Draft Environmental Impact Report
Tracy Gateway

SCH No: 2001032008

Prepared for:

City of Tracy

Prepared by:

EIP Associates

April 5, 2002

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Department of Development and Engineering Services

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1.0 INTRODUCTION

This section summarizes the purpose of the Environmental Impact Report (EIR) for the Tracy Gateway Project and describes the environmental procedures that are to be followed according to State law, the intended uses of the EIR, the project's relationship to the City of Tracy's General Plan, the EIR's scope and organization, contact person, impact terminology, and definitions of commonly used terms used throughout this EIR.

1.1 BACKGROUND AND PURPOSE

This EIR has been prepared in conformance with the California Environmental Quality Act (CEQA) to evaluate the environmental effects of implementing the Tracy Gateway Project (Proposed Project). The Proposed Project encompasses approximately 538 acres located along the western edge of the City of Tracy. The site is within the city's sphere of influence and is designated in the City's General Plan for low- density residential use and an urban center (1993 Urban Management Plan/General Plan). The project would require annexation of the site into the City and a General Plan Amendment from Residential Low to Commercial and Open Space, and a detachment of the site from the North Schulte Community Area. The project would create a mixed-use business park with a golf course in an area currently zoned by San Joaquin County for agricultural uses (AG-40). Off-site infrastructure improvements would be required for the distribution of potable and non-potable water and for traffic improvements. Improved and new roads would be necessary within the vicinity of the project site.

The City of Tracy (City), acting as the Lead Agency, has prepared this Draft EIR to provide the public and responsible and trustee agencies with information about the potential environmental effects of the proposed Tracy Gateway project. As described in CEQA Guidelines Section 15121(a), an EIR is a public information document that assesses potential environmental effects of the Proposed Project and identifies mitigation measures and alternatives to the Proposed Project that could reduce or avoid adverse environmental impacts. Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development, where feasible, and have an obligation to balance a variety of public objectives, including economic, environmental, and social factors.

CEQA requires the preparation of an environmental impact report prior to approving any "project" that may have a significant effect on the environment. In accordance with CEQA, the term "project" refers to the whole of an action that has a potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed Tracy Gateway Project, the City has determined the development is a "project" as defined by CEQA, has the potential for resulting in significant environmental effects.

1.2 TYPE OF DOCUMENT

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR is a "Program EIR" pursuant to CEQA Guidelines Section 15168.

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Where possible, project-level impacts and data have been analyzed in this EIR in a manner consistent with Section 15161 of the CEQA Guidelines. Additionally, this EIR uses, or "tiers" off of, information previously analyzed in the *Final Environmental Impact Report for the City of Tracy Urban Management Plan 1993* as provided for in Section 15152 of the CEQA Guidelines. The analysis included in this document focuses primarily on the changes in the environment that would occur as a result of project implementation, and examines all phases of a particular project (i.e., planning, construction, and operation). The project-level analysis addresses impacts associated with the development and operation of the mixed-use business park and golf course as well as the Proposed Project's water exchange program and its water recycling facility.

1.3 INTENDED USES OF THE EIR

The EIR is intended to evaluate the environmental impacts of the Urban Management Plan/General Amendment, annexation, prezoning, and the project's Concept Development Plan. The impacts of all related subsequent actions are also evaluated to the greatest extent feasible. This EIR, in accordance with CEQA Guidelines Section 15126, should be used as the primary enviromental document to evaluate all subsequent planning and permitting actions associated with the project. Subsequent actions include, but are not limited to, the following:

- Public Infrastructure Finance and Implementation Plans;
- preliminary and final development plans;
- tentative and final subdivision maps;
- grading plans; and
- improvement plans.

1.4 RELATIONSHIP TO THE TRACY URBAN MANAGEMENT PLAN

The City of Tracy adopted and certified the Urban Management Plan/General Plan (General Plan) and associated EIR in July 1993 (State Clearinghouse No. 19092060). The General Plan was based upon input from the City's General Plan's Steering Committee and public and agency input. Based upon the input and direction provided, a fundamental vision, goals and policies were developed and incorporated into the General Plan and Land Use Map.

The General Plan Land Use Map represents the culmination of the land use planning process completed as part of the General Plan. The map is intended to be a comprehensive, graphic representation of many of the goals and policies of that plan. The General Plan establishes general locations and relationships of land uses, as well as the general circulation system and general utility systems including water, sewer, storm drainage, etc. Systematic implementation of the General Plan is carried out in some cases through the approval of specific plans, as well as planned unit development/concept plans.

The General Plan EIR analyzed the environmental impacts of buildout of the Tracy Planning Area (TPA) with the land uses and densities allowed by the General Plan. Where feasible, the City adopted mitigation measures to reduce impacts to a level of insignificance. In addition, significant and unavoidable impacts identified in the General Plan EIR were addressed by the

City in the General Plan EIR's adopted Findings and Statement of Overriding Considerations (Resolution No. 93-226). Not covered in the General Plan EIR is the General Plan amendment proposed as part of this project action. This is discussed in the Land Use section of this EIR.

This EIR provides an analysis of environmental effects specifically associated with the Proposed Project, as well as an evaluation of project impacts in light of the environmental analysis provided in the General Plan EIR. Consistent with CEQA Guidelines Section 15183, this EIR addresses environmental effects that are peculiar to the project and utilizes mitigation measures that are based on adopted City development policies and standards to mitigate anticipated impacts.

Cumulative environmental effects of the Proposed Project are generally based on information provided in the General Plan and General Plan EIR. Project-specific contributions to the cumulative condition are identified in Chapter 4.0 of the EIR and are based on currently approved and proposed development projects in the City. The General Plan EIR is available for public review at the City of Tracy, Department of Development and Engineering Services, 520 Tracy Boulevard, Tracy, CA 95376.

1.5 ORGANIZATION AND SCOPE

Sections 15122 through 15132 of the CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. The environmental issues addressed in the Draft EIR were established through review of environmental and engineering documentation developed for the site by project consultants for areas such as traffic, water supply, wastewater, and storm drainage. Technical studies, environmental documents prepared for nearby projects, public agency responses to the Notice of Preparation and comments received during the public scoping session were also used. Based upon these comments, agency consultation and review of the project application, the City determined the scope for this EIR.

This Draft EIR is organized in the following manner:

Chapter 1.0 -Introduction

Chapter 1.0 provides an introduction describing the intended use of the EIR and the review and certification process.

Chapter 2.0 - Executive Summary

Chapter 2.0 presents an overview of the results and conclusions of the environmental evaluation. This chapter identifies project impacts and available mitigation measures for use by the City in reviewing the project and establishing conditions under which the project may be developed. (CEQA Guidelines Section 15123)

Chapter 3.0 - Project Description

Chapter 3.0 provides a detailed description of the Proposed Project, including the location of the project site, intended objectives, background information, and physical and technical characteristics. (CEQA Guidelines Section 15124)

Chapter 4.0 - Environmental Setting, Impacts And Mitigation Measures

Chapter 4.0 contains an analysis of environmental effects of the topic areas listed below. Each subsection contains a description of the existing setting of the project area, identifies project-related impacts resulting from the General Plan amendment, annexation, project development, presents existing General Plan policy provisions and General Plan EIR mitigation measures where appropriate, and recommends additional mitigation measures where necessary. (CEQA Guidelines Sections 15125, 15126.2, 15143)

Chapter 4 topic areas include:

- Land Use and LAFCO conformity
- Agricultural and Mineral Resources
- Traffic and Circulation
- Noise
- Air Quality
- Biological and Natural Resource
- Public Utilities (Water, Wastewater, Storm Drainage, and Energy)
- Public Services (Police, Fire and Emergency Services, Schools and Parks and Recreation)
- Visual Resources/Light and Glare
- Historic and Cultural Resources

Chapter 5.0 - Alternatives to the Project

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project that could feasibly attain the basic objectives of the project and avoid and/or lessen the environmental effects of the project. The alternatives analysis presented in Chapter 5 provides a comparative analysis between the project and the selected alternatives. The section also describes a number of alternatives that were considered but rejected for detailed evaluation in the EIR. (CEQA Guidelines Section 15126.6)

Chapter 6.0 - Cumulative Impacts Summary

Chapter 6.0 summarizes the cumulative impacts associated with the Proposed Project. As required by CEQA Section 15130, an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. (CEQA Guidelines Sections 15126.2 and 15143)

Chapter 7.0 - CEQA Considerations

Chapter 7.0 contains required discussions and analysis of various topical issues mandated by CEQA, including: significant environmental effects that cannot be avoided if the project is implemented; growth inducing impacts; and, irreversible environmental changes and irretrievable commitment of resources. (CEQA Guidelines Section 15126.2Cd)

Chapter 8.0 - Report Preparers

The purpose of this chapter is to provide a list of all authors and agencies that assisted in the preparation of the report.

Chapter 9.0 - References

This chapter provides a list of all references used in the preparation of the report.

Appendices

This section contains reference items providing support and documentation of the analysis performed for this report.

1.6 ENVIRONMENTAL REVIEW PROCESS

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

Notice of Preparation

In accordance with CEQA regulations, a Notice of Preparation (NOP) was published on March 2, 2001 and distributed to responsible agencies, interested parties and organizations, as well as private organizations and individuals that have stated an interest in the project. The purpose of the NOP was to provide notification that an EIR for the project was being prepared and to solicit guidance on the scope and content of the document. Responses were received from agencies and organizations. The NOP is included in Appendix A of this Draft EIR.

Public Review/Draft EIR

The Draft EIR will be circulated on April 22, 2002 for public review and comment for a period of 45 days. The public comment period will close on June 6, 2002. During this period, the general public, organizations, and agencies may submit comments to the lead agency on the Draft EIR's accuracy and completeness. A public hearing will be held on the Draft EIR for this project during the 45-day public review period.

Response To Comments/Final EIR

Upon completion of the public review period, a Final EIR (FEIR) will be prepared, which will include both written and oral comments on the Draft EIR received during the public review period and responses to those comments, as well as any revisions to the Draft EIR made in response to public comments. The Draft EIR and Final EIR will comprise the EIR for the Proposed Project. The Planning Commission and City Council will review and consider the EIR prior to their decision to approve, revise, or reject the Proposed Project.

Project Consideration

Upon review and consideration of the EIR, the City may act upon the project. A decision to approve the project would be accompanied by written Findings in accordance with CEQA Guidelines Section 15091 and, if applicable, Section 15093. The City will also adopt a Mitigation Monitoring Program, as described below, for mitigation measures that are incorporated into or imposed upon the project to reduce or avoid significant effects on the environment. This Mitigation Monitoring Program will be designed to ensure that these measures are carried out during project implementation.

Certification of the EIR

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

Mitigation Monitoring

CEQA Section 21081.6(a) requires lead agencies to adopt a reporting and mitigation monitoring program to describe measures which have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The specific "reporting or monitoring" program required by CEQA is not required to be included in the EIR. Throughout the EIR, however, mitigation measures have been clearly identified and presented in language that will facilitate establishment of a monitoring and reporting program. Any mitigation measures adopted by the City as conditions for approval of the project will be included in a Mitigation Monitoring and Reporting Program to verify compliance.

1.7 IMPACT TERMINOLOGY

This Draft EIR uses the following terminology to describe environmental effects of the Proposed Project:

- ***Standards of Significance:*** The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water,

minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance" (CEQA Guidelines, 2001 Section 15382). For all environmental issues addressed in this EIR, specific standards of significance are identified. Definitions of significance vary with the physical conditions affected, and the setting in which the change occurs. Significance criteria used in this EIR include the CEQA Guidelines; factual or scientific information; regulatory performance standards of local, state, and federal agencies; and, City goals, objectives, and policies.

- ***Less-Than-Significant Impact:*** A less-than-significant impact would cause no substantial change in the environmental (no mitigation required).

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

- ***Significant Unavoidable Impact:*** *A* significant and unavoidable impact would result in a substantial change in the environment that cannot be avoided or mitigated to a less than significant level if the project is implemented.

- ***Cumulative Significant Impact:*** *A* cumulative significant impact would result in a new substantial change in the environment from effects of the project when evaluated in the context of reasonably foreseeable development in the surrounding area.

1.8 DEFINITIONS OF COMMONLY USED TERMS AND ACRONYMS

Applicant - any person, or other legal entity, who is a "Subdivider" as defined herein. For the purposes of this EIR, the applicant is the Tracy Gateway, LLC.

ASR - Aquifer Storage and Recovery - The process of recharging and storing treated water in local groundwater aquifers during times when excess water is available and then extracting the stored water during dry periods.

City Engineer - City Engineer of the City of Tracy

City Regulations - all written laws, rules, and policies established by the City, including those set forth in the City of Tracy General Plan (also known as the Urban Management Plan or General Plan), the Tracy Municipal Code, ordinances, resolutions, policies, procedures, and the City's Design Documents (including the Standard Plans, Standard Specifications, Design Standards, and relevant Public Facility Master Plans).

CDFG - California Department of Fish and Game

COG - San Joaquin Council of Governments

Community Area - The North Schulte Community Area as defined in the General Plan

Development and Engineering Services Director - the Department of Development and Engineering Services Director of the City of Tracy, or any other designated by the City Manager or the Department of Development and Engineering Services Director to perform the duties set forth herein.

Developer - any person, or other legal entity, who is a "Subdivider" as defined herein

ECU - Equivalent Consumer Unit. Used for managing water and wastewater demands.

EIR - Environmental Impact Report

FDP - Final Development Plan

FIP - Finance and Implementation Plan - A document produced by the City that defines how the project will fund its share of infrastructure improvements that will be necessary to support the project. The FIP will be completed prior to any tentative map being complete.

General Plan - The City of Tracy General Plan/Urban Management Plan

Project/Proposed Project - the subdivision, development, or improvement of the Property, as defined by the proposed Tracy Gateway Project generally located along the western edge of the City of Tracy.

Property - the real property described by the application for the Tracy Gateway Project, generally located along the western edge of the City of Tracy

RMP - City of Tracy Roadway Master Plan

RWQCB - Regional Water Quality Control Board

SJCMSCP - San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

Subdivider - any person, or other legal entity, who applies to the City of divide or cause to be divided real property within the project boundaries, or who applies to the City to develop or improve any portion of the real property within the project boundaries. The term "Subdivider" shall include all successors in interest

UMP - City of Tracy Urban Management Plan/General Plan

USFWS - United States Fish and Wildlife Service

WRF - Water Reclamation Facility. A wastewater treatment plant that treats water to Title 22 standards.

WTP - City of Tracy Water Treatment Plant

WWTP - City of Tracy Wastewater Treatment Plant

2.0 EXECUTIVE SUMMARY

2.1 PURPOSE AND SCOPE OF THE EIR

This Environmental Impact Report (EIR) has been prepared in conformance with the California Environmental Quality Act (CEQA) to evaluate the environmental effects of implementing the Tracy Gateway Project (Proposed Project). CEQA requires the preparation of an environmental impact report prior to approving any "project" that may have a significant effect on the environment.

The City of Tracy (City), acting as the Lead Agency, has prepared this Draft EIR to provide the public and responsible and trustee agencies with information about the potential environmental effects of the proposed Tracy Gateway project. As described in CEQA Guidelines Section 15121(a), an EIR is a public information document that assesses potential environmental effects of the Proposed Project and identifies mitigation measures and alternatives to the Proposed Project that could reduce or avoid adverse environmental impacts. Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development, where feasible, and have an obligation to balance a variety of public objectives, including economic, environmental, and social factors.

2.2 PROJECT CHARACTERISTICS

The Proposed Project encompasses approximately 538 acres located along the western edge of the City of Tracy. The project would create a mixed-use business park with a golf course in an area currently zoned by San Joaquin County for agricultural uses (AG-40).

The Proposed Project would develop the following uses at the 538-acre project site: 1) commercial/office/retail space, 2) a recreation/golf facility with storm water management facilities and open space features, and 3) roadways/parkways, in accordance with the site master plan. The project is proposed for development in five phases estimated to take approximately 10 years to complete. Ultimate project phasing would be dependent on the availability of public services and market demands.

Proposed uses include a 365-net-acre business/R&D development park with a phased design of over 5,800,000 square feet (sf) of Class A office, research space in mid- and high-rise office buildings located on the periphery of a golf course, 220,000 sf of retail, two hotels of 150 and 200 rooms totaling 220,000 sf, and over 340,000 sf of second floor office space. The Proposed Project would include a 9-hole championship golf course, clubhouse, a 300-yard double ended lighted driving range and maintenance facility. Approximately 60 acres of the site would be used for roads, pedestrian trails and sidewalks, bike trails, fitness course and turnouts for public transit uses.

Potable water would be provided by the City of Tracy through extensions of existing infrastructure to the project site. The potable water would be made available from existing potable supplies through a "water exchange program" in accordance with the City Ordinance

1035 (Recycled and Non-Potable Water Ordinance). The City of Tracy is currently pursuing additional water supplies to meet future potable demand. These additional sources of water are not currently available to the Proposed Project; however, as additional water supplies become available, the City could allow the Proposed Project to participate in them. Wastewater generated by the Proposed Project would be processed at an on-site Water Reclamation Facility (WRF), which would occupy approximately one acre of the site adjacent to the golf course maintenance building. The WRF would be designed and operated to produce effluent that meets or exceeds State treatment standards for "Disinfected Tertiary Recycled Water." This water is suitable for irrigation of public parks, playgrounds, and recreation facilities. Water features at the golf course and additional pond areas at the project site (approximately 46 acres total) would be used to temporarily store stormwater runoff prior to discharge to the West Side Irrigation District Lower Main Canal or future City storm drain system.

Off-site infrastructure improvements would include installation of potable water lines to the project site and recycled water lines to convey treated water from the WRF to City parks and fields, and roadway modifications. To mitigate the anticipated impacts due to project-generated traffic leaving the project site, roadway improvements could include the widening of 11th Street from four to six lanes, and the acquisition of new right of way to widen the intersection at Lammers and Valpico. The off-site roadway improvements could also include the construction of new roadways and other traffic improvements in areas that are not yet identified.

The Proposed Project would: amend the City's General Plan designation of the site from Residential Low (L) to Commercial and Open Space as defined in the City's 1993 General Plan; detach the project site from the 1,884-acre North Schulte Community Area; pre-zone the site from the County's designation of AG-40 (40-acre lot size) to a City designation of Planned Unit Development; annex the site into the corporate boundaries of the City; and amend the City's Roadway Master Plan (RMP). Subsequent entitlements would include preparation of preliminary and final development plans, tentative and final subdivision maps, and grading and building permits.

2.3 PROJECT ALTERNATIVES SUMMARY

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project and avoid and/or lessen the environmental effects of the project. The alternatives are summarized below. Chapter 6 (Alternatives to the Project) provides a full description and a comparative analysis of the environmental effects of the alternatives.

- **Alternative 1: Reduced Commercial/Open Space Project with 300 Apartments.** This alternative considers the environmental effects of developing the Proposed Project with 300 rental apartment units occupying approximately 160,000 sf. To accommodate the apartments, second floor office space would be reduced to approximately 180,000 sf. from the Proposed Project's estimation of 340,000 sf.

- **Alternative 2: No Golf Course/Increased Office Space.** Alternative 2 provides for the same uses as the Proposed Project. However, the golf course would be replaced by additional office space, bringing the leasable office space up from approximately 5,800,000 sf. to approximately 7,000,000 sf. The water features included in the golf course would be relocated throughout the project because they would still serve as part of the project storm drainage management system.

- **Alternative 3: No Project.** Under the No Project Alternative, the Proposed Project would not be developed, and the project site would remain in San Joaquin County and inside the City of Tracy's Sphere of Influence as part of the North Schulte Community Area. The site would retain its current land use designation which would allow for residential low development at an average density of 3.5 dwelling units per acre.

2.4 AREAS OF CONTROVERSY/ISSUES RAISED DURING NOP PROCESS

In accordance with Section 15082 CEQA regulations, the City of Tracy prepared and distributed a Notice of Preparation (NOP) for the EIR on March 2, 2001. The purpose of the NOP was to provide notification that an EIR for the project was being prepared and to solicit guidance on the scope and content of the document. The NOP was distributed to responsible agencies, interested parties and organizations, as well as private organizations and individuals that have stated an interest in the project. Responses were received from agencies and organizations. The NOP and responses to the NOP are included in Appendix A of this Draft EIR.

The NOP identified that the Proposed Project may result in the following environmental impacts to be evaluated in the EIR:

- Land Use and LAFCO Conformity
- Aesthetics
- Loss of Productive Agricultural Land
- Biological Resources
- Parks and Recreation Resources
- Transportation and Circulation
- Air Quality
- Noise
- Water Supply, Water Treatment and Distribution
- Wastewater Treatment
- Stormwater
- Energy
- Public Services
- Cultural Resources

Based on the City's evaluation provided in the NOP, the following environmental issue areas will not be addressed in the EIR, as the project will not result in a significant impact related to these issues:

- Geology and Soils
- Mineral Resources

Several agencies responded to the NOP. Relevant environmental issues of concern raised by these agencies are listed below and addressed in the EIR:

- effects on federally listed endangered species, habitats, or jurisdictional wetlands;
- availability of electrical and natural gas service capacity and infrastructure;
- criteria air pollutant emissions associated with construction and operation of the project;
- impacts on local and regional roadways;
- solid waste generation; and
- effects on schools.

Another issue raised by two commenting agencies addressed potential hydrology and water quality impacts related to the project's incremental contribution to City of Tracy Wastewater Treatment Plant (WWTP) treatment capacity and treated effluent discharges. As currently proposed, the Proposed Project would not contribute flows to the existing or planned expansion of the WWTP. All wastewater generated by the Proposed Project would be processed at an on-site water reclamation facility (WRF). Recycled water from the WRF would be used to irrigate City parks and fields, consistent with the City's Recycled and Non-Potable Water Ordinance (Ordinance 1035) adopted in March 2002. The Proposed Project would not discharge treated wastewater to Old River; therefore, this topic is not addressed in this EIR. However, potential effects related to operation and construction of the on-site WRF are discussed in the appropriate technical sections of this EIR. Although the NOP indicated that hazards and hazardous materials would not be addressed in the EIR, the use of hazardous materials at the WRF and the application of recycled water to public parks and recreation fields in the City of Tracy as it relates to public health and the environment is addressed in the EIR.

The availability of potable water supply for the Proposed Project is another subject that receives substantial consideration in this EIR. This issue is discussed in detail in Section 4.7.A., Water Supply.

5. SUMMARY OF ENVIRONMENTAL IMPACTS

Table 2-1 presents a summary of Proposed Project impacts and proposed mitigation measures that would avoid or minimize potential impacts. In the table, the level of significance of each environmental impacts is indicated before and after implementation of the recommended mitigation measure(s). For detailed discussions of all Proposed Project impacts and mitigation measures, the reader is referred to the technical analyses provided in Chapter 4 (Environmental Setting, Impacts, and Mitigation Measures).

TABLE 2-1

SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE TRACY GATEWAY PROJECT

Impact(s)		Level of Significance Prior to Mitigation	Mitigation Measure(s)		Level of Significance After Mitigation
4.1 Land Use and LAFCO Conformity					
4.1.1	The Proposed Project could be inconsistent with the City's General Plan or other City plans, policies or ordinances.	LS	**MM 4.1.1**	None required.	NA
4.1.2	The locations of the off-site improvements for the Proposed Project could be inconsistent with Caltrans regulations, the City's General Plan, County's General Plan or other plans, policies and ordinances.	LS	**MM 4.1.2**	The City shall ensure that the Proposed Project is in conformance with all applicable regulations for construction of the off-site water facilities prior to approval of any FDP. Any potential non-conforming land uses or conflicts shall be modified to meet the stated regulations of the affected agency.	NA
4.1.3	The Proposed Project could conflict with San Joaquin LAFCO guidelines and policies.	LS	**MM 4.1.3**	None required.	NA
4.1.4	The Proposed Project could allow development of land uses that could be incompatible with existing or planned surrounding land uses.	S	**MM 4.1.4**	The City shall ensure that the Proposed Project is in conformance with the City's zoning regulations relating to project design and land use compatibility prior to approval of the CDP. Any potential non-conforming land uses or conflicts shall be modified to meet the stated goals and policies in the City's zoning regulations and General Plan.	LS
4.1.5	The off-site improvements for the Proposed Project could allow development of land uses that could be incompatible with existing or planned surrounding uses.	LS	**MM 4.1.5**	None required	NA
4.1.6	The Proposed Project would allow development of land uses that could be internally incompatible.	LS	**MM 4.1.6**	None required.	NA

LS = Less Than Significant S = Significant SU = Significant and Unavoidable NA = Not Applicable PS = Potentially Significant NI = No Impact
Note: FDP = Final Development Plan PSU = Potentially Significant and Unavoidable

TABLE 2-1

SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE TRACY GATEWAY PROJECT

Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.2 Agriculture and Mineral Resources			
4.2.1 The Proposed Project could convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use.	S	**MM 4.2.1** To the extent that a Farmland Preservation Program is adopted by the City of Tracy, the applicant shall be required to participate in the Program, subject to provisions of law, and be subject to any fee that may be required by the Program.	SU
4.2.2 Construction of the off-site utility improvements required by the Proposed Project could convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use.	S	**MM 4.2.2** The Developer shall work with land owners whose existing agricultural operations could be disrupted by construction of the off-site improvements to ensure the following: • Disruption to existing agricultural operations is minimized. • Land owner has reasonable access to agricultural fields during construction. • Land owner(s) is (are) adequately compensated for loss of crops.	LS

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Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.2.3 The Proposed Project would develop a mixed-use business park, hotels, and a golf course that could conflict with active agricultural operations to the east, south and west.	S	**MM 4.2.3(a)** The following disclosure statement shall be incorporated into the CC&Rs for the Tracy Gateway project: "If your property is adjacent to property used for agricultural operations, you may be subject to inconveniences or discomforts arising from such operations on a 24-hour basis. Said discomforts may include, but shall not be limited to: noise, odors from manure or chemicals, and dust or smoke. Pursuant to the Tracy Municipal Code, properly conducted and maintained agricultural operations are not considered to be a nuisance." **MM 4.2.3(b)** The following requirement shall be incorporated into the CC&Rs for the Tracy Gateway project: "The project applicant shall provide for additional vegetation along portions of the project site adjoining active agricultural uses in order to serve as a windbreak and buffer from adjacent agricultural operations."	LS
4.2.4 The Proposed Project could result in the loss of mineral resources.	LS	**MM 4.2.4** None required.	NA
4.2.5 The Proposed Project, in combination with future development in San Joaquin County, could result in the cumulative loss of Important Farmlands.	S	**MM 4.2.5** Implement MM 4.2.1.	SU

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SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE TRACY GATEWAY PROJECT

Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.3 Traffic and Circulation			
4.3.1 Project-generated development could potentially affect I 205 and I 580 through an increase in the number of p.m. peak hour trips leaving the project site.	S	**MM 4.3.1** The following roadway improvements have been identified as mitigation measures. • The project shall contribute its fair share of costs to identified road improvements, that may include some of the following: • New Lammers Road extending from I 205 to I 580; to include the construction of a grade-separated railroad crossing (at Union Pacific Railroad), a new structure over the Delta-Mendota Canal and one over the California Aqueduct. • New freeway interchanges at I 205 and I 580 with Lammers Road. • Widening Corral Hollow Road to four lanes between Linne Road and Lammers Parkway	SU
		• Construction of the Chrisman/I 205 interchange. • Constructing four-lane Schulte Road between Crossroads Drive and Lammers Road	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE TRACY GATEWAY PROJECT

Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		• Constructing Street B from Naglee Road to Bryon Road as a four-lane arterial that would connect directly with the western segment of Grant Line Road to improve access between Tracy and Mountain House. • Widen Grant Line Road to six lanes between Tracy Boulevard and Corral Hollow. • Upgrade the City-owned portions of Linne Road, Chrisman Road and 11th Street east of MacArthur to expressway status.	

