclables will be assured by the placement of street trees, signs, fire hydrants, and other items, and allowed spots for roadside parking.*

The City expects that additional recycling opportunities for beverage containers will continue to be provided by private firms, including retail outlets convenient to the Margarita Area. Also, a regional agency is expected to continue sponsoring dropoff opportunities for household hazardous wastes in San Luis Obispo area.

Policies Specific to Law Enforcement and Fire Protection

Margarita Area Specific Plan

Margarita Area Specific Plan 5-36.2

Policy. *Police services are provided by the City of San Luis Obispo, based at the station at Highway 101 and Santa Rosa Street. Patrols, and outreach services such as Neighborhood Watch, will be extended into the Margarita Area as it is occupied. No substations are proposed within the Margarita Area, though the City has considered establishing one in the southern part of the city. Offices of the county district attorney, and municipal and superior courts, are located in downtown San Luis Obispo.*

Margarita Area Specific Plan 5-46.3

Policy. *The City provides fire prevention and suppression, hazardous materials mitigation, and disaster planning services. The area will be served primarily by the fire stations at Broad Street and South Street, and at Madonna Road and Los Osos Valley Road. In the Margarita Area, fire-department activated signal control devices will be required for all intersections with traffic signals. For fire hydrant spacing, the Prado Road extension is considered a major roadway.*

Policies Specific to Schools

Margarita Area Specific Plan

Margarita Area Specific Plan

Policy. *The land use designations of this Specific Plan can accommodate public and private child day care and preschools, sufficient for the needs of those expected to live and work in the Margarita Area. This Specific Plan does not require development of such uses, however. Several public preschool programs, including Headstart, are expected to continue operating in San Luis Obispo, though their locations in the community may change.*

Public elementary and secondary educational services are provided by the San Luis Coastal Unified School District. ~~A 10-acre site suitable for a public elementary school is available near the middle of the Margarita Area, to serve primarily those students living in the Margarita Area and the southern part of the City. Currently, no school sites are designated in the Margarita Area. If the ratio of school children to households continues to decline, elementary enrollment demands may be met by planned capacity expansions at existing elementary schools, delaying or avoiding the need to construct a school in the Margarita Area. Use of the school site for other purposes would require an amendment to this Specific Plan.~~

Community college services are provided by the Cuesta Community College District. The Cuesta College campus north of San Luis Obispo will be available to residents and workers in the planning area. Cal Poly, on the north edge of the city, offers a wide range of regular and extension courses at the university level.

In the San Luis Obispo area, public schools are supplemented by several private schools, with programs extending from preschool to high school levels.

Policies Specific to Recreation

City of San Luis Obispo General Plan

General Plan Parks and Recreation Element PR 1.1.8

Policy. *New development should be encouraged to contribute to the development of park facilities in proportion to the demand resulting from increased population.*

General Plan Parks and Recreation Element PR 2.1.1

Policy. *There will be sufficient athletic fields within the city to accommodate all youth sports practice and competition demands at a ratio of 1 multi-use sports field per 1,800 persons residing in San Luis Obispo.*

General Plan Parks and Recreation Element PR 3.1.3

Policy. Any new significant residential developments and annexations shall provide sufficient athletic fields to meet the demands of the youth who will reside in the development.

General Plan Parks and Recreation Element PR 4.1.3

Policy. *All residential annexation areas shall provide adequate neighborhood parks.*

General Plan Parks and Recreation Element PR 2.1.1

Policy. *The City shall develop and maintain a park system at the rate of 10 acres of park land per 1,000 residents.*

General Plan Parks and Recreation Element PR 13.1.5

Policy. *Park-in-lieu fees shall be committed to a project within 2 years from collection and shall have a direct benefit to the area for which they were intended.*

Margarita Area Specific Plan

Margarita Area Specific Plan ~~1.5.11.6~~

Policy. *The northern part of the Neighborhood Green will be mostly informal open space with trails among native plants. The part fronting Main Street, however, will have formal lawns and planters, bench seating, children's play equipment, and some focal element such as a small gazebo or clock tower. Other than a few spaces for service vehicles and handicap parking, there will be no onsite parking. Developers will provide landscape improvements to the approval of the Parks and Recreation Department. City standards call for 2.5 hectares (5 acres) of neighborhood park and 5 hectares (10 acres) of total parkland per 1,000 residents in major residential annexation areas. Excluding sports fields bought by the City, the Margarita Area meets this requirement by providing a 4-hectare (10-acre) Neighborhood Park for active use and a 7-hectare (17-acre) Greenspace that is mainly for passive use, habitat protection, and airport safety. Developers will provide park improvements to the approval of the City.*

Margarita Area Specific Plan 1.5.21.6.1

Policy. ~~The Neighborhood Park will include: trees, turf play areas, bench seating, picnic tables and small cooking stands, children's play equipment, small games courts, and a restroom. Onsite parking may be provided. Developers will provide park improvements to the approval of the City benches, picnic tables and small cooking stands, children's play equipment for two age groups, game courts, a restroom, and, south of the principal residential street, turf play fields (Figure 4 of the Margarita Area Specific Plan). Some of the seating, cooking, and small-child play space will be partly enclosed to provide aircraft noise attenuation. For airport compatibility of the playfield area: occupancy will not exceed 100 people per hectare (40 per acre); no group reservations or tournament play will be scheduled; no areawide lighting will be provided. No on-site parking is proposed.~~

Margarita Area Specific Plan 1.5.31.6.2

Policy. ~~The general Park space could accommodate active recreational use by large groups, and may include sports fields and onsite parking. Night lighting will be shielded to avoid glare onto the residential area and Acacia Creek corridor.~~

~~If the City develops consolidate sports fields in this vicinity, they can be developed on part of the neighborhood park and on part of the school grounds, in addition to the area designated park, subject to the restriction on night lighting The Greenspace and adjacent neighborhood play fields are reserved primarily for airport safety, and therefore are not intended to accommodate structures or substantial concentrations of people. Large trees will be planted only at the edges of the area. The Greenspace will be mainly semi-natural vegetation and a site for mitigating any losses of native grasslands. Community gardens may also be developed in the Greenspace.~~

Margarita Area Specific Plan 1.6.3

Policy. Greenways are linear, landscaped open areas that contain paths for cycling and walking. Depending on location, a greenway may help buffer a sensitive land use from other uses or a major road, as well as provide a travel route.

Margarita Area Specific Plan 1.6.4

Policy. The Sports Fields will accommodate active recreational use by large groups, and will include on-site parking. Night lighting will be shielded to

avoid glare onto the Acacia Creek corridor, the residential area, and Broad Street.

Margarita Area Specific Plan 5-76.6

Policy. *The City provides a wide range of recreational services for all ages. No recreational activities are programmed exclusively for the Margarita Area. ~~Once the elementary school is in operation, the City's program for after-school activities by students probably will be available there. The City and the school district have established a program for joint use of recreational space, which is expected to extend to the elementary school.~~*

Margarita Area Specific Plan 5-86.7

Policy. *Public parks, street trees, and street landscaped medians will be maintained by the City. As explained in the fFinancing section, property owners in the Margarita Area may be assessed to help fund maintenance of amenities which benefit primarily occupants of the Margarita Area, in addition to citywide taxes and fees ~~which~~that fund citywide amenities.*

The greenway associated with the power lines will be maintained by an assessment district, or by owners' associations.

Regional Setting

Water

The City's water system consists of water supply, treatment, distribution, and storage facilities. The water system is supplied with raw water from Whale Rock and Salinas Reservoirs which is treated at the Stenner Creek Water Treatment Plant, and four groundwater wells (Boyle Engineering Corporation 1999). The City Utilities Department is responsible for providing potable water to approximately 13,000 metered customers, Cal Poly, and the County Airport. The City's existing water distribution facilities include 13 reservoirs, 10 booster pump stations, 20 pressure regulating stations, and approximately 150 miles of pipeline (Boyle Engineering Corporation 1999).

Salinas Reservoir captures water from a 112-square-mile watershed and can store up to 23,843 af. Whale Rock Reservoir captures water from a 20.6-square-mile watershed and can store up to 40,662 af. Water from Whale Rock Reservoir is divided among the City, Cal Poly, and the California Men's Colony. The average annual withdrawal from the four groundwater wells is 250–350 af (Henderson pers. comm.). City-wide water use equaled 132 gallons per person per day in 1997 (Boyle Engineering Corporation 1999).

The City is pursuing three major water projects:

- # The Water Reuse Project, which would use treated effluent for irrigation, has been approved by the State and has the potential to offset annual potable water consumption in San Luis Obispo by approximately 1,200 af. The water saved by this project will be allocated equally between the Reliability Reserve, a City reserve established for use by the City during a major drought, and new development.
- # The City proposes to expand the water storage capacity of Salinas Reservoir by installing a gate in the dam's spillway. The City has water rights that allow it to store approximately 20,000 af more in Salinas Reservoir than the current capacity of nearly 24,000 af.
- # Approximately 16,200 af of water could be diverted annually from Lake Nacimiento to various users, including the City. The County is leading this project; 18 other jurisdictions are participating.

The City estimates current and future water demand by multiplying the appropriate resident population by an average per-capita water consumption rate of 145 gallons per day (Henderson pers. comm.). Because safe yield exceeds the calculated current water use, and the City Council has determined that water-conservation retrofitting in the city is essentially complete, some water is available for allocation to development. This amount will not support buildout of the Airport area or the Margarita area. After the water available for allocation is assigned to projects, developers will need to retrofit to offset twice the water that the development would use, possibly finding remaining retrofit potential, until the City obtains a supplemental water resource.

Wastewater

The City Utilities Department provides wastewater collection, treatment, and disposal services to City residents, Cal Poly, and the County Airport. The wastewater collection system includes more than 150 miles of pipes and eight pump stations (Brown and Caldwell 1999) that connect to a City-operated water reclamation facility (WRF). The WRF is located on Prado Road near U.S. 101 and was recently upgraded to process 5.1 million gallons per day (mgd) average dry-weather flow and 15 mgd wet-weather flow (Brown and Caldwell 1999). Current capacity is anticipated to be adequate for a maximum population of 50,000. After the wastewater is treated, effluent is discharged to San Luis Obispo Creek.

Wastewater flows to the water reclamation facility were estimated assuming per-capita use of 100 gallons per day (Brown and Caldwell 1999). Average wastewater generation rates by land use are estimated as follows:

Table 3H-1. Average Wastewater Generation Rates by Land Use

Land Use	Per-Day Unit Flow Value
Single-family dwelling	190 gallons/dwelling
Multifamily dwelling	120 gallons/dwelling
Retail	200 gallons/1,000 square feet (sf) gross floor area
Manufacturing	120 gallons/1,000 sf gross floor area
Office	190 gallons/1,000 sf gross floor area
Motel/hotel	120 gallons/room

Source: Brown and Caldwell 1999

When the City’s population exceeds 50,000 or flows approach design capacity, the City will need to expand the advanced treatment facilities at the WRF by adding a cooling tower, filter, chlorine contact tank, and dissolved air flotation thickening (DAFT). The most recent upgrade to the WRF was completed to improve the quality of water discharged into San Luis Obispo Creek.