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4.3.2 Project-generated development under the 2025 cumulative scenario would increase the number of p.m. peak hour trips leaving the project site, which could potentially affect local expressways and arterials.	S	**MM 4.3.2** The following roadway improvements shall be included in the project's Finance and Implementation Plan (FIP). • Widen 11th Street from four to six lanes • Either grade separate the intersection of Lammers/11th Street or construct additional arterial capacity west of Lammers Road • Construct a second southbound left-turn lane from Lammers onto Valipico • Provide right-of-way to allow for dual left-turn lanes into the proposed project at the signalized intersection into the project from both 11th Street and Lammers Road.	LS
4.3.3 Project-generated development would increase the number of p.m. peak hour trips leaving the project site, which could potentially affect rural roads in the project area.	LS	**MM 4.3.3** None Required	NA
4.3.4 Project-generated development would increase the number of p.m. peak hour trips leaving the project site, which could potentially affect key intersections in the project area.	S	**MM 4.3.4** Implement MM 4.3.2.	LS
4.3.5 Project-generated development could decrease the trips through the Altamont Pass.	NI	**MM 4.3.5** None required.	NA

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4.3.6 Existing entryways for access to the project site along 11th Street and along Lammers Road could create unacceptable traffic congestion on these roadways.	S	**MM 4.3.6** The following access improvements shall be made as part of the project: • The center access road on 11th Street and the Lammers Access road should be signalized, with all turning movements allowed. • The remaining access roads on 11th Street should be unsignalized, with left turns prohibited into and out of the project site. • At both of the project's signalized access roads, dual left-turn lanes should be provided to accommodate the expected traffic entering the project during the morning peak flow. • At the signalized project driveway and 11th Street, three outbound lanes should be provided at the intersections, including two dedicated left-turn lanes, and one dedicated right-turn lane. • At the signalized driveway, on Lammers Road, three outbound lanes should be provided. One dedicated left-turn lane and one dedicated right-turn lane should be provided in addition to one shared lane.	LS

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Impact(s)		Level of Significance Prior to Mitigation	Mitigation Measure(s)		Level of Significance After Mitigation
4.3.7	Project-generated development could affect bicycle and pedestrian mobility in and around the project site.	S	**MM 4.3.7**	Class I bicycle lanes shall be constructed along the portions of 11th Street and Lammers Road that front the project site, as detailed in the traffic technical report prepared by Fehr & Peers.	LS
4.3.8	If mitigation measures 4.3.2, 4.3.6, 4.3.9 are implemented, other environmental resource areas could be adversely impacted.	PS	**MM 4.3.8**	None available at this time.	PSU

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Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.3.9 Construction activities associated with the off-site potable and non-potable water infrastructure and roadway improvements could result in temporary disruption of vehicle travel on affected roadways.	S	**MM 4.3.9** • Prior to project construction affecting any roadway segment, the applicant and the City of Tracy shall ensure preparation of a Construction Traffic Control Plan. This plan shall be prepared in accordance with standards of agencies in the jurisdiction to ensure safe and efficient roadway operations and shall include, but would not be limited to, detailed requirements for the following: ▪ Traffic control devices, including signs and markings ▪ Detours, including consideration of concurrent construction activities; ▪ Construction phasing ▪ Access to adjacent properties; and ▪ Emergency vehicle access. • The Construction Traffic Control Plan shall consider the impacts of changes in traffic volumes and capacities related to the construction activities, and their impact on traffic operations. Where appropriate, construction activities may be limited to specific time periods to avoid undue traffic congestion.	LS

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		• The Construction Traffic Control Plan shall also address the following items: ▪ Active rail line crossings; ▪ Construction "haul" routes for earthen materials; ▪ Construction routes for other materials; and ▪ Impacts, if any, on roadway pavements, including provisions to restore construction-damaged pavements.	
4.3.10 Under cumulative conditions, the Proposed Project could contribute to traffic impacts on local streets that could exceed City LOS standards.	S	**MM 4.3.10** Implement MM 4.3.1	LS
4.3.11 Under cumulative conditions, the Proposed Project could contribute to traffic impacts on freeways that could exceed LOS standards.	S	**MM 4.3.11** Implement MM 4.3.1	SU
4.4 Noise			
4.4.1 The Proposed Project could cause an increase in noise levels that exceed the City of Tracy Noise Element standards.	LS	**MM 4.4-1** None required.	NA
4.4.2 Construction of the Proposed Project could cause an increase in the noise level in the project vicinity.	S	**MM 4.4.2** Construction activities shall be limited to the hours of 7:00 a.m. to 7:00 p.m. (or daylight hours) in areas where sensitive receptors are located, with no construction allowed on Sunday. In noise-sensitive areas, construction equipment, compressors, and generators shall be fitted with heavy-duty mufflers specifically designed to reduce noise impacts.	LS

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4.4.3 The Proposed Project could be exposed to noise from vehicular traffic on adjacent roadways.	S	**M.M. 4.4.3** A solid noise barrier with a minimum height of four feet shall be constructed along the north and east property boundaries to reduce roadway noise levels. The barrier may take the form of an earthen berm, solid masonry wall, or as approved by the City.	LS
4.4.4 Development of the Proposed Project, in combination with other development within the City, could result in noise levels that exceed adopted standards.	S	**MM 4.4.4** None feasible.	SU
4.5 Air Quality			
4.5.1 The Proposed Project would involve operation of a water reclamation facility (WRF) that could generate odors.	LS	**MM 4.5.1** None required.	NA
4.5.2 Dust from construction activities could cause adverse localized effects for sensitive land uses surrounding the project site.	LS	**MM 4.5.2** None required.	NA

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Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.5.3 Construction activities would generate NO_x and ROG emissions above the air districts daily thresholds of 55 lbs/day and 10 tons/ year for NO_x and ROG.	S	**MM 4.5.3** (a) If feasible, use alternative fuel construction equipment. (b) The maximum allowable time limit for idling equipment is 10 minutes. (c) Limit the hours of operation of heavy duty equipment and/or the amount of equipment in use. (d) Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set). (e) Curtail construction during periods of high ambient pollutant concentrations: This may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways. (f) Implement activity managements (e.g. rescheduling activities to reduce short-term impacts).	SU

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4.5.4 Operational emissions associated with motor vehicle trip generation would exceed ROG, NO_x and CO standards.	S	**MM 4.5.4** Implementation of the goals policies and actions outlined in the air quality element of the Tracy Urban Management Plan and the following additional mitigation measures would reduce the magnitude of emissions associated with mobile sources created by the buildout the project area. (a) Encourage the use of alternative fuel vehicles by large employers within the project area; (b) Provide transit-enhancing infrastructure that includes transit shelters, benches, route signs, and bus turnouts to promote the use of public transportation; and (c) Provide pedestrian enhancing infrastructure that includes bike paths, sidewalks and pedestrian paths, direct pedestrian connections, street trees to shade sidewalks, pedestrian safety designs/infrastructure, street furniture, street lighting, and pedestrian signalization and signage.	SU
4.5.5 Operation of the WRF could result in the generation of toxic air contaminants.	LS	**MM 4.5.5** None required.	NA

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Impact(s)		Level of Significance Prior to Mitigation	Mitigation Measure(s)		Level of Significance After Mitigation
4.5.6	Operation of the Proposed Project could include research and development (R&D) land uses could result in the generation of toxic air contaminants.	S	**MM.4.5.6**	The project applicant shall coordinate with the SJVUAPCD regarding potential toxic air contaminant emissions from R&D activities. This shall include preparation of necessary documents (e.g., facility design and controls, and risk evaluation, as appropriate). Evidence of this coordination with the SJVUAPCD shall be provided to the City of Tracy Department of Development and Engineering Services. Best available control technology (BACT) shall be installed if adopted thresholds are exceeded.	LS
4.5.7	Project-related traffic would contribute to an increase of localized CO concentrations.	LS	**MM 4.5.7**	None required	NA
4.5.8	The cumulative impact of the Proposed Project, in combination with other development in the air basin, could hinder the SJVUAPCD's ability to bring the air basin into attainment.	S	**MM 4.5.8**	Implement MM 4.5.3 and 4.5.4.	SU
4.5.9	Implementation of the Proposed Project, in combination with other development in the Tracy Planning Area, could generate unacceptable cumulative toxic air contaminant health risks.	S	**MM 4.5.9**	Implement MM 4.5.6.	SU

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Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.6 Biological and Natural Resources			
4.6.1 The Proposed Project may result in impacts to wetlands or other Waters of the U.S.	S	**MM 4.6.1** Prior to the issuance of a grading permit, an evaluation of the irrigation sediment pond and the associated distribution system shall be made to determine if either would be considered jurisdictional. If it is determined that the irrigation sediment pond or distribution system on the site is not jurisdictional then no further mitigation would be required. If it is determined that the irrigation sediment pond or associated distribution system on the site is jurisdictional then a formal delineation shall be prepared and submitted to the ACOE. Prior to site grading for the project, the project applicant shall be in compliance with the programmatic 404/401 permit that has been established for the SJMSCP.	LS
4.6.2 The Proposed Project could conflict with the San Joaquin County Multi Species Habitat Conservation and Open Space Plan.	S	**MM 4.6.2** The applicant shall be required to comply with the policies and regulations of the SJMSCP.	LS

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Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.6.3 The Proposed Project may result in loss of Swainson's hawk foraging habitat.	S	**MM 4.6.3** Pursuant to the provisions of the SJMSCP, the project applicant shall purchase one acre of mitigation land, to be enhanced and managed in perpetuity, for each acre of Swainson's hawk foraging habitat (i.e., agricultural land) that is converted from compatible agricultural use. The project applicant shall either purchase mitigation credits at a rate of $1,500 to $1,690 per acre of agricultural land that is converted to non- open space use, or the project applicant may, in-lieu of fee payments, offer suitable land for dedication. Dedications shall be approved by the JPA with concurrence from the permitting agencies. In-lieu lands shall meet minimum parcel sizes designated in the SJMSCP preserve design descriptions, or if smaller, should be adjacent to an existing preserve which, in combination with in-lieu lands, meets Preserve size minimums. Additionally, in-lieu lands shall include an endowment payment (equal to the management endowment and administration costs of land acquisitions as prescribed in Sections 7.2.3 and 7.2.4 of the SJMSCP) to ensure management of the dedicated land in perpetuity as described in Section 5.3.2.2 of the SJMSCP.	LS

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Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.6.4 The Proposed Project may result in impacts to nesting raptors.	S	**MM 4.6.4** Prior to the commencement of any construction activities, a survey of the project site by a qualified biologist should be conducted to determine if any raptors are nesting in the area. If it is determined that no raptors are nesting in the project area, then no further mitigation is necessary. If any raptors are determined to be nesting in the project area, then construction activities shall be conducted outside of the breeding season for the species in question. The nesting season is generally between mid-March to late August, but may vary by species. If construction outside of the breeding season is not feasible, then a buffer zone (100 feet for white-tailed kite and other tree nesting raptor nest sites, and 500 feet for northern harrier nest sites) shall be established and maintained during the nesting season for the period encompassing nest building and continuing until the young have fledged. This setback applies whenever construction or other ground disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.	LS

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Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.6.5 The Proposed Project may result in impacts to loggerhead shrike.	S	**MM 4.6.5** Prior to the commencement of any construction activities, a survey of the project site by a qualified biologist should be conducted to determine if any loggerhead shrike are nesting in the project area. If it is determined that no loggerhead shrike are nesting in the project area, then no further mitigation is necessary. If loggerhead shrike are determined to be nesting in the project area, then construction activities shall be conducted outside of their breeding season. The nesting season for loggerhead shrike occurs from March to July. If construction outside of the breeding season is not feasible, then a buffer zone of 100 feet shall be established and maintained during the nesting season for the period encompassing nest building and continuing until the young have fledged. This setback applies whenever construction or other ground disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.	LS

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Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.6.6 The Proposed Project may result in impacts to western burrowing owl.	S	**MM 4.6.6** **Within Nesting Season (March through August)** Prior to the commencement of any construction activities, a survey of the project site by a qualified biologist should be conducted to determine if any western burrowing owl are present in the project area. If it is determined that no western burrowing owl are present in the project area, then no further mitigation is necessary. If burrowing owl are determined to be nesting in the project area, then construction activities shall be conducted outside of their breeding season. The nesting season for burrowing owl in this region occurs from March through August. If work must be conducted during the nesting season, then a buffer of 250 feet shall be established around all active burrowing owl nests. No disturbance shall be allowed within these buffers, and the buffer areas shall remain in place until the young have fledged.	LS

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Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		Outside of Nesting Season (September through February) If any western burrowing owl are determined to be inhabiting the project area, then pursuant to the provisions of the SJMSCP that pertain to burrowing owls, the project applicant may install one-way doors, as approved by the JPA in burrows outside of the nesting season so that owls may exit the burrows, but not re-enter them. To discourage colonization, or recolonization of the site by burrowing owls, the project applicant may plant and maintain new vegetation that will cover the entire area of potential nesting habitat at a height of 36 inches above the ground. This vegetation shall be maintained until construction begins. Vegetation of this type will discourage use of the site by ground squirrels and burrowing owls.	

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4.6.7 The Proposed Project may result in impacts to San Joaquin kit fox.	S	**MM 4.6.7** Prior to the commencement of any construction activities, the project applicant shall retain a qualified biologist to conduct preconstruction surveys for potential kit fox dens within two calendar weeks to thirty calendar days prior to commencement of ground disturbing activities. If no potential dens are discovered, then no further mitigation is necessary. If potential dens are discovered, then the potential den entrances shall be dusted with flour or bentonite for three calendar days to register tracks of any San Joaquin kit fox that may be present. If no San Joaquin kit fox activity is identified, then the potential dens may be destroyed. If San Joaquin kit fox activity is identified, then the dens shall be monitored by a qualified biologist to determine if it is a natal den, or if it is occupied only by adults. If only adults occupy the den, then the den may be destroyed after the den has been vacated. If the den is a natal den, then a buffer zone of 250 feet shall be established and maintained around the den until a qualified biologist has determined that the den has been vacated.	LS
		Loss of foraging habitat or movement corridors shall be mitigated by compliance with the compensation measures for Swainson's hawk described above.	

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4.6.8	The Proposed Project, in combination with other cumulative development in the project study area, would convert undeveloped land to urban uses, resulting in the loss of general wildlife foraging and sheltering habitat for resident and migratory species.	S	**MM 4.6.8**	Implement MM 4.6.1, 4.6.3, 4.6.4, and 4.6.5-4.6.7.	SU
4.7 Public Utilities					
4.7.1	Depending on Proposed Project phasing, potable water obtained through the proposed water exchange program with the City may not be sufficient to meet project demand if recycled water treated to tertiary standards at the City's wastewater treatment plant is delayed.	S	**MM 4.7.1**	Development of Phase 3 of the Proposed Project shall not proceed until seasonal storage has been provided at the Proposed Project. Up to 309 ac-ft/yr of storage shall be accommodated within the project site to balance the annual demands of the water exchange program with the annual supplies from the on-site WRF. If seasonal winter storage is developed, the Proposed Project shall comply with conditions, if any, imposed by the Regional Water Quality Control Board and/or Department of Health Services. Such conditions could include, but would not be limited to, minimizing the potential for the stored recycled water to hydraulically connect with on-site storm drainage features or the underlying aquifer.	LS
4.7.2	Development of the Proposed Project includes off-site connections to the City's potable water system, and installation of pipelines, pumps, and storage for the water exchange program.	LS	**MM 4.7.2**	None required.	NA

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4.7.3 The delivery and use of the proposed potable and non-potable water supplies to serve the Proposed Project, in combination with other urban and non-urban uses in the City of Tracy served by regional supplies, would not result in any significant cumulative water supply impacts.	NI	**MM 4.7.3** None required.	NA
4.7.4 The Proposed Project would include an on-site water reclamation facility (WRF) designed and sized to accommodate flows from the Proposed Project. Consequently, this would not increase the demand on existing or planned wastewater treatment or conveyance facilities that would result in the need for expansion of these facilities.	LS	**MM 4.7.4** None required.	NA
4.7.5 The on-site water reclamation facility (WRF) would generate flows during winter months that would exceed the irrigation demand of City parks and fields. Disposal of these excess flows could not be accommodated within existing or planned water or wastewater systems.	S	**MM.4.7.5** In the event the results of detailed site design for the on-site emitter system indicate that on-site permeabilities may preclude the effective operation of the system, or if the installed system does not function as anticipated, implement MM 4.7.1 (provide wet-season recycled water storage at the project site).	LS
4.7.6 Treated effluent generated by the on-site WRF would be applied through spray irrigation at City parks and recreation fields and applied at the project site through an underground emitter system. People using the parks and fields could come in contact the recycled water, or applied water could migrate to groundwater.	LS	**MM 4.7.6** None required.	NA

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4.7.7 The WRF would use chemicals that would be transported, stored, and used at the project site.	LS	**MM 4.7.7** None required.	NA
4.7.8 The WRF would generate biosolids that would be temporarily stored at the project site until removed for disposal at a landfill.	LS	**MM 4.7.8** None required.	NA
4.7.9 The Proposed Project, in combination with existing and planned development in the City of Tracy, would not result in an increase in wastewater flows that could exceed capacity of existing treatment and disposal systems or require extensions of wastewater infrastructure.	NI	**MM 4.7.9** None required.	NA
4.7.10 The Proposed Project, in combination with existing and planned development in the City of Tracy that would use recycled water from the City's WWTP, would not result in any cumulative effects on receiving water quality (surface water or groundwater) through the use of recycled water for landscape irrigation.	LS	**MM 4.7.10** None required.	NA
4.7.11 The Proposed Project, in combination with existing and planned development in the City of Tracy, would result in the increase use, storage, and transport of hazardous materials.	LS	**MM 4.7.11** None required.	NA
4.7.12 The Proposed Project could result in an increase in impervious surfaces, which could increase the rate and amount of stormwater runoff.	LS	**MM 4.7.12** None required.	NA

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4.7.13 The Proposed Project, in combination with other development in the City of Tracy, would result in an increase in impervious surfaces, which could increase the rate and amount of stormwater runoff.	LS	**MM 4.7.13** None required.	NA
4.7.14 The Proposed Project could increase the demand for electricity and natural gas.	S	**MM 4.7.14** Prior to approval of each phase of the Proposed Project, the applicant must demonstrate that sufficient electrical and natural gas supplies are available to serve the Proposed Project.	LS
4.7.15 Construction or operation of the Proposed Project could result in wasteful, inefficient and unnecessary consumption of energy.	LS	**MM 4.7.15** None required.	NA
4.7.16 The Proposed Project could require the extension of electrical and natural gas transmission and distribution infrastructure.	S	**MM 4.7.16** The project applicant shall coordinate with PG&E regarding the extension of electrical and natural gas service to the project site and off-site improvements. This shall include preparation of detailed plans for utility placement and the project's participation in energy conservation programs provided by PG&E. Evidence of this coordination with PG&E shall be provided to the City of Tracy Department of Development and Engineering Services.	LS
4.7.17 The Proposed Project, along with development in the region, could result in the need for new or physically altered energy generation facilities.	LS	**MM 4.7.17** None required.	NA

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4.8 Public Services			
4.8.1 The Proposed Project could cause an increased demand on law enforcement services and new facilities related to those services.	S	**MM 4.8.1(a)** The project applicant shall coordinate with the City and the Police Department in the placement of any necessary facilities. These facilities will be included in the project's FIP. Once sited and designed, these facilities will be subject to environmental review, as appropriate, for CEQA compliance	LS
		MM 4.8.1(b) The project's contribution to law enforcement equipment and facilities will be included in the project's FIP. The City shall ensure that the FIP adequately mitigates the project's increased demand for law enforcement services.	
4.8.2 The Proposed Project, in combination with future development in the City will create demand for additional law enforcement services and facilities.	S	**MM 4.8.2** Implement MM 4.8.1(a) and 4.8.1(b).	LS

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Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.8.3 The Proposed Project could cause an increased demand in fire protection services and related facilities.	S	**MM 4.8.3(a)** The project applicant shall coordinate with the City Department of Development and Engineering Services and the Fire Department in the placement of any necessary facilities, including those necessary to serve buildings up to 15 stories high. The City will hire a Consultant, at the developer's expense, to address fire department related impacts of the project. This study shall include, but not be limited to, requirements for training, equipment, infrastructure, and any necessary City of Tracy Code revisions. Any required facilities will be included in the project infrastructure plans and financed through the FIP. When assigned and sited, any new facilities will be subject to environmental review, as appropriate for CEQA compliance. **MM 4.8.3(b)** The project applicant will coordinate with the City regarding the project's contribution to fire protection equipment and facilities, which will be included in the project's FIP. The City shall ensure that the FIP adequately mitigates the project's increased demand for fire protection services.	LS

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TABLE 2-1

SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE TRACY GATEWAY PROJECT

Impact(s)		Level of Significance Prior to Mitigation	Mitigation Measure(s)		Level of Significance After Mitigation
4.8.4	Operation of the WRF could require special fire protection/hazardous materials services beyond what is currently anticipated for the project area.	S	**MM 4.8.4**	The City of Tracy Fire Department shall review plans for the WRF facilities to determine if special fire protection/suppression services, equipment or facilities are required (e.g., special hazardous materials equipment, temporary and/or water tanks, and fire breaks). The recommendations of the Fire Department shall be incorporated into the improvement plans for the WRF.	LS
4.8.5	The Proposed Project, in combination with future development in the City, could create demand for additional fire protection and emergency service.	S	**MM 4.8.5**	Implement MM 4.8.3(a), (b), and 4.8.4.	LS
4.8.6	Cumulative development within the City of Tracy, in combination with the Proposed Project, could require the construction of new schools.	LS	**MM 4.8.6**	None required.	NA
4.8.7	The Proposed Project could result in the need to create, or pay into, the City's park development program for the expansion of recreational facilities.	S	**MM 4.8.7**	The City shall adopt, and the project applicant shall comply with, the provisions of the Retail, Industrial and Office Impact Fee Ordinance.	LS
4.8.8	The Proposed Project could cause increased use of existing park facilities.	LS	**MM 4.8.8**	None required.	NA
4.8.9	The Proposed Project in combination with future development in the City could result in the cumulative need for additional park/recreation sites in the City.	LS	**MM 4.8.9**	None required.	NA

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SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE TRACY GATEWAY PROJECT

Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.8.10 The Proposed Project could result in the need for expansion of the existing, or construction of a new, landfill or transfer facility to accommodate the solid waste generated by the project.	S	**MM 4.8.10(a)** Prior to approval of the project, the applicant shall develop an integrated waste management plan. The contents of the plan shall, at a minimum, include provisions for redirecting the following types of materials from the landfill: landscaping materials and other green waste, cardboard, office paper, wood (i.e. pallets), and food waste when feasible. The plan shall also include provisions for incorporation of garbage and recycling containers within and outside of buildings. **MM 4.8.10(b)** The construction contractor shall set up bins or other means of containment to hold separated scraps of recyclable material (i.e. cardboard, lumber, etc). The contractor shall work with Tracy Delta Solid Waste Management, Inc. in accordance with the Tracy Municipal Code to recycle at the maximum level possible. **MM 4.8.10(c)** The contractor shall work with the City of Tracy to establish construction recycling measures to reduce the amount of construction waste disposed of at the landfill.	LS
4.8.11 Operation of the on-site WRF would require the disposal of biosolids into a landfill.	LS	**MM 4.8.11(a)** Final plans for the WRF shall include a dewatering system that is capable of processing biosolids generated by the to reduce the amount of potential disposal into area landfills.	LS

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SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE TRACY GATEWAY PROJECT

Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		MM 4.8.11(b) As part of the final improvement plans for the WRF, the applicant shall prepare a biosolids disposal plan. If the plan includes disposal at a landfill, it shall be demonstrated that the landfill has adequate capacity and disposal would be consistent with AB 939, as well as all applicable regulations of the California Integrated Waste Management Board (IWMB) and Regional Water Quality Control Board (RWQCB)	
4.8.12 The Proposed Project, in combination with future development in the City, could increase the demand for solid waste collection and disposal.	LS	**MM 4.8.12** None required.	NA
4.9 Visual Resources/Light and Glare			
4.9.1 The Proposed Project could result in an alteration in the visual character of the area from agricultural land to developed urban uses.	S	**MM 4.9.1** None available.	SU
4.9.2 The Proposed Project would develop a mixed-use business center at the intersection of 11th Street and Lammers Road, which has been designated as a community entry point by the City of Tracy.	LS	**MM 4.9.2** None required.	NA
4.9.3 The Proposed Project could partially obstruct distant views of the Diablo Range and short-range and distant views of agricultural lands.	S	**MM 4.9.3** None available.	SU

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Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.9.4 The Proposed Project could introduce new sources of nighttime light within the project area.	S	**MM 4.9.4** a. Parking lot lighting shall be designed in accordance with the City of Tracy Standard Plan #154, Sheet 3. b. Lighting shall be designed to confine light within the site boundaries of both on and off-site improvements, while providing safety and security. c. Exterior lighting, including lighting of the parking lot, recreational facilities, and off-site improvements shall be designed to prevent light spillover onto adjoining properties or roads. This shall be accomplished by limiting the height of light poles, intensity of night lighting, and the use of cutoff fixtures and shields.	SU
4.9.5 Reflective surfaces within the Proposed Project could create glare that distracts drivers on I 205.	S	**MM 4.9.5** Design features to reduce the amount of reflective surfaces shall be considered. Such measures could include, but would not be limited to: use of non-reflective window glass, reducing the percentage of window area that could reflect glare onto motorists traveling on I 205, or building orientation.	SU
4.9.6 The Proposed Project could contribute to a cumulative alteration of aesthetic characteristics of the City of Tracy by increasing urban development in existing rural and undeveloped natural areas.	S	**MM 4.9.6** None available.	SU

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Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
4.9.7 The Proposed Project could contribute to the cumulative introduction of artificial light into a rural area.	S	**MM 4.9.7** None available	SU
4.10 Historic and Cultural Resources			
4.10.1 The Proposed Project could negatively affect previously unidentified cultural resources.	PS	**MM 4.10.1(a)** If construction activities at the project site or at off-site potable water or non-potable untreated surface water/recycled water line and related improvements locations expose unusual amounts of non-native stone (obsidian, fine-grained silicates, basalt), bone, shell, or prehistoric or historic period artifacts (purple glass, etc.), or if areas that contain dark-colored sediment that do not appear to have been created through natural processes are discovered, work shall cease in the immediate area of discovery. A professionally qualified archaeologist shall be contacted immediately for an on-site inspection of the discovery, shall assess the significance of the find, and develop mitigation recommendations (e.g., manual excavation of the immediate area), if warranted.	LS

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SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE TRACY GATEWAY PROJECT

Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)		Level of Significance After Mitigation
		MM 4.10.1(b)	In the event of discovery or recognition of any human remains on the project site or at off-site potable or non-potable water line locations, the project sponsor shall contact the San Joaquin County Coroner, pursuant to Section 7050.5(b) of the California Health and Safety Code. In this event, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner determines that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.	

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SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE TRACY GATEWAY PROJECT

Impact(s)	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
		MM 4.10.1(c) The Coroner, upon recognizing the remains as being of Native American origin, shall contact the Native American Heritage Commission within 24 hours. No further disturbance of the site may be made except as authorized by the County Coroner. The Commission has various powers and duties to provide for the ultimate disposition of any Native American remains, including the designation of a Native American Most Likely Descendant. Sections 5097.98 and 5097.99 of the Public Resources Code also call for "protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction." To achieve this goal, construction personnel on the project shall be instructed as to both the potential for discovery of cultural or human remains, and the need for proper and timely reporting of such finds, and the consequences of failure to do so.	
4.10.2 Cumulative impacts to historical and cultural resources could occur with development of the Proposed Project.	PS	**MM 4.10.2** Implement MM 4.10.1 (a)-(b)	LS

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3.0 PROJECT DESCRIPTION

This section of the EIR describes the elements of the Tracy Gateway Project (Proposed Project) according to Section 15124 of the CEQA Guidelines. The project proposes to develop of 538-acres with a mix of office, retail, and open space land uses. This section describes the framework for annexing the project area from San Joaquin County and the City of Tracy's Sphere of Influence (SOI) into the corporate boundaries of the City. The Proposed Project would 1) amend the City's General Plan designation of the site from Residential Low (L) to Commercial and Open Space as defined in the City's 1993 General Plan, 2) detach the project site from the 1,884-acre North Schulte Community Area, 3) pre-zone the site from the County's designation of AG-40 (40-acre lot size) to a City designation of Planned Unit Development, and 4) annex the site into the corporate boundaries of the City, 5) amend the City's Roadway Master Plan (RMP), and 6) establish the CDP.

3.1 PROJECT LOCATION

The project site is located in San Joaquin County along the western edge of the City of Tracy, and inside the SOI of the City. The site is bounded on the north by 11th Street/Interstate 205 (I 205), on the east by Lammers Road, on the west by the Upper Main Canal operated by the West Side Irrigation District (WSID) and on the south by undeveloped, County agricultural land. The regional and project locations are shown on Figures 3-1 and 3-2, respectively.

3.2 PROJECT SITE AND VICINITY

The project site is primarily used for several agricultural crops with one 15-acre single-family residential parcel in the northeast corner of the project site at the intersection of 11th Street and Lammers Road. The house on the residential parcel would remain in its current location until such time the residents choose to relocate. At that time that residential site would be developed for commercial uses, consistent with the remainder of the Proposed Project. Due to the agricultural use, there is little natural vegetation on the site with the exception of a few small trees, shrubs and grasses adjacent to I 205 and 11th Street. The remainder of the project site is covered with a network of dirt roads and irrigation ditches. A PG&E gas main, PG&E overhead power lines/towers, and the City of Tracy Hansen Sewer Line cross the northwestern tip of the project site.

The existing topography of the site, slopes downward from the southwest to the northeast at approximately 3 to 5 percent. The site is networked by a series of irrigation ditches to collect and direct irrigation water to the fields and to sediment ponds at the corner of each quarter section. The sediment ponds collect excess irrigation water and allow the sediment to settle out before discharging the water back into the West Side Irrigation District (WSID) canal. The WSID's Upper Main Canal is adjacent to the southwest edge of the site and is several feet higher than the site topography.

Regional access to the site is provided via Interstates 5, 580 and 205. I 205 borders the northwestern edge of the project site and is a four lane divided freeway controlled by the

Figure 3-1

Figure 3-2

California Department of Transportation (Caltrans). The I 205/580 corridor is one of the major routes linking the San Francisco Bay Area to the Central Valley. Local access from these major highways is provided to the City via several major arterials including I 205/11th Street, Grant Line Road, Lammers Road, and Tracy Boulevard.

3.3 PROJECT OBJECTIVES

The Proposed Project is a result of an application submitted to the City of Tracy by Tracy Gateway, LLC, the project applicant. The applicant has identified the following objectives:

- create a Class A business park for over 20,000 employees;
- reduce long work commutes to the Bay Area by providing local jobs;
- incorporate bicycle lanes, walking areas, and shuttle bus services within the business park;
- create an upscale image and true business center by establishing zoning for mid-rise and high offices;
- establish a true campus environment, minimizing auto impact and maximizing human/natural elements, including areas to interact with the environment;
- create a central focal point with a 9-hole championship golf course surrounded by mid-rise office buildings where citizens and employees can play a round within 2.5 hours and office workers can have views of green landscape and water;
- incorporate over 40 acres of storm water management ponds as amenities to the golf course and business park that will function as part of the project's water drainage;
- incorporate a multi-level European-style commercial urban center, creating a sense of place, with restaurants, services, hotel, and living areas;
- create a landmark project; and
- create a gateway to the City of Tracy.

3.4 PROJECT CHARACTERISTICS AND FEATURES

The following is a description of the land uses proposed by the applicant: 1) commercial/office/retail space, 2) a recreation/golf facility with storm water management facilities and open space features, and 3) roadways/parkways, in accordance with the site master plan provided as Figure 3-3.

GROSS AREA SUMMARY	APPROXIMATE ACREAGE
Gross Parcel Area	538
Less Public Road/Parkway Right of Way	60
TOTAL NET ACREAGE	**478**

LAND USE BY AREA	NET USABLE AREAGE
(1) Office/Research and Development	233
(2) Golf Frontage	73
(3) Lammers Road Office	30
(4) Commercial	59
(5) Open Space	83
TOTAL NET USABLE AREAGE	**478**

Figure 3-3

Commercial

Under the commercial designation, proposed uses include a 365-net acre business/R&D development park with a phased design of over 5,000,000 square feet (sf) of Class A office, research space in mid- and high-rise office buildings located on the periphery of a golf course. The commercial component would consist of 220,000 sf of retail, two hotels of 150 and 200 rooms totaling 220,000 sf, and over 340,000 sf of second floor office space.

Architecture Plan

The architectural concept for Tracy Gateway was conceived to create a quality environment with the goal of consistently applying the project's overall project planning philosophy to the built environment. Each building will combine the essential qualities of nature (water, landscape, sunshine, and fresh air) with the human needs for interaction, belonging, identity, orientation and safety. Tracy Gateway builds on these qualities through the following objectives:

- Buildings should be designed to fit with the land and take advantage of the natural environment, views and daylight, and to provide shelter from the wind and integrate with the landscape. Buildings should also be designed to recognize the need for human interaction and should be arranged to form clustered neighborhoods. Clustering of buildings will help employees avoid isolation by fostering a sense of belonging, safety and security.

- The front of buildings should be designed as gathering spaces. These pedestrian spaces should incorporate careful material selection and design to accent human scale and foster human activity. Spaces should be sheltered from strong winds and afternoon sun. These areas should accommodate functions including: transit shuttle stops, bicycle parking and lunch vendor carts. Visitor parking and shuttle vans are allowed in these spaces, but are secondary to pedestrian and social activities. To help activate these communal gathering places, areas designed for people functions such as retail, restaurants, cafeterias, reception areas, fitness centers, common staff function spaces, auditorium and conference centers should be located in the front of buildings. Other vehicular-based functions, such as extra visitor and employee parking shall be located toward the rear of the buildings. Truck delivery, service, and trash removal should be located toward the rear of buildings and screened from view.

- Together with the open spaces, the system of major parkways will form underlying structure for the community. Parkways are pedestrian friendly, and are attractive spaces with buildings and activities oriented toward the street. Buildings should be adjacent to parkways for social activities and public functions.

- Building architecture and space design should be highly creative. While it is a functional, cost effective total workspace, building architecture should generate comfort, excitement and imagination. It should also reflect the nature and culture of the high-technology

business as well as the culture of the natural and agricultural local surroundings. Architecture should represent the most current thinking, and project a positive attitude toward the future. Buildings that only value efficiency, a least cost per square foot or ignore human needs and quality environment are unacceptable, as are "canned" or pre-engineered buildings reflecting infinitely reproducible corporate design that have no relationship to place, culture, people or environment.

- Buildings should integrate with their surroundings and take advantage of views and natural daylight through large windows, outdoor balconies and terraces.

- Architectural massing, colors, textures and scale of individual buildings in a cluster must compliment other buildings in the cluster. Different clusters should have distinct differences that give each a unique identity.

- Building materials should be high quality, permanent and long lasting. Window glass should be clear or lightly tinted. Very dark tinted, black, or mirrored glass should be avoided. Building exteriors should be light, natural colors.

- The use of glass enclosed atriums, domes, light wells, stair towers, common function areas and penthouses to break through the horizontal rooflines is encouraged. When illuminated from inside the building, these glass-enclosed elements should create a soft glowing effect reminiscent of glass lanterns. Conventional building illumination techniques, including harsh flood lighting or washing building exterior walls is discouraged. When viewed from a distance, the project will appear as a number of softly glowing lanterns projecting above the tree canopy, creating a "lantern on the trees" design theme.

Open Space/Golf Course

A 9-hole championship golf course is proposed on approximately 83 acres and would include 16 acres of stormwater management ponds. A clubhouse, a 300-yard double-ended lighted driving range and maintenance facility would be included as part of this complex. The driving range would not be fenced.

Water Features

Throughout the remainder of the development there would be 30 additional acres of stormwater management ponds for a total of 46 acres of water features. Together with stormwater management ponds on the golf course, these water amenities would also function for storm water management.

Traffic/Circulation

Approximately 60 acres of the site would be used for roads, pedestrian trails and sidewalks, bike trails, fitness course and turnouts for public transit uses. The Proposed Project roads would be

designed as curvilinear parkways, with landscaped medians in the middle, tree-lined on both sides, and landscaped berming to screen parking areas. Other miscellaneous streetscape features (street lights, road signs, building identification signs, benches, trash cans, etc.) would be selected for aesthetics and design consistency to provide visual identity and uniformity and would be based on the City's Park and Parkway Design Manual, unless otherwise approved by the City.

Parking

Parking is proposed behind buildings to maintain a human scale and prevent the omnipresence of cars. Parking clusters are proposed with approximately 50 cars per cluster. Landscaping and trees would separate each cluster. To the extent possible, the buildings would be located between the roadways and parking areas, which may include parking structures.

Bicycle Lanes

All major roadways would have ten-foot-wide bike lanes on each side, physically separated from the roadway. The bicycle lanes are independent of sidewalks and pedestrian trails that would also be provided by the project. Bicycle racks would be provided in accordance with City standards, unless otherwise approved.

Pedestrian Mobility

The sidewalks for pedestrians are proposed on both sides of all internal roads as well as frontage to 11th Street and Lammers Road. Additionally, walking paths would meander around the golf course and landscaped buffer zone areas. Both the bike lanes and walkways would interconnect with City bikeways and sidewalks on Lammers Road and 11th Street adjacent to the property in accordance with City standards.

Public Transit

To encourage the use of bicycles and walking, and to reduce the reliability on cars, the project would be designed to accommodate public transit throughout the campus. Transit shelters would be located along the main roadway system and strategically near building clusters. Additionally, the City of Tracy began new fixed-route bus service in August 2001. The applicant would work with the City to incorporate service to the Proposed Project area as demand and transit system resources warrant.

Off-Site Roadway Improvements

In order to mitigate the anticipated impacts due to project-generated traffic leaving the project site, off-site roadway improvements are proposed (see Mitigation Measure MM 4.3.2, in Section 4.3, Traffic and Circulation, and Appendix B, Transportation and Circulation Analysis - Tracy Gateway Business Park, Figure 6). These improvements include: widening 11th Street from four to six lanes from I 205 to Lincoln Boulevard; the acquisition of right of way to allow for dual

left-turn lanes into the Proposed Project at the signalized intersections from both Lammers Road and 11th Street; the construction of a second southbound left-turn lane at the Lammers/Valpico intersection; construction of a new roadway that begins at the intersection of the main arterial for the project and 11th Street and extends north and east to intersect with Lammers Road between I 205 and 11th Street; the construction of a new roadway extending from the Schulte Road/Lammers Road intersection westward to Mountain House Parkway; and the construction of a new roadway that extends from the main arterial for the project and to intersect with the new extension of Schulte Road.

Water Supply

The Proposed Project's potable water demand (780 ac-ft/yr at buildout) would be met exclusively through the exchange of non-potable water supplies for potable water supplies now available to the City through a "water exchange program." The water exchange program would function as follows. Non-potable untreated surface water or recycled water that is generated by the Proposed Project would be conveyed to City parks and fields for irrigation purposes. In return, potable water supplies, currently dedicated for the irrigation of these parks and fields, would be made available for use by the Proposed Project. The City has adopted an ordinance and amended the Urban Water Management Plan that provides for such an exchange, which would apply to the Proposed Project. As additional water supplies become available (see Section 4.7.A, Water Supply), the City could allow the Proposed Project to participate in them. However, additional sources of water are not currently available to the City.

The non-potable Proposed Project golf course irrigation demand (760 ac-ft/yr at buildout) would be met through the use of untreated surface water supplies provided by WSID according to a will service letter provided by WSID to the City of Tracy.

The following describes the physical components of the potable and non-potable water supply system. A more detailed discussion of how the project's water exchange program would function and the evaluation of environmental impacts related to the program and facilities is presented in Section 4.7.A, Water Supply.

Potable Water Supply

The potable water supply would be delivered to the project site from the City's water treatment plant through new conveyance lines installed at the location shown in Figure 3-4. Potable water supply distribution would consist of the following:

- extend the existing 16-inch water main west, upsized to a 20-inch main, along 11th Street, from the intersection of Lammers and 11th;
- construct a new 20-inch water main south, along Lammers Road from 11th Street to Schulte Road;
- construct a 16-inch water main in the right-of-way of Grunauer Road north to Grant Line Road that would continue east, in the existing Grant Line Road right-of-way connecting to the existing water lines at the intersection of Grant Line and Lammers Roads;

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Figure 3-4

- construct a 12-inch water main from the southern boundary of the Project to the existing 24-inch main south of the project site within the right-of-way of San Jose Road; and
- construct two new pressure-reducing valves. One installed on the new 20-inch line along Lammers Road, and the other on the new 16-inch main along Grunauer Road.

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The project water mains discussed above would provide a looped system into both Pressure Zones 1 and 2 of the City system. Water mains on-site would be designed and constructed in conformance with the City of Tracy Design Standards and would be dedicated to the City as public facilities.

The Proposed Project and other developments planned in the general location of the Proposed Project would require the construction of water storage and booster pumping capacity. A 1.7-million-gallon storage reservoir and a 260-horsepower booster pump station pumping into Pressure Zone 2 would be constructed on-site (see Figure 3-4). The tank would be underground and would be approximately 30 feet deep and 100 feet in diameter. A separate 260-horsepower booster pump station pumping into Pressure Zone 1 would be required to provide operational and fire storage for the Proposed Project and adjacent future development areas.

Water Exchange Program Facilities

To implement the Proposed Project's water exchange program, the construction of new infrastructure (i.e., pipelines, storage, and pump stations) would be needed to deliver non-potable water to City parks and recreation areas that currently use potable water supplied by the City. In accordance with existing regulations, the water must be conveyed in a totally separate distribution system from the potable water supply.

A pipeline to convey untreated surface water would be installed at the project site. As illustrated in Figure 3-5, the pipeline would exit the site at the intersection of Lammers Road and 11th Street and extend east along 11th Street to Presidio Park and Plasencia Field (DB 5). Existing infrastructure already constructed near the intersection of Lammers Road and 11th Street in anticipation of a future recycled water supply distribution system would be completed. To continue the one-for-one water exchange to the potable maximum demand of 780 ac-ft/yr, additional conveyance lines would be installed to deliver recycled water produced by the project's on-site water reclamation facility (see Wastewater, below) or the City's Wastewater Treatment Plan for irrigating the other parks and fields in the City. These non-potable pipelines would be configured to coordinate with the existing City rights-of-way within major streets to establish a looped, reliable system. Figure 3-6 presents the recycled/non-potable looped system for ultimate buildout of the Tracy Gateway Project. Major non-potable conveyance lines would be installed along the following roadway segments:

- Lammers Road, starting from the Proposed Project to Linne Road;
- Linne Road from Lammers Road to MacArthur Drive;
- Larch Road from City's Wastewater Treatment Plant (WWTP) to the intersection of Larch Road and MacArthur Drive;
- MacArthur Drive from Larch Road to Linne Road;

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Figure 3-5

Figure 3-6

- Tracy Boulevard from Larch Road to Linne Road; and
- 11th Street from Lammers Road to MacArthur Drive.

The City would be responsible for implementing a cross-connection program to ensure that future potable services are not accidentally connected to the untreated or recycled water system, and a public information program (including signage) to notify the public of the use and location of non-potable water application. Professional landscape maintenance contractors would maintain areas where untreated surface water would be utilized for irrigation.

Non-Potable Water Supply

The non-potable (irrigation) water supply demand for the Proposed Project would be met entirely through the use of untreated surface water supplies provided by WSID in accordance with the terms of a will-service letter from WSID to the City of Tracy that is specific to the Proposed Project. WSID water would be delivered to a storage pond in the western part of the project site and then pumped from the pond into the non-potable pipe distribution system. The storage pond would have a capacity of approximately 2 million gallons, covering about two acres (see Figure 3-5, On-Site Non-Potable Water Facilities).

When surplus recycled water generated by the on-site water reclamation facility (see below) becomes available, it would be used to replace some of the untreated surface water. Recycled water produced from the City's expanded and upgraded wastewater treatment plant (WWTP) could also be used for irrigation purposes at the Proposed Project.

Wastewater (Sewer)

Wastewater generated by the Proposed Project would be treated at on on-site water reclamation facility (WRF) constructed by the Proposed Project and sized specifically to accommodate buildout demands of the Proposed Project. Components and operating features of the WRF are described below.

The City of Tracy Wastewater Master Plan prepared in 1993 identified three potential locations for regional WRFs that could treat wastewater from the Westside area, which includes the project site: the Lammers Road site, the Tracy Hills site and the Valpico Road site. These facilities have not been approved or constructed. If these regional facilities are developed, the City could allow the Proposed Project to connect to them. Connection of the project site to any of these regional facilities would be subject to appropriate environmental review.

On-Site Water Reclamation Facility (WRF)

As shown in Figure 3-7, the WRF and ancillary facilities would be located adjacent to the golf course near the golf maintenance building on a one-acre site in the southeast corner of the project site. Figure 3-8 shows the preliminary site design for the WRF. In addition to a larger building that would contain most of the treatment process components, there would be a compost bed,

Figure 3-7

Figure 3-8

influent and effluent pump station, and effluent storage tank. The WRF and associated features would be within a fenced and locked area, and would include security lighting, appropriate signage and landscaping.

The WRF would have an initial first phase average dry weather flow capacity of 0.15 mgd and a peak hour wet weather flow capacity of 0.61 mgd. Ultimately three successive expansions would be constructed. Two of the three expansion phases would provide an additional 0.15 mgd of additional average dry weather flow capacity. The remaining expansion phases (which corresponds to Phase 3 of the Proposed Project) would be designed to provide an additional 0.30 mgd of additional dry weather flow capacity. Following these expansion phases, the ultimate total combined average dry weather and peak hour wet weather flow capacities would be 0.71 and 2.2 mgd, respectively.

The WRF would be designed and operated to produce effluent that meets or exceeds standards consistent with "Disinfected Tertiary Recycled Water" as defined by Title 22 of the California Code of Regulations (Division 4, Chapter 3, Section 60301.230) for golf course and landscape irrigation and percolation. If an R&D user in the business park produces an industrial-type wastewater, pre-treatment of the wastewater prior to release to the on-site WRF will be required by Conditions, Convenants, and Restrictions (CC&Rs) for the Proposed Project.

Construction and operation of the WRF would require permits and approvals by a variety of regulatory agencies. These permits and approvals are listed in Section 3.7, Discretionary Actions, Permits, and Approvals, at the end of this chapter.

The following are descriptions of the proposed unit processes. Generally these processes are presented in the order in which they occur within the wastewater treatment process from inflow into the facility to effluent reuse.

Headworks

The headworks would consist of a 2-millimeter (mm) mechanical screen and a screenings washer, compactor, and dumpster. The screen would be located prior to the pumping station. A 600-sf building (20 feet wide, 30 feet long, and 20 feet high) containing the screen, screenings washer/compactor, and storage bin would be constructed. One screen and compactor would be installed initially with a second screen added in Phase 3. Washed and compacted screenings would be stored in a bin and hauled to a landfill for disposal on a weekly basis.

Influent Pumping Station

The influent pumping station would consist of a belowground concrete wet well with submersible pumps. The wet well would be approximately 12 feet in diameter and sized for the ultimate peak-hour wastewater flow. The pump station invert would be approximately 5 feet below the invert of the incoming sewer. Initially, two pumps would be installed, with two more pumps added in the future as influent flows increase. The wet well would be ventilated and the exhaust air sent to an outdoor compost bed located within the one-acre WRF site for odor

removal. Furthermore, the below ground wet well will be water proof to prevent ground water intrusion.

Membrane Bioreactor (MBR)

For Phase 1, the MBR process would consist of two 80,000-gallon (160,000 gallons total) concrete basins constructed with vertical walls, a minimum side water depth of 16 feet, and anoxic and aerobic zones. The basin would be partly buried to allow the structure to be housed in a building. Additional basins would be added to accommodate future phases. Mixers would be used to maintained solids suspension within the anoxic zone. Air would be introduced throughout the aerobic zone with fine bubble membrane diffusers. Airflow to the basins would be automatically controlled to produce an environment within the basins that is conducive for biological oxygen demand (BOD_5) and nitrogen removal. Aeration below the membranes would be provided to scour the external surface of the hollow fiber membranes, thereby transferring activated sludge solids away from the membrane surface. The MBR process would include ZeeWeed® ultrafiltration membranes. This type of membrane replaces the solids separation function of secondary clarifiers and sand filters in conventional tertiary facilities. The ultrafiltration membrane has a 0.1-micron pore size that ensures that no particulate matter is discharged in the effluent. The ZeeWeed® has been used extensively throughout the world for wastewater reuse applications and has been approved by the Department of Health Services for Title 22 applications.

Air used within the MBRs would be produced from mechanical blowers, located within the blower room. The room would be constructed with appropriate interior sound insulation. The blower facility would consist of three 20-horsepower (hp) blowers. The blower rooms would also house two air compressors capable of satisfying compressed air demands throughout the treatment plant.

Occasionally, the membrane would require removal from the bioreactor tank for cleaning. Typical cleaning intervals would be three to six months, depending on site- and influent-specific parameters. For this type of cleaning, the membranes would be removed and placed in a separate 2,100-gallon dip tank and allowed to soak for a period of 5 to 10 hours. Typically, the dip tank contents would consist of a 12.5 percent solution of sodium hypochlorite, which would be brought on-site via tanker or delivery trucker on-site only when required. Sodium hypochlorite is a moderately hazardous chemical that would be stored in accordance with the City, State and federal regulations that require dual containment. Following membrane cleaning, the sodium hypochlorite solution would be slowly fed into the wastewater influent stream over a prolonged period of time (approximately one- to two-week period). Introducing the solution is not expected to have any adverse effect on plant performance or effluent quality.

For Phase 1, the MBR system would be housed in a 8,800-sf building (110 feet long, 80 feet wide, and 25 feet high). In addition to the MBR and blowers, the building would also include the aerobic digester, solids dewatering system, a laboratory, bathrooms, electrical room, and storage area. The building would be designed to allow for future additions to accommodate plant

expansions. Ultimately, the building size would be up to 22,500 sf (150 feet wide and 150 feet long) to house the treatment system for the ultimate capacity of 0.71 mgd for the project.

Aerobic Sludge Digestion

An aerobic sludge digester and solids dewatering system would be constructed in the same building as the MBR system. For Phase 1, the digester would consist of a 120,000-gallon rectangular tank equipped with coarse bubble diffusers supplied with air from the MBR system blowers. Additional digesters would be added with subsequent expansion phases. The digesters would be used to store and stabilize the waste activated sludge discharged directly from the membrane bioreactor. The aerobic digester would stabilize the sludge by aerating the sludge for an extended period of time to reduce the volatile solids concentration. The level of sludge stabilization selected as a design parameter for the proposed Tracy Gateway project would conform to Class B sludge requirements as defined in federal regulations (Title 40, Code of Federal Regulations [CFR], Parts 258 and 503). Sludge would be periodically removed from the aerobic digester after discontinuing the digester aeration for a brief period to allow the biomass to settle prior to withdrawal for dewatering.

Biosolids Dewatering and Dewatered Solids Disposal

The dewatering system would be a skid-mounted package dewatering system consisting of a progressive cavity pump, polymer feed system, and belt filter press. The belt press would be designed with sufficient capacity to require operation three to five days week for six hours per day. Belt filter press skids would be added with future phases as needed. Dewatered solids would be discharged to a storage bin that would be taken to a landfill for disposal each day that the belt press is operated. It is estimated that the Proposed Project would produce an average of approximately 35 cubic feet of dewatered biosolids per day at the initial design capacity of 0.15 mgd. Ultimately, the Proposed Project would produce approximately 160 cubic feet of dewatered biosolids per day.

Ultraviolet Disinfection (UV)

UV disinfection would be used for effluent disinfection. UV disinfection would be designed based on low-pressure, high-intensity lamps and a transmittance of 55 percent in accordance with Title 22 requirements and UV disinfection guidelines for wastewater reuse. UV disinfection facilities would include two covered concrete channels that house arrays of UV lamps, controls, and lamp cleaning equipment. The UV system is a quiet process unaffected by the weather and would, therefore, be located outside.

Effluent Storage and Recycled Water Pumping Station

Disinfected effluent would be conveyed to a clearwell for equalization prior to pumping to the recycled water distribution system. The clearwell would hold approximately two hours of effluent flow.

Emergency Generator

Emergency power would be provided for all facilities. A diesel engine generator would be designed to accommodate ultimate peak flow conditions at the WRF. The generator would be located either within a building or a weatherproof enclosure and would be screened with a concrete block wall to limit noise transmission. The generator would consist of a diesel-driven engine coupled with a turbine type electrical generator. The electrical system would be designed and instrumented to sequentially resume operation of the individual treatment processes once the standard power failed, thereby lowering the peak generator demand.

Emergency Storage

Article 10, Section 60341 of the Title 22 California Code of Regulations requires providing a 24-hour storage period of wastewater in the event the plant experiences a serious malfunction. A 710,000-gallon storage tank would be constructed on-site within the WRF site for emergency storage. Storage could be provided by temporarily diverting influent to the WRF to the Hansen Road trunk sewer line and conveying the flow to the City of Tracy wastewater treatment plant. Use of the Hansen Sewer Line option would occur only in an upset condition and would be temporary.

Odor Control

The proposed treatment plant would be enclosed within new buildings. The MBR and aerobic digester would be covered and ventilated. Exhaust air from these processes along with foul air from the influent pumping station, solids handling room, and headworks building would be routed to an odor control facility. This facility would be equipped with foul air fans, ducting, and a compost bed biofilter for odor control. A biofilter uses bacteria growing on compost to trap and biodegrade odor compounds. This method is considered to be one of the most effective odor removal technologies for wastewater odors.

Noise Control

Equipment such as aeration blowers, generators, and diesel motors, which could exceed 100 A-weighted decibels (dBA), would be enclosed in noise-insulated structures. Resultant noise levels are not expected to exceed ambient environmental noise levels of 45 to 50 dBA.

Operation and Maintenance

The WRF would be owned, operated and maintained by a private entity associated with the project developer. Routine operation and maintenance of the WRF would include the following and would be overseen by a licensed operator:

- periodic removal of screenings (e.g., sludge and dewatered solids);
- inspection and maintenance and operation of equipment and facilities associated with individual wastewater treatment processes, aerators, and irrigation facilities; and

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- collection of influent and effluent samples, and monitoring of groundwater in proximity to irrigation areas and storage basins.

Routine WRF operations would also include monitoring irrigation rates to eliminate runoff and ponding associated with effluent irrigation. Discussions with State Department of Health Services staff indicate that this method will be acceptable and is utilized for recycled systems such as spray irrigation. Monitoring the irrigation system in this manner would eliminate or minimize the potential of treated effluent mixing with stormwater runoff or water stored in any on-site ponds or water features.

The WRF would be operated by a single operator on a part-time basis, except for periods when more intense maintenance is required.

On-Site Recycled Water Infrastructure

During the winter months (November through March), when City park and field irrigation demands are expected to be low, excess effluent from the WRF not used to irrigate City Parks, would be applied to an on-site subsurface percolation system located beneath parking lots. Application rates during the wet season would be based on actual measured sustainable soil permeability. A Geoflow® drip emitter system consisting of perforated polyethylene drip irrigation tubing would be used for applying treated effluent on-site. Distribution system tubing would be buried at a shallow depth (typically 1 foot) and manufactured with an herbicide at each emitter to minimize root clogging. Distribution tubing would be preferentially located under parking lots with application in irrigation areas as a back-up location. The application sites would initially consist of 30 acres of irrigation and parking lot areas for the Phase 1 development. Ultimately, the application area would include 145 acres for the ultimate flow of 0.71 mgd.

The on-site distribution system would be designed to include several Geoflow® zones to allow governing parameters (such as application rate, number of application per day, and length of application time) to be adjusted to ensure that surface ponding does not occur. In addition, a 100 percent redundant application area would be designated within Tracy Gateway to serve as backup (redundancy).

Off-Site Recycled Water Infrastructure

During the irrigation season, recycled water generated at the on-site WRF would be conveyed to City parks and fields through a separate pipeline system installed along the alignments shown in Figure 3-6, as previously described above.

Storm Drainage

The Proposed Project consists of approximately 538 acres that would drain to a common point of outfall located approximately at the intersection of 11th Street and Lammers Road. There are an additional 328 acres of upstream land that contributes stormwater runoff to the Proposed Project.

This area has been factored into the storm drain design for the Proposed Project. This total area, consisting of 866 acres, represents the local watershed that would be incorporated into the storm drainage plan for the Tracy Gateway project. Components of the storm drainage system needed to serve the drainage area are analyzed in Section 4.7.C and would include approximately 46 acres of storm water management ponds that will be used as a recreation/landscape amenity throughout the project. Operation of the detention facilities would be based upon mutual agreement between the Proposed Project developer and the City of Tracy.

Utilities

Pacific Gas and Electric (PG&E) has existing facilities in, and above, Lammers Road and 11th Street that could adequately serve the project. According to PG&E, project related upgrades to these facilities would allow the site to be adequately served with electricity and natural gas. As phased development occurs, the potential exists that additional off-site gas and electric transmission facilities could be required. Improvement of these facilities beyond those described herein would be evaluated in subsequent documentation.

Pacific Bell has existing overhead communication facilities along the Lammers Road frontage, including fiber optic lines. According to Pacific Bell, they can provide service to the site.

AT&T also has overhead cable television facilities along the project frontage on Lammers Road. According to AT&T, these facilities, with upgrades, would be adequate to serve the project site.

3.5 PROJECT PHASING

The project is proposed for development in five phases estimated to take approximately 10 years to complete (see Table 3-1). Phase I would begin with the golf course and related water and support features followed by 87 acres of office and commercial/office uses. Phase I is scheduled to begin construction in the Summer of 2003 for the golf course and Spring/Summer 2003 for the commercial/office space. Phase II would develop approximately 55 acres of office uses in the southeast portion of the site and is estimated to begin in 2006. Phase III would develop approximately 96 acres of office uses in the south central portion of the site in 2008 and 40 acres of commercial uses including a 150-room hotel. Phase IV would develop approximately 50 acres of office uses in the north/northwest portion of the site. Also included would be approximately 11 acres for commercial uses. Phase IV is estimated to begin construction in 2009. Phase V would develop approximately 56 acres of office uses in the northwest corner of the site beginning around 2012. Buildout is projected for 2013 after 10 years of construction. Ultimate project phasing would be dependent on the availability of public services and market demands and could vary from that just described.