Storm Drainage

The proposed project’s drainage system generally consists of the East Branch San Luis Obispo Creek, a major tributary of San Luis Obispo Creek. The drainage area of the East Branch San Luis Obispo Creek upstream of the confluence with San Luis Obispo Creek is 32.7 square kilometers (12.6 square miles). The lower portion of the drainage basin west of the Union Pacific Railroad tracks is relatively flat with gentle slopes. The area east of the railroad tracks is generally much steeper and largely undeveloped.

Two principal tributaries to the East Branch San Luis Obispo Creek—Acacia creek and an unnamed creek—are located in the project area. Acacia Creek is located in the northeastern corner of the project area. The unnamed creek flows southward from the South Street Hills along the west side of the Tank Farm area until it reaches the East Branch San Luis Obispo Creek. Acacia Creek joins the East Branch San Luis Obispo Creek just west of Santa Fe Road about 150 meters (500 feet) south of Tank Farm Road. (Boyle Engineering Corporation 1999.)

Solid Waste

Solid-waste services (i.e., collection, recycling, green waste collection) are provided by San Luis Garbage under three separate contracts to the City. All nonrecyclable wastes collected from the City are disposed of at the 48.9-hectare (121-acre) Cold Canyon Landfill, located at 2268 Carpenter Canyon Road (SR 227), about 4 miles south of the County Airport. Per-capita generation

of solid waste is estimated at 12.6 pounds per day (Fugro 1993). Cold Canyon Landfill has recently been expanded and has an estimated future capacity of 20–25 years at current levels of disposal (Munds pers. comm.). The City also participates in the County’s Integrated Waste Management Authority and provides waste reduction programs, including educational brochures.

Law Enforcement and Fire Protection

Police protection is provided in the City by the San Luis Obispo Police Department (SLOPD). Police services for the area are based at the station located at the intersection of Santa Rosa Street and U.S. 101. The full-time SLOPD staff is 90, which includes 62 sworn police officers. Sworn officers perform law enforcement tasks; other personnel are involved in administration, dispatch, and community service duties. Based on the City’s current population of approximately 45,000, the current level of police protection services is approximately one sworn officer for every 725 residents.

The average citywide emergency response time is approximately 5 minutes, which is considered adequate. However, according to the SLOPD, the department is currently operating at capacity. Therefore, should there be further development in the City, additional resources would be required to maintain the current level of service; such resources may include additional staff and facilities, including expanding the existing police station or developing a new substation (Fugro 1993).

The San Luis Obispo City Fire Department (SLOFD) provides emergency and nonemergency fire and protection services in the city. Emergency services include fire response, emergency medical response, hazardous materials response, and public assistance. Nonemergency services include fire and life safety inspections, building inspections, fire code investigations, and public education. Additionally, the SLOFD is a member of a countywide team that responds to hazardous materials incidents throughout San Luis Obispo County. The County provides runway services at the airport for crash/fire incidents.

The SLOFD currently operates four fire stations and has a firefighter/population ratio of approximately one firefighter for every 1,000 residents. The Headquarters Fire Station (Station 1), strategically located on the Broad Street corridor, also houses the administrative offices, the Fire Prevention Bureau, and a maintenance shop and training facility. Stations 3 and 4 are located adjacent to the Airport and Margarita areas. County Station 21, ~~which is located on the runway,~~ provides airport crash fire rescue services. ~~This station also provides~~ and emergency response services for a rather large rural area.

Table 3H-2 outlines the stations’ locations and fire equipment available at each station.

Table 3H-2. Fire Stations and Major Equipment

Station No.	Location	Capital Equipment
1	2160 Santa Barbara Avenue (Broad and South Streets)	One engine, one ladder truck, battalion chief's vehicle, Incident Command van
2	126 North Chorro (Chorro at Foothill)	One engine, one ladder truck
3	1280 Laurel Lane (near Johnson Avenue)	One engine, one reserve engine
4	1395 Madonna Road (at Los Osos Valley Road)	One engine, one reserve engine

Source: City of San Luis Obispo 2001.

If the proposed residential, commercial, industrial service, and open-space areas are added to the SLOFD's existing workload, a significant reduction in existing service levels would result. The department currently has 12 fire suppression staff positions. At this level, Station 3 typically has a staff of two. Upon annexation, the department's minimum staffing level will need to be increased to 13. In addition, because of increased population and the increased potential hazards of the industrial area, the City will need to add a full-time, permanent fire inspector and a 24-month contract inspector to augment existing staff. The contract inspector would also be charged with collecting accurate land-use data and 911 phone information and distributing it to the affected departments.

With the increase of personnel, City Fire Stations 1, 3, and 4, when combined with County Station 21, will provide for proper Airport area coverage. To formalize the response patterns, the City will need to enter into automatic aid agreements with the County Fire Department.

Schools

The San Luis Coastal Unified School District (SLCUSD) is the primary provider of educational services for San Luis Obispo. SLCUSD schools and enrollment characteristics are shown in Table 3H-3. Student generation in the SLCUSD is calculated at 0.65 student per single-family housing unit and 0.27 student per multifamily housing unit.

Table 3H-3. Existing SLCUSD Enrollment and Design Capacity

School	1999–2000 Enrollment	Design Capacity
Elementary Schools (K–6)		
Bishop’s Peak	343	450
Hawthorne	286	550
Los Ranchos	522	650
Pacheco	432	450
Sinsheimer	465	650
C.L. Smith	393	650
C. E. Teach	196	650
Junior Middle Schools (7–9)		
Laguna	844	850
High School (10–12)		
Pacific Beach	66	100
San Luis Obispo	1,643	1,564

Note: Bellevue-Santa Fe Charter School is an elementary school that operates independently of the SLCUSD.

Source: San Luis Coastal Unified School District 1999.

Parks and Recreation

The San Luis Obispo Parks and Recreation Department (SLOPRD) provides parks and recreation facilities and is responsible for a variety of recreational programs for the City. The City’s park resources include 14 parks with varied facilities and seven natural preserves and open-space areas. The City currently has a ratio of about 1.6 hectares (4 acres) per 1,000 residents for improved parkland. New development in annexed areas is required to provide 10 acres per 1,000 residents. New development in the City is required to provide 2.0 hectares (5 acres) per 1,000 residents (pursuant to the Quimby Act).

Planned Facilities. The City is planning to build about ~~12.5~~ 22.6 hectares (~~31~~ 55.7 acres) of parks in the Margarita area (LeSage pers. comm.). No facilities are planned for the Airport area. The City purchased a 9.3-hectare (23-acre) site for a proposed sports field complex. Other parks would be built ~~on the proposed school site, if built, and~~ in locations throughout the Margarita area.

Recreation Programs. The SLOPRD operates various recreation programs, including an aquatics program; programs for children, teens, and seniors; fitness, self-defense, recreation, and sports classes; and other programs related to the natural preserves and open-space areas.

IMPACTS AND MITIGATION

Introduction and Methodology

This analysis is based on information provided within the City General Plan and General Plan EIR, communications with City Planning and Public Works staff, and conversations with local service providers. Potential impacts will be analyzed for the Airport and Margarita Area Specific Plans individually and collectively; each assessment will provide appropriate mitigation to reduce impacts that are identified.

Projected population and housing levels under the proposed project and Alternatives 1, 2, and 3 are similar to the levels predicted in the City General Plan. Under the proposed project and alternatives, the buildout population of the planning areas would be approximately 3,400–3,500 residents. Table 3H-4 summarizes these statistics by alternative.

Revised Table 3H-4. Summary of Projected Population and Housing Ranges

Land Use Category	Proposed Project Hectares (acres)	Alternative 1 Hectares (acres)	Alternative 2 Hectares (acres)	Alternative 3 Hectares (acres)
Residential	41.4 (101.7) <u>33.4 (82.5)</u>	43.4 (107.4) <u>43.5 (107.4)</u>	41.4 (101.7) <u>33.4 (82.5)</u>	41.4 (101.7) <u>33.4 (82.5)</u>
Services and Manufacturing	114.2 (282.3) <u>134.3 (331.8)</u>	136.1 (336.4)	204.0 (504.2)	140.5 (347.2)
Business Park	86.2 (213.1) <u>72.4 (178.9)</u>	38.2 (94.6) <u>38.3 (94.6)</u>	46.7 (115.6) <u>57.1 (141.2)</u>	149.4 (369.3) <u>159.8 (394.9)</u>
Recreation, Open Space, Parks	200.4 (495.3) <u>215.6 (532.73)</u>	182.3 (450.7) <u>185.8 (459.1)</u>	200.1 (494.6) <u>211.2 (522.0)</u>	197.4 (487.9) <u>208.5 (515.3)</u>
Government Facilities	97.5 (241.1)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
Agriculture and Open Space	0.0 (0.0)	0.0 (0.0)	8.4 (20.8)	81.4 (201.2)
Neighborhood Commercial	0.08 (0.2) <u>0.9 (2.1)</u>	0.60 (1.5)	0.08 (0.2) <u>0.9 (2.1)</u>	0.08 (0.2) <u>0.9 (2.1)</u>
Special Use	0.40 (1.0)	0.40 (1.0)	0.40 (1.0)	0.40 (1.0)
Elementary School	4.0 (10.1)	3.3 (8.4)	4.0 (10.1)	4.0 (10.1)
Streets	27.4 (67.9) <u>19 (47)</u>	27.6 (68.4) <u>27.7 (68.4)</u>	27.4 (67.9) <u>19 (47)</u>	27.4 (67.9) <u>19 (47)</u>
Total Acreage	571.7 (1,412.7) <u>573.5 (1,417.13)</u>	432.3 (1,068.4) <u>432.0 (1,067.4)</u>	532.6 (1,316.1) <u>534.5 (1,320.8)</u>	642.0 (1,586.5) <u>643.9 (1,591.2)</u>
Estimated Residential Units	1,328 <u>1,070</u>	1,342 <u>1,344</u>	1,328 <u>1,070</u>	1,328 <u>1,070</u>

Land Use Category	Proposed Project Hectares (acres)	Alternative 1 Hectares (acres)	Alternative 2 Hectares (acres)	Alternative 3 Hectares (acres)
Estimated Area Population	3,400 <u>2,741</u>	3,500 <u>3,507</u>	3,400 <u>2,741</u>	3,400 <u>2,741</u>

The facilities master plans are hereby incorporated by reference. As more fully described in Chapter 2, “Project Description”, these plans include Water System and Storm Drain Master Plans prepared by Boyle Engineering Corporation (July 1999), and a Wastewater Master Plan Update prepared by Brown and Caldwell (July 1999). The recommendations of these master plans are intended to ensure that the Airport and Margarita areas have adequate water supplies, water reclamation capacity, and transportation facilities. This public service and utility impact assessment assumes that the recommendations of the report to address the needs of development within the project area.