TABLE 3-1

TRACY GATEWAY PROJECT PHASING

Phase	Projected Start
Phase I	
82.7 acres golf course and related water and support features 87 acres of office and commercial/office uses	2003
Phase II	
55 acres of office uses	2005
Phase III	
96 acres of office uses 40 acres of commercial uses to include a 150-room hotel	2007
Phase IV	
50 acres of office uses 11 acres for commercial use	2009
Phase V	
56 acres of office uses	2011

3.6 PROJECT ALTERNATIVES

The Proposed Project provides for commercial/retail uses, office space, a 150-room and a 200-room hotel, and a 9-hole championship golf course and driving range. Alternatives to the Proposed Project addressed in this EIR include:

- Alternative 1 provides for the same uses as in the Proposed Project *and* includes approximately 300 apartment units.

- Alternative 2 provides for the same uses as the Proposed Project *except* the golf course would be replaced by additional office space bringing the leasable office space up to approximately 7,000,000 sf, as opposed to the Proposed Project's leasable space of approximately 5,800,000 sf.

- Alternative 3 is the No Project alternative. Under this scenario, the project site remains in the County and the City's Sphere Of Influence. While agriculture would presumably continue in the short term, the site would retain its City's General Plan designation of residential low, providing an average of 3.5 du/ac.

These alternatives are described in detail in Chapter 5.0, Alternatives to the Project.

3.7 DISCRETIONARY ACTIONS, PERMITS, AND APPROVALS

In order for the Proposed Project to be implemented, a series of actions and approvals would be required from several public agencies. Those that have been identified are described below.

City of Tracy

The project area is currently included in the North Schulte Community Area as designated by the General Plan. This Community Area was set up primarily to facilitate land use and infrastructure planning for the City. A Concept Development Plan has been prepared to support the entitlement process and land use consistency review by the City.

The Proposed Project would:

- amend the City's General Plan designation of the site from Residential Low to Commercial and Open Space,
- detach the site from the North Schulte Community Area,
- pre-zone the site from the County's designation of AG-40 to a City designation of Planned Unit Development,
- annex the site into the corporate boundaries of the City; and
- amend the City's Roadway Master Plan.
- establish PUD zoning with the CDP.

Subsequent entitlements shall include:

- preparation of preliminary and final development plans;
- tentative and final subdivision maps; and
- grading and building permits.

Additional actions that would be required from the City Council, Planning Commission and/or City staff related to the on-site WRF may include, but are not limited to, the following:

- approval of the on-site WRF;
- approval of an agreement between the project applicant and the City regarding the operation, maintenance, and decommissioning of the WRF;
- approval of engineering details and plans associated with the WRF and non-potable conveyance pipelines, pump stations, and storage facilities; and
- assumption of the supervision of the operation of the WRF.

Other Agency Permits/Actions

San Joaquin County Local Agency Formation Commission (LAFCO):

- Annexation

San Joaquin County Department of Public Health Services:

- Approval of permits and plans associated with storage and handling of hazardous materials for operation of the WRF

San Joaquin Valley Air Pollution Control District:

- Issuance of Authority to Construct permit and Permit to Operate for the diesel generator for backup power for the WRF.
- Review of potential toxic air contaminant (TAC) emissions sources.

Regional Water Quality Control Board:

- NPDES permit for control of non-point source runoff during construction.
- Report of Waste Discharge (ROWD) and Waste Discharge Requirements (WDR) for WRF operation.

Department of Health Services:

- Review of Title 22 (California Code of Regulations) Engineering Report for use of reclaimed water.

California State Water Resources Control Board:

- Operators of the WRF would be subject to certification by the California State Water Resources Control Board.

California Department of Transportation:

- Approval of improvements along I 205 on and off ramps at 11th Street
- Encroachment Permit

Union Pacific Railroad:

- Encroachment Permit (non-potable water pipeline at rail crossings)

WSID

- Agreement for non-potable water supply for the City of Tracy.

4.1. LAND USE

This section describes the existing land uses of the project site, characterizes surrounding uses, discusses the Proposed Project in the context of the City of Tracy General Plan and other adopted plans and policies, and discusses the annexation of the project site into the City of Tracy in the context of consistency with Local Agency Formation Commission (LAFCO) and City policies. The analysis focuses upon land use compatibility, General Plan consistency, the implications of removing the project site from the North Schulte Community Area, and the implications of annexation of the project site into the City.

1. ENVIRONMENTAL SETTING

Existing Surrounding Land Uses

The Proposed Project is bordered on the north by 11th Street and Interstate 205 (I 205) (see Figure 4.1-1). Eleventh Street is a divided expressway and serves as primary access to and from I 205. The 11th Street off-ramp from I 205 is located adjacent to the northerly boundary of the site in the western third of the parcel. The westbound 11th Street on-ramp to I 205 begins near the middle of the site where westbound 11th Street becomes a grade separation over I 205. The existing land uses to the north of the project site are agricultural. The 75-acre Westgate residential subdivision is located northeast of the project site, at the northeast corner of 11th Street and Lammers Road, in the City of Tracy, and has a planned density of 5.9 dwelling units per acre.

The project is bordered on the east by Lammers Road, which is a two-lane road. The properties adjacent to Lammers Road on the east are generally used for agricultural production with a cluster of mobile homes on the north, at the intersection with 11th Street, and a single family residence near the southerly boundary of the project site. Lands farther to the east, within the City, are developed with residential uses and a 27-acre community park, as part of the City's approved Presidio project.

The properties to the south and southwest are generally used for agricultural production with scattered single-family residences.

The lands to the west are in the County, outside of the City's Sphere of Influence (SOI), and are generally used for agricultural production.

Existing On-Site Land Uses

The Tracy Gateway project includes approximately 538 acres of generally flat terrain that slopes downward from southwest to northeast at approximately 3 to 5 percent. Physical features resulting from years of farming activity include a network of ditches to collect and direct irrigation water to the fields. Sediment ponds collect excess irrigation water and allow the sediment to settle out before discharging the water back into the West Side Irrigation District (WSID) canal system.

Figure 4.1-1

There is little natural vegetation on the site with the exception of a few small trees and natural vegetation along the boundaries and natural grasses adjacent to I 205 and 11th Street.

The WSID Upper Main Canal is adjacent to the southwest boundary of the site and is several feet higher than the site topography.

A PG&E gas main and high voltage lines on towers cross the northwestern portion of the parcel, as does the City of Tracy Hansen sewer line. Both PG&E and the City have easements for these facilities.

There is a single-family residence at the northeast corner of the property.

Proposed Surrounding Land Uses

North:

Lands to the north of the project site and across 11th Street are under County jurisdiction and within the City's SOI. The lands are within either the Lammers Community Area or the North Schulte Community Area. The Lammers Community Area is designated for residential and industrial development. The North Schulte Community Area is designated for residential and park development and an Urban Center.

East:

Lands immediately to the east of the site, across Lammers Road, are under County jurisdiction and within the North Schulte Community Area. These lands would not be annexed into the City as a part of this project, although they are anticipated to be annexed in the future as more land within the City's SOI is proposed for development. Lands further to the east are developed for residential uses and a 27-acre community park, as part of the City's approved Presidio project.

South:

Lands to the south are under County jurisdiction, and within the North Schulte Community Area, and are designated for Residential Medium development and parks in accordance with the Community Area land use designations.

West:

The lands to the west are under County jurisdiction and outside of the City's SOI. The County is currently in the early stages of planning the Old River/Northwest Tracy Specific Purpose Plan, which would be adjacent to the western boundary of the project site. Industrial and commercial

land uses are tentatively planned,[1] with a number of different land use scenarios under consideration by the County.

Project Site

The project site is within an unincorporated area of San Joaquin County and has a County zoning of Agriculture – 40 (AG-40) (agriculture with a minimum size of 40 acres). The project site is located outside the city limits of the City of Tracy, but is within an unincorporated area of the City's SOI. A SOI is the service area that a local government agency is expected to serve. The project site is also within the North Schulte Community Area, one of six Community Areas designated by the City's General Plan. The land use designation currently assigned to the project site is Residential Low, with an average density of 3.5 dwelling units per acre. The site is within a Community Area that establishes an Urban Center. The Urban Center is intended to be an area of higher intensity mixed uses serving as a focal point for each Community Area.

The Proposed Project would create a mixed-use development with commercial, office and research space occupying multi-story buildings. The commercial uses would consist of retail, two hotels, and second-floor office space. A public golf course would be situated in the center of the site and would include a clubhouse, driving range and maintenance facility. A water reclamation facility (WRF), which would treat project-generated wastewater to levels suitable for landscape irrigation, would be located adjacent to the maintenance building. The remainder of the site would be used for interior roads, pedestrian trails, sidewalks, bike lanes and a fitness course.

The existing single-family residence at the northeast corner of the site would remain until that portion of the site is developed with commercial uses as part of the Proposed Project.

Off-Site Utility Improvements

The project proposes the installation of off-site potable water and non-potable untreated surface water/recycled water ("purple pipe") improvements. These improvements would be located within the City of Tracy and in the County of San Joaquin. The portion of the proposed improvements in the County are within the City's Sphere of Influence.

The potable waterlines would be constructed within either easements on lands within the City and County (see Figure 3-4) or within road right of way created as part of the Proposed Project. A pipeline would be installed from the southern boundary of the project site to Schulte Road within a right of way that would be created as part of the project for a future road connection.

The non-potable ("purple pipe") pipelines would be installed within existing City and County street rights of way, with the exception of a portion of the Phase 4 improvements extending northerly and easterly from Schulte Road (see Figure 3-6).

1 Written Correspondence, Chandler Martin, Senior Planner, San Joaquin County Community Development Department, April 2, 2001.

An underground non-potable water tank would be constructed within the existing City of Tracy Wastewater Treatment Plant, northeast of the project site on Larch Road.

Off-Site Traffic Improvements

In order to mitigate the anticipated impacts due to project-generated traffic leaving the project site, off-site roadway improvements are proposed. (See Mitigation Measure MM 4.3.2, in Section 4.3, Traffic and Circulation, and Appendix B, *Transportation and Circulation Analysis - Tracy Gateway Business Park*, Figure 6.) These improvements include: the acquisition of right of way and construction of widening 11th Street from four to six lanes from I 205 to Lincoln Boulevard; the acquisition of right of way to allow for dual left turn lanes into the Proposed Project at the signalized intersections from both Lammers Road and 11th Street; the acquisition of right of way and construction of a second southbound left-turn lane at the Lammers/Valpico intersection construction of a new roadway that begins at the intersection of the main arterial for the project and 11th Street and extends north and east to intersect with Lammers Road between I 205 and 11th Street; the construction of a new roadway extending from the Schulte Road/Lammers Road intersection westward to Mountain House Parkway; the construction of a new roadway that extends from the main arterial for the project and to intersect with the new extension of Schulte Road; and acquisition of right of way and construction of a new freeway interchange at Lammers Road and I 205.

2. REGULATORY FRAMEWORK

Annexation

The Cortese-Knox-Hertzberg Local Government Reorganization Act (2000) is the framework within which proposed city annexations are considered. Annexation is the process whereby land held under one jurisdiction's control is relinquished to another through a formal planning process. The Act establishes a Land Agency Formation Commission (LAFCO) in each county, empowering it to review, approve or deny proposals for boundary changes and incorporations for cities, counties and special districts. The Act mandates specific factors which LAFCO must address when considering annexation proposals. LAFCO, in turn, establishes the ground rules by which the affected city will process the annexation. The State had delegated to each LAFCO the power to review and approve or disapprove, with or without amendment, proposed annexations.

The annexation action would include the project site (538 acres) and the entire portion of City-owned 11th Street and Lammers Road right of way fronting the project site. City public services, such as law enforcement, fire, roads maintenance, and similar services would be provided after annexation along with utilities including water supply, water treatment and distribution, sewer collection and treatment, and similar infrastructure.

LAFCO would review the Proposed Project for conformance with the City's General Plan and adopt findings for each of the criteria and indicate whether the project conforms to State and San Joaquin County LAFCO policies.

In order to allow the Proposed Project to use raw water, the annexation would not detach the project site from the WSID.

City of Tracy Urban Management Plan/General Plan (General Plan)

The Tracy Planning Area (TPA) covers all territory within the boundaries of the City and land outside the boundaries that has been determined to bear a relation to the City's planning efforts. The total area of the TPA is approximately 114 square miles, of which approximately 22 square miles is within the City limits. Some of these lands outside of the City limits are included within the City's Sphere of Influence (SOI). A SOI is the service area that a local governmental agency is expected to serve.

The General Plan, adopted in 1993, is the principal planning document for the City, and is designed to direct growth within the TPA. As a policy document, the General Plan sets forth a wide range of goals, policies, and implementation measures intended to guide the type, character and intensity of growth within the City.

The buildout of the General Plan's Land Use Plan, is structured to control and direct growth in the City along two paths: The first is expansion of the existing urbanized area at its periphery, expanding and connecting to services in a concentric fashion. The second is development of Community Areas within the TPA, which represent "defined geographical areas where comprehensive planning can effectively integrate multiple land uses, physical design and vehicle and pedestrian movement, with a nucleus focused around an Urban Center to maintain and foster a small town atmosphere."[2] The project site is within the North Schulte Community Area.

In order to control and direct the physical, social and economic character of the City, the General Plan contains goals and implementing policies. Each project considered by the City must either be consistent with the General Plan goals or found to further the goals of the General Plan, if the project proposes revisions to the General Plan.

The following General Plan land use goals are relevant to the Proposed Project:

L.U. 1:	A balance between residential population, jobs and ability to provide services
L.U. 2:	A City of distinct development areas, each consistent with an overall City character but with its own image and sense of place.
L.U. 4:	Development of regional plans and programs.
L.U. 6:	A land use mix that provides employment opportunities for all who live in Tracy and wish to work here.
L.U. 9:	Maintain economic viability as a community.

2 City of Tracy, *General Plan - An Urban Management Plan*, July 1993, Page ES-12.

P.F. 6:	Parks and recreation facilities and services that improve and maintain the quality of life for residents in the City of Tracy.
P.F. 7:	Assure adequate park land acquisition, improvements and programs.
O.S. 2:	Establish a subregional open space and parkway system that serves both recreational and transportation needs.

General Plan Amendment and Zoning Changes

The General Plan Amendment would remove the project site from the North Schulte Community Area and assign new land use designations of Commercial and Open Space. Additionally, zoning designations would be applied to the land in a manner consistent with the City's General Plan, in a process called "pre-zoning". The zoning designation to be applied to the Proposed Project would be Planned Unit Development (PUD). Each project considered by the City must be consistent with the General Plan or found to further the goals of the General Plan, if the project proposed changes to the Plan.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

Land use impacts are considered significant if implementation of the project would:

- conflict with the adopted goals of the General Plan or other planning program adopted for the purpose of avoiding or mitigating environmental impacts associated with land use;
- conflict with the adopted policies and goals of LAFCO or;
- allow development of land uses that would be incompatible with existing or planned surrounding land uses.

Methodology

Evaluation of potential land use impacts and nonconformance with LAFCO policies was based on review of the General Plan and the *San Joaquin LAFCO Guidelines for Formation and Development of Local Governmental Agencies*. Existing land uses adjacent to the site were identified based on a site visit by EIP staff. The land use analysis is based on a qualitative comparison of existing and proposed uses on the site and their compatibility with existing and planned uses as defined in the General Plan and Zoning Ordinance.

The Mountain House Community Services District responded to the NOP and requested that the growth inducing and cumulative impact discussion of land use take into account the buildout of the Mountain House development. See Chapter 5.0, Cumulative Impact Summary, for a summary discussion of the cumulative impacts resulting from the Proposed Project.

The San Joaquin County Community Development Department responded to the NOP and noted the following County projects in the area of the Proposed Project area: the Old River/Northwest Tracy Specific Purpose Plan and development at the Patterson Pass Business Park.

Based on the analysis provided in the Notice of Preparation (NOP) (See Appendix A), the project is not expected to result in the division of an existing community, increase the population of the City or surrounding region, or disrupt community patterns; therefore, these impacts are not discussed further. The increase in employment opportunities, coupled with the increase in urbanization, could result in secondary growth inducing impacts. These impacts are examined in Chapter 6.0 of this EIR.

Potential land use conflicts or incompatibilities are usually the result of other environmental effects, such as the generation of noise or increased traffic, which are analyzed in other sections of this EIR.

Project Impacts and Mitigation Measures

Impact 4.1.1 The Proposed Project could be inconsistent with the City's General Plan or other City plans, policies or ordinances.

According to the General Plan, the 1,737-acre North Schulte Community Area is proposed predominately as a residential area with an Urban Center and park uses. A maximum of 1,883 residential units could be developed on the 538-acre project site in accordance with its current land use designation, which plans for an average of 3.5 residential units per acre.

The North Schulte Community area also specifies that an Urban Center be included within the bounds of the Community Area. According to the General Plan, an Urban Center is intended to be an area of higher intensity mixes uses, serving as a focal point for each Community Area. The Urban Center for the North Schulte Community Area is to be oriented toward providing services for local residents, rather than creating business park, office, industrial and other major employment generating uses that market to a city-wide or regional scale.

Through the General Plan Amendment, the Proposed Project would remove the site from the North Schulte Community Area and resdesignate the land uses to Commercial and Open Space. In addition to these proposed changes, the General Plan Amendment would add "business park" to the list of allowable commercial uses and would establish the criterion by which such business parks may be allowed in the City. The land uses to be those in a business park would be the same as allowed in the current commercial land use designation and therefore would not introduce new land uses not currently allowed in the City’s General Plan.

In order to implement the new land use designations, the project site would be prezoned as part of the Proposed Project. The proposed prezone for the site would be PUD, as established in accordance with Title 10, Article 13 of the Tracy Municipal Code. The PUD zone would take effect upon annexation of the project site to the City of Tracy. This zoning category is designed to allow flexibility and creativity in site planning for residential, commercial, or industrial uses to

achieve greater efficiency in land use by maximizing open space, preserving natural amenities, and creating additional amenities. The PUD zone can also be useful when a prezoning is coupled with an annexation proposal. A PUD Concept Development Plan can be used to the advantage of both the City and individual property owner whenever considering the mutual benefits of incorporation of land into the City. The PUD zone's Concept Development Plan may be used to adequately describe and establish any and all land uses allowed upon annexation of a property into the City.

The Proposed Project would result in the following changes to the North Schulte Community Area:

- a 31 percent reduction (538 acres) in the land area of the Community Area and
- a division of the Community Area such that the lands north of 11th Street within the Community Area would no longer be contiguous with the remainder of the Community Area.

The Proposed Project would require a General Plan Amendment in order to remove the 538-acre site from the North Schulte Community Area. The Proposed Project also entails amending the current Residential Low land use designation of the 538-acre project site to 455 acres of Commercial and 83 acres of Open Space. Tables 4.1-1 and 4.1-2 show the existing and proposed land uses within the North Schulte Community Area.

TABLE 4.1-1

EXISTING NORTH SCHULTE COMMUNITY AREA STATISTICAL PROFILE (WITHOUT TRACY GATEWAY)

Land Use	Gross Acres	Adjusted Gross Acres[1]	% of Total Area	Average Density DU/AC	DUs	Persons/ DU	Population
Residential Very Low	64	56	3.7	2.0	111	3.5	390
Residential Low	1,225	1,066	70.5	3.5	3,731	3.0	11,193
Residential Medium	250	218	14.4	8.0	1,740	2.5	4,350
Parks	38		2.2				
Urban Center:							
High Residential	30	26	1.7	18.0	468	2.0	936
Office	55		3.2				
Commercial	30		1.7				
Public Facilities	15		0.9				
Streets/ROW	30		1.7				
	160		9.2				
Total	1,737		100%		6,050		16,869

Notes:
1. Adjusted Gross Acres is a more accurate representation of "true" gross acreage for large scale land planning over thousands of acres and is calculated by multiplying by a .87 reduction factor against the gross acreage measured to the centerline of streets, section lines or utility corridors. This factor subtracts out 13% or .13 for major rights-of-way, and easements and allows a more accurate calculation of potential population in residential areas.
2. The acreages in this table have been adjusted from Table 1-2E of the General Plan to reflect the Presidio General Plan Amendment.

Source: City of Tracy Urban Management Plan/General Plan EIR, July, 1993.

TABLE 4.1-2

PROPOSED NORTH SCHULTE COMMUNITY AREA STATISTICAL PROFILE (WITH TRACY GATEWAY)

Land Use	Gross Acres	Adjusted Gross Acres	% of Total Area	Average Density DU/AC	DUs	Persons/ DU	Population
Residential Very Low	64	56	5.3	2.0	111	3.5	390
Residential Low	687	598	57.3	3.5	2,093	3.0	6,279
Residential Medium	250	218	20.9	8.0	1,740	2.5	4,350
Parks	38		3.2				
Urban Center:							
High Residential	30	26	2.5	18.0	468	2.0	936
Office	55		4.6				
Commercial	30		2.5				
Public Facilities	15		1.2				
Streets/ROW	30		2.5				
	160		13.3				
Total	1,199		100%		4,412		11,955

Notes:

1. Adjusted Gross Acres is a more accurate representation of "true" gross acreage for large scale land planning over thousands of acres and is calculated by multiplying by a .87 reduction factor against the gross acreage measured to the centerline of streets, section lines or utility corridors. This factor subtracts out 13% or .13 for major rights-of-way, and easements and allows a more accurate calculation of potential population in residential areas.

Tables 4.1-3 and 4.1-4 show the existing and proposed land use summaries for the entire TPA, respectively. As shown in Tables 4.1-3 and 4.1-4, the Proposed Project would result in the addition of 455 acres of Commercial use within the TPA. This represents a 26 percent increase in Commercial use currently designated in the TPA. The Proposed Project would also result in the designation of an additional 83 acres of Open Space to the TPA. This is an increase of approximately 4 percent within the TPA.

The Community Areas represent defined geographical areas where comprehensive planning can effectively integrate multiple land uses, physical design, and vehicle and pedestrian movement and infrastructure planning. The removal of 538 acres from the North Schulte Community Area would result in the physical separation of lands in the Community Area that are north of 11th Street and the remaining lands in the Community Area that are south and east of the project site.

According to the General Plan, "the Community Areas, due to their physical separation from the existing community, require a comprehensive infrastructure plan, including water facilities, sewer treatment, conveyance and disposal facilities, storm drainage facilities, arterial street linkage, . . . and other public facilities as required to meet City standards".[3] Comprehensive infrastructure planning for the entire Community Area has been addressed through a series of

3 City of Tracy, *General Plan - An Urban Management Plan*, July 1993, Page ES-12.

TABLE 4.1-3

EXISTING LAND USE SUMMARY OF THE CITY OF TRACY PLANNING AREA (WITHOUT TRACY GATEWAY)

Land Use	Gross Acres	Adjusted Gross Acres[1]	% of Total Acres	DUs	Population
Very Low Density	3,053	2,656	4.2	5,312	18,592
Low Density	9,916	8,627	13.6	30,193	90,573
Medium Density	2,394	2,083	3.3	16,664	41,660
High Density	398	346	0.5	5,760	11,520
Commercial	1,989		2.7		
Industrial	6,770		9.3		
Public Facilities	1,888		2.6		
Parks	328		0.5		
Open Space	2,306		3.2		
Federal Reserve / Open Space	7,000		9.6		
Aggregate	2,858		3.9		
Agriculture	33,670		46.3		
Total	72,570	13,712	100%	57,929	162,345

Notes:

1. Adjusted Gross Acres is a more accurate representation of "true" gross acreage for large scale land planning over thousands of acres and is calculated by multiplying by a .87 reduction factor against the gross acreage measured to the centerline of streets, section lines or utility corridors. This factor subtracts out 13% or .13 for major rights-of-way, and easements and allows a more accurate calculation of potential population in residential areas.

Source: City of Tracy Urban Management Plan/General Plan EIR, July, 1993.

TABLE 4.1-4

PROPOSED LAND USE SUMMARY OF THE CITY OF TRACY PLANNING AREA (WITH TRACY GATEWAY)

Land Use	Gross Acres	Adjusted Gross Acres[1]	% of Total Acres	DUs	Population
Very Low Density	3,053	2,656	4.2	5,312	18,592
Low Density	9,378	8,159	12.9	28,557	85,671
Medium Density	2,394	2,083	3.3	16,664	41,660
High Density	398	346	0.5	5,760	11,520
Commercial	2,444		3.4		
Industrial	6,770		9.3		
Public Facilities	1,888		2.6		
Parks	328		0.5		
Open Space	2,389		3.3		
Federal Reserve / Open Space	7,000		9.6		
Aggregate	2,858		3.9		
Agriculture	33,670		46.3		
Total	72,570	13,244	100%	56,293	157,443

Notes:

1. Adjusted Gross Acres is a more accurate representation of "true" gross acreage for large scale land planning over thousands of acres and is calculated by multiplying by a .87 reduction factor against the gross acreage measured to the centerline of streets, section lines or utility corridors. This factor subtracts out 13% or .13 for major rights-of-way, and easements and allows a more accurate calculation of potential population in residential areas.

Source: City of Tracy.

address issues of water supply and distribution, wastewater conveyance and treatment, storm drainage and transportation/circulation for the surrounding area, of which the North Schulte Community Area is a part. These studies are found in Appendices B and F of this document.

By fragmenting land uses, the Proposed Project could limit the range of planning options for this area, which could have been coordinated through a more cohesive effort, as envisioned by the Community Plan. Although the extent of these adverse effects to future planning activities is unknown, the project could alter the timing and direction of growth as envisioned by the General Plan. However, the removal of the project site from the Community Area would not preclude the City from undertaking future efforts to comprehensively address development within the remaining portions of the Community Area. There are three options for the planning of the remaining two areas of the Community area:

1. The areas could be developed under a single specific plan that addresses both parts of the Community Area.

2. The areas could be developed through two, or more, specific plans that address each remaining area of the North Schulte Community Area separately.

3. The areas could be removed from the North Schulte Community Area through General Plan amendments, similar to the Proposed Project, and the lands could be developed through separate development proposals.

Although the second and third options do not allow for comprehensive land use planning of the entire remainder of the Community Area, they do allow the City to integrate multiple land uses, physical design, and vehicle and pedestrian movement through the development application process and thereby ensure compliance with the General Plan and desired development goals. While the removal of this area from the North Schulte Community Area may inhibit future land use, infrastructure planning, and financing opportunities for the remainder of the Community Area, it is not expected that these changes would result in any new land use or environmental impacts other than those identified under the General Plan EIR and this EIR.

The City has historically allowed the removal of lands from Community Areas when the removal complies with the General Plan's land use policies and the removal does not preclude the development of the remainder of the Community Area, either as one cohesive Community Area, or as a specific plan, or other development mechanism. A recent example of such a removal is the Presidio project, less than one-half mile to the east of the project site along 11th Street. That project removed lands from the North Schulte Community Area.

The removal of the land from the Community Area and the subsequent development of the project site with commercial and open space uses does not preclude the remaining lands in the Community Area from developing according to their current land use designations. The remainder of the Community Area north of 11th Street is designated Residential Medium (average density of 8 dwelling units per acre), while the remainder of the Community Area south

of the project site is designated for Residential Low (average density of 3.5 dwelling units per acre) and Residential Very Low (average density of 2 dwelling units per acre).

At this time, the Tracy Gateway project would not be considered as the Urban Center for the North Schulte Community Area; although this would not preclude the future development of the northeastern portion of the project site, at the southwest corner of 11th Street and Lammers Road in such a manner. In addition, development of the Proposed Project would not preclude the development of an Urban Center in the remaining portions of the North Schulte Community Area.

The Proposed Project would also revise a residential land use designation to an open space designation on approximately 83 acres of the project site. It is anticipated that the open space would be developed with a public golf course and lighted driving range, storm water management ponds, walking paths, bike trails, and landscaped areas. All of these uses are allowed in the Open Space land use designation and, therefore, the proposed open space designation would be consistent with the City's General Plan.

The Proposed Project would be consistent with Land Use Goal 1 of the General Plan by adding new jobs to the City; thereby helping to achieve a balanced distribution of residential and employment-generating land uses. The circulation patterns proposed by the project would be supportive of a community lifestyle through the provision of walking paths within the landscape buffer areas and courtyards around buildings. In addition, through the inclusion of bicycle lanes and sidewalks along all main roadways within the project site and the provision of bus transit shelters, the Proposed project would be in compliance with non-vehicular transportation modes. By annexing the project site into the City, the City would secure control of the development of lands within Tracy's Planning Area, thereby ensuring that development of the site would be in compliance with the zoning and other guidelines for development within the City. Therefore, the Proposed Project would be consistent with Land Use Goal 2 in developing a distinct area, with it own image and sense of place; but consistent with an overall City character. The Proposed Project would be consistent with Land Use Goal 4, the development of regional plans and programs, by allowing the City a leadership role in the land use planning for the project site and minimizing the impacts to the City's budget and fiscal ability to provide services through the implementation of a Finance and Implementation Plan (FIP) for the project. The Proposed Project would be consistent with Land Use Goal 6 for a land use mix that provides employment opportunities to all who live in Tracy and wish to work within the City by adding 335-net acres of development that would provide employment opportunities, thereby also helping to maintain Tracy's competitiveness in attracting industries to the Central Valley. The Proposed Project is consistent with Land Use Goal 9 in maintaining economic vitality in the City. The Proposed Project encourages land uses that contribute positively to Tracy's and the region's economic well-being. The FIP will help ensure that the development reimburses service providers.

The Proposed Project would be consistent with Public Facilities Goal 6 by ensuring that the development would be responsible for providing recreational facilities and helping to disperse the facilities throughout the City. A public golf course, bicycle paths and walking paths are proposed on the project site, which would help to serve the residents in the northwestern portion

of the City. The recreational facilities would provide a mix of active and passive activities. The Proposed Project would be consistent with Public Facilities Goal 7 by providing the recreational uses as part of the project improvements. The Proposed Project would be consistent with Open Space Goal 2 by expanding the bicycle trail system in the City.

While the proposed General Plan Amendment associated with the Proposed Project would substantially modify the existing land uses for the project site, as identified in the General Plan, these land use modifications would be consistent with the supporting policies and actions of the Land Use Element of the General Plan. The Proposed Project would not affect the ability of the City to implement the General Plan and other plans, policies, and ordinances. Therefore, the removal of 538 acres from the North Schulte Community Area, annexation of the site into the City, and the redesignation of the project site to Commercial and Open Space would be considered a **less-than-significant** impact.

See Sections 4.3 (Traffic and Circulation), 4.4 (Noise), 4.5 (Air Quality), 4.6 (Biological Resources), 4.7 (Public Utilities), 4.8 (Public Services), and 4.9 (Visual Resources/Light and Glare), which address the Proposed Project impacts in those specific issue areas.

Mitigation Measure

MM 4.1.1 None required.

Project Impact

Impact 4.1.2 The locations of the off-site improvements for the Proposed Project could be inconsistent with Caltrans regulations, the City's General Plan, County's General Plan or other plans, policies and ordinances.

There would be no conflicts to existing land use plans resulting from the installation of the below ground off-site improvements or off-site roadways because underground utilities and roadways are allowed in all land use categories. The Proposed Project would also result in the construction of an off-site non-potable underground tank. The location of the tank and related construction activities allocated with pipeline installations could conflict with regulations, policies or ordinances.

There are specific guidelines and regulations that govern the specific location of these improvements. If there is no compliance with County regulations and permitting requirements then this would be a significant impact. Compliance with County regulations and permitting for construction of the off-site facilities located in the County, through implementation of the following mitigation measure, would reduce the impacts due to inconsistency to a **less-than-significant** level.

Mitigation Measure

MM 4.1.2 The City shall ensure that the Proposed Project is in conformance with all applicable regulations for construction of the off-site water facility prior to approval of any FDP. Any potential non-conforming land uses or conflicts shall be modified to meet the stated regulations of the affected agency.

Timing/Implementation: Prior to approval of Concept Development Plan.
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.1.3 The Proposed Project could conflict with San Joaquin LAFCO guidelines and policies.

The San Joaquin County LAFCO has developed Guideline Standards that are designed to encourage planned development of local governmental agencies in accordance with the principles of LAFCO. The LAFCO standards that apply to the Proposed Project are discussed below.

Standard D: Proposals for annexations to cities shall include all contiguous public roads that can be included without fragmenting governmental responsibility by alternating city and county road jurisdiction over short sections of the same roadway. The Proposed Project would annex portions of the City right of way of Lammers Road and 11th Street that front the project site.

Standard E: Annexations to an adjacent city will be favored over a proposal for providing urban services by special districts. The Proposed Project includes the annexation of the project site into the City of Tracy.

Standard F: Annexations to agencies providing urban services shall be progressive steps toward filling in the territory designated by the affected agency's adopted Sphere of Influence. Proposed growth shall be from inner toward outer areas. It is desired that planned growth move from the inner city toward the outer areas, developing as contiguously as possible. As such, the City of Tracy is either developed, or has pending proposals for development, up to its western city limit line. In keeping with this goal, the project site is contiguous to the City limits at the northeast corner of the project site. This would allow for organized westward development and annexation of the City's SOI into corporate boundaries.

Standard G: Boundaries which create islands, strips or corridors within an agency providing urban services shall be avoided. The project site is contiguous to the City limits at the northeast corner of the site and, therefore, does not create an island, strip, or corridor.

Standard H: Annexation to or formation of a multiple service agency will be favored over a proposal for providing urban services by a multiplicity of limited service districts. The Proposed Project includes the annexation of the project site into the City of Tracy, which would provide the necessary potable water, storm drainage, fire and police, and solid waste services for the Proposed Project. Wastewater generated at the on-site WRF would be overseen through an agreement with the City, which would use recycled water generated by the WRF for irrigating City parks and fields.

Standard I: Annexation to an existing agency will be favored over a proposal for forming a new agency to provide the same service. The Proposed Project includes the annexation of the project site into the City of Tracy.

Standard J: A proposal that does not establish an economically sound basis for financing required services will not be approved. In accordance with the City's General Plan, the Proposed Project would be required to attach conditions to ensure the provision of infrastructure and capital improvements commensurate with the project's effect on the City's public service system.

Standard K: Economical efficiency of a larger annexation will be favored over a proposal for a "single parcel" or "piecemeal" annexation. The project site consists of 538 acres and encompasses the majority of parcels between Lammers Road and the western boundary of the City's Sphere of Influence.

Standard L: A proposal establishing urban encroachment of areas designated by the County General Plan for open space or agricultural use will be opposed unless it complies with a previously adopted Sphere of Influence of an incorporated City. The project site is within the City of Tracy Sphere of Influence.

The annexation of the project site into the City has been assumed in the City's General Plan through the designation of the site within the City's Sphere of Influence and within the City's North Schulte Community Area. The annexation would be conditioned upon the ability of the City to provide the necessary services. Therefore, the impacts related to the annexation of the project site into the City would be less than significant. For these reasons, the Proposed Project would be consistent with San Joaquin LAFCO policies and the impacts and guidelines would be **less than significant**.

Mitigation Measure

MM 4.1.3 None required.

Project Impact

Impact 4.1.4 The Proposed Project could allow development of land uses that could be incompatible with existing or planned surrounding land uses.

Land use impacts are primarily a function of the project's compatibility with surrounding adjacent land uses and is measured in terms of specific environmental effects such as noise, air quality, aesthetics and traffic. For this reason, the land use impact analysis is supported by other specific discussions within the EIR including Sections 4.3 (Traffic and Circulation); 4.4 (Noise); 4.5 (Air Quality); 4.6 (Biological Resources), 4.7 (Public Utilities), 4.8 (Public Services), and 4.9 (Visual Resources/Light and Glare).

Lands to the north, across the 4-lane divided highway (11th Street) have a variety of land use designations: Residential Very Low, Residential Medium, Industrial, and Parks. Eleventh Street, with four traffic lanes and landscaping in the center divide, would serve as a buffer between the land uses to the north and within the project site; and would therefore, mitigate possible incompatible land uses.

Lands adjacent to project site on the west are within the County and are currently designated as Agricultural; however, the County is in the early stages of preparing the Old River/Northwest Tracy Specific Purpose Plan. The developers of that project have tentative plans for industrial and commercial uses.[4] Permitted uses within the project could include assembly and manufacturing. Future uses on these lands would be required by County Code to respond in a sensitive manner to previously approved adjacent development. In addition, the proposed Tracy Gateway Concept Development Plan includes design standards that provide buffering provisions such as landscaping, setbacks, open space easements, and streets. The Conceptual Site Master Plan (Figure 3-3) shows buffers with the lands to the west, to include a combination of landscaped areas, roadways, and pathways.

The lands to the south and east of the project site will remain within the North Schulte Community Area and have a land use designation of Residential Low at 3.5 units per acre. According to the General Plan, commercial uses can locate adjacent to lower density residential uses with minimal impact through sensitive design.[5] General Plan Policy L.U. 3.2 requires developments to buffer less desirable effects/impacts on neighboring uses. In addition, the commercial uses should be located to allow easy access to arterial streets to serve the region. They should be located in centralized areas capable of serving the greatest number of households with the least travel and best access to alternate modes of transportation and freeways. Business Parks with hazardous research facilities should not be placed directly next to sensitive residential or public facility uses. Residential Low should be protected from noise-generating uses. Development standards should provide for aesthetically pleasing sound attenuation through the use of landscaped and bermed setbacks, as well as sound walls.

The golf course and driving range would be a destination for people outside of the immediate area. These facilities would generate additional traffic and would create additional light sources on the project site.

4 Written Correspondence, Chandler Martin, Senior Planner, San Joaquin County Community Development Department, April 2, 2001.

5 City of Tracy, General Plan, July 1993, Page 1-19.

The project could develop uses that would be incompatible with existing surrounding land uses, resulting in a significant impact.

Implementation of the following mitigation measure, in addition to implementation of General Plan Policy L.U. 3.2, would ensure that the Proposed Project would not cause a significant impact by developing uses that would be incompatible with existing surrounding land uses. The measure would reduce land use compatibility impacts to a **less-than-significant** level by ensuring that project design addresses possible land use incompatibilities.

Mitigation Measure

MM 4.1.4 The City shall ensure that the Proposed Project is in conformance with the City's zoning regulations relating to project design and land use compatibility prior to approval of the CDP. Any potential non-conforming land uses or conflicts shall be modified and contained in the CDP to meet the stated goals and policies in the City's zoning regulations and General Plan.

Timing/Implementation: Prior to approval of Concept Development Plan.
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.1.5 The off-site improvements for the Proposed Project could allow development of land uses that could be incompatible with existing or planned surrounding uses.

There would be no conflicts with existing or planned surrounding land uses resulting from the installation of the below ground off-site waterlines because the improvements would not be visible once they have been installed. Therefore, this issue will not be discussed further.

Construction of the below grade non-potable water tank at the City's Wastewater Treatment Plant would be not be incompatible with existing or planned surrounding uses because it would not be visible and is within a site currently used and designated for non-potable water improvements. Therefore, there would be no land use compatibility impacts related to the non-potable water improvements resulting in a **less than significant impact**.

Mitigation Measure

MM 4.1.5 None required.

Project Impact

Impact 4.1.6 The Proposed Project would allow development of land uses that could be internally incompatible.

The Proposed Project would allow a variety of land uses including office, research and development, commercial, a water reclamation facility, a golf course and open space. A Tracy Gateway Concept Development Plan has been prepared as part of the Proposed Project. The Plan contains development standards designed, in part, to reduce impacts between adjoining land uses within the project site. These development standards include measures to buffer the transitions between uses through the use of setbacks, landscaping buffers and building height restrictions.

Through the CDP process, the Proposed Project would be required to develop land uses that would be compatible within the project site and; therefore, the impact would be **less than significant.**

Mitigation Measure

MM 4.1.6 None required.

Cumulative Impacts and Mitigation Measures

The land use analysis does not typically include a separate discussion of cumulative impacts, because the project analysis considers both existing and planned land uses, including land use goals and policies. There are no impacts resulting from the additive effect of other proposed or speculative land use plans. Because the above impact analyses include discussions of the existing and planned land uses in the project area, the cumulative land use impacts would not differ from those identified for the project. Cumulative impacts associated with actual physical impacts of the Proposed Project (e.g., visual, water quality, biological, etc.) will be addressed in Chapter 4 (Environmental Setting, Impacts, and Mitigation Measures) and Chapter 6 (Cumulative Impacts Summary) of the EIR.

4.2 AGRICULTURAL AND MINERAL RESOURCES

This section of the EIR discusses existing agriculture and mineral resources in the project area and addresses potential impacts of the Proposed Project on these resources in the project area.

1. EXISTING SETTING

California Department of Conservation

The California Department of Conservation developed a Farmland Mapping and Monitoring Program to classify the different agricultural lands according to their ability to sustain agricultural crops, and based on the type of soil on the land. The Farmland classifications are as follows:

- **Prime Farmland.** Land that has the best combination of features for the sustainable long-term production of agricultural crops.
- **Farmland of Statewide Importance.** Land other than Prime Farmland that has a good combination of physical and chemical features with minor shortcomings for the production of agricultural crops.
- **Unique Farmland.** Land of lesser quality soils which are used for the production of the State's leading agricultural crops.
- **Farmlands of Local Importance.** Land that is of importance to the local agricultural economy.
- **Grazing Land.** Land on which existing vegetation is suited to the grazing of livestock.
- **Urban and Built Up Land.** Land occupied by structures with a building density of at least one unit to one and one half acres, or approximately six structures to a ten-acre parcel.

The San Joaquin County Important Farmland Map (1996) designates the project site and surrounding area as Prime Farmland. The site has been used to grow alfalfa in the past but is currently lying fallow.

Mineral Resources

The State Mining and Geology Board identifies sand and gravel resources using Mineral Resource Zone (MRZ) classifications and has identified a number of regionally significant sand and gravel aggregate areas in San Joaquin County. In particular, sand and gravel deposits in the Tracy area represent an important mineral resource. However, there are no significant sand or gravel deposits on the project site and, therefore, the State Mining and Geology Board classifies the site as MRZ-1.

There are several natural gas fields in San Joaquin County; however, there are no known natural gas deposits on the project site.

2. REGULATORY FRAMEWORK

City of Tracy Right to Farm Ordinance

The City adopted a Right to Farm Ordinance in 1994 for the purpose of preserving and protecting existing agricultural operations adjoining new development. The ordinance (Chapter 10.24 of the Tracy Municipal Code) states, in part, "No agricultural operation... conducted or maintained for commercial purposes, and in a manner consistent with the property and accepted customs and standards as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, private or public, due to any changed condition in or about the locality." Section 10.24.80 requires urban development projects adjacent to agricultural lands to make a good faith effort to coordinate with agricultural operations to reduce or eliminate land use conflicts.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

The Proposed Project would have a significant effect on agricultural and mineral resources if the project would:

- convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use;
- conflict with a Williamson Act contract;
- involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural uses;
- expose future occupants of the project site to nuisances associated with agricultural operations or expose farmers to nuisances associated with development of the project site;
- adversely affect agricultural production; or
- result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Methodology

The examination of agricultural and mineral resource issues in this EIR is based on information obtained from review of existing published documents, including the Draft San Joaquin County General Plan 2010 and the City's 1993 General Plan EIR. Comparisons were made between the General Plan EIR and current conditions related to agricultural resources in Tracy, and specifically the project site. Current conditions were determined through communication with

the San Joaquin County Agricultural Commission office, the San Joaquin County Assessor's Office, and other relevant agencies. In addition, the California Department of Conservation website was consulted as well as Important Farmland maps and soil surveys. Although it is anticipated that development of the project site would be phased, this analysis assumes that ultimately all agricultural land within the project site would be developed.

Because there are no Williamson Act contracts within the project site, there is no project specific analysis of this impact.

Project Impacts and Mitigation Measures

Impact 4.2.1 The Proposed Project could convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use.

According to the San Joaquin County Important Farmlands Map (1998), the project site contains approximately 538 acres of prime farmland. Prime farmland as defined by the California Department of Conservation's Farmland Mapping and Monitoring Program is "land with the best combination of physical and chemical features able to sustain long term production of agricultural crops. This land has the soil quality, growing season and moisture supply needed to produce sustained high yields."[1] Development of the project site would result in the loss of prime farmland and off site development of water distribution facilities would contribute to the loss of prime farmland. This would be a significant impact.

The General Plan EIR estimates that approximately 21,237 acres of prime and non-prime farmland would be lost due to development. Although the General Plan EIR identified the loss of agricultural lands as significant and unavoidable cumulative impact, the EIR found that on a project level, implementation of the following mitigation measure would reduce this to a less than significant level. Because the project would contribute to the loss of prime farmland, the following mitigation, which was presented in the General Plan Final EIR, would reduce the magnitude of this impact. The following mitigation measure is consistent with similar conditions of approval required for recent projects within the City of Tracy. The mitigation measure, together with General Plan goals and policies LU 8, CO 5, LU 8.5, 8.6, 8.7, 8.8, 8.9, CO 5.1, 5.2, their related implementation actions and General Plan EIR mitigation measure M 11.1 (requiring the creation of a program to mitigate for the loss of agricultural lands), would reduce the magnitude of the impact. Although the project's contribution to the cumulative loss of prime farmland has been identified and considered within the General Plan EIR, for which the City of Tracy adopted a Statement of Overriding Consideration (Resolution No. 93-226), the project specific loss of prime agricultural land remains a **significant and unavoidable** impact.

Mitigation Measure

MM 4.2.1 To the extent that a Farmland Preservation Program is adopted by the City of Tracy, the applicant shall be required to participate in the Program, subject to provisions of law, and be subject to any fee that may be required by the Program.

1 California Department of Conservation. Farmland Conversion Report 1996-1998.

Timing/Implementation: Prior to approval of any building permit.
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.2.2 Construction of the off-site utility improvements required by the Proposed Project could convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use.

The Proposed Project would require the installation of off-site utility improvements. Portions of the alignments for new potable and non-potable waterlines would be constructed in lands currently used for agriculture. According to the San Joaquin County Important Farmlands Map (1996), these lands are classified as Urban and Built Up Lands and Other. Construction of the proposed off-site improvements would require ground disturbing activities, such as excavation and trenching. These construction activities could temporarily disrupt existing agricultural practices resulting in a significant impact. Implementation of the following mitigation measure would ensure that agreements would be made with each affected land owner for reasonable access during construction and ensure minimal impacts to agricultural activities. Following excavation and placement of the pipe, the trenches would be covered and the agricultural practices could be resumed. Therefore, the Proposed Project would not compromise the long term productive agricultural capability of the lands and the impact is considered **less than significant** with implementation of the mitigation measure.

Mitigation Measure

MM 4.2.2 The Developer shall work with land owners whose existing agricultural operations could be disrupted by construction of the off-site improvements to ensure the following:

- Disruption to existing agricultural operations is minimized.
- Land owner has reasonable access to agricultural fields during construction.
- Land owner(s) is (are) adequately compensated for loss of crops.

Timing/Implementation: At the time of approval of each Financing Development Plan (FDP).
Enforcement/Monitoring: City of Tracy.

Project Impact

Impact 4.2.3 The Proposed Project would develop a mixed-use business park, hotels, and a golf course that could conflict with active agricultural operations to the east, south and west.

Compatibility with agricultural uses is measured in terms of specific environmental effects such as noise from agricultural operations and equipment and air quality impacts resulting from odors and dust. The EIR supports this land use analysis in other specific discussions within the EIR including 4.4 Noise and 4.5 Air Quality.

The Proposed Project intends to develop a golf course and mixed-use business park immediately adjacent to agricultural operations located to the east, south and west. On the north, there are agricultural operations across 11th Street, a four lane divided highway. These agricultural uses can generate dust, noise, and may require the application of pesticides or herbicides. Hotel guests are considered sensitive to noise and outdoor recreational users are considered sensitive to dust and odors.

Implementation of Mitigation Measure M12.1 of the City's General Plan EIR would establish an easement or buffer between the adjacent agricultural operations and the Proposed Project.

The existing agricultural operations in the vicinity of the project site have been in operation for more than three years; therefore, the Right to Farm Ordinance would apply to the Proposed Project. The Proposed Project contains various outdoor recreational uses such as the golf course, bike lanes and walking trails, the users of which could be considered sensitive to adjacent agricultural activities and could result in a conflict with active agricultural operations. This would be a significant impact. Implementation of the Right to Farm Ordinance, however, would provide protection to continued agricultural use despite potential conflicts with sensitive users of Proposed Project recreational uses. Compliance with the City's Right to Farm Ordinance and implementation of the following mitigation measures would reduce land use compatibility impacts to a **less-than-significant** level by ensuring the implementation of General Plan goals and policies that minimize impacts to agricultural uses from new urban uses.

Mitigation Measures

MM 4.2.3(a) The following disclosure statement shall be incorporated into the CC&Rs for the Tracy Gateway project:

> "If your property is adjacent to property used for agricultural operations, you may be subject to inconveniences or discomforts arising from such operations on a 24-hour basis. Said discomforts may include, but shall not be limited to: noise, odors from manure or chemicals, and dust or smoke. Pursuant to the Tracy Municipal Code, properly conducted and maintained agricultural operations are not considered to be a nuisance."

Timing/Implementation: At the time of approval of each building permit.
Enforcement/Monitoring: City of Tracy

MM 4.2.3(b) The following requirement shall be incorporated into the CC&Rs for the Tracy Gateway project:

"The project applicant shall provide for additional vegetation along portions of the project site adjoining active agricultural uses in order to serve as a windbreak and buffer from adjacent agricultural operations."

Timing/Implementation: At the time of approval of each building permit.
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.2.4 The Proposed Project could result in the loss of mineral resources.

Although areas with significant mineral deposits are identified in both the San Joaquin County General Plan and General Plan, the project site is outside these areas. The site is classified by the State Mines and Geology Board as MRZ-1 because there are no significant sand or gravel deposits. Site-specific soil borings showed that subsurface gravel is present in the midportion of the site near the northern and southern property boundaries. The boring near the northern property boundary found fine to coarse grained gravel and the boring near the southern boundary found fine grained gravel. However, these deposits are not extensive and are relatively deep, approximately 22 to 30 feet below the ground surface. For this reason, there is no potential for loss of a significant resource extraction site or mineral resources as a result of the Proposed Project and the impact would be **less than significant**.

Mitigation Measures

MM 4.2.4 None required.

Cumulative Impacts and Mitigation Measures

Impact 4.2.5 The Proposed Project, in combination with future development in San Joaquin County, could result in the cumulative loss of Important Farmlands.

As discussed in Impact 4.2-1, the Proposed Project would result in the development of 538 acres of prime farmland. The adjacent parcels of prime agricultural lands are anticipated to be developed by the year 2025. Development of the project in combination with other growth in the City would result in further loss of Prime Farmlands, Unique Farmlands and Farmlands of Statewide Importance. Therefore, this would be a cumulatively significant impact.

Although implementation of the following mitigation measure would reduce the magnitude of this impact, it would remain **significant and unavoidable.**

Mitigation Measure

MM 4.2.5 Implement MM 4.2.1.

4.3 TRAFFIC AND CIRCULATION

This section analyzes the traffic impacts associated with the Proposed Project. The traffic analysis is based on a review of the Tracy Urban Management Plan/General Plan, General Plan EIR, City of Tracy Roadway Master Plan and the project-specific traffic study prepared by Fehr & Peers Associates (March 2002). The traffic study is included as Appendix B of this EIR.

1. EXISTING SETTING

The project site lies in an undeveloped portion of the City's Sphere of Influence that largely exists as either open space or agriculture. Roadways in the immediate vicinity of the project site are described below and are defined in the City's Roadway Master Plan (RMP) (See Figure 4.3-1).

11th Street

The northern boundary of the project site is delineated by 11th Street. Also known as Business 205, this four lane east-west expressway/arterial runs through the center of Tracy. From the partial interchange at Interstate 205 (I 205) (only westbound on and eastbound off movements allowed), 11th Street extends to Interstate 5 (I-5) east of Tracy.

Lammers Road

Lammers Road is the east boundary of the project site and exists as a two lane rural roadway that runs north-south from Byron Road to Linne Road.

Interstate 205

Interstate 205 lies immediately north of 11th Street and adjacent to the northwest corner of the project site. I 205 is an east-west freeway originating from the west from Interstate 580 (I 580) in Alameda County and continuing east to connect with I-5 east of the City of Tracy. It has two mixed-flow lanes in each direction. According to Caltrans' *Traffic Volumes on the California Highway System* website, I 205 has an existing (year 2000) Annual Average Daily Traffic (AADT) volume of approximately 83,000 vehicles (both directions) at the Alameda-San Joaquin County line, increasing to approximately 90,000 AADT east of Mountain House Parkway and decreasing back to about 82,000 AADT at the I-5 Junction. This freeway currently operates at Level of Service (LOS) F.

The interchanges along I 205 adjacent to the City provide the most direct access to regional transportation for all but southernmost Tracy. Access to the City is provided via I 205 interchanges at Mountain House Parkway (a north-south road), 11th Street (an east-west road, with interchange access for travel only to/from the west on I 205), Grant Line Road (an east-west road), Tracy Boulevard (a north-south road), MacArthur Drive (a north-south road). Other primary access routes that help carry traffic to and from I 205 within west Tracy are: Valpico

Figure 4.3-1

Road (an east-west road), Corral Hollow (a north-south road), Schulte Road (an east-west road), and 11th Street, an east-west road.

Interstate 580

Interstate 580 originates from I-5 just north of the San Joaquin-Stanislaus County line, runs generally in an east-west direction and terminates at Highway 101 in Marin County. Near the Tracy Gateway study area through the City of Tracy, I 580 has two mixed-flow lanes in each direction with interchange access at Corral Hollow road and Mountain House Parkway. According to Caltrans' *Traffic Volumes on the California Highway System* website, I 580 has an existing (year 2000) Annual Average Daily Traffic (AADT) volume of approximately 28,500 vehicles (both directions) between Corral Hollow Road and the San Joaquin-Alameda County line. This freeway currently operates at LOS B at this location. The AADT on I 580 through the Altamont Pass is approximately 143,000 vehicles (LOS F), and ranges from 140,000 to 188,000 ADT through Livermore and Pleasanton in Alameda County with LOS approaching E and F in some sections.

Schulte Road

Schulte Road lies approximately 2,500 feet south of the project site and is an east-west roadway that varies between two and four lanes and runs east from Mountain House Parkway to Chrisman Road.

Valpico Road

Valpico Road lies approximately a mile and a half south of the project site running in an east-west direction. Lane widths vary as this road travels from San Joaquin County, through the City, and then back into the County.

Corral Hollow Road

Corral Hollow Road is a major north-south arterial that lies just over one mile east of the project site. This road is often used as a truck route to area aggregate mining operations.

Bicycle and Pedestrian Accessibility

No bicycle lanes currently exist on 11th Street or Lammers Road along the project site, although they do exist on a portion of 11th Street east of the project area, just west of Corral Hollow Road. Given the rural nature of the roads around the project site and the relative distance of the site from residential and other urban centers, these roadways are not generally recognized as pedestrian friendly facilities. The City has developed a Bikeways Master Plan, which establishes goals for accommodating bike and pedestrian mobility throughout the City. These goals will be incorporated into the site design for the Proposed Project.

Transit Service

A specific transit route does not currently serve the project site. However, Dial-A-Ride service is available for those in the project area who meet the service's criteria. In August 2001, the City of Tracy launched a new fixed route transit system that will replace the majority of the existing Dial-A-Ride service. Although the new transit routes do not currently serve the project site, a fixed transit route could be extended to serve the Proposed Project.

2. REGULATORY FRAMEWORK

San Joaquin County Congestion Management Plan

The San Joaquin County Congestion Management Plan (SJCCMP) is a County program that provides growth management techniques, level of service standards, development of mitigation programs, transportation system management, and capital improvement programming for the purpose of minimizing regional traffic impacts of development. The CMP system includes I-5, I 205 and I 580, 11th Street, and Tracy Boulevard in the Tracy Area. The San Joaquin Council of Governments (SJCOG) is studying the possibility of adopting a regional transportation impact fee to help cover the cost of needed improvements to the CMP roadway system over the next twenty to twenty-five years. Adoption of this regional fee could potentially affect the Gateway project's requirements to contribute it's fair share for mitigation of regional impacts.

San Joaquin Regional Transportation Plan

In response to regional traffic needs, the San Joaquin County Council of Governments has adopted the 2001 Regional Transportation Plan (RTP). The 2001 RTP was adopted in December 2001. The RTP is an overall "blueprint" of San Joaquin County's transportation system that will address transportation improvements through the year 2025. The overall goal of the Plan is to design a transportation system that:

- meets the travel demand needs of both citizens and businesses;
- improves the environment or minimizes negative environmental impacts; and,
- is efficient, safe and economical.

The RTP divides desired transportation improvements between Tier 1 (anticipated to be funded) and Tier 2 (no funding currently available). Proposed transportation improvements include a combination of projects (e.g., roadway system maintenance, roadway and intersection improvements, highway improvements, transit improvements, and non-transportation control measures). The 2001 RTP remains consistent with the actions proposed under the 1998 RTP for the Tracy area:

- preparation of environmental studies and design engineering work for the widening of I 205 between I-5 and 11th Street;

- preparation of major investment studies (or equivalent) for:

    - Interstate 205 corridor: City of Tracy to I-5,
    - Interstate 5 corridor: I 205 to State Route 120, and
    - Interstate 580 corridor: Mountain House Parkway to Alameda County line;

- prepare project study reports for the I-5 northbound bridge widening between I 205 and State Route 120; and

- assist in funding and coordination assistance for the Altamont Commuter Express (ACE) train.