Criteria for Determining Significance

Appendix G of the State CEQA Guidelines, city and county plans and policies, and professional judgment were used to determine whether implementing the proposed project would have a significant impact on public services and utilities. It was determined that implementation of the proposed project would have a significant impact on public services and utilities if it would:

- # cause a substantive increase in demand for domestic water supplies that cannot be responded to by existing plans or policies;
- # require substantial expansion of domestic water distribution and storage facilities that cannot be responded to by existing plans or policies;
- # require the substantive extension of sewer mains and capacity, and expansion of treatment facilities that cannot be responded to by existing plans or policies;
- # require the substantive extension of storm drainage facilities and increases in facility that cannot be responded to by existing plans or policies;
- # produce substantive solid waste increases in excess of landfill capacity that cannot be responded to by existing plans or policies;
- # cause a substantive increase in demand for law enforcement services that cannot be responded to by existing plans or policies;
- # cause a substantive increase in demand for fire protection services that cannot be responded to by existing plans or policies;

- # require the need for additional fire protection infrastructure (other than improvements already planned) to maintain acceptable levels of service (as measured by response time);
- # require a substantive expansion of the existing school system that cannot be mitigated by plan policies and/or state mandates; or
- # require substantive expansion of the existing park and recreation facilities that cannot be responded to by existing plans or policies.

Summary of Impacts

This section evaluates public services and utility impacts related to the proposed project and the three land use alternatives. For this evaluation, impacts have been assessed in eight categories. Table 3H-5 provides an overview of the significance findings made for the proposed project and each of the alternatives.

Proposed Project

Impact PS-1: Impacts on Water Supply and Distribution Facilities

Impacts on water resources were identified in the City General Plan EIR as a significant irreversible effect (Fugro 1993). The proposed project would increase water demand by approximately 493,000 gallons per day (based on a per-capita water use rate of 145 gallons per day). Therefore, the proposed project would increase the demand for water and water distribution facilities in San Luis Obispo.

The increase in water demand from the proposed project is similar to the increase anticipated in the City General Plan. Provisions in the City General Plan and the Airport Area and Margarita Area Specific Plans ensure that an adequate quantity of water will exist before any development is allowed. Additionally, the proposed project includes adequate distribution facilities as outlined in the facility master plans. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-2: Impacts on Sewer Mains and Capacity, and Expansion of Treatment Facilities

The proposed project would increase wastewater generation by approximately 340,000 gallons per day. Therefore, the proposed project would increase the demand for existing wastewater reclamation and collection facilities.

Table 3H-5. Summary of Public Services and Utilities Impacts

Impact	Impact after Mitigation	Mitigation	Airport Area	Margarita Area	Facility Master Plans
Proposed Project					
PS-1: Impacts on Water Supply and Distribution Facilities	LTS	None required	LTS	LTS	LTS
PS-2: Impacts on Sewer Mains and Capacity, and Expansion of Treatment Facilities	LTS	None required	LTS	LTS	LTS
PS-3: Impacts on Storm Drainage Capacity	LTS	None required	LTS	LTS	LTS
PS-4: Impacts on Solid Waste Landfill Capacity	LTS	None required	LTS	LTS	LTS
PS-5: Increased Demand for Law Enforcement Services	LTS	None required	LTS	LTS	LTS
PS-6: Increased Demand for Fire Protection Service	LTS	None required	LTS	LTS	LTS
PS-7: Potential Inadequacy of Fire Protection Infrastructure to Maintain Acceptable Levels of Service	LTS	None required	LTS	LTS	LTS
PS-8: Increased Demand for Hazardous Materials Inspection, Permitting, and Response	LTS	None required	LTS	LTS	LTS
PS-9: Impacts on Existing School System	LTS	None required	LTS	LTS	LTS
PS-10: Impacts on Park and Recreation Facilities	LTS	None required	LTS	LTS	LTS
Alternative 1					
Alternative 1 would have the same impacts as the proposed project.					
Alternative 2					
Alternative 2 would have the same impacts as the proposed project.					
Alternative 3					
Alternative 3 would have the same impacts as the proposed project, except as indicated below.					
PS-1: Impacts on Water Supply and Distribution Facilities	SU	PS-1.1 PS-1.2	SU	LTS	LTS
PS-2: Impacts on Sewer Mains and Capacity, and Expansion of Treatment Facilities	SU	PS-1.1 PS-1.2	SU	LTS	LTS

Impact	Impact after Mitigation	Mitigation	Airport Area	Margarita Area	Facility Master Plans
PS-3: Impacts on Storm Drainage Capacity	SU	PS-1.1 PS-1.2	SU	LTS	LTS

Alternative 4

Alternative 4 would not result in any public service and utility impacts.

Impacts:

B = Beneficial

LTS = Less than significant

S = Significant

SU = Significant and Unavoidable

N/A = Not applicable

The increase in wastewater reclamation demand under the proposed project is similar to the demand projected in the City General Plan. Provisions in the City General Plan and the Airport Area and Margarita Area Specific Plans ensure that there the capacity of water reclamation facilities will be adequate to serve development in the project area. Additionally, the proposed project includes adequate collection facilities as outlined in the facility master plans. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-3: Impacts on Storm Drainage Capacity

The proposed project would increase developable acreage in San Luis Obispo by approximately ~~371.2~~ 357.9 hectares (~~917.4~~ 884.4 acres). This increase would cause a corresponding increase in stormwater runoff.

The increase in developable area under the proposed project is similar to the increase anticipated in the City General Plan. Storm drainage system capacity and distribution levels are based on the City General Plan; therefore, with implementation of the Storm Drain Master Plan, capacity for stormwater detention would be adequate to serve the proposed project. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-4: Impacts on Solid Waste Landfill Capacity

The proposed project would increase solid waste generation by approximately 42,840 pounds per day. This increase would cause a corresponding increase in demand for landfill capacity.

The proposed project would result in garbage generation at a rate similar to that provided for in the City General Plan. Existing solid waste disposal plans addressing capacity, as outlined in the City General Plan and the Airport Area and Margarita Area Specific Plans, would ensure that landfill capacity would be adequate for the proposed project. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-5: Increased Demand for Law Enforcement Services

New Police Protection Staffing. The City has performed follow-up fiscal analyses on its staffing needs in servicing the Airport and Margarita areas, and the related revenues likely to be generated to support any increased costs. These analyses included police protection services. As part of its budget process, the City reviews changes in workload and service needs to due a variety of circumstances, and then establishes standards and allocates the resources needed to meet them. This will continue to be the case, and staffing changes will be made as needed to ensure that this area receives the same level of service as the rest of the community.

Police Impact Fee. In performing the follow-up analyses on staffing and facility impacts in servicing this area, it was concluded that a police substation may be needed at some point. However, even in this case, a major City facility is unlikely. Instead, rental of small office space—similar to the City’s existing downtown substation—is more likely. As such, rather than a facility cost to be mitigated by an area-specific impact fee, this possible rental cost represents a relatively minor increase in overall police operating costs. Further, planned improvements in mobile information technology make the need for a major substation facility even less likely.

Impact Summary. Given additional analysis and planned technology improvements since preparation of the General Plan, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-6: Increased Demand for Fire Protection Service

The proposed project would increase demand for fire protection personnel by four firefighters. The following mitigation measure was included in the City General Plan EIR to address such an increase:

- # **PS-1. New Fire Protection Personnel.** To mitigate the impacts associated with buildout of the proposed project or any alternative, a sufficient number of fire protection personnel should be hired to maintain a ratio of one firefighter for every 1,000 residents (Fugro 1993).

This mitigation measure will ensure that adequate fire personnel are provided as new development occurs. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-7: Potential Inadequacy of Fire Protection Infrastructure to Maintain Acceptable Levels of Service

Fire Impact Fee. Since the preparation of the General Plan, the City has performed follow-up analyses on Fire staffing and facility needs to service the Airport and Margarita areas. These include:

San Luis Obispo Airport Area Fiscal Impact Analysis
Prepared by Angus McDonald & Associates, February 1994

Airport Area Annexation Fiscal Impact Analysis: 1994 Report Update
Prepared by the Department of Finance, City of San Luis Obispo, June 1998

Both of these reports conclude that the City's existing four fire stations are adequate in meeting the City's response time standards to these areas. However, it would be operationally necessary to implement three-person engine companies at all four stations all the time in order to do so.

As part of the 2001-2003 Financial Plan, the City approved increases in regular staffing to accomplish this goal. Further, as part of the *Memorandum of Understanding* entered into between the City and the International Association of Firefighters (Local 253) on July 17, 2001, effective July 2002 the City is committed to meeting a 13-minimum sworn staffing requirement on all shifts that further guarantees that there will be three-person engine companies at all four stations all the time.

CDF Station. As noted above, the City has performed further analysis of its Fire staffing and facility needs. Based on these, it is unlikely that the City would be interested in acquiring the CDF facility at the Airport. ~~Moreover, since the Airport itself is no longer part of the proposed annexation, there is even less justification to pursue this idea.~~

Impact Summary. Given changes in circumstances and operational improvements since preparation of the General Plan, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-8: Increased Demand for Hazardous Materials Inspection, Permitting, and Response

As noted previously, the City has performed follow-up fiscal analyses on its staffing needs in servicing the Airport and Margarita Areas, and the related revenues likely to be generated to support any increased costs. These analyses included increased demand for hazardous materials

inspection and permitting, and provide specific plans for addressing them. Accordingly, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-9: Impacts on Existing School System

Under current state law, all development is assumed to have some impact on school facilities. State law also specifies that collecting standardized fees (based on new dwelling units and square footage for residential and nonresidential uses) is adequate mitigation for all school facility requirements. Based on these assumptions, this impact was assessed for the overall impact of the proposed project. The assessment indicates that the proposed project would generate approximately 705 new students.

New schools are funded by a combination of state funding, school district tax-based funding (including general obligation bonds and parcel taxes), and development impact fees. Development impact fees are generally limited under the provisions of SB 50/Proposition 1A legislation passed in 1998. The funding provided under that legislation is intended to fully mitigate school impacts and no additional impact fees may be imposed above the limits established in statute (Government Code Section 65595 et seq).

The school district currently imposes school impact fees in accordance with state law; therefore, impacts are considered fully mitigated. This impact is considered *less than significant*.

Mitigation

No further mitigation can be imposed.

Impact PS-10: Impacts on Park and Recreation Facilities

The demand for additional park and recreation services is measured using planning guidelines established by the City. Although the primary demand for such services is from residential uses, all land uses create some demand. The City's adopted service standard is 4.0 hectares (10 acres) per 1,000 residents. A total of 13.7 new hectares (34 acres) of parkland would be required for the proposed project to meet the City's desired standard. However, the proposed project would contain ~~200.3~~ 215.6 hectares (~~495~~ 532.73 acres) of parks and open space, which exceeds the necessary 13.7 hectares (34 acres). Therefore, this impact is *less than significant*.

Mitigation

No mitigation is required.

Alternative 1

Impact PS-1: Impacts on Water Supply and Distribution Facilities

Similar to the proposed project, Alternative 1 would increase water demand by approximately 493,000 gallons per day (based upon per-capita water use rate of 145 gallons per day). Therefore, Alternative 1 would increase demand for water and water distribution facilities in San Luis Obispo. However, this increase is similar to the increase anticipated in the City's General Plan. Provisions in the City General Plan and the Airport Area and Margarita Area Specific Plans ensure that an adequate quantity of water will be available in the project area. Additionally, Alternative 1 includes adequate distribution facilities as outlined in the facility master plans. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-2: Impacts on Sewer Mains and Capacity, and Expansion of Treatment Facilities

Alternative 1 would increase wastewater generation by approximately 350,000 gallons per day and increase the demand for wastewater reclamation and collection facilities in San Luis Obispo. However, this increase is similar to the increase projected in the City General Plan. Provisions in the City General Plan and the Airport Area and Margarita Area Specific Plans ensure that the capacity of water reclamation facilities will be adequate to serve development in the project area. Additionally, Alternative 1 includes adequate collection facilities as outlined in the facility master plans. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-3: Impacts on Storm Drainage Capacity

Alternative 1 would increase developable acreage in the City by approximately ~~249.9~~246.2 hectares (~~617.7~~608.3 acres). This increased developable area will result in a corresponding increase in stormwater runoff.

Alternative 1 would result in an increase in developable area smaller than the increase projected in the City General Plan. The storm drainage system capacity and distribution is based on the City General Plan; therefore, with implementation of the Storm Drain Master Plan, capacity for stormwater detention would be adequate for Alternative 1. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-4: Impacts on Solid Waste Landfill Capacity

Alternative 1 would increase solid waste generation by approximately 44,100 pounds per day. Alternative 1 would result in garbage generation at a rate similar to that provided for in the City General Plan. Existing solid waste disposal plans addressing capacity, as outlined in the City General Plan and the Airport Area and Margarita Area Specific Plans, would ensure that landfill capacity would be adequate for Alternative 1. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-5: Increased Demand for Law Enforcement Services

Demand for law enforcement under Alternative 1 is similar to that proposed under the proposed project. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-6: Increased Demand for Fire Protection Service

Additional demand for fire protection service under Alternative 1 is similar to that proposed under the proposed project. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-7: Potential Inadequacy of Fire Protection Infrastructure to Maintain Acceptable Levels of Service

Additional demand for fire protection infrastructure under Alternative 1 is similar to that proposed under the proposed project. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-8: Increased Demand for Hazardous Materials Inspection, Permitting, and Response

Alternative 1 would result in similar impacts as the proposed project. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-9: Impacts on Existing School System

Under current state law, all development is assumed to have some impact on school facilities. State law also specifies that collecting standardized fees (based on new dwelling units and square footage for residential and nonresidential uses) is adequate mitigation for all school facility requirements. Based on these assumptions, this impact was assessed for the overall impact of Alternative 1. The assessment determined that Alternative 1 would generate approximately 763 new students, which is slightly more than under the proposed project.

The school district currently imposes school impact fees in accordance with state law; therefore, impacts are considered fully mitigated. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-10: Impacts on Park and Recreation Facilities

The demand for additional park and recreation services is measured using planning guidelines established by the City. Although the primary demand for such services is from residential uses, all land uses create some demand. The City's adopted service standard is 4.0 hectares (10 acres) per 1,000 residents. A total of 13.7 new hectares (34 acres) of parkland would be required for Alternative 1 to obtain the City's desired standard. However, Alternative 1 would contain ~~182.3~~ 185.8 hectares (~~450.7~~ 459.1 acres) of parks and open space, which exceeds the necessary 14.1 hectares (35 acres). Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 2

Impact PS-1: Impacts on Water Supply and Distribution Facilities

Additional demand for water supply and distribution facilities under Alternative 2 is similar to demand under the proposed project. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-2: Impacts on Sewer Mains and Capacity, and Expansion of Treatment Facilities

Additional demand for sewer mains and capacity under Alternative 2 is similar to demand under the proposed project. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-3: Impacts on Storm Drainage Capacity

The project would result in an increase in additional developable acreage of approximately ~~328.8~~ 314.8 hectares (~~812.6~~ 778.0 acres), which would result in a corresponding increase in stormwater runoff.

The increase in developable area under Alternative 2 is smaller than the increase projected in the City General Plan. The storm drainage system capacity and distribution is based on the City General Plan; therefore, with implementation of the Storm Drain Master Plan, capacity for stormwater detention would be adequate for Alternative 2. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-4: Impacts on Solid Waste Landfill Capacity

Additional demand for solid waste landfill capacity under Alternative 2 is similar to demand under the proposed project. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-5: Increased Demand for Law Enforcement Services

Demand for law enforcement under Alternative 2 is similar to demand under the proposed project. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-6: Increased Demand for Fire Protection Service

Additional demand for fire protection service under Alternative 2 is similar to demand under the proposed project. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-7: Potential Inadequacy of Fire Protection Infrastructure to Maintain Acceptable Levels of Service

Additional demand for fire protection infrastructure under Alternative 2 is similar to demand under the proposed project. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-8: Increased Demand for Hazardous Materials Inspection, Permitting, and Response

Alternative 2 would result in similar impacts as the proposed project. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-9: Impacts on Existing School System

Additional demand for school facilities under Alternative 2 is similar to demand under the proposed project. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-10: Impacts on Park and Recreation Facilities

The demand for additional park and recreation services is measured using planning guidelines established by the City. Although the primary demand for such services is from residential uses, all land uses create some demand. The City's adopted service standard is 4.0 hectares (10 acres) per 1,000 residents. A total of 13.7 new hectares (34 acres) of parkland would be required for Alternative 2 to obtain the City's desired standard. However, Alternative 2 would contain ~~200.1~~ 211.2 hectares (~~494.6~~ 522.0 acres) of parks and open space, which exceeds the necessary 13.7 hectares (34 acres). Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 3

Impact PS-1: Impacts on Water Supply and Distribution Facilities

Additional demand for water supply under Alternative 3 is similar to demand under the proposed project. However, Alternative 3 would result in additional demand east of the airport and south of the URL. This area is currently not planned for development within the City General Plan or facility master plans. The area east of the airport and south of the URL is not planned to be provided with adequate distribution facilities to serve development allowed under Alternative 3. Therefore, Alternative 3 would result in *significant and unavoidable* impacts in the area of water distribution facilities.

Mitigation

Mitigation Measure PS-1.1 requires future site-specific studies before the review and approval of projects in the area east of the airport and south of the URL to determine specific water, wastewater, and storm drainage system capabilities to serve the projects proposed. Because the ability to mitigate these impacts cannot be projected pending an engineering study (based on project-specific demands), this impact was determined to remain significant and unavoidable.

Mitigation Measure PS-1.1. Submit Engineering Feasibility Study. Before specific project review and approval of projects in the area east of the airport and south of the URL, the project proponent will submit a detailed engineering assessment of the specific project's water demand and sewer/wastewater, and storm drainage production, and an assessment of the City's infrastructure system to handle the project in question. The project proponent will be required to provide mitigation to offset impacts on the water, wastewater, and/or storm drainage system as determined by the City.

Funding Source: Project proponent
Implementing Party: Project proponent
Monitoring Agency: City of San Luis Obispo
Timing: Before project approval

Mitigation Measure PS-1.2. Require Developments Expanding Water, Wastewater, and Storm Drainage Infrastructure to Pay for Improvements. The City will require that new large-scale developments in the area east of the airport and south of the URL include a funding mechanism for the installation and maintenance of water, wastewater, and storm drainage infrastructure and service to the area.

Funding Source: Project proponent
Implementing Party: Project proponent
Monitoring Agency: City of San Luis Obispo
Timing: Before project approval

Impact PS-2: Impacts on Sewer Mains and Capacity, and Expansion of Treatment Facilities

Additional demand for water reclamation facility capacity under Alternative 3 is similar to demand under the proposed project. However, Alternative 3 would result in additional demand east of the airport and south of the URL. This area is currently not planned for development within the City General Plan or service plans including the Wastewater Master Plan Update. As a result, Alternative 3 would result in *significant and unavoidable* impacts in the area of wastewater collection facilities.

Mitigation

Mitigation Measure PS-1.1 requires future site-specific studies before the review and approval of projects in the area east of the airport and south of the URL to determine specific water, wastewater, and storm drainage system capabilities to serve the projects proposed. Because the ability to mitigate these impacts cannot be projected pending an engineering study (based on project-specific demands), this impact was determined to remain significant and unavoidable.

Mitigation Measure PS-1.1. Submit Engineering Feasibility Study. This mitigation measure is described above.

Mitigation Measure PS-1.2. Require Developments Expanding Water, Wastewater, and Storm Drainage Infrastructure to Pay for Improvements. This mitigation measure is described above.

Impact PS-3: Impacts on Storm Drainage Capacity

Alternative 3 would increase developable acreage by approximately ~~258.5~~ 354.0 hectares (~~638.9~~ 874.7 acres), which would result in a corresponding increase in stormwater runoff. The amount of developable area under Alternative 3 is smaller than under the proposed project and the City General Plan. Existing plans, including the Storm Drain Master Plan, would provide for adequate detention basin capacity to serve Alternative 3. However, Alternative 3 would result in additional stormwater generation east of the airport and south of the URL. This area is currently not planned for development within the City General Plan or service plans including the Storm Drain Master Plan. Therefore, Alternative 3 would result in *significant and unavoidable* impacts in the area of stormwater collection facilities.

Mitigation

Mitigation Measure PS-1.1 requires future site-specific studies before the review and approval of projects in the area east of the airport and south of the URL to determine specific water, wastewater, and storm drainage system capabilities to serve the projects proposed. Because the ability to mitigate these impacts cannot be projected pending an engineering study (based on project-specific demands), this impact was determined to remain significant and unavoidable.

Mitigation Measure PS-1.1. Submit Engineering Feasibility Study. This mitigation measure is described above.

Mitigation Measure PS-1.2. Require Developments Expanding Water, Wastewater, and Storm Drainage Infrastructure to Pay for Improvements. This mitigation measure is described above.

Impact PS-4: Impacts on Solid Waste Landfill Capacity

Additional demand for solid waste landfill capacity under Alternative 3 is similar to demand under the proposed project. Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-5: Increased Demand for Law Enforcement Services

Demand for law enforcement under Alternative 3 is similar to demand under the proposed project. However, Alternative 3 may result in a somewhat higher demand for response to the far

south portion of the city as the area east of the airport and south of the URL develops. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-6: Increased Demand for Fire Protection Service

Additional demand for fire protection service under Alternative 3 is similar to demand under the proposed project. However, Alternative 3 may result in a somewhat higher demand for response to the far south portion of the city as the area east of the airport and south of the URL develops. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-7: Potential Inadequacy of Fire Protection Infrastructure to Maintain Acceptable Levels of Service

Additional demand for fire protection service under Alternative 3 is similar to demand under the proposed project. However, Alternative 3 may result in a somewhat higher demand for response to the far south portion of the city as the area east of the airport and south of the URL develops. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-8: Increased Demand for Hazardous Materials Inspection, Permitting, and Response

Alternative 2 would result in similar impacts as the proposed project. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-9: Impacts on Existing School System

Additional demand for school facilities under Alternative 3 is similar to demand under the proposed project. This impact is considered *less than significant*.