City of Tracy Urban Management Plan/General Plan

The City of Tracy General Plan establishes goals, policies and actions addressing traffic and circulation. The Circulation goals applicable to the Proposed Project are CI 1, CI 2, CI 4, CI 5, and CI 6. These goals ensure safe, well maintained and integrated transportation systems; a street system that accommodates existing traffic and future growth; safe major traffic ways; enhanced opportunities for alternative transportation; and a balanced transportation system that encourages the use of public transit.

City of Tracy Roadway Master Plan

The 1994 City of Tracy Roadway Master Plan (RMP) was established to implement transportation policies of the General Plan. The RMP identifies roadway improvements required to support long-term City buildout under the General Plan and includes roadway improvement standards such as alignments, cross-sections, intersection and roadway design, and a roadway classification system based on anticipated volumes.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this EIR, impacts are considered to be significant if the project directly or indirectly results in one of the following:

- an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system; and

- the exceedance, either individually or cumulatively, of a level of service standard established by the San Joaquin County Congestion Management Plan, City's General Plan, or the City's Roadway Master Plan for designated roads and highways; and

- a substantial increase in hazards due to a design feature (e.g., dangerous intersection); or
- a conflict with adopted policies, plans or programs supporting alternative transportation

Methodology

Level of Service

The analysis focuses upon a 2025 cumulative scenario, with and without buildout of the Proposed Project. The P.M. peak hour is considered the most critical time of day for capacity and impact evaluations since traffic volumes are generally higher during the P.M. peak hour than during the A.M. peak hour and because maximum peak hour trip generation for the Proposed Project would occur during the P.M. peak hour. Therefore, emphasis for impact evaluation is placed on the P.M. peak hour traffic volumes generated by the Proposed Project and their impact on the City's roadway network and the regional freeway system.

In order to measure and describe the operation of a local roadway network, traffic engineers and planners commonly use a grading system called Level of Service (LOS) (see Table 4.3-1). The LOS grading system qualitatively characterizes traffic conditions associated with varying levels of traffic. These levels range from LOS A, which indicates free-flow traffic conditions with little or no delay experienced by motorists, to LOS F, which describes congested conditions where traffic flows exceed design capacity, resulting in long queues and delays. This LOS grading system applies to both signalized and unsignalized intersections as well as roadway segments. LOS A, B, and C are generally considered to be satisfactory service levels, while the influence of congestion becomes more noticeable at LOS D. LOS E is undesirable and LOS F conditions are considered to be unacceptable to most drivers. Table 4.3-1 summarizes the relationship between the volume to capacity ratio (V/C), average delay and LOS for signalized intersections.

For local signalized intersections, future traffic conditions are evaluated using the Transportation Research Board Circular 212 planning methodology. The 2000 Highway Capacity Manual (HCM) operations methodology was used for the determination of the future LOS at freeway interchanges. Both of these techniques have been modified to measure service levels over the average of peak hours rather than peak 15 minute intervals, which is consistent with the City of Tracy's adopted LOS policy.

The level of service standard for the City of Tracy for both roadway segments and intersections is LOS C, except for intersections located within ¼ mile of a freeway, where the standard is LOS D. On I 205, the SJCCMP specifies LOS E as the acceptable level of service. On I 580, the CMP standard is LOS D. For purposes of this study, a project impact is considered significant if the Proposed Project reduces the level of service at an intersection below the City of Tracy standards. The project impact is also considered significant if it exacerbates already unacceptable LOS conditions on I 205 or I 580 (i.e., LOS D or LOS E).

TABLE 4.3-1

INTERSECTION LEVEL OF SERVICE DEFINITIONS
SIGNALIZED INTERSECTIONS

Level of Service	Description of Traffic Conditions	Volume to Capacity (V/C) Ratio	Average Control Delay per Vehicle (sec.)
A	No approach phase is fully utilized and no vehicle waits longer than one red indication.	≤ 0.60	≤ 10.0
B	An occasional approach phase is fully utilized. Drivers begin to feel restricted.	0.61 to 0.70	≤ 20.0
C	Major approach phase may become fully utilized. Most drivers feel somewhat restricted.	0.71 to 0.80	≤ 35.0
D	Drivers may wait through more than one red indication. Queues may develop but dissipate rapidly, without excessive delays.	0.81 to 0.90	≤ 55.0
E	Volumes approaching capacity. Vehicles may wait through several signal cycles and long vehicle queues form upstream.	0.91 to 1.00	≤ 80.0
F	Represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	> 1.00	> 80.0

Source: Fehr & Peers, March 2002

For purposes of identifying possible impact locations, the traffic study analyzed LOS operations if the Proposed Project would contribute more than 3 percent of the total future traffic on a roadway segment or intersection within the City of Tracy.

Traffic Forecasts

Traffic forecasts were prepared using the Tracy Citywide Traffic Model. The model reflects the most recent information on future projects and planned roadway improvements. In addition to the Tracy Gateway project, the cumulative traffic forecasts include 20 to 25 years' growth for all other forecasted projects in Tracy and nearby county areas. Trip generation rates used in the Tracy Citywide traffic model, have been calibrated and validated for Tracy peak hour traffic conditions. (See Table 4.3-2) Assumptions on mode shares and vehicle occupancy rates that have been calibrated to replicate existing conditions are built into the citywide traffic model trip rates.

The City of Tracy began fixed route bus service in the City in August 2001. The need for service extension to the project site in the future would be evaluated in the demand analysis need assessment which is analyzed annually by the City. The Gateway project also proposes an internal shuttle system that would serve tenants and visitors to the site. Both services may affect mode choice and consequently vehicle trip generation. However, since the degree to which vehicle trips would be reduced due to these expected changes in transit service is unknown, the traffic analysis took a conservative approach to project impact estimates by assuming no change to the current mode share and transit usage.

TABLE 4.3-2

TRACY GATEWAY
PROJECT TRIP GENERATION DURING A.M. AND P.M. PEAK HOURS

Land Use Description	Approx. Size	Unit	PM Peak Hour Trip Rate	PM Peak Hour Trips	AM Peak Hour Trip Rate	AM Peak Hour Trips	ADT Trip Rate	Project ADT
Office Research and Development	5,844.01	KSF	1.01	5,902	1.06	6,198	11.72	68,492
Lammers Road Office	339.45	KSF	1.17	397	1.22	416	10.11	3,432
Commercial	220.00	KSF	3.67	807	1.01	222	47.76	10,507
Hotel	217.88	KSF	0.98	214	0.90	196	12.60	2,745
Golf Course	82.70	KSF	0.29	24	0.23	19	8.33	689
Total				**7,345**		**7,051**		**85,865**

Notes:

1. Total trips for Office land use category were determined using a logarithmic equation. Average trip rate was then determined by dividing total number of trips by the size of office space.

2. The ratio of ITE trip generation rates for Business Park to Office was multiplied by the Office trip generation rate calculated from the City of Tracy Model to obtain a Business Park trip generation rate consistent with the trip generation rates calibrated in the model.

Source: Fehr & Peers Associates, March 2002

Outside of the Urban Management Plan, the development assumptions used in preparing the traffic forecasts are consistent with the 2020 scenario of the San Joaquin County Council of Governments traffic model.

Assumption for 2025 Traffic Conditions Without the Project

The cumulative scenario used as a baseline for the Tracy Gateway project is based on the forecast 2025 development in Tracy, on regional forecasts and regulatory controls such as voter-approved Measure A and the City's General Plan. In addition to existing development, this includes the following:

Specific Plans and PUDs:	Level of Buildout Potential at 2025:
• Residential Specific Plan (RSP)	100%
• Industrial Specific Plan (ISP)	100%
• I 205 Specific Plan (I 205 SP)	100%
• Infill	100%
• Plan C	100%
• Northeast Industrial (NEI)	100%
• South McArthur	100%
Elissagaray	100%
Lourence Ranch	100%
• Presidio	100%

- Tracy Hills Specific Plan 100%
- South Schulte Specific Plan 25% (Residential Only)
- Castro 25%
- Kagehiro 25%
- Saddlebrook 25%
- Moitoso II 25%
- Souchek 25%

These forecasts are considered to be an adopted "summary of projections" for purposes of determining cumulative impacts, as defined in Section 15130(b)(1)(B) of the CEQA Guidelines. The future year 2025 population and employment estimates for the Tracy Urban Management Plan Area are 101,000 and 46,500, respectively. Table 4.3-3 summarizes the development assumptions.

TABLE 4.3-3

BACKGROUND CUMULATIVE DEVELOPMENT ASSUMPTIONS FOR TRACY GATEWAY TRAFFIC ANALYSIS WITHOUT PROJECT

Project	Remaining to be Built (1990)			Total Population	Total Employment
	Residential (DU)	Commercial (Acre)	Industrial (Acre)		
Baseline:					
Pre-1989 Development	-	-	-	35,700	12,300
Residential Specific Plan	-	-	-	16,900	800
Industrial Specific Plan	375	37	310	1,100	4,800
I 205 SP	1,038	186	131	3,000	4,800
Plan C	5,553	11	-	16,100	200
Northeast Industrial Phase I	-	-	274	-	2,200
Baseline Infill	781	97	150	2,300	3,100
Sub-Total Baseline	**7,747**	**331**	**865**	**75,100**	**28,200**
Cumulative (to 2025):					
Castro	192	-	-	600	-
Infill	117	15	22	300	500
Kagehiro	213	-	-	600	-
Moitoso II	162	-	-	500	-
Northeast Industrial	-	26	486	-	10,600
Presidio	550	-	-	1,600	-
Saddlebrook	128	-	-	400	-
Souchek	51	-	-	100	-
South Macarthur	599	-	-	1,700	-
South Schulte	1,457	-	-	4,200	-
Tracy Hills	5,499	208	384	15,900	7,200
Sub-Total Cumulative	**8,968**	**249**	**892**	**25,900**	**18,300**
Grand Total	**16,715**	**580**	**1,757**	**101,000**	**46,500**

Notes:

Residential development assumes 100% buildout of RSP, ISP, I 205 SP, Plan C, Infill, Presidio, South Macarthur, and Tracy Hills plus 25% buildout of Castro, Kagehiro, Moitoso II, Saddlebrook, Souchek and South Schulte.

Non-residential development assumes 100% buildout of RSP, ISP, I 205 SP, Plan C, NEI, Infill, and Tracy Hills.

Source: Fehr & Peers Associates, March 2002.

There are five proposed developments in the City that are not anticipated to be constructed by 2025. These projects are the Bright Business Park, Catellus Business Park, Filios, Larch-Clover, and the Tracy Learning Center.

In the Patterson Community Area, a total of about 470 acres of mostly industrial development was assumed. This included all projects having submitted an application in the Patterson Pass Business Park (including the 1994 Special Purpose Plan), the Karle General Plan Amendment Area, and 84 acres of industrial development along Schulte Road, east of Hansen Road.[1] This accounts for about 16-percent of the buildout employment potential for the whole Patterson Community Area.

Beyond the development levels assumed for the Tracy Planning Area, the 2025 cumulative analysis assumes partial buildout of the Mountain House community located in San Joaquin County to the north and west of Tracy. Market-constrained 20-year forecasts by the San Joaquin Council of Governments have projected approximately 13,000 residential units (population of 37,900) and 7,800 jobs in the Mountain House community.

Assumptions for 2025 Roadway Network

The assumed 2025 roadway improvements in Tracy include all facilities currently included in the Capital Improvements Programs for the RSP, ISP, I 205 SP and Plan C. Also in the 2025 network are improvements identified as necessary to support Tracy's baseline development, including infill and Phase 1 of NEI.[2]

Beyond what is needed for Baseline development, the 2025 base network includes some major components of Tracy's Roadway Master Plan (RMP)[3] system. These improvements include:

- construction of a new Lammers Road extending from I 205 to I 580 (its completion includes the construction of a grade-separated railroad crossing at UPRR, one new structure over the Delta-Mendota Canal and one over the California Aqueduct);
- construction of new freeway interchanges at I 205 and I 580 with Lammers Road,
- widening of Corral Hollow Road to four lanes between Linne Road and the new Lammers Parkway in the Tracy Hills Plan Area.
- construction of the Chrisman Road/I 205 interchange,

1 The detailed land use assumptions for the UMP Patterson Community Area were obtained from the Special Purpose Plan for a portion of the Patterson Pass Business Park, published on May 10, 1994.

2 The City of Tracy Roadway Master Plan (1994) and Amendments No. 1 and No. 2 of the Tracy Roadway Master Plan (1998,1999) define a short-range level of development and associated roadway improvements referred to as "Baseline." Refer to these documents for more specific definition of Baseline improvements.

3 The City of Tracy Roadway Master Plan (RMP) identifies roadway improvements required at the citywide level to support the long-range buildout of the city. The alignments and cross-sections of the new roadways can be found in the RMP.

- construction of four-lane Schulte Road between Crossroads Drive and Lammers Road;

- construction of Street B from Naglee Road to Byron Road as a four-lane arterial. This new arterial will connect directly with the western segment of Grant Line Road to improve access between Tracy and Mountain House;

- widening of Grant Line Road to six lanes between Tracy Boulevard and Corral Hollow; and

- upgrading of City-portions of Linne Road, Chrisman Road and 11th Street east of MacArthur to Expressway status.

Outside the City of Tracy, improvements to the I 205 and I 580 ramps with Mountain House Parkway and widening of Mountain House Parkway to serve the Mountain House development are assumed to be in place. This includes partial cloverleaf interchanges at both I 205 and I 580 with Mountain House Parkway with traffic signals at the end of the diagonal ramps. All of the above improvements were required to support the 2025 cumulative development as assumed in this analysis without the addition of project traffic. Figure 4.3-1 highlights planned roadway improvements required beyond the baseline network for 2025 Cumulative No Project conditions.

Results of Traffic Study

Table 4.3-2 shows anticipated project trip generation for the Proposed Project. Buildout of the Proposed Project would generate a total of 7,345 trips during the P.M. peak hour and 7,051 trips during the A.M. peak hour.

The results of traffic modeling presented in Figure 4.3-2 indicate that only one roadway in the City of Tracy would fall below LOS C with buildout of the Proposed Project. By implementing the recommended mitigation outlined for that particular segment, the net increase in traffic would not cause the LOS at that segment to drop below LOS C.

Also included in the proposed roadway improvement plan are the seven locations from which the project site will be entered and exited. There would be three major points along 11th Street and two from Lammers Road, A sixth minor entrance on 11th Street at the commercial parcel near the intersection of 11th and Lammers could also be constructed. The seventh entrance is a future entrance that would enter the site from Schulte Road south of the project.

The primary traffic impact of developing the access points into the project are not the entryways themselves but the traffic loading on the existing streets that would result from development of the project. This issue is presented later in this section as part of the discussion of Impact 4.3.5, which addresses project access.

Figure 4.3-2

2025 Traffic Conditions Plus Project at Buildout

P.M. peak hour traffic volume forecasts were developed using the 2025 cumulative development assumptions detailed in Section III-A of the Fehr & Peers traffic study (Appendix B) with the Proposed Project added to the traffic model. Roadway and intersection levels of service during the P.M. peak hour were used to determine what changes to the roadway network beyond what was required for the Cumulative No Project scenario would be necessary. Roadway LOS was used throughout the entire Tracy Planning Area, while intersection analysis, which is more precise, was used for 15 local intersections, 4 project intersections, and 7 freeway interchange intersections where the Proposed Project contributes 3 percent or more of the total intersection volume. Figure 4.3-3 shows the difference in LOS on local roadway and freeway segments between Cumulative Plus Project conditions and Cumulative No Project conditions.

The results of the analysis found three road segments that required improvements. The first is the need to widen 11th Street to 6 lanes from I 205 to Lincoln Blvd. The second improvement would be the need to construct a southbound left-turn lane at the Lammers Road/Valpico intersection. Lastly, the Lammers Road/11th Street intersection would need to be improved in order to maintain acceptable traffic operating levels of service. There are currently several options for making the improvements at Lammers Road and 11th Street. One option would be to construct a grade-separated interchange at the intersection. A second option would be to enlarge the arterial system to provide alternate routes and reduce traffic flows through this intersection. Figure 4.3-2 shows the necessary improvements to the arterial system. The selection of a final design alternative would be made by the City prior to approval of first tentative map. However, for the purpose of this analysis, the EIR assumed the grade-separated alternative would create the greatest environmental impact because it would disturb the largest amount of right-of-way. Therefore, all traffic, as well as other environmental topical areas, assumed the widest right-of-way disturbance at this site.

Project Impacts and Mitigation Measures

Impact 4.3.1 Project-generated development could potentially affect I 205 and I 580 through an increase in the number of P.M. peak hour trips leaving the project site.

In comparison to the No Project scenario, the Proposed Project would both reduce and add trips to the freeway network. (See Figure 4.3-4) By providing additional jobs in San Joaquin County for local residents, the Proposed Project would reduce the homeward bound commute from the Bay Area and P.M. peak hour traffic demand through the Altamont Pass would decline by five percent. However, eastbound I 580 would still operate with LOS F conditions, because the freeway would remain over capacity in this segment.

The project would also add additional traffic demand to eastbound I 205 on the segment from the Lammers Road interchange to the Chrisman Road interchange, thereby exacerbating LOS F conditions. Although the traffic demand would be reduced past the Chrisman interchange, the LOS would remain at LOS F on this segment also.

Figure 4.3-3

Figure 4.3-4

The Proposed Project would reduce the eastbound traffic demand on I 580 between I 205 and Lammers Road by about three percent. The Proposed Project would add seven percent more traffic to eastbound I 580 east of Corral Hollow Road. Westbound I 580 would not be significantly affected by the Proposed Project. Neither direction would have a capacity problem and both directions would operate at an LOS within SJCCMP standards.

The Proposed Project would also add 11 percent more northbound trips onto the Mossdale Y on I-5, which would continue to exacerbate the LOS F conditions expected for this eight-lane freeway. Total unconstrained demand on that segment would increase to 12,545 vehicles per hour.

Westbound traffic conditions along I 205 and I 580 west of I 205 would operate at LOS D with or without the Proposed Project.

One freeway interchange intersection, Lammers/I205 eastbound ramp, is expected to operate at LOS D[4] in the P.M. peak hour without the Proposed Project and deteriorate to LOS F with the addition of project traffic. The main cause for this significant impact is increased traffic traveling north on Lammers to enter eastbound I 205. The freeway downstream of this entrance is expected to be at capacity by this time. Therefore, any capacity improvements to the interchange ramp intersection to increase the flow of cars onto the freeway would not result in an operational improvement to the onramp intersection because the capacity of this interchange is constrained by the freeway congestion.

During the A.M. peak hour, with travel patterns the reverse of the P.M. peak hour, the Proposed Project would reduce west bound I 580 traffic demand across he Altamont Pass. However, the project would also significantly increase traffic east of Lammers Road, exacerbating LOS F conditions. This would be a significant impact. At the I 205/lammers Road interchange, the Proposed Project would add more than 3 percent to the total westbound off ramp volume, contributing to a significant impact at the interchange.

The above analysis reveals that some segments of I 205 and I 580 would operate at an unacceptable LOS even without the project. Thus, project-generated traffic at the time of buildout (2010) and in horizon year 2025, would exacerbate already unacceptable LOS thresholds resulting in a significant impact. Further, the freeway interchange at 11th Street/I 205 is projected to operate at an unacceptable LOS in 2025 even without the project. Implementation of the following mitigation measures could reduce traffic congestion within the project area and would directly or indirectly minimize impacts to I 205 and I 580. However, these freeway related impacts would remain **significant and unavoidable.**

Mitigation Measure

MM 4.3.1 The following traffic improvements, as detailed in the traffic technical report prepared by Fehr & Peers, March 2002, shall be included in the project's FIP.

4 This intersection may experience LOS E for 15 minutes of the P.M. peak hour without the Proposed Project.

- The following roadway improvements have been identified as mitigation measures:

    - New Lammers Road extending from I 205 to I 580; to include the construction of a grade-separated railroad crossing (at Union Pacific Railroad), a new structure over the Delta-Mendota Canal and one over the California Aqueduct.

    - New freeway interchanges at I 205 and I 580 with Lammers Road.

    - Widening Corral Hollow Road to four lanes between Linne Road and Lammers Parkway

    - Construction of the Chrisman/I 205 interchange.

    - Constructing four-lane Schulte Road between Crossroads Drive and Lammers Road

    - Constructing Street B from Naglee Road to Bryon Road as a four-lane arterial that would connect directly with the western segment of Grant Line Road to improve access between Tracy and Mountain House.

    - Widen Grant Line Road to six lanes between Tracy Boulevard and Corral Hollow.

    - Upgrade the City-owned portions of Linne Road, Chrisman Road and 11th Street east of MacArthur to expressway status.

Timing/Implementation: Roadway improvements as outlined in the Fehr & Peers traffic technical report shall be installed in phases to meet the traffic demand generated by the project and other proposed projects. The cost of traffic improvements will be determined in the FIP, which will be approved prior to any application being deemed complete. A monitoring program will be included as part of the FIP, which will track improvements put in place as development occurs.

Enforcement/Monitoring*:* *City of Tracy.*

Project Impact

Impact 4.3.2 Project-generated development under the 2025 cumulative scenario would increase the number of P.M. peak hour trips leaving the project site, which could potentially affect local expressways and arterials.

The Proposed Project would add more trips to Lammers Road and 11th Street leaving the Tracy Gateway area. Project traffic would increase total traffic on Lammers Road and 11th Street leaving the project area by 50 to 90 percent, while traffic on these two roads traveling toward the project is expected to increase by 10 to 20 percent during the P.M. peak hour. Modeling results indicate that with planned improvements the traffic on Lammers Road would flow at LOS C or better except at the intersection with 11th Street (see Impact 4.3.4). Therefore, with the exception of the 11th Street intersection, project impacts would be less than significant both at buildout and under 2025 conditions.

Modeling future conditions further suggests that the Proposed Project would cause 11th Street to operate below LOS C under project buildout and cumulative conditions. This would be a significant impact. Widening 11th Street, from I 205 to Lincoln, to six lanes, would mitigate this impact to LOS C or better. All other roadways would operate at LOS C or better with the project.

Traffic demand on other major east-west roadways, including Schulte Road and Valpico Road, are expected to increase by 20 to 60 percent. Traffic volumes on Schulte Road west of Lammers Road are expected to decrease by approximately 15 percent with the project. These roadways would operate at LOS C or better at buildout and in 2025. Thus impacts on these roads would be less than significant.

Further away from the project site, traffic volumes are not expected to have as significant changes. Traffic on Linne Road is expected to increase by only 3 percent away from the project, and actually decrease slightly toward the project resulting in a less than significant impact.

Implementation of the following mitigation measure would reduce impacts associated with 11th Street to **less than significant** levels.

Mitigation Measure

MM 4.3.2 The following roadway improvements shall be included in the project's Finance and Implementation Plan (FIP).

- Widen 11th Street from four to six lanes
- Either grade separate the intersection of Lammers/11th Street or construct additional arterial capacity west of Lammers Road
- Construct a second southbound left-turn lane from Lammers onto Valipico

- Provide right-of-way to allow for dual left-turn lanes into the proposed project at the signalized intersection into the project from both 11th Street and Lammers Road.

Timing/Implementation: Roadway improvements as outlined in the Fehr & Peers traffic technical report shall be installed in phases to meet the traffic demand generated by the project. The cost of traffic improvements will be determined in the FIP, which will be approved prior to any development application being deemed complete. A monitoring program would be included as part of the FIP, which would track improvements put in place as development occurs.

The need for a grade-separated intersection can be deferred through construction of an additional arterial system west of Lammers Road, which would consist of the following: a new four-lane arterial opposite the intersection with 11th Street of the main arterial for the Proposed Project extending north and east to intersect with Lammers Road between I 205 and 11th Street; a new four-lane arterial from the Schulte Road/Lammers Road intersection westward to Mountain House Parkway; and a new four-lane arterial extension of the main Project north/south arterial to intersect with the new four-lane extension of Schulte Road. (See Figure 6 of the "Transportation/Circulation Analysis for Tracy Gateway Business Park", located in Appendix B)

Enforcement/Monitoring: City of Tracy.

Project Impact

Impact 4.3.3 Project-generated development would increase the number of P.M. peak hour trips leaving the project site, which could potentially affect rural roads in the project area.

Corral Hollow Road (County Road J2) located southwest of the study area leads to Tesla Road in Alameda County and is the only rural road that would be impacted by the Proposed Project. The Proposed Project would add five vehicle trips to the westbound direction and reduce the eastbound trips by 21 vehicle trips. These changes would not affect the capacity of this rural road under opening year conditions. Under 2025 conditions the vehicle trips would not increase

substantially enough to effect road capacity. Therefore, this impact would remain **less than significant**.

Mitigation Measure

MM 4.3.3 None required.

Project Impact

Impact 4.3.4 Project-generated development would increase the number of P.M. peak hour trips leaving the project site, which could potentially affect key intersections in the project area.

Three local intersections within the City of Tracy are expected to deteriorate to unacceptable levels of service, based on City standards. The intersection of 11th Street/Lammers Road would operate at LOS F with the project, if left unmitigated. Grade-separating this intersection would improve operations to LOS A. The project is also expected to cause the intersection of Corral Hollow/11th Street to operate at LOS D. I 205Implementation of mitigation measure 4.3-2 would improve the LOS at Corral Hollow/11th Street to acceptable LOS C and would improve the LOS at the intersection of Lammers Road/Valpico from the unmitigated LOS D to acceptable LOS B.

One freeway interchange intersection, Lammers/I205 eastbound ramp, is expected to operate at LOS D[5] without the Proposed Project and deteriorate to LOS F with the addition of project traffic. Because the Proposed Project would exacerbate an existing condition and contribute to the degradation of LOS, this would be a significant impact. The main cause for this significant impact is increased traffic traveling north on Lammers to enter eastbound I 205. The freeway downstream of this entrance is expected to be at capacity by this time. Therefore, any capacity improvements to the interchange ramp intersection to increase the flow of cars onto the freeway would not result in an operational improvement to the onramp intersection because the capacity of this interchange is constrained by the freeway congestion.

Implementation of the following mitigation measure for local intersections would reduce this impact to **less-than-significant** levels.

Mitigation Measure

MM 4.3.4 Implement Mitigation Measure 4.3.2.

Project Impact

Impact 4.3.5 Project-generated development could decrease the trips through the Altamont Pass.

5 This intersection may experience LOS E for 15 minutes of the P.M. peak hour without the Proposed Project.

By providing local job opportunities for Tracy residents, the proposed Tracy Gateway project provides a better jobs-housing balance overall for the City of Tracy. The Proposed Project provides a job center for residents of the San Joaquin Valley who might otherwise commute over the Altamont Pass into the Tri-valley area. Thus, by capturing commuters from within the City of Tracy, and from points further east, this project may reduce the number of commuters over the Altamont Pass and provide a **beneficial impact** on traffic volumes on I 580.

Mitigation Measure

MM 4.3.5 None required.

Project Impact

Impact 4.3.6 Existing entryways for access to the project site along 11th Street and along Lammers Road could create unacceptable traffic congestion on these roadways.

The project proposes seven access and exit points including four entrances on 11th Street, two on Lammers Road and one southern connection to Schulte Road. The precise locations of these access and exit points will be determined in consultation with Caltrans and signalized accordingly. With implementation of the Proposed Project the LOS of the intersection that would provide access to the site would operate at an unacceptable LOS, resulting in a significant impact.

It is anticipated that the intersections would operate at LOS C with implementation of the following mitigation measure; therefore, the impacts would be **less than significant**.

Mitigation Measure

MM 4.3.6 The following access improvements shall be made as part of the project:

- The center access road on 11th Street and the Lammers Access road should be signalized, with all turning movements allowed.
- As development of the Proposed Project progresses, traffic control for the remaining access roads on 11th Street will be established on conformance with City standards and in coordination with other agencies.
- At both of the project's signalized access roads, dual left-turn lanes should be provided to accommodate the expected traffic entering the project during the morning peak flow.
- At the signalized project arterial and 11th Street, three outbound lanes should be provided at the intersections, including two dedicated left-turn lanes, and one dedicated right-turn lane.

- At the signalized arterial, and Lammers Road, three outbound lanes should be provided. One dedicated left-turn lane and one dedicated right-turn lane should be provided in addition to one shared lane.

Timing/Implementation: At the time the access roads for the Proposed Project are constructed.
Enforcement/Monitoring: City of Tracy.

Project Impact

Impact 4.3.7 Project-generated development could affect bicycle and pedestrian mobility in and around the project site.

The project's connectivity to external bicycle circulation routes within the City of Tracy was analyzed to determine appropriate improvements to the project. No bicycle lanes currently exist on 11th Street or Lammers Road at the project site, although they do exist on 11th Street, east of the project. Without the creation of new bicycle lanes, the Proposed Project would significantly and adversely affect bicycle and pedestrian mobility. The City of Tracy 2001 Bikeways Master Plan Update proposes to extend the existing Class I bicycle lane on 11th Street, which ends between Corral Hollow Road and Lammers Road to the 11th Street/Lammers Road intersection. This would bring bicycle lanes to the corner of the project site. It is recommended that the project provide Class I bicycle lanes on both 11th Street and Lammers Road along both sides of the portions of these roads that abut the project. This would fully connect the project to the City of Tracy's bikeway system.