Mitigation

No mitigation is required.

Impact PS-10: Impacts on Park and Recreation Facilities

The demand for additional park and recreation services is measured using planning guidelines established by the City. Although the primary demand for such services is from residential uses, all land uses create some demand. The City's adopted service standard is 4.0 hectares (10 acres) per 1,000 residents. A total of 13.7 new hectares (34 acres) of parkland would be required for Alternative 3 to obtain the City's desired standard. However, Alternative 3 would contain ~~197.1~~ 208.5 hectares (~~487.1~~ 515.3 acres) of parks and open space, which exceeds the necessary 13.7 hectares (34 acres). Therefore, this impact is considered *less than significant*.

Mitigation

No mitigation is required.

Alternative 4 (No-Project Alternative)

Implementation of Alternative 4 would not result in any new public service and utility impacts.

Section 3I. Cultural Resources

INTRODUCTION

Cultural resources can be archaeological sites from both prehistoric and historic times, historic places, important or exemplary buildings, or locations of culturally important community events. To provide the context in which potential impacts can be assessed, this section presents information on the prehistoric, ethnographic, and historic setting of the project area. This information is based on a review of historical data and searches of records in the California Historical Resources Information System (CHRIS) and at the California Native American Heritage Commission (NAHC). This section also provides information on the regulatory setting that applies to cultural resources. Impact topics assessed in this section include potential damage to or destruction of known and/or unknown cultural resources.

SETTING

Regulatory Setting

The regulations with which a specific development project will need to comply regarding cultural resources depend largely on the specific project activities, areas that would potentially be affected, and sponsoring and/or funding agencies. The following section discusses general guidelines for complying with CEQA and with Section 106 of the National Historic Preservation Act (NHPA). Specific compliance measures will ultimately be defined in consultation with the parties involved with future projects.

CEQA requires that public or private projects financed or approved by public agencies assess the effects of the project on cultural resources. Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance. CEQA requires that alternative plans or mitigation measures be considered if a project would result in significant effects on important cultural resources.

City of San Luis Obispo CEQA Review

The City has adopted guidelines for compliance with CEQA (City Archaeological Resource Preservation Guidelines [ARPG], Resolution No. 8459). Note that these guidelines use the term “archaeological resources” but define this term to include archaeological sites from the prehistoric and historic periods and sites or natural landscapes associated with important human events. These guidelines require that nonexempt projects:

- # identify archaeological resources,
- # evaluate the significance of resources,
- # evaluate the effects of a project on resources, and
- # develop and implement measures to mitigate the effects of the project on significant resources.

Projects exempt from compliance with the ARPG are those that are:

- # categorically or statutorily exempt for compliance with CEQA, except when these projects are located in areas considered to be sensitive for the presence of archaeological resources;
- # on parcels, including those in sensitive areas, that have had substantial subsurface disturbance; or
- # on parcels outside of sensitive areas that are less than 0.40 hectare (1 acre) in size.

Areas considered to be sensitive for archaeological resources are those that are:

- # inside or within 200 feet of the boundaries of an existing archaeological site;
- # within 200 feet of the top of the banks of the San Luis Obispo, Stenner, Brizzolara, Acacia, Old Garden, Prefumo, or Froom Creeks;
- # inside a Historical Archaeological District;
- # within the boundaries of sites designated on the Master List of Historic Resources or have been determined to be eligible for listing on the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR); or
- # within the boundaries of sites designated as being in a historically or archaeologically sensitive area.

In addition to its archaeological guidelines, the City has implemented guidelines for the treatment of historical sites and buildings. Historical resources are defined to be “any improvements, buildings, sites, areas or objects of scientific, aesthetic, educational, cultural, architectural or historical significance that have been designated by resolution of the Council and included in the Inventory of Historical Resources”. Historical resources are classified into five categories:

- # already placed on the NRHP;
- # determined eligible for the NRHP;
- # eligible for the NRHP;
- # potentially eligible for the NRHP; and
- # not eligible for the NRHP, but significant at a local level.

National Historic Preservation Act Section 106

Implementing subsequent, individual projects of the specific plans or facilities master plans could require federal approvals, such as disbursement of federal funds for roadway or wastewater facilities improvements or issuance of federal permits (e.g., Clean Water Act Section 404 permits). NHPA Section 106 requires federal agencies, before beginning any undertaking, to take into account the effects of the undertaking on historic properties and give the Advisory Council on Historic Preservation (ACHP) an opportunity to comment. Specific regulations state that, although the tasks necessary to comply with Section 106 may be delegated to others, the federal agency is ultimately responsible for ensuring that the Section 106 process is completed. The Section 106 process has five basic steps:

- # Identify and evaluate historic properties.
- # Assess effects of the project on historic properties.
- # Consult with the State Historic Preservation Officer (SHPO) regarding adverse effects on historic properties, resulting in a memorandum of agreement (MOA).
- # Submit the MOA to the ACHP.
- # Proceed in accordance with the MOA.

Section 106 compliance may be required if a project uses federal funding (such as grant money) or if a federal permit is required.

Historical Setting

General Prehistory and History

The prehistoric occupation of southern coastal California is divided chronologically into temporal phases with similar material assemblages called “traditions”: Paleo-Coastal, Encinitas, and Hunting.

It is not known when the Paleo-Coastal Tradition began, but it lasted until about 6000 B.C. The Paleo-Coastal Tradition is best represented in the San Luis Obispo area at sites CA-SLO-2 and CA-SLO-585, located in Diablo Canyon. The earliest deposits in these sites date to approximately 7000 B.C. The deposits in these sites indicate that a very large range of animals—more than 100 terrestrial, marine, and bird species—was being used (Moratto 1984). By inference, it follows that people had a moderate degree of mobility because, for example, the Pacific coast at the time was located more than 10 kilometers (6.21 miles) from the sites.

An adaptive change took place approximately 8,000 years ago at 6000 B.C. Archaeological evidence suggests that people began to shift their subsistence to a diet that emphasized the use of hard seeds and shellfish. Sites, including those at Diablo Canyon with Paleo-Coastal Tradition components, contain a substantial amount of ground stone tools (manos and metates). This seed/shellfish-dominated adaptation, called the Encinitas or Millingstone Tradition, lasted until approximately 3000 B.C. By dating to approximately 6000 B.C., the sites at Diablo Canyon have one of the earliest documented occurrences of this adaptive pattern (Moratto 1984).

The next period is also identified by a change in subsistence patterns. This period is referred to as the Hunting Tradition, Campbell Tradition, or Middle Period. Sites from this period are characterized by more diverse assemblages and microregional economic specialization. Most noticeable is the increased presence of the mortar and pestle that is thought to have been predominantly used for the processing of oak acorns. The mortar and pestle largely replace the mano and metates of the prior period. In addition, Middle Period deposits contain a larger number of projectile points, *Olivella* beads, and a diverse assemblage of marine and terrestrial fauna. Trends that began in this period continued to the time of European contact in the region. At the time of European intrusion, the people living in the area came to be called Chumash, and, later Obispeño Chumash (Moratto 1984, Bouey and Basgall 1991).

The first known Europeans to visit the area came as the result of various Spanish *entradas* during the late 1500s and again during the late 1700s. The diarists attached to these expeditions describe “very small towns” or small groups that they assumed to be nomads because they did not see houses (Greenwood 1978).

With the establishment in 1772 of a Franciscan mission at what is now San Luis Obispo, the Spanish began the first permanent European settlement in the area. As the settlement grew, interaction between the Chumash and Spanish increased. While interaction was driven by economics at first, the Spanish agenda of religious conversion eventually led to coercion and requirements to

abandon scattered villages to live at the mission (Hoover 1979). By the early 1800s, a combination of introduced diseases, disruptions of cultural systems, and European expansion had caused severe Chumash depopulation. Political control of the planning areas changed in 1820 with Mexican independence from Spain. Conditions continued to worsen, and led to a Chumash revolt and takeover of Mission La Purísima Concepción and Mission Santa Bárbara (Gibson 1991).

Many changes occurred under the Mexican government. After the Mexicans regained control of the missions in 1824 by military force, many Chumash who had fled the missions were captured and forced to return. The 1827 Mexican constitution, however, gave the mission Chumash rights as Mexican citizens. The mission system was secularized by Mexico in 1833, and mission lands were given to private landholders for ranching, agriculture, and other economic ventures. Half of the mission lands were designated for the Chumash, but by the late 1830s most of that land had been overrun by other settlers, and the disenfranchised Chumash left for the interior or became employees of the private ranches (Gibson 1991).

War between Mexico and the United States for land in southwestern North America began in the early 1840s and led to a treaty in 1848 giving control of *Alta California* to the United States. The Chumash were encouraged to assimilate into Mexican society, but the settlers from the eastern United States were not as tolerant, and the Chumash were pushed further to the fringes of social and economic life. While settlers of Europe, Mexico, and the United States were expanding agriculture, ranching, and dairy activities, the Chumash became more dispersed and impoverished. The final blow to the Chumash came with the discovery of gold in 1849 and a massive emigration of new settlers into California. Some relief came from the United States government in 1901, when the Chumash were given a small reservation near Santa Ynez (Gibson 1991).

Although the Chumash were no longer residents of the project area, the area continued to develop during the 20th century. Ranching and agriculture continued to be dominant economic activities. Oil was discovered in the area and became an important industry in the early part of the century. The establishment of a permanent military camp for the California Army National Guard in 1928 and later expansion of this camp into Camp San Luis Obispo in 1940 provided a new economic focus for the City (Jones & Stokes Associates 1997). San Luis Obispo is now the economic service center for this military base. The wine industry has also developed as a major economic contributor over the last half of the 20th century.

Project Area Setting

Airport Area. The Airport area has been the location of 13 cultural resource field surveys and one overview. All but one of these surveys (E-138) have been considered adequate by the CHRIS. The acceptably surveyed area accounts for approximately 30.7 hectares (76 acres), or about 7% of the Airport area's 407.1 hectares (1,006 acres). It should be noted that several of these survey reports list poor surface visibility due to grass as an identification problem.

One cultural resource (4-SLO-AS-1002H) has been reported near the Airport area, and the Buckley Road extension could go through this site. This resource is a wooden barn that dates to

ca. 1900. The barn is hexagonal in plan with a cupola of wooden slats. The construction is post and beam with vertical plank sides. The roof is covered with wooden shingles. From photographs, there appears to be a sliding barn door on each side of the structure. The condition of the barn was reported as poor in 1989; however, the barn has been stabilized, and the Land Conservancy of San Luis Obispo County is working on its restoration.

Margarita Area. The Margarita area has been the location of two cultural resource field surveys. The surveys have covered approximately 50.9 hectares (126 acres), or about 29% of the Margarita area's 174.0 hectares (430 acres). As with the Airport area, restricted ground visibility from vegetation hindered the ability of field survey crews to identify cultural resources.