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

Mitigation Measure

MM 4.3.7 Class I bicycle lanes shall be constructed along the portions of 11th Street and Lammers Road that front the project site, as detailed in the traffic technical report prepared by Fehr & Peers (Appendix B).

Timing/Implementation: Prior to issuance of occupancy permit for first building.
Enforcement/Monitoring: City of Tracy.

Project Impact

Impact 4.3.8 If mitigation measures 4.3.1, 4.3.2, 4.3.6 are implemented, other environmental resource areas could be adversely impacted.

As stated above, in Impact 4.3.2, to mitigate adverse impacts to Lammers Road/11th Street one of two options could be implemented. The first would be the construction of a grade separated

interchange and the second would involve the extension of the arterial system to provide alternate routes. Either mitigation measure would require the expansion of an existing road and could adversely impact natural resources that occur within the right-of-way areas. Similarly, implementation of mitigation measures 4.3.1 and 4.3.6 could impact environmental resources in the area. Depending upon where and when the road improvements occur, the potential impacts to these resources may be significant.

Road improvements require excavation and ground-disturbing activities that could result in the loss of habitat for listed species, directly impact listed species, result in the loss of prime agricultural land, disturb unknown cultural resources, contribute to the degradation of water quality, alter views, alter hydrology, increase the ambient noise levels, disturb previously unidentified hazardous materials, or result in increase in criteria air pollutants.

Once a mitigation measure is selected and design drawings are completed for the roadway improvement, the California Department of Transportation (Caltrans), the City of Tracy, or the County of San Joaquin, could be the agency responsible for ensuring compliance with environmental regulation and for identifying and implementing the appropriate mitigation measures as required. Prior to any earth moving activities associated with road improvements, the appropriate agency must complete an environmental review to ensure that impacts to environmental resources are fully disclosed and minimized to the degree possible.

Possible mitigation measures that would be included in the environmental review process for the roadway improvements would vary. To mitigate potential impacts to biological resources, the agency may try to avoid the resource, or incorporate a buffer within the construction area to avoid adversely impacting resources such as trees, plants and shrubs. To minimize impacts to cultural resources if they exist, a qualified archeologist may be contacted. To reduce impacts to water quality and hydrology, the agency would most likely implement best management practices (BMPs) that includes the placement of straw bales or a similar product around drainage areas. The agency may minimize impacts to air quality by watering the exposed soils several times a day to reduce the amount of PM_{10} being released into the air. Although these mitigation measures, and more, may be incorporated into the construction of the road improvements, it can not be determined that they will reduce the environmental impacts associated with the road improvements to a less than significant level. In addition, mitigation measures developed by Caltrans and the County would not be within the jurisdiction of the City to implement; and therefore, implementation of mitigation measures 4.3.1, and 4.3.6, which require improvements to, or construction of, roads could result in a **potentially significant and unavoidable impact** to natural resources.

Mitigation Measures

MM 4.3.8 None available at this time.

Project Impact

Impact 4.3.9 Construction activities associated with the off-site potable and non-potable water infrastructure and roadway improvements could result in temporary disruption of vehicle travel on affected roadways.

During construction, it would be necessary to restrict travel on certain roadway segments to facilitate construction activities such as trenching, grading, pipeline installation, repaving, and restriping. These restrictions may include roadway and/or lane closures, lane narrowings, and detours and may be momentary or may continue for extended periods of times.

Roadway modifications at 11th Street/Lammers Road, Schulte Road, and Valpico Road and pipeline installations along the alignments shown in Figures 3-4 and 3-6 could result in the temporary disruption of vehicle travel on these roadways. In addition, pipelines would also be installed at some railroad crossings, as shown in Figure 3-6, resulting in a potential disruption to rail and vehicle travel. This would be a significant impact.

With implementation of the following mitigation measure, this impact would be **less than significant**.

Mitigation Measure

MM 4.3.9

- Prior to project construction affecting any roadway segment, the applicant and the City of Tracy shall ensure preparation of a Construction Traffic Control Plan. This plan shall be prepared in accordance with standards of agencies in the jurisdiction to ensure safe and efficient roadway operations and shall include, but would not be limited to, detailed requirements for the following:

    - Traffic control devices, including signs and markings
    - Detours, including consideration of concurrent construction activities;
    - Construction phasing
    - Access to adjacent properties; and
    - Emergency vehicle access.

- The Construction Traffic Control Plan shall consider the impacts of changes in traffic volumes and capacities related to the construction activities, and their impact on traffic operations. Where appropriate, construction activities may be limited to specific time periods to avoid undue traffic congestion.

- The Construction Traffic Control Plan shall also address the following items:
    - Active rail line crossings;
    - Construction "haul" routes for earthen materials;
    - Construction routes for other materials; and

- Impacts, if any, on roadway pavements, including provisions to restore construction-damaged pavements.

Timing/Implementation: Prior to construction of off-site potable and non-potable water system and roadway improvements

Enforcement/Monitoring: City of Tracy and appropriate agencies within the jurisdiction

Cumulative Impacts and Mitigation Measures

Impact 4.3.10 Under cumulative conditions, the Proposed Project could contribute to traffic impacts on local streets that could exceed City LOS standards.

Traffic modeling for local roadways revealed that under cumulative, or horizon year 2025 conditions, the Proposed Project would add a considerable amount of new traffic on local streets. When project-generated traffic is combined with the traffic generated by other projects also maturing in the study area, LOS reductions at key intersections appear imminent. To offset this impact, additional roadway improvements would be required to support cumulative development beyond what has been funded through existing development fees. These improvements include the following:

- Construct new Lammers Road extending from I 205 to I 580 as a 6-lane expressway; (its completion includes the construction of a grade-separated railroad crossing at UPRR, two new structures over the Delta-Mendota Canal and the California Aqueduct);
- Construct new freeway interchanges at I 205 and I 580 with Lammers Road;
- Widen Corral Hollow Road to four lanes between Linne Road and the new Lammers Parkway in the Tracy Hills Plan Area;
- Construct the Chrisman Road/I 205 interchange;
- Construct four-lane Schulte Road between Crossroads Drive and Lammers Road;
- Construct Street B, "Pavilion Parkway", from Naglee Road to Byron Road as a four-lane arterial. This new arterial will connect directly with the western segment of Grant Line Road to improve access between Tracy and Mountain House;
- Widen Grant Line Road to six lanes between Tracy Boulevard and Corral Hollow; and
- Upgrade City-portions of Linne Road, Chrisman Road and 11th Street east of MacArthur to Expressway status.
- Widening of 11th Street from four to six lanes from the project site to Lincoln Blvd.;

- Construct a Grade-separation at the intersection of Lammers Road/11th Street or alternative measure of comparable mitigation ability;

- Construct a second southbound left-turn lane from Lammers Road onto Valpico; and

- Provide right-of-way to allow for dual left-turn lanes into the Proposed Project at the signalized intersections into the project from both 11th Street and Lammers Road.

Because the Proposed Project would contribute to the cumulative degradation in LOS on roadways, this would be a significant impact. A separate Finance and Implementation Plan study will be conducted by the City to determine project contribution requirements for this and the other projects in the study that would collectively contribute to the need for the above-mentioned improvements.

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

Mitigation Measure

MM 4.3.10 Implement MM 4.3.1 and 4.3.2

Cumulative Impact

Impact 4.3.11 Under cumulative conditions, the Proposed Project could contribute to traffic impacts on freeways that could exceed LOS standards.

During A.M. peak hour, with the westbound freeway mainline operating at capacity, the westbound onramp traffic from 11th Street may experience unacceptable delays. This condition would occur as a result of cumulative growth with or without the Proposed Project. However, the project's incremental contribution to this existing condition would be considerable and is considered a significant impact. Implementation of the following mitigation measure would reduce the magnitude of this impact, however, it would remain **significant and unavoidable**.

Mitigation Measure

MM 4.3.11 Implement MM 4.3.1

4.4 NOISE

This section addresses the effects of noise that would be generated by the Proposed Project in the project vicinity. The section provides a description of general noise principles. The discussion of noise sources, sensitive receptors, and noise levels associated with the project and adjacent land uses are also provided. A description of the regulatory framework for environmental noise is included as is an evaluation of the project-related noise impacts from construction and operation.

1. EXISTING SETTING

Fundamentals of Noise

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale – dBA - provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady "background" noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway. Table 4.4-1 lists noise levels for common events in the environment and industry.

TABLE 4.4-1

TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

Noise Source (Distance)	Average Sound Level in dBA	Subjective Impression
Civil Defense Siren (100')	130	Pain Threshold
Jet Takeoff (200')	120	
Rock Music Concert (50')	110	
Pile Driver (50')	100	Very Loud
Ambulance Siren (100')	90	
Pneumatic Drill (50')	80	
Freeway (100')	70	Moderately Loud
Vacuum Cleaner (10')	60	
Light Traffic (100')	50	
Large Transformer (200')	40	Quiet
Soft Whisper (5')	30-0	Threshold of Hearing

Source: Arnold Peterson and Ervin Gross, 1963

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- L_{eq}, the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

- L_{dn}, the Day-Night Average Noise Level, is a 24-hour average L_{eq} with a 10 dBA "penalty" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity during the nighttime.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, night, or over a 24-hour period. Environmental noise levels are generally considered low when the L_{dn} is below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. Noise levels greater than 85 dBA can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated natural settings can provide noise levels as low as 20 dBA, and quiet suburban residential streets can provide noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate level noise environments are urban residential or semi-commercial areas - typically 55-60 dBA - and commercial locations - typically 60 dBA. People may consider louder environments adverse, but most will accept the higher levels associated with more noisy urban residential or residential-commercial areas -60-75 dBA - or dense urban or industrial areas - 65-80 dBA. Generally, a difference of 3 dBA over 24-hours is a barely-perceptible increase to most people. A 5 dBA increase is readily noticeable, while a difference of 10 dBA would be perceived as a doubling of loudness.

Noise levels from a particular source generally decline as distance to the receptor increases. Other factors such as the weather and reflecting or shielding also help intensify or reduce the noise level at any given location. A commonly used rule of thumb for roadway noise is that for every doubling of distance from the source, the noise level is reduced by about 3 dBA. Noise from stationary or point sources is reduced by about 6 dBA for every doubling of distance. Noise levels may also be reduced by intervening structures, such as a single row of buildings between the receptor and the noise source, which reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 dBA with closed windows. The exterior-to-interior reduction of newer homes is generally 30 dBA or more.

Existing Noise Conditions

Noise Sources

The Noise Element of the Tracy General Plan reports that motor vehicles are the primary source of noise in the City. Several of the highways and roadways within the City carry appreciable volumes of both truck and commuter traffic. An L_{dn} in excess of 65 dBA exists outside of the roadway centerline right-of-way along I 205, Grant Line Road, 11th Street, Corral Hollow Road, and Tracy Boulevard. Other mobile sources of noise within the City include aircraft, trains, and off-road vehicles. The noise environment within the City is also affected by stationary sources of noise. Examples of these include air conditioning/refrigeration units, radios and televisions, power tools, lawn mowers, home appliances, human activity, and barking dogs.[1]

Sensitive Receptors

Certain types of land uses are considered to be more sensitive than others to higher noise levels. In Tracy, examples of sensitive receptors include residences of all types, schools, parks, hospitals, and convalescent homes. Sensitive receptors in the vicinity of the project site are limited to a 356 single-family and an 84-unit multifamily residential subdivision located at the northeast corner of the intersection of 11th Street and Lammers Road. Currently 268 single-family units have approved subdivision maps and are being constructed.[2] Sensitive receptors are also located along roadway alignments where proposed off-site potable water, non-potable water ("purple pipe") and roadway improvements would be installed. These include residences, schools, several parks, and the Sutter Tracy Community Hospital.

On-Site Noise Levels

The primary source of noise at the project site is vehicular traffic on Interstate 205 (I 205), 11th Street and Lammers Road. Noise levels generated within the site are minimal and are limited to the occasional use of farming equipment, human activity, and radios. The noise generated by these sources has very little effect on the existing residential subdivision near the site since noise levels at that location are primarily generated by motor vehicles on 11th Street and Lammers Road.

Off-Site Noise Levels

The City of Tracy has measured ambient noise levels at various locations within and adjacent to the City. For locations that would be affected by installation of non-potable and potable water pipelines (see Figures 3-4 and 3-5) and roadway modifications as identified in Section 4.3, Transportation and Circulation, measured ambient noise levels in the general vicinity of alignments where roadway modifications would be implemented under Mitigation Measure MM 4.3.2, ranged from a low of 57.3 L_{eq} at the Lammers Road/Union Pacific rail line crossing to a high of 70.0 L_{eq} at the Byron Road/Union Pacific rail crossing. Within the urbanized part of the City, where most of the non-potable water line installations would occur, measured noise levels

1 City of Tracy, Urban Management Plan/General Plan EIR, July 19, 1993, pp.219-232.
2 Written communication, Bill Dean, Associate Planner, City of Tracy, August 31, 2001.

ranged from the low to high 60s L_{eq}. At the Sutter Tracy Community Hospital (a sensitive receptor), the measured noise level was 62.5 dBA.[3] In general, measured and adjusted noise levels exceed the 60 dBA criteria at most locations that could be affected by development of off-site infrastructure.

2. REGULATORY FRAMEWORK

Noise Element of the General Plan

The Noise Element of the General Plan is a program for establishing and maintaining various land uses in relationship to the levels of noise found in the City. The Noise Element include the following policies that are relevant to Proposed Project noise issues: Policies NO1.1, NO 2.1, NO2.2 NO 2.4, NO3.1, NO4.4, NO.5.1, NO5.2, and NO5.3.

The City has identified standards for interior and exterior noise levels for zoning districts. These standards are listed in Table 4.4-2.

TABLE 4.4-2

TRACY GENERAL PLAN
NOISE MAXIMUMS WITHIN ZONING DISTRICTS
(Measured in L_{dn} at the Property Line)

Land Use	Interior Standard	Exterior Standard
Residential	45	65
Public Uses[1]	50 (living/office areas) 45 (sleeping areas)	65 (school playgrounds)
Commercial	--	70
Industrial	--	75

Source: Noise Element of the Tracy General Plan.
[1] Applies only to sensitive land uses such as hospitals, convalescent homes, and schools.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

Based on the Noise Element of the General Plan, noise impacts are considered significant if one or more of the following conditions would result from implementation of the Proposed Project:

- an increase of 3 dBA or more at off-site noise sensitive locations where the resulting exterior level would exceed 65 dBA L_{dn}. This 3 dBA increase would represent a perceptible increase to an environment with conditions that are already louder than normally acceptable; or

3 City of Tracy, Urban Management Plan/General Plan EIR, July 19, 1993, pp.219-232.

- an increase of 5 dBA or more at off-site noise sensitive locations where the resulting level would be less than 60 dBA L_{dn}. This 5 dBA increase would represent a readily perceptible increase in the existing noise environment.

Any increase in noise that is less than 3 dBA would not represent a perceptible increase and would not be significant.

Methodology

The analysis of the future noise environment presented in this section is based on noise prediction modeling and empirical observations. Noise modeling procedures involved the calculation of existing and future vehicular noise levels along individual roadway segments in the site vicinity. This task was accomplished using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by Caltrans.[4] The Caltrans data show that California automobile noise is 0.8 to 1.0 dB(A) higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dB(A) lower than national levels.[5] Traffic volumes utilized as data inputs in the noise prediction model were provided by the project traffic engineer. Noise modeling assumptions and modeling results are provided in Appendix C.

Project Impacts and Mitigation Measures

Impact 4.4.1 The Proposed Project could cause an increase in noise levels that exceed the City of Tracy Noise Element standards.

Off-site locations in the project vicinity would experience increased noise caused by traffic generated by the Proposed Project. The increases in noise levels along the most-affected study-area roadway segments are identified in Table 4.4-3. As shown, the Proposed Project would increase local noise levels by 0.5 to 2.7 dBA L_{dn}. Noise levels along four of the study area roadway segments would not increase with the addition of project-generated traffic.

The Proposed Project includes the construction of an on-site water reclamation facility (WRF) at the eastern boundary of the golf course. The facility would be enclosed in a building on a 1-acre site. In addition, a compost bed, pump station, and storage tank would be constructed on the site. During operation of the on-site WRF, there would be no significant levels of noise. The equipment, such as blowers, generators and diesel motors, which could exceed 100 dBA, would be enclosed in noise insulated structures. The resultant noise levels are not expected to exceed

4 Rudolf W. Hendriks, California Vehicle Noise Emission Levels (Sacramento, California: California Department of Transportation, January 1987), NTIS, FHWA/CA/TL-87/03.

5 California Vehicle Noise Emission Levels.

TABLE 4.4-3

FUTURE (2025) OFF-SITE NOISE LEVELS

Segment/Description	Noise Levels in dBA L_{dn} at 100 feet from roadway centerline		
	Future without Project	Future with Project	Increase in Noise
Interstate 205, Patterson Pass to Hansen	77.5	78.0	0.5
Interstate 205, Hansen to Lammers	76.6	76.5	-0.1
11th Street, east of Lammers	66.2	68.9	2.7
11th Street, east of Corral Hollow	67.7	68.2	0.5
Hansen Road, north of I 205	53.2	53.2	0.0
Corral Hollow Road, north of 11th	68.8	68.8	0.0
Corral Hollow Road, south of 11th	69.5	69.5	0.0

Source: EIP Associates, 2001.

ambient environmental noise levels of 45 to 50 dBA.[6] Office land uses and a golf course are proposed in the vicinity of the WRF. As shown in Table 4.4-2, in a commercial district, the maximum exterior noise level is 70 Ldn. Therefore, although the golf course would be considered a sensitive noise receptor, the noise levels generated by the WRF are not anticipated to exceed City noise standards.

A Tracy Gateway Concept Development Plan (CDP) has been prepared as part of the Proposed Project. The CDP contains development standards designed, in part, to reduce impacts between adjoining land uses within and adjacent to the project site. These development standards include measures to buffer the transitions between uses through the use of setbacks and landscape buffers. Through the CDP process, the Proposed Project would be required to develop land uses that would be compatible within the project site and; therefore, noise impacts would be **less than significant.**

Mitigation Measure

MM4.4.1 None required.

Project Impact

Impact 4.4.2 Construction of the Proposed Project could cause an increase in the noise level in the project vicinity.

Project development would occur over a ten-year period and would primarily include site preparation (grading and excavation), construction of internal roadways, driveways, and structures, and improvements to 11th Street. In addition, -site non-potable untreated recycled water ("purple pipe") and potable water distribution and conveyance lines would be installed in existing roadways at locations shown in Figures 3-4 and 3-5. Potential roadway improvements

6 HDR Engineering, Inc, Wastewater System - Tracy Gateway Development, Technical Memorandum, March 29, 2002, Page 11.

include widening of 11th Street from four to six lanes, and the acquisition of new right of way to widen the intersection at Lammers and Valpico. The off-site roadway improvements could also include the construction of new roadways and other traffic improvements in areas that are not yet identified.

Construction activities would typically involve the use of heavy equipment, such as scrapers, tractors, loaders, backhoes, concrete mixers, cranes, and paving equipment, among others. Trucks would be used to deliver equipment and building materials and to haul away waste materials. Smaller equipment, such as jack hammers, pneumatic tools, saws, and hammers would also be used throughout the site during the construction phases. This equipment would generate both steady-state and episodic noise that would be heard both on and off the project site.

The U.S. Environmental Protection Agency (USEPA) has compiled data regarding the noise generating characteristics of specific types of construction equipment and typical construction activities. These data are presented in Table 4.4-4. Noise levels generated by heavy equipment can range from approximately 68 dBA to noise levels in excess of 100 dBA when measured at 50 feet. However, these noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6.0 dBA per doubling of distance. For example, a noise level of 68 dBA measured at 50 feet from the noise source to the receptor would reduce to 62 dBA at 100 feet from the source to the receptor, and further reduce by another 6.0 dBA to 56 dBA at 200 feet from the source to the receptor.

TABLE 4.4-4

TYPICAL OUTDOOR CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Levels at 50 feet (dBA L_{eq})	Noise Levels at 50 feet with Mufflers (dBA L_{eq})
Ground Clearing	84	82
Excavation, Grading	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86

Source: EPA, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

Noise levels generated during the construction phases would primarily affect the occupants of on-site uses constructed in the earlier development phases (including existing uses). The residential subdivision located at 11th Street and Lammers Road would also be affected by the construction of the improvements to 11th Street. This area would receive some noise level attenuation on the order of five to seven from existing perimeter walls. Sensitive receptor locations along roadway alignments where off-site utility improvements would be installed or where roadway improvements would occur would also be subject to temporary construction noise. These receptors include residences, schools, a hospital, and parks. Any locations within these areas that would have an uninterrupted line of site to the construction noise sources could be exposed to high construction noise levels. As such, construction noise impacts are considered significant without mitigation.

Implementation of the following mitigation measure would be necessary to reduce project construction noise to **less-than-significant** levels.

Mitigation Measure

MM 4.4.2 Construction activities shall be limited to the hours of 7:00 a.m. to 7:00 p.m. (or daylight hours) in areas where sensitive receptors are located, with no construction allowed on Sunday. In noise-sensitive areas, construction equipment, compressors, and generators shall be fitted with heavy-duty mufflers specifically designed to reduce noise impacts.

Timing/Implementation: During all phases of project construction.
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.4.3 The Proposed Project could be exposed to noise from vehicular traffic on adjacent roadways.

Future noise levels at the project site would continue to be dominated by vehicular traffic on the adjacent roadways. The future average daily noise levels associated with these roadways are presented in Table 4.4-5. Based on the identified noise contour distances, noise levels along the perimeter of the site would exceed the City's 70 dBA L_{dn} exterior standard for commercial uses. Without mitigation, this would be a significant impact. Implementation of the following mitigation measure would be necessary to reduce on-site noise levels to a **less-than-significant** level.

TABLE 4.4-5

FUTURE (2025) ON-SITE NOISE LEVELS

		Distance to Noise Contour		
Segment/Description	**L_{dn} at 100 Feet**	**70 L_{dn}**	**65 L_{dn}**	**60 L_{dn}**
Interstate 205, east of Hansen	76.9	290	626	1,348
11th Street, east of I 205	70.7	112	241	519
11th Street, west of Lammers	69.9	98	211	455
Lammers Road, south of 11th	70.1	102	220	474

Note: Distances are in feet from roadway centerline, using Caltrans Traffic Noise Analysis Protocol, October 1998.
Source: EIP Associates, 2001.

Mitigation Measure

M.M. 4.4.3 A solid noise barrier with a minimum height of four feet shall be constructed along the north and east property boundaries to reduce roadway noise levels. The barrier may take the form of an earthen berm, solid masonry wall, or as approved by the City.

Timing/Implementation: Design to be approved prior to approval of any FDP.
Enforcement/Monitoring: City of Tracy

Cumulative Impacts and Mitigation Measures

Impact 4.4.4 Development of the Proposed Project, in combination with other development within the City, could result in noise levels that exceed adopted standards.

Construction noise would create an intermittent impact on the noise environment that would be short-term occurring only through the duration of the construction phases. Because the duration of the construction noise impact would be limited to the duration of the construction phases, these impacts would be minimal. However, short-term noise levels could exceed adopted standards. Implementation of Mitigation Measures MM 4.4.2, which would apply to other projects approved by the City, would reduce cumulative construction-related noise impacts to less-than-significant levels.

Traffic noise levels would increase along local roadways within the study area. The noise levels associated with cumulative plus Proposed Project development were identified previously in Table 4.4-3. These noise levels compare favorably to the future noise contour map (Exhibit 6-2) in the Tracy General Plan. As such, they have been anticipated by the City and will be used in the analysis of compatibility with new noise sensitive development along the study area roadways. However, development of the Proposed Project, in combination with the development of adjacent areas, would substantially increase noise levels along roadways where there are existing sensitive receptors, resulting in a significant impact. Implementation of Mitigation Measure MM 4.4.3 would reduce traffic-related noise levels at sensitive receptors within the project site, but it would not reduce ambient noise levels at other locations within the City as development occurs. Therefore, the cumulative noise levels could exceed adopted City standards, and the impact would remain **significant and unavoidable**.

Mitigation Measures

MM 4.4.4 None feasible.

4.5 AIR QUALITY

This section addresses potential impacts on air quality related to mobile source emissions, stationary source emissions, and area source emissions. Air quality-related federal and State regulations and relevant City of Tracy General Plan policies are presented. Climate and air quality for the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD), in which the project area is located, are discussed in terms of existing conditions. Information contained in this section has been derived from the SJVUAPCD, the Tracy General Plan, and background documentation.

1. EXISTING SETTING

California has been divided into 14 air basins by the California Air Resources Board (CARB) for purposes of monitoring air quality statewide. The project area, located in San Joaquin County, is in the San Joaquin Valley Air Basin (SJVAB). The air basin is bordered by three mountain ranges: the Coast Ranges to the west, the Sierra Nevada to the east, and the Tehachapi Mountains to the south. At the northern boundary of the air basin, the Carquinez Strait, a sea-level gap within the Coast Ranges, extends to the west, providing a major source of ventilation for the San Joaquin Valley.

San Joaquin County is located in the northern portion of the SJVAB and has relatively flat terrain. Some foothills leading to the Sierra Nevada Mountains are found in the eastern portion of the County; however, the majority of the County consists of level terrain where the primary land use is agriculture.

Regional Air Quality

Air quality is described in terms of emissions rate and concentration of emissions. An emissions rate is the amount of pollutant released into the atmosphere by a given source over a specified time period. Emissions rates are generally expressed in units such as pounds per hour (lbs/hr) or tons per year (tons/yr). Concentrations of emissions, on the other hand, represent the amount of pollutant in a given space at any time. Concentration is usually expressed in units such as micrograms per cubic meter ($\mu g/m^3$), kilograms per metric ton (kg/ton), or parts per million (ppm).

Climate and Wind

In evaluating the effects of pollutant emissions on air quality, certain meteorological (weather) characteristics are critical. The following discussion describes those characteristics that would influence air quality conditions in the SJVAB. Weather factors with the most effect on air quality include precipitation, wind, and temperature. Precipitation and temperature affect the character of chemical reactions that take place in the atmosphere, while wind direction and speed affect atmospheric dispersion patterns.

The climate in Tracy is typical of that found in the valley floor in northern and central California. In general, the climate typically includes cool, relatively mild winters, and hot, dry summers.

The average annual summer temperature is above 71 degrees Fahrenheit, with days often over 100 degrees. Temperatures in winter are typically in the 50s during the day, with lows in the evenings in the 30s. Approximately 82 percent of the annual rainfall occurs between February and March, and measures approximately 9.9 inches.[1]

Atmospheric inversions, during which temperature increases with elevation, often occur in winter. Heavy fog forms during this season, particularly in December and January. This reversal of normal conditions inhibits the dispersion of pollutants, which tend to accumulate close to the ground in the area of inversion, resulting in higher smog levels. Also contributing to this stagnation are the calm conditions in winter at night and early morning.

Northwesterly winds, or winds flowing down the valley to the southeast, prevail throughout the year. These winds are driven from the Pacific Ocean and enter the San Joaquin Valley through the Altamont Pass and the Carquinez Strait. Summer winds normally originate at the mouth of the San Joaquin Valley and flow to the south and southeast though the Tehachapi Pass into the desert areas of the southeast of the state. Winter winds that occur during December and January often reverse directions and flow up the valley to the northwest or become calm and variable. The most sustained winds tend to occur in the spring through the late summer where the predominant wind direction is from the northwest to the southeast. Average winds are most persistent in April through July when average unobstructed speeds are around 8 miles per hour (mph). Wind speed bursts of 40 to 50 mph can occur with winter storms anytime between late October and late April.[2]

Criteria Air Pollutants

The 1970 Clean Air Act (CAA) gave the Environmental Protection Agency (EPA) the authority to set federal ambient air quality standards. The CAA indicated the need for primary standards to protect public health and secondary standards to protect public welfare from effects such as visibility reduction, soiling, and nuisance. It also required that the federal standards be designed to protect those people most susceptible to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by illness, and persons engaged in strenuous work or exercise.

Currently, most of the effort to improve air quality in the United States and California is directed toward the control of five criteria air pollutants: O_3, CO, PM_{10}, NO_x, and SO_2. Pollutants subject to federal ambient standards are referred to as "criteria" pollutants because the EPA publishes criteria documents to justify the choice of standards. The federal and State standards for the criteria pollutants of greatest concern in the SJVUAPCD, O_3, CO, PM_{10}, NO_x, and SO_2 are provided in Table 4.5-1. Table 4.5-2 provides a summary of the health effects associated with O_3, CO, PM_{10}.