One cultural resource (CA-SLO-1427) has been reported within the Margarita area. This resource is a cluster of four stone mortars in a rock pile along a creek. Little more is known about this site, although the recorder notes that "I did not make a concentrated search of the [site] area, but it has a look and a feel that warrants much further work". The recorder goes on to note that "I feel that this site suggests a good occupation somewhere in the vicinity".

IMPACTS AND MITIGATION

Introduction and Methodology

The identification effort for this project included a records search, public request for input, and a review of existing reports from prior investigations within the planning areas.

Record searches were conducted in the CHRIS and the NAHC. The search of records in the CHRIS, conducted in February 1998, focused on the State's records for archaeological, historical, and traditional cultural resources on file at the regional office in Santa Barbara. This search also reviewed the Historic Property Data File that contains a compilation of records from the NRHP, the CRHR, and the California Registered Historical Landmarks Program. Researchers checked for known resources within the planning areas and within a 0.25-mile buffer around the planning areas. The record search at the NAHC was conducted in February 1998; the Sacred Lands File was checked for known resources within the planning areas.

The NAHC also identified 15 individuals and organizations who might have additional knowledge of cultural resources within the planning areas. These individuals were contacted by letter on February 18, 1998, and asked for assistance in identifying resources. In addition, the City Cultural Heritage Commission, the San Luis Obispo Old Town Neighborhood Association, and the County Historical Society were also contacted by letter on February 18, 1998, and asked to contribute information about cultural resources within the planning areas.

Several reports from prior cultural resources and environmental research and compliance investigations within the planning areas were reviewed. This review was targeted at identifying resources and factors that would condition the location of cultural resources on the landscape.

The cultural resources work undertaken for this project was conducted by an individual meeting the criteria of “Qualified Archaeologist” as defined by the ARPG. This chapter uses existing data on known archaeological sites in the planning areas. No new field research was conducted. These existing data are used, to the extent possible, to identify areas that have the potential to contain cultural resources.

Criteria for Determining Significance

Significance under CEQA

Based on the State CEQA Guidelines, an impact is considered significant if a project would disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group (Public Resources Code Section 21084.1). Demolition, replacement, substantial alteration, and relocation are actions that would change the significance of a historical resource.

The State CEQA Guidelines define a significant historical resource as “a resource listed or eligible for listing on the California Register of Historical Resources” (Public Resources Code Section 5024.1). A historical resource may be eligible for inclusion on the CRHR if it:

- # is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- # is associated with the lives of persons important in our past;
- # embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
- # has yielded, or may be likely to yield, information important in prehistory or history.

In the absence of a formal determination of significance of a resource and nomination to the CRHR, the lead agency can determine that a resource is potentially eligible for listing in the CRHR for the purposes of determining whether a significant impact would occur. The fact that a resource is not listed in, or has not been determined eligible for listing in, the CRHR and is not included in a local register of historical resources does not preclude an agency from determining whether a resource may be a historical resource for the purposes of CEQA.

Significance under Section 106 of the National Historic Preservation Act

Cultural resource significance for projects requiring Section 106 compliance is evaluated in terms of eligibility for listing on the NRHP. NRHP significance criteria used to evaluate cultural resources are defined in 36 CFR 60.4 as follows:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

- a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- b. that are associated with the lives of persons significant in our past; or
- c. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. that have yielded, or may be likely to yield, information important in prehistory or history.

Significant impacts can occur when prehistoric or historic archaeological sites, structures, or objects listed in or eligible for listing in the NRHP are subjected to the following effects:

- # physical destruction or alteration of all or part of the property;
- # isolation of the property from or alteration of the property's setting when that character contributes to the property's qualification for the NRHP;
- # introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
- # neglect of a property resulting in its deterioration or destruction; or
- # transfer, lease, or sale of the property.

Summary of Impacts

This section evaluates cultural resource impacts related to the proposed project and the three land use alternatives. For this evaluation, impacts have been assessed under one category. Table 3I-1 provides an overview of the significance findings made for the proposed project and each of the alternatives.

Table 3I-1. Summary of Cultural Resource Impacts

Impact	Impact after Mitigation	Mitigation	Airport Area	Margarita Area	Facility Master Plans
Proposed Project					
CR-1. Potential Damage to or Destruction of Known and/or Unknown Cultural Resources	LTS	CR-1.1	S	S	S
Alternative 1					
Alternative 1 would have the same impacts as the proposed project.					
Alternative 2					
Alternative 2 would have the same impacts as the proposed project.					
Alternative 3					
Alternative 3 would have the same impacts as the proposed project.					
Alternative 4					
Alternative 4 would not result in any new cultural resource impacts.					
<hr/>					
Notes:					
B = Beneficial					
LTS = Less than significant					
S = Significant					
SU = Significant and Unavoidable					

Proposed Project

Impact CR-1: Potential Damage to or Destruction of Known and/or Unknown Cultural Resources

Different types of cultural resources throughout the planning areas could be affected by activities proposed within the Airport and Margarita areas and the related facility master plan areas. For example, archaeological sites are susceptible to damage during excavation. Generally, the scientific value of archaeological sites is in the information that can be extracted about past lifestyles. Any activity that moves, removes, or destroys aspects of a site will compromise that information. The historic built environment and historic landscape are also quite susceptible to impacts associated with activities proposed under the specific plans. For example, any activity that destroys or alters the physical makeup of structures or the setting in which they exist, including, but not limited to, the construction of new structures, will compromise the integrity of these resources.

Previous cultural resource field surveys have identified a wooden barn in the Airport area and a cluster of four stone mortars in the Margarita area. Although individual projects have not been proposed, resources associated with these findings may be adversely affected by individual projects. Impacts on these cultural resources could result from ground disturbance associated with infrastructure development and construction of new structures, roads, and underground utilities.

Implementation of the proposed project would entail reuse of the area for residential, service and manufacturing, commercial, office, public, open space, recreational, infrastructure, and underground utilities. Ground disturbance associated with infrastructure development and construction of new structures, access roads, and underground utilities could have an impact on known or unknown cultural resources; therefore, this impact is considered *significant*.

Mitigation

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

Mitigation Measure CR-1.1. Protect Known and/or Unknown Cultural Resources.

The City will ensure that the project proponent implements the following measures before and during development of specific projects proposed under the Airport Area and Margarita Area Specific Plans and the related facility master plans. Specific measures include the following:

- # **Conduct Surveys of Unsurveyed Areas.** Before implementing project activities, pedestrian surveys will be conducted to locate and record cultural resources.
- # **Evaluate Resources within the Project Areas.** Resources in the planning areas that cannot be avoided will be evaluated. Additional research and test excavations, where appropriate, will be undertaken to determine whether the resource(s) meets CEQA or

NRHP significance criteria. Impacts on significant resources that cannot be avoided will be mitigated in consultation with the lead agency for the project. Possible mitigation measures include:

- a data recovery program consisting of archaeological excavation to retrieve the important data from archaeological sites;
- development and implementation of public interpretation plans for both prehistoric and historic sites;
- preservation, rehabilitation, restoration, or reconstruction of historic structures according to the Secretary of Interior Standards for Treatment of Historic Properties;
- construction of new structures in a manner consistent with the historic character of the region; and
- treatment of historic landscapes according to the Secretary of Interior Standards for Treatment of Historic Landscapes.

If the project involves a federal agency, and is therefore subject to an MOA, the inventory, evaluation, and treatment processes will be coordinated with that federal agency to ensure that the work conducted will also comply with Section 106 of the NHPA.

Funding Source: Project Proponent
Implementing Party: Project Proponent
Monitoring Agency: City of San Luis Obispo
Timing: Before and during construction

Alternative 1

Impact CR-1: Potential Damage to or Destruction of Known and/or Unknown Cultural Resources

Development under this alternative includes development of a smaller planning area for the Airport area and a slightly larger area for the Margarita area than under the proposed project. Development proposed for the facility master plans would be the same. Implementation of this alternative would result in impacts similar to those described above under the proposed project, although developing less acreage in the Airport area would decrease the potential for additional cultural resource sites to be affected. Ground disturbance associated with infrastructure development and construction of new structures, access roads, and underground utilities could have an impact on known and/or unknown cultural resources; therefore, this impact is considered *significant*.

Mitigation

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

Mitigation Measure CR-1.1. Protect Known and/or Unknown Cultural Resources.

This mitigation measure is described above.

Alternative 2

Impact CR-1: Potential Damage to or Destruction of Known and/or Unknown Cultural Resources

Implementation of this alternative includes the development of a slightly smaller planning area for the Airport area and the same area for the Margarita area as under the proposed project. Development proposed for the facility master plans would also be the same. Implementation of this alternative would result in impacts similar to those described above under the proposed project, although developing less acreage under the Airport area would decrease the potential for additional cultural resource sites to be affected. Ground disturbance associated with infrastructure development and construction of new structures, access roads, and underground utilities could have an impact on known and/or unknown cultural resources; therefore, this impact is considered *significant*.

Mitigation

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

Mitigation Measure CR-1.1. Protect Known and/or Unknown Cultural Resources.

This mitigation measure is described above.

Alternative 3

Impact CR-1: Potential Damage to or Destruction of Known and/or Unknown Cultural Resources

Implementation of this alternative includes the development of a larger planning area for the Airport area and the same area for the Margarita area as under the proposed project. Development proposed for the facility master plans would be the same. Implementation of this alternative would result in impacts similar to those described above under the proposed project, although developing a greater number of acres in the Airport area would increase the potential for additional cultural resource sites to be affected. Ground disturbance associated with infrastructure development and

construction of new structures, access roads, and underground utilities could have an impact on known and/or unknown cultural resources; therefore, this impact is considered *significant*.

Mitigation

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

Mitigation Measure CR-1.1. Protect Known and/or Unknown Cultural Resources.

This mitigation measure is described above.

Alternative 4 (No-Action Alternative)

Implementation of Alternative 4 (the No-Action Alternative) would not result in any new cultural resource impacts.

Chapter 4. Other CEQA Considerations

This chapter provides an assessment of irreversible environmental changes, cumulative impacts, growth-inducing impacts, and significant and unavoidable adverse impacts, as required by CEQA and the State CEQA Guidelines.

IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126(f) of the State CEQA Guidelines requires an EIR to include a discussion of significant irreversible environmental changes that would result from implementation of a project. Implementation of the specific plans and related facilities master plans would result in the commitment of nonrenewable natural resources (such as petroleum products) and slowly renewable resources, such as wood products used in buildings. Additionally, the project would result in the irreversible change of the area from a rural development pattern, including agricultural lands, to an urban setting.

CUMULATIVE IMPACTS

Requirements for Cumulative Impact Analysis

Section 15130 of the State CEQA Guidelines requires a reasonable analysis of the significant cumulative impacts of a proposed project. *Cumulative impact* refers to “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (State CEQA Guidelines, Section 15355). As defined by the State CEQA Guidelines, cumulative impacts are the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over time (State CEQA Guidelines, Section 15355[b]).

Approach to Cumulative Impact Analysis

Because of the program-level nature of the project, cumulative impacts are considered in each of the sections of Chapter 3 of this EIR. The project directly implements policies and plans

adopted by the City, including the City General Plan. This EIR analysis uses the “projection” approach to cumulative impact analysis, supplemented by the policies contained in the proposed Airport Area Specific Plan and Margarita Area Specific Plan. “The projection approach to cumulative impact analysis involves considering the project effects in light of the effects summarized in an adopted general plan or related planning document that is designed to evaluate regional or areawide conditions” (State CEQA Guidelines, Section 15130[b][1][B].) The analysis is based on the assumption assumes that the cumulative impacts analysis of the general plan EIR provides an appropriate and adequate base for analysis of future development and cumulative impacts associated with the proposed project. In certain instances, the Airport Area Specific Plan and Margarita Area Specific Plan propose changes to what is currently identified in the adopted general plan. Where there are conflicts between the adopted general plan and the proposed specific plans, policies are proposed in the form of mitigation to reduce cumulative impacts.

GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the State CEQA Guidelines requires an EIR to address whether a project will directly or indirectly foster growth. It reads as follows:

Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may further tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

As discussed in this section, this analysis evaluates whether the proposed project will directly or indirectly induce economic, population, or housing growth in the surrounding environment.

Assessment of Growth-Inducing Impacts

The project will result in the potential future development of the Airport and Margarita areas for residential, commercial, industrial, park, school, and open space uses. This includes the use of approximately 357.9 ~~383.6~~ hectares (~~948~~ acres) (884.4 acres). for urban uses, including development of approximately 1,070 ~~1,328~~ residential units and residence by approximately 2,741 ~~3,400~~ people. However, the project directly implements policies and plans adopted by the City, including the City General Plan. The growth-inducement analysis is based on the assumption assumes that the growth-inducing impacts analysis of the City General Plan EIR provides an appropriate and adequate base

for analysis of future development and growth-inducing impacts associated with the proposed project.

In certain instances, approval of the project would authorize more intensive development than might be allowed under the County General Plan. Implementation of the adopted policies in the City's general plan and mitigation measures in the General Plan EIR (aimed at reducing the secondary effects of growth), combined with implementation of the mitigation measures identified in Chapter 3 of this EIR and the policies contained in the Airport Area Specific Plan and Margarita Area Specific Plan will reduce the secondary effects of growth associated with the proposed adoption of these specific plans and related facilities master plans. However, these impacts would not be reduced to less-than-significant levels. The project would have a significant growth-inducing impact. Short of denying the project, there is no feasible mitigation.

SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

The State CEQA Guidelines (Sections 15126.2[a], 15064, 15382, and Appendix G) **require** an EIR to examine in detail all impacts that are potentially significant and to examine the significance of the impacts in light of mitigation measures that can reduce the significance of impacts. Before application of mitigation, the proposed project was found to have potentially significant or significant impacts. A summary of the environmental impacts associated with the project is presented in Table ES-3. This table reflects the premitigation CEQA conclusions of significance, recommended mitigation measures, and postmitigation CEQA significance conclusions for each impact.

With application of the mitigation measures proposed in Sections 3A through 3I, all project impacts are reduced to a less-than-significant level with the exception of Impact LU-5, Conversion of Prime Agricultural Land to Urban Uses; Impact LU-6, Change in Views; and Impact H-4, Change in the Course or Direction of Water Movements. No feasible mitigation was found to reduce these impacts to a less-than-significant level. Therefore, these impacts are considered significant and unavoidable.

Chapter 5. Alternatives Analysis

ALTERNATIVES TO THE PROPOSED PROJECT

In accordance with the State CEQA Guidelines, Section 15125(d), a draft EIR must describe a range of reasonable alternatives to the proposed project or to its location that could feasibly attain the project's basic objectives and reduce the impacts from the project. As detailed in Chapter 2, "Project Description," the City's objectives for this project were to develop policies and standards that will facilitate appropriate development of land, the protection of open space, and provision of adequate public facilities within the Airport and Margarita areas in accordance with the City General Plan.

In developing project alternatives, alternative locations for development were not assessed. The reason for this exclusion is based upon the existing General Plan's designation of the Airport and Margarita areas for future development. An alternative location would not meet the objective of having the proposed specific plans and facilities plans provide a tool for implementation of the City General Plan.

Alternatives to the proposed project analyzed in this EIR include:

Alternative 1

Modifications to the Airport Area and Margarita Area Specific Plan land use and circulation plans follow. Please note that the total may not exactly match the individual numbers due to rounding.

- # Designation of the Airport Area for ~~3.0~~ 3.1 hectares (7.6 acres) of Medium-Density Residential, 136.1 hectares (336.4 acres) of Services and Manufacturing, 20.8 hectares (51.4 acres) of Business Park, and 103.8 hectares (256.6 acres) of Recreation and Open Space for a total Airport Area of 263.8 hectares (652.0) acres;

- # Designation of the Margarita Area for ~~67.6~~ 71.1 hectares (~~167.2~~ 175.6 acres) of Open Space, ~~10.8~~ 10.9 hectares (26.9 acres) of parks, ~~40.3~~ 40.4 hectares (99.8 acres) of Residential, 0.60 hectare (1.5 acres) of Neighborhood Commercial, 0.40 hectare (1.0 acre) of Special Use, ~~17.4~~ 17.5 hectares (43.2 acres) of Business Park, ~~3.3~~ 3.3 hectares (~~8.4~~ 8.4 acres) of Elementary School, and ~~27.6~~ 27.7 hectares (68.4 acres) of Streets for a total Margarita Area of ~~168.5~~ 168.6 hectares (416.4 acres);

- # Extension of Prado Road to Madonna Road;
- # Extension of Prado Road within the Margarita area to Broad Street;
- # Construction of a roadway connection between Los Osos Valley Road and Prado; and
- # Extension of Buckley Road to South Higuera Street.

Alternative 2

Modifications to the Airport Area and Margarita Area Specific Plan land use and circulation plans as follows:

- # Designation of the Airport Area for ~~3.0~~ 3.1 hectares (7.6 acres) of Medium-Density Residential, 204.0 hectares (504.2 acres) of Services and Manufacturing, ~~29.2~~ 29.3 hectares (72.4 acres) of Business Park, 120.3 hectares (297.3 acres) of Recreation and Open Space, and 8.4 hectares (20.8 acres) for Agriculture and Open Space for a total Airport Area of 365.1 hectares (902.3 acres);
- # Designation of the Margarita Area for ~~67.2~~ 68.4 hectares (~~166.2~~ 169.0 acres) of Open Space, ~~12.5~~ 22.6 hectares (~~31.1~~ 55.7 acres) of parks, ~~38.0~~ 30.3 hectares (~~94.1~~ 74.9 acres) of Residential, ~~0.08~~ 0.9 hectare (~~0.2~~ 2.1 acres) of Neighborhood Commercial, 0.40 hectare (1.0 acre) of Special Use, ~~17.4~~ 27.9 hectares (~~43.2~~ 68.8 acres) of Business Park, ~~4.0~~ hectares (~~10.1~~ acres) of Elementary School, and ~~27.4~~ 19 hectares (~~67.9~~ 47 acres) of Streets for a total Margarita Area of ~~167.4~~ 169.4 hectares (~~413.8~~ 418.5 acres);
- # Extension of Prado Road to Madonna Road;
- # Extension of Prado Road within the Margarita area to Broad Street;
- # Extension of Prado Road to Tank Farm Road; and
- # Extension of Buckley Road to South Higuera Street.

Alternative 3

Modifications to the Airport Area and Margarita Area Specific Plan land use and circulation plans as follows:

- # Designation of the Airport Area for ~~3.0~~ 3.1 hectares (7.6 acres) of Medium-Density Residential, 140.5 hectares (347.2 acres) of Services and Manufacturing, ~~131.9~~ 132.0

hectares (326.1 acres) of Business Park, 117.6 hectares (290.6 acres) of Recreation and Open Space, and 81.4 hectares (201.2 acres) for Agriculture and Open Space for a total Airport Area of ~~474.5~~ 474.6 hectares (1,172.7 acres);

- # Designation of the Margarita Area for ~~67.2~~ 68.4 hectares (~~166.2~~ 169.0 acres) of Open Space, ~~12.5~~ 22.6 hectares (~~31.1~~ 55.7 acres) of parks, ~~38.0~~ 30.3 hectares (~~94.1~~ 74.9 acres) of Residential, ~~0.08~~ 0.9 hectare (~~0.2~~ 2.1 acres) of Neighborhood Commercial, 0.40 hectare (1.0 acre) of Special Use, ~~17.4~~ 27.9 hectares (~~43.2~~ 68.8 acres) of Business Park, ~~4.0~~ hectares (~~10.1~~ acres) of Elementary School, and ~~27.4~~ 19 hectares (~~67.9~~ 47 acres) of Streets for a total Margarita Area of ~~167.4~~ 169.4 hectares (~~413.8~~ 418.5 acres);
- # Extension of Prado Road to Madonna Road;
- # Extension of Prado Road within the Margarita area to Broad Street;
- # Construction of a roadway connection between Los Osos Valley Road and Prado;
- # Extension of Los Osos Valley Road from South Higuera Street to Broad Street; and
- # Extension of Buckley Road to South Higuera Street.

Alternative 4 (No-Project Alternative)

As required by CEQA, this EIR evaluates the environmental consequences of not proceeding with the project. Under this alternative, no specific plans or facility plans are adopted for the Airport and Margarita Areas. Urban development within the Airport and Margarita Areas would not be allowed by the City General Plan until adoption of specific plans. As such no further subdivision or urban development would be expected within the specific plan areas. The No-project alternative would not accomplish the City's fundamental goal of implementing the General Plan. The concept of not developing the Airport and Margarita Areas for urban uses was evaluated by the City during the General Plan and General Plan EIR processes and consideration of no further development is considered to be adequately addressed within these documents.

IMPACT COMPARISON

Alternative 1

Airport Area Specific Plan

Under Alternative ~~number~~ 1, the southerly boundary of the Airport Area Specific Plan is moved northerly. The airport is excluded from the Plan area. Additionally, land to the south and west of the airport is excluded from the plan area. Total Airport Plan area is reduced by 140.3 ~~140.0~~ hectares (346.6 ~~acres~~). In addition to changes in the plan area boundary, the distribution of land uses within the plan area is modified as shown in Table 5-1.

Revised Table 5-1. Airport Area Land Use Comparison, Proposed Project/Alternative ~~Number~~ 1

Land Use Category	Proposed Project Hectares (acres)	Alternative Number 1 Hectares (acres)	Change Hectares (acres)
Medium-Density Residential	3.0 <u>3.1</u> (7.6)	3.0 <u>3.1</u> (7.6)	0 (0)
Services and Manufacturing	114.2 (282.3) <u>134.3</u> (331.8)	136.1 (336.4)	+21.8 (+54.1) <u>+1.9</u> (+4.6)
Business Park	68.7 (169.9) <u>44.6</u> (110.1)	20.8 (51.4)	-47.7 (-118) <u>-23.8</u> (-58.7)
Recreation and Open Space	120.5 (298.0) <u>124.7</u> (308.03)	103.8 (256.6)	-16.7 (-41.4) <u>-20.8</u> (-51.4)
Government Facilities	97.5 <u>97.6</u> (241.1)	0 (0)	-97.5 <u>-97.6</u> (-241.1)
Agriculture and Open Space	<u>0</u> (0)	<u>0</u> (0)	<u>0</u> (0)
Total Acreage	404.2 (998.9) <u>404.1</u> (998.6)	263.8 (652.0)	-140.3 (-346.9) <u>-140.3</u> (-346.6)

Margarita Area Specific Plan

Under Alternative **number 1**, the boundaries of the Margarita Area Specific Plan remain largely unchanged. However, the land uses within the plan area are modified as shown in Table 5-2.

Revised Table 5-2. Margarita Area Land Use Comparison, Proposed Project/Alternative **Number 1**

Land Use Category	Proposed Project Hectares (acres)	Alternative Number 1 Hectares (acres)	Change Hectares (acres)
Open Space	67.2 (166.2) <u>68.4</u> (169.0)	67.6 <u>71.1</u> (175.6)	+0.40 (+1) <u>+2.7</u> (+6.6)
Parks	12.5 (31.1) <u>22.6</u> (55.7)	10.8 <u>10.9</u> (26.9)	-1.6 (-4.2) <u>-11.7</u> (-28.8)
Residential	38.0 (94.1) <u>30.3</u> (74.9)	40.3 <u>40.4</u> (99.8)	+2.3 (+5.7) <u>+10.1</u> (+24.9)
Neighborhood Commercial	0.08 (0.2) <u>0.9</u> (2.1)	0.60 (1.5)	+0.52 (+1.3) <u>-0.2</u> (-0.6)
Special Use	0.40 (1.0)	0.40 (1.0)	0 (0)
Business Park	17.4 (43.2) <u>27.9</u> (68.8)	17.4 <u>17.5</u> (43.2)	0 (0) <u>-10.3</u> (-25.6)
Elementary School	4.0 (10.1)	3.3 (8.4)	-0.68 (-1.7)
Streets	27.4 (67.9) <u>19</u> (47)	27.6 <u>27.7</u> (68.4)	+0.20 (+0.5) <u>+8.7</u> (+21.4)
Total Acreage	167.4 (413.8) <u>169.4</u> (418.5)	168.5 <u>168.6</u> (416.4)	-140.3 (-346.9) <u>-0.8</u> (-2.1)

Circulation

The Alternative **number 1** circulation system focuses on a straight connection between Prado Road and Broad Street instead of the proposed project's northerly tending roadway. Additionally, this alternative proposes a straight connection between Los Osos Valley Road and Prado Road instead of the proposed project's northwesterly traveling roadway.

Environmental Advantages/Disadvantages

Alternative **number 1** has no substantial environmental advantages or disadvantages over the proposed project.

Alternative 2

Airport Area Specific Plan

Under Alternative ~~number~~ 2 the southerly boundary of the Airport Area Specific Plan is moved slightly south at the Airport to correspond to County Land Use designation boundaries. The airport is excluded from the Plan area. Total Airport Plan area is reduced by 39.0 hectares (~~96.6~~ 96.3 acres). In addition to changes in the plan area boundary, the distribution of land uses within the plan area is modified as shown in Table 5-3.

Revised Table 5-3. Airport Area Land Use Comparison, Proposed Project/Alternative ~~Number~~ 2

Land Use Category	Proposed Project Hectares (acres)	Alternative Number 2 Hectares (acres)	Change Hectares (acres)
Medium-Density Residential	3.0 <u>3.1</u> (7.6)	3.0 <u>3.1</u> (7.6)	0 (0)
Services and Manufacturing	114.2 (282.3) <u>134.3</u> (331.8)	204.0 (504.2)	+89.8 (+221.9) <u>+69.8</u> (+172.4)
Business Park	68.7 (169.9) <u>44.6</u> (110.1)	29.2 <u>29.3</u> (72.4)	39.4 (97.5) <u>-15.3</u> (-37.7)
Recreation and Open Space	120.5 (298.0) <u>124.7</u> (308.03)	120.3 (297.3)	-0.28 (-0.7) <u>-4.5</u> (-11.0)
Government Facilities	97.5 <u>97.6</u> (241.1)	0 (0)	97.5 <u>-97.6</u> (-241.1)
Agriculture and Open Space	0 (0)	8.4 (20.8)	+8.4 (+20.8)
Total Acreage	404.2 (998.9) <u>404.1</u> (998.6)	365.1 (902.3)	-39.0 (-96.6) <u>-39.0</u> (-96.3)

Margarita Area Specific Plan

Under Alternative ~~number~~ 2 no change is made to the land uses or boundaries of the Margarita Area Specific Plan.

Environmental Advantages/Disadvantages

Environmental Advantages

- # No conversion of prime farmland.
- # Improved consistency with County land use designations.

Environmental Disadvantages

Not consistent with City's current urban reserve and greenbelt.

Alternative 3

Airport Area Specific Plan

Under Alternative ~~number~~ 3, the southerly boundary of the Airport Area Specific Plan is moved south along the length of the southerly boundary to correspond to County Land Use designation boundaries. The airport is excluded from the Plan area. Total Airport Plan area is increased by ~~70.3~~ 70.5 hectares (~~173.8~~ 174.1 acres). In addition to changes in the plan area boundary, the distribution of land uses within the plan area is modified as shown in Table 5-4.

Revised Table 5-4. Airport Area Land Use Comparison, Proposed Project/Alternative ~~Number~~ 3

Land Use Category	Proposed Project Hectares (acres)	Alternative Number 3 Hectares (acres)	Change Hectares (acres)
Medium-Density Residential	3.0 <u>3.1</u> (7.6)	3.0 <u>3.1</u> (7.6)	0 (0)
Services and Manufacturing	114.2 (282.3) <u>134.3</u> (331.8)	140.5 <u>140.6</u> (347.2)	+26.2 (+64.9) <u>+6.2</u> (+15.4)
Business Park	68.7 (169.9) <u>44.6</u> (110.1)	131.9 <u>132.0</u> (326.1)	+63.2 (+156.2) <u>+87.4</u> (+213.0)
Recreation and Open Space	120.5 (298.0) <u>124.7</u> (308.03)	117.6 (290.6)	-2.9 (-7.4) <u>-7.0</u> (-17.4)
Government Facilities	97.5 <u>97.6</u> (241.1)	0 (0)	-97.5 <u>-97.6</u> (-241.1)
Agriculture and Open Space	0 (0)	81.4 (201.2)	+81.4 (+201.2)
Total Acreage	404.2 (998.9) <u>404.1</u> (998.6)	474.5 <u>474.6</u> (1,172.7)	+70.3 (+173.8) <u>+70.5</u> (+174.1)

Margarita Area Specific Plan

Under Alternative ~~number~~ 3 no change is made to the land uses or boundaries of the Margarita Area Specific Plan.

Environmental Advantages/Disadvantages

Environmental Advantages

- # No conversion of prime farmland.
- # Improved consistency with County land use designations.

Environmental Disadvantages

- # Not consistent with City's current urban reserve and greenbelt
- # Not consistent with current water, wastewater, and stormwater collection and distribution plans.

Alternative 4 (No-Project Alternative)

Under this alternative, no specific plans or facility plans are adopted for the Airport and Margarita Areas. Urban development within the Airport and Margarita Areas would not be allowed by the City General Plan until adoption of specific plans. As such no further subdivision or urban development would be expected within the specific plan areas.

The No-project alternative would result in the current uses of land remaining intact. All potential impacts of the project except those related to land use would effectively be eliminated. The No-project alternative does not comply with the designated land uses for the project area of either the City of County. The No-project alternative would not accomplish the City's fundamental goal of implementing the General Plan.

Environmental Advantages/Disadvantages

Environmental Advantages

- # Effectively eliminates impacts to all areas except land use.

Environmental Disadvantages

- # Does not comply with City General Plan.
- # Does not comply with County General Plan.

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Chapter 7. Report Preparation

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Chapter 8. Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
ADT	average daily traffic
af	acre-feet
Airport	San Luis Obispo County Airport
ALUC	Airport Land Use Commission
ALUP	Airport Land Use Plan
APCD	Air Pollution Control District
ARB	Air Resources Board
Area Plan	County's San Luis Obispo Area Plan
ARPG	Archaeological Resource Preservation Guidelines
AVR	average vehicle ridership
BMPs	best management practices
Cal/EPA	California Environmental Protection Agency
Cal-OSHA	California Occupational Safety and Health Administration
Cal Poly	California Polytechnic State University, San Luis Obispo
CAP	Clean Air Plan
CCAA	California Clean Air Act
CCAT	Central Coast Area Transit
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
City	City of San Luis Obispo
City General Plan	City of San Luis Obispo General Plan
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
Corps	U.S. Army Corps of Engineers
County	San Luis Obispo County
CPUC	California Public Utilities Commission

CRHR	California Register of Historical Resources
CTR	California Toxic Rule
CWA	Clean Water Act
DAFT	dissolved air flotation thickening
dB	decibel
dBA	A-weighted decibel scale
DFG	California Department of Fish and Game
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FR	Federal Register
HCH	hexachlorocyclohexane
HOV	high-occupancy vehicle
L _{dn}	day-night average sound level
LOS	level of service
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MIS	Major Investment Study
MOA	memorandum of agreement
MTRL	maximum tissue residue level
mph	miles per hour
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOI	notice of intent
NOP	notice of preparation
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRHP	National Register of Historic Places
NWP	nationwide permit
OES	Governor's Office of Emergency Services
OSHA	U.S. Occupational Safety and Health Administration
PCB	polychlorinated biphenyl

PM10	particulate matter smaller than 10 microns in diameter
ppd	pounds per day
ppm	parts per million
PSR	Project Study Report
R&D	research and development
RCRA	Resource Conservation and Recovery Act of 1976
ROG	reactive organic gases
RTB	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act of 1986
SB	Senate Bill
sf	square feet
SHPO	State Historic Preservation Officer
SIPs	State Implementation Plans
SLCUSD	San Luis Coastal Unified School District
SLO Transit	San Luis Obispo Transit
SLOFD	San Luis Obispo Fire Department
SLOPD	San Luis Obispo Police Department
SLOPRD	San Luis Obispo Parks and Recreation Department
SLORTA	San Luis Obispo Regional Transit Agency
SR1	Santa Rosa Street
SR227	Broad Street
State	State of California
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TDA	Transportation Development Act
TDM	Transportation Demand Management
TMDL	total maximum daily load
URL	urban reserve line
U.S. 101	U.S. Highway 101
Urban Area	San Luis Obispo Urban Area
USC	U.S. Government Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	vehicle miles traveled
vpd	vehicles per day
WRF	water reclamation facility