1 California Department of Water Resources, Annual Precipitation Data, access on July 18, 2001, at http://cdec.water.ca.gov/

2 California Air Resources Board. California Surface Wind Climatology. Aerometeric Data Division. June 1984, reprinted February 1994.

TABLE 4.5-1

STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standard[1,3]	Federal Standard[2]	
			Primary[3,4]	Secondary[3,5]
Ozone	1-hour	0.09 ppm (180µg/m^3)	0.12 ppm (235 µg/m^3)	Same as Primary
	8-hour	---	0.08 ppm (160 µg/m^3)	Same as Primary
Carbon Monoxide	1-hour	20.0 ppm (23 mg/m)	35 ppm (40 mg/m^3)	---
	8-hour	9.0 ppm (10 mg/m^3)	9.0 ppm (10 mg/m^3)	---
Nitrogen Dioxide	1-hour	0.25 ppm (470 µg/m^3)	---	---
	Annual Avg	---	0.053 ppm (100 µg/m^3)	0.053 ppm (100 µg/m^3)
PM_{10}	24-hour	50 µg/m^3	150 µg/m^3	Same as Primary
	Ann Geo Mn	30 µg/m^3	---	---
	Ann Arith Mn	---	50 µg/m^3	Same as Primary
$PM_{2.5}$	24-hour	---	65 µg/m^3	Same as Primary
	Ann Arith Mn	---	15 µg/m^3	Same as Primary
Sulfur Dioxide	1-hour	0.25 ppm (655 µg/m^3)	---	---
	3-hour	---	---	0.5 ppm (1,300 µg/m^3)
	24-hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)	---
	Ann Arith Mn	---	0.03 ppm (80 µg/m^3)	---
Sulfates	24-hour	25 µg/m^3	---	---
Lead	30-day Avg	1.5 µg/m^3	---	---
	Calendar Qtr	---	1.5 µg/m^3	Same as Primary
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m^3)	---	---
Visibility Reducing Particles	8-hour observation	Extinction coefficient of 0.23 per kilometer[6]	---	---

Notes:

ppm = parts per million; µg/m^3 = microgram per cubic meter; mg/m^3 = milligrams per cubic meter; ---no standard

1. California standards for ozone, CO, SO_2, NO_2, and PM_{10} and visibility reducing particles are values that are not to be exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. In addition, Section 70200.5 lists vinyl chloride under standards for hazardous substances.
2. The form of the national standards (i.e., how the standard is applied) varies from pollutant to pollutant. For further information, 40 CFR Part 50 includes the relevant form for each federal standard.
3. Concentration expressed first in units in which it as promulgated. Equivalent units given in parenthesis are based upon reference temperature of 25ºC and a reference pressure of 760 mm of mercury. All measurements of air quality are to be corrected to a reference temperature of 25ºC and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume or micromoles of pollutant per mole of gas.
4. Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the U.S. EPA.
5. Secondary Standards: The levels of air quality necessary, to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the implementation plan is approved by U.S. EPA.
6. Prevailing visibility is defined as the greatest visibility which is attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors. Visibility standard expressed in terms of extinction due to particles when the relative humidity is less than 70 percent.

TABLE 4.5-2

HEALTH EFFECTS SUMMARY OF THE MAJOR CRITERIA AIR POLLUTANTS

Air Pollutant	Adverse Effects
Ozone	eye irritation respiratory function impairment
Carbon Monoxide	impairment of oxygen transport in the blood stream aggravation of cardiovascular disease impairment of central nervous system function fatigue, headache, confusion, dizziness can be fatal in the case of very high concentrations in enclosed places
Particulate Matter	may be inhaled and lodge in and irritate the lungs increased risk of chronic respiratory disease with long exposure altered lung function in children may produce acute illness with sulfur dioxide

Source: Bay Area Air Quality Management District.

The sources, ambient air pollutant concentrations, and classifications for the five key criteria pollutants in the SJVAB are discussed below.

There are four primary sources of air pollution within the SJVAB: motor vehicles, stationary sources, agricultural activities, and construction activities. Table 4.5-3 presents the most recent emission inventory for San Joaquin County. As indicated in Table 4.5-3, mobile emissions are responsible for generating the most ROG, NO_x and CO within the County.

The air quality monitoring station nearest to the project area is located in the City of Stockton on Hazelton Street, located north of the City of Tracy. Table 4.5-4 summarizes air quality data from this monitoring station.

Existing Attainment Status

Criteria air pollutants are classified in each air basin, county, or, in some cases, within a specific urbanized area. The classification is determined by comparing actual monitoring data with State and federal standards. If a pollutant concentration is lower than the standard, the pollutant is classified as "attainment" in that area. If an area exceeds the standard, the pollutant is classified as "non attainment." If there are not enough data available to determine whether the standard is exceeded in an area, the area is designated "unclassified."

Ozone

Based on the designation criteria established by Section 40921.5 of the California Health and Safety Code, the SJVAB is classified as severe nonattainment for ozone (O_3). The creation of ozone is regional problem. Because the District is responsible for a severe nonattainment area, it is subject to stringent requirements in the California Clean Air Act (CCAA) and must apply all feasible measures to reduce emissions.

TABLE 4.5-3

EMISSIONS BY CATEGORY
2000 ESTIMATED ANNUAL AVERAGE EMISSIONS
SAN JOAQUIN COUNTY

Summary Category Name	TOG	ROG	CO	NO_X	SO_X	PM	PM_{10}
Stationary Sources							
Fuel Combustion	0.88	0.39	4.94	15.21	2.06	0.91	0.60
Waste Disposal	0.00	0.00	0.00	0.01	-	0.21	0.00
Cleaning and Surface Coatings	7.03	6.22	-	-	-	0.05	0.05
Petroleum Production and Marketing	4.12	1.92	-	-	-	0.00	-
Industrial Processes	2.58	2.18	0.22	4.34	1.28	6.57	3.99
Total Stationary Sources	14.61	10.71	5.16	19.56	3.34	7.74	4.64
Area Wide Sources							
Solvent Evaporation	10.89	9.88	-	-	-	-	-
Miscellaneous Processes	72.57	8.45	32.99	1.75	0.06	78.48	41.32
Total Stationary Sources	14.61	10.71	5.16	19.56	3.34	7.74	4.64
Total Area-Wide Sources	83.46	18.33	32.99	1.75	0.06	78.48	41.32
Mobile Sources							
On-Road Motor Vehicles	27.68	25.34	284.50	40.94	0.73	1.22	1.21
Other Mobile Sources	12.11	10.96	93.16	27.75	3.07	1.75	1.72
Total Mobile Sources	39.79	39.30	377.66	68.70	3.80	2.97	2.93
Natural (Non-Anthropogenic) Sources							
Natural Sources	0.03	0.02	0.17	0.00	-	0.03	0.03
Natural (Non-Anthropogenic) Sources	0.03	0.02	0.17	0.00	-	0.03	0.03
Grand Total for San Joaquin County	***137.89***	***65.36***	***415.98***	***90.00***	***7.20***	***89.22***	***48.91***

All emissions are represented in Tons per Day and reflect the most current data provided to ARB.

Source: CARB 8123101.

TABLE 4.5-4

SUMMARY OF BACKGROUND AMBIENT AIR QUALITY DATA (1997 TO 1999)

Pollutant	1997 Hazelton Street Station	1998 Hazelton Street Station	1999 Hazelton Street Station
Ozone			
Highest 1-hour	0.102 ppm	0.126 ppm	0.144 ppm
>0.12 ppm (exceeds NAAQS)	Yes	Yes (1 day)	Yes (2 day)
>0.09 ppm (exceeds CAAQS)	Yes (1 day)	Yes (10 days)	Yes (6 days)
Carbon Monoxide (CO)			
Highest 1-hour	7.7 ppm	8.9 ppm	8.3 ppm
>35 ppm (1-hour NAAQS)	No	No	No
>20 ppm (1-hour CAAQS)	No	No	No
Highest 8-hour	3.6 ppm	7.18 ppm	5.34 ppm
>9 ppm (8-hour NAAQS)	No	No	No
>9 ppm (8-hour CAAQS)	No	No	No
Particulates (PM_{10})			
Highest 24-hour	98 $\mu g/m^3$	106 $\mu g/m^3$	150 $\mu g/m^3$
>150 $\mu g/m^3$ (24-hour NAAQS)	No	No	No
>50 $\mu g/m^3$ (24-hour CAAQS)	Yes (5 days)	Yes (8 days)	Yes (10 days)

Source: Air Quality Management District, 2001. http://www.aqmd.gov/smog.

The causes of the violation of air quality standards for O_3 are complex. Unlike many air pollutants, O_3 is not emitted directly into the atmosphere, but is produced in the atmosphere by a complex series of photochemical reactions involving ozone precursors, reactive organic compounds (ROG) and nitrogen oxide (NO_x). As indicated in Table 4.5-3 mobile sources account for most of the ROG and NO_x emissions created within San Joaquin County. Because O_3 formation requires energy from the sun, elevated concentrations of O_3 occur mostly during the summer months.

In addition to the adverse effects on human health noted in Table 4.5-2, O_3 is the pollutant primarily responsible for damage to crops and natural vegetation in California. O_3 injury to plants can occur as either acute injury (i.e., tissue death or death of the whole plant) at moderate to high concentrations (0.15 ppm and above for two to eight hours), or as chronic injury (i.e., reduced crop yield or impaired ecosystem stability) resulting from repeated exposure to O_3 at low to moderate concentrations (0.04 to 0.2 ppm for a few days to several months).

Carbon Monoxide

In contrast to O_3, carbon monoxide (CO) is a localized problem because CO is a non-reactive pollutant with one major source, motor vehicles. Ambient CO distributions closely follow the spatial and temporal distributions of vehicular traffic, and are strongly influenced by meteorological factors such as wind speed and atmospheric stability.

Through control measures adopted by State, local, and Federal agencies and implemented by citizens, industry, and government, all areas in the SJVAB have attained the California CO standard. The request for redesignation of the last remaining area in the SJVAB designated nonattainment for CO standard (the Fresno Urbanized Area) to attainment was approved by CARB on September 24, 1998, and will become effective upon completion of the Office of Administrative Law evaluation.[3] The Office of Administrative Law has one year from submittal date to approve the request for redesignation.

Particulate Matter

The entire San Joaquin Valley is nonattainment for particulate matter less than 10 microns in diameter (PM_{10}). The major components of PM_{10} are dust particles, nitrates, and sulfates. PM_{10} is directly emitted to the atmosphere as a by-product of fuel combustion, wind erosion of soil, and unpaved roads. Small particles are also created in the atmosphere through chemical reactions.

EPA established $PM_{2.5}$ standards in recognition of increased concern over particulates 2.5 microns or less in diameter. According to information provided by EPA, designations for the new $PM_{2.5}$ standards by the EPA will begin in the year 2002 with attainment plans due by 2005 for regions that violate the standards. $PM_{2.5}$ measurements have begun to be conducted at three

3. Adopted California Clean Air Act Triennial Progress Report and Plan Revision, 1997-1999, San Joaquin Valley Unified Pollution Control District.

locations in the SJVAB to determine if the County is in attainment under the new federal $PM_{2.5}$ standards. A $PM_{2.5}$ monitoring network plan has been developed by the California Air Resources Board and local air districts in California, which includes a monitoring station in the City of Merced at M Street, the City of Stockton at Hazelton Street, and the City of Modesto at 14th Street. Data will be collected from these three monitoring stations for at least three years before a determination of attainment can be made.

Nitrogen Oxides

The SJVAB is in attainment with federal and State NO_x standards. Nitrogen oxide is an air quality concern because it acts as a respiratory irritant and is a precursor to O_3. NO_x are produced by fuel combustion in industrial stationary sources, motor vehicles, ships, aircraft, and rail transit.

Sulfur Dioxide

Sulfur dioxide (SO_2) is a combustion product of sulfur or sulfur-containing fuels such as coal. This pollutant has in the past been well below the federal and State standards; therefore, it has not been recorded for the SJVAB.

Toxic Air Contaminants

Toxic air contaminants (TACs) are airborne substances that are capable of causing short-term (acute) and/or long-term (chronic or carcinogenic) adverse human health effects (i.e., injury or illness). There are hundreds of substances that can be toxic when inhaled, but air quality standards have not been set for most of them.

TACs can be emitted from a variety of common sources, including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. Natural source emissions include windblown dust and wildfires. Farms, construction sites, and residential areas can add to air toxic emissions. Research facilities can also be a source of toxic air contaminants. TACs include both organic and inorganic chemical substances. Examples of TACs include certain chlorinated hydrocarbons, such as solvents, and certain metals and asbestos.

Odors

There are four major elements involved in evaluating odor emissions: deductibility, recognition, intensity, and hedonic tone. Deductibility is the lowest concentration of an odorant that will elicit a sensory response; at this concentration there is an awareness of the presence of an added substance, but not necessarily an odor sensation. Recognition, however, is the minimum concentration that is recognized as having a characteristic odor quality be a segment of the population. Odor intensity refers to the perceived strength of the odor sensation, and odorant character is what the substance smells like (e.g. fishy, rancid, hay, sewer). Hedonic tone is a judgment of the relative pleasantness or unpleasantness of the odor, and is influenced by factors, such as subjective experience and frequency of occurrence. The apparent presence of an odor in

ambient air depends on the properties of the substance emitted, its concentration in facility emissions, and the dilution of emission between the mission point and the receptor.

Sensitive Receptors

Some individuals are considered more "sensitive" than others to air pollutants. The reasons for greater sensitivity than average include health problems, proximity to the emissions source, or duration of exposure to air pollutants. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive receptors to poor air quality because the very young, the old and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential uses are considered sensitive because people in residential areas are often at home for extended periods of time and are therefore exposed longer to pollutants. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on the human respiratory function.

The closest residence to the project site is located approximately 100-150 feet east of the project area on Lammers Road. It is an approximately fifteen-acre single-family residential parcel located in the northeast portion of the project area at the intersection of 11th Street and Lammers Road. In addition, there are residences located approximately 300 to 400 feet north of the project area on the western side and on the northeastern side of the project area.

There are no schools, hospitals, or convalescent homes located within one mile of the project area; however, these uses occur along roadway alignments where proposed off-site potable water and non-potable water improvements would be installed. The pipeline alignments are shown in Figures 3-4 and 3-6. Sensitive uses along the alignments include residences, schools, parks, and the Sutter Tracy Community Hospital. Residences are located near areas where off-site roadway modifications could occur.

2. REGULATORY FRAMEWORK

The SJVUAPCD is the agency responsible for attainment and maintenance of air quality standards in the air basin, including San Joaquin County. The SJVUAPCD is also subject to the regulations and attainment goals and standards of the Air Resources Board and the California and U.S. Environmental Protection Agencies (EPAs). The Cal-EPA, CARB, local air districts and the federal EPA enforce the state and federal Clean Air Act standards. The federal and State standards are given in Table 4.5-1. The standards provide acceptable durations for specific federal and state pollutant levels in order to protect sensitive receptors from adverse health effects (also indicated in Table 4.5-1).

Federal Regulations

Criteria Air Pollutants

Between 1987 and 1990, many states, including California, were in the process of implementing the EPA's interim policy. Non-attainment areas were given until the end of 1990 to revise their

State Implementation Plans (SIP) to demonstrate attainment and maintenance. After submittal of the revised SIPs, the EPA classified non-attainment areas as near-term (i.e., attainment predicted in three to five years) or long-term (i.e., attainment more than five years away). In near-term non-attainment areas, pollutant emission reductions of three percent per year were to occur until standards are attained and standard maintenance for a period of ten years thereafter will have to be demonstrated.

The Clean Air Act of 1990 requires emission controls on factories, businesses, and automobiles. The Act affects automobiles by lowering the limits on hydrochloric acid (HCl) and NO_x emissions, requiring the increased use of alternative-fuel cars, on-board canisters to capture vapors during refueling and extending emission-control warranties. The 1990 CAA reduces airborne toxins by requiring factories to install "maximum achievable control technology" and installing urban pollution control programs. The 1990 CAA also reduces acid rain production by cutting sulfur dioxide emissions for coal-burning power plants.

In July of 1997, the EPA adopted a $PM_{2.5}$ standard in recognition of increased concern over particulate matter 2.5 microns or less in diameter. Ending several years of litigation, EPA's $PM_{2.5}$ regulations were upheld by the United States Supreme Court on February 27, 2001. According to information provided by the EPA, designations for the new $PM_{2.5}$ standards by the EPA will begin in the year 2002 with attainment plans due by 2005 for regions that violate the standard. $PM_{2.5}$ measurements have not yet been conducted to determine if the County is in attainment under the new federal $PM_{2.5}$ standards. A $PM_{2.5}$ monitoring network plan has been developed by the California Air Resources Board and local air districts in California, and data is in the process of being collected.

Title V

Title V of the federal Clean Air Act as amended in 1990 provides for the establishment of operating permits for major sources that emit regulated air pollutants. A major source is a stationary source that has the potential to emit a regulated pollutant in quantities equal to or exceeding any of the following thresholds: 100 tons per year of any regulated criteria air pollutant; 10 tons per year of any one Hazardous Air Pollutant (HAP) or 25 tons per year of any combination of HAPs; or any lesser quantity threshold promulgated by the EPA. Because the SJVUAPCD has been designated as severe non-attainment area for ozone, the EPA established major source thresholds for two criteria pollutants, contributing to the formation of ozone, of 25 tons per year of NO_x or volatile organic compound emissions for sources within the jurisdiction of the SJVUAPCD.

A facility that does not have a sludge incinerator and whose maximum facility throughput does not exceed 10 million gallons per day (mgd) is excluded from Title V Permitting Requirements.[4] The water reclamation facility proposed as part of the project would have a peak facility throughput of 2.2 mgd and therefore is exempt from Title V requirements.

4 Cadrett, John. San Joaquin Valley Unified Air Pollution Control District. Air Quality Planner. Personal Communication. March 28, 2002 and March 29, 2002.

State Regulations

The State of California has had its own ambient air quality standards for many years. These ambient standards are, in general, more stringent than the existing federal standards for the criteria air pollutants.

Until the California Clean Air Act (CCAA) was signed into law on January 2, 1989, the State standards were not required to be attained by any specific date. This legislation required areas that exceed the California ambient air quality standards to plan for the eventual attainment of the standards. Areas have been designated as attainment or nonattainment with respect to the ambient air quality standards. The time given to various areas would depend upon the severity of air quality problems. The California Health and Safety Code Section 40914(A) requires that districts design a plan to achieve an annual reduction in district-wide emissions of five percent or more for each nonattainment criteria pollutant or its precursor, averaged every consecutive three-year period.

California's State air quality management agency, CARB, regulates mobile emissions sources, and oversees the activities of County Air Pollution Control Districts and regional AQMDs. The CARB regulates local air quality indirectly by establishing vehicle emission standards, by conducting research activities, and through its planning and coordinating activities.

Regional

San Joaquin Valley Unified Air Pollution Control District

The SJVUAPCD is the primary agency responsible for planning, implementing, and enforcing federal and state ambient standards in the San Joaquin Valley. In order to demonstrate the area's ability to eventually meet the standards, the SJVUAPCD maintains the region's State Implementation Plan (SIP) for ozone. The SIP is a compilation of plans and regulations that govern how the region and State will comply with the federal Clean Air Act requirements to attain and maintain the federal ozone standard. The state ozone and PM_{10} standards are also exceeded in the Bay Area. Because of the ozone violations, the SJVUAPCD prepared the 1991 *Air Quality Attainment Plan* (AQAP) and the subsequent 1994 *Ozone Attainment Demonstration Plan* (OADP). Maintenance of the ozone standard is required to be addressed every three years in revisions of the plan. The OADP includes the specific measures to reduce ground level ozone by reducing emissions of ozone precursors. The most recent update of the OADP was adopted on March 15, 2001. No State plan is required to meet state PM_{10} standards.

The air quality management plan measures for reducing emissions of reactive organic compounds and nitrogen oxides affect all source categories. Emissions limitations are imposed upon sources of air pollutants by rules and regulations promulgated by the federal, State, or local agencies. The SJVUAPCD regulates stationary sources through its permitting and compliance programs and is responsible for implementing stationary source performance standards and other requirements of federal and State laws. Mobile sources of air pollutants are largely controlled by federal and state agencies through emission performance standards and fuel formulation

requirements. Smaller sources and emitting activities that are distributed area wide (such as fuel combustion for residential heating, use of consumer products, or emissions from construction activities) are regulated by a combination of state and local programs. The SJVUAPCD manages indirect sources (such as emissions from transportation and energy demand) through participation in the environmental review process and distribution of guidance to local jurisdictions for indirect source control.

When the air district prepares attainment plans or updates attainment plans, future emissions are based on population projects provided by San Joaquin Council of Governments. The population estimates are incorporated into Regional Transportation Plans, which are then used by the air district to estimate the amount of future emissions in the air basin. With regard to Tracy, the San Joaquin Council of Governments provides the SJVUAPCD with projected population estimates for future years.

SJVUAPCD Plans and Regulations

The *Air Quality Attainment Plan* of 1991, the *Ozone Attainment Demonstration Plan* of 1994, and subsequent plan revisions address the state and federal Clean Air Act requirements to attempt to bring the San Joaquin Valley Air Basin into compliance with the ambient air quality standards. These plans provide for region-wide emission reductions of five percent per year averaged over consecutive three-year periods. The CCAA grants air districts explicit statutory authority to adopt indirect source regulations and transportation control measures, including measures to encourage or require the use of ride-sharing, flexible work hours, or other measures which reduce the number of length of vehicle trips.

The *1991 Air Quality Attainment Plan* for the San Joaquin Valley Air Basin identifies eleven Transportation Control Measures (TCMs) as "reasonably available" in the San Joaquin Valley Air Basin. The following TCMs are included in the Plan:

- traffic flow improvements,
- public transit,
- passenger rail support/facilities,
- rideshare program,
- suburban park and ride lots,
- bicycling program,
- trip reduction programs,
- telecommunications, and
- alternative work schedules.

In 1998, SJVUAPCD published the *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI). It is an advisory document that provides local jurisdictions with procedures for addressing air quality in environmental documents. The guide provides methods for assessing air quality impacts, thresholds of significance adopted by the air district, and recommended mitigation measures.

Local jurisdictions are also encouraged by the SJVUAPCD to incorporate air quality elements in local plans. In 1994, SJVUAPCD published the *Air Quality Guidelines for General Plans* that provides assistance for developing policies and implementation strategies at the local level that will be consistent with regional efforts to manage air quality. A key recommendation of these guidelines is to incorporate air quality considerations when developing land use and transportation plans. Examples of this would be considering transportation demand (and motor vehicle emissions) that would be associated with land use patterns or considering land use compatibility of agricultural and industrial uses with uses that would be "sensitive" to localized air quality conditions.

Rules promulgated by the SJVUAPCD directly influence activities necessary to develop communities. Construction activities can generate PM_{10} emissions from the movement of soil, use of heavy equipment, bulk materials handling, asphalt paving and other related activities. Dust and PM_{10}, emissions from construction activities can be adequately controlled at the source. SJVUAPCD Regulation VIII, Fugitive Dust Prohibitions, requires reducing dust and PM_{10} emissions from construction activities. The following Regulation VIII controls are required to be implemented at all construction sites:

- All disturbed areas, including storage piles, which are not being actively used for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions using application of water or by presoaking.
- When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or at least six inches of freeboard space from the top of the container shall be maintained.
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24-hour when operations are occurring. *(The use of rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden).*
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions using sufficient water or chemical stabilizer/suppressant.

The SJVUAPCD also regulates facilities that emit toxic air contaminants (TAC). The SJVUAPCD administers the region's Toxic Air Contaminant Control program, which is intended to reduce the public exposure to TACs from stationary sources in the region. The SJVUAPCD Guide for Assessing and Mitigating Air Quality Impacts provides specific screening-level thresholds for evaluating potential TAC sources and considering mitigation on a project-by-project basis. The SJVUAPCD evaluates all projects requiring air quality permits for emissions of toxic air contaminants, regardless of their location. Sources with emissions in

sufficient quantities to cause a probability of contracting cancer for the maximally exposed individual of more than 10 in one million are required to undergo a public notification process. TAC emissions exceeding certain levels are typically required to install best available control technology (BACT) to reduce TAC emissions.

SJVUAPCD Authority To Construct and Permit To Operate

Facilities with equipment that may emit air pollution or is used for controlling air pollution are subject to permit requirements from the SJVUAPCD. The SJVUAPCD grants two types of permits: 1. Authority to Construct and 2. Permit to Operate. An Authority to Construct Permit must be obtained before building or installing a new emission unit or modifying an existing emissions unit. A Permit to Operate is issued after all construction is complete and the emission unit is ready for operation.

City of Tracy General Plan

The air quality element of the Tracy General Plan provides policies that seek to reduce existing air quality problems and minimize the potential for high pollution levels in the future. Policies that pertain to the Proposed Project include: AQ 1.2, which encourages development that brings employment opportunities to the City; AQ 2.1, which requires the mitigation of air quality impacts; AQ 2.2, which strives to minimize land use conflicts between emission sources and sensitive receptors; and AQ 4.1, which requires coordination of air quality efforts with local, regional and State agencies.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

The following standards of significance are based on the Appendix G of the CEQA Guidelines, standards presented in the SJVUAPCD's Guide to Assessing and Mitigating Air Quality Impacts, and are based on recommendations from the SJVUAPCD's CEQA compliance staff. The SJVUPACD has published thresholds for NO_x and ROG, however the district has not adopted any thresholds for PM_{10}. For the purposes of analysis, this EIR uses a threshold of 10 tons per year. Impacts presented in this EIR are considered significant if the Proposed Project would:

- conflict with or obstruct implementation of applicable air quality plans, including SJVUAPCD's *Guide to Assessing and Mitigating Air Quality Impacts;*

- violate an existing air quality standard or contribute substantially to an existing or projected air quality violation. For impacts where emissions are quantified, exceed the following thresholds from the San Joaquin Valley Unified Air Pollution Control District:

    - NO_x: 10 tons/year or 55 lbs/day
    - ROG: 10 tons/year or 55 lbs/day

- at the present time there is no adopted standard for $PM_{10;}$
- substantially contribute to an existing or projected air quality violation;
- expose sensitive receptors to substantial pollutant concentrations;
- result in a cumulatively considerable net increase in any criteria air pollutant for which the project region is non-attainment;
- result in daily operation-related localized CO emissions exceeding the State 1-hr of 20 ppm or the 8-hr CO standard of 9 ppm; or
- exceed the SJVUAPCD's TAC Health Risk Level of 10 in 1 million.

Methodology

Construction Emissions

Construction equipment within the project site that would generate ROG and NO_x pollutants would include graders, forklifts, dump trucks, and haul trucks. This equipment would be used during grading activities as well as when structures are constructed on the site. During buildout of the Tracy Gateway project, which is expected to occur over a 10-year period, heavy equipment used for construction activities would cause emissions of diesel exhaust and generate emissions of dust.

Installation of the off-site potable water and non-potable untreated surface water/recycled water lines, would be phased and would occur over 10 years. As a result, the amount of construction equipment used within any given day for the trenching and installation activities would be relatively small. At most, it is estimated that 11 pieces of equipment would be operating within a 24-hour period.

Emissions occurring during construction phases were analyzed according to the SJVUAPCD guidelines with recommendations for implementation of control measures. The use of gasoline- and diesel-powered heavy duty mobile construction equipment is assumed to contribute NO_x, ROG, and CO emissions. Mobile source construction PM_{10}, ROG, NO_x and CO emissions are quantitatively evaluated, with emissions estimated using a worst-case scenario. Because PM_{10} emissions can vary considerably depending on factors such as the level of activity, the specific operations taking place, and weather and soil conditions, the SJVUAPCD emphasizes implementation of effective and comprehensive control measures rather than detailed quantification of construction emissions.[5] Therefore, PM_{10} emissions from grading and trucking activities were qualitatively evaluated using the emission rate presented in URBEMIS7G (2000) of 10 lbs/day/acre of PM_{10}, unmitigated.

5. San Joaquin Valley Unified Air Pollution Control District, Guide for Assessing and Mitigating Air Quality Impacts, August, 1998, page 40.

Operational Emissions

Criteria Air Pollutants

To characterize conditions after buildout of the project, area, operational and mobile source emissions of reactive organic gases, nitrogen oxides, particulate matter, and carbon monoxide were estimated using the California Air Resources Board's URBEMIS7G emission model for future year conditions assuming that plan area buildout would be complete by 2010. Mobile source emissions estimates rely on vehicle trip generation rates presented in Section 4.3, *Traffic and Circulation*, and other average trip characteristics for San Joaquin County presented in the SJVUAPCD guidelines. Localized air quality impacts depend upon project-specific vehicle activity at intersections also provided by the transportation analysis for this EIR. The Caltrans-approved dispersion model, CALINE4, was used to estimate localized CO concentrations near heavily congested intersections. Model output are included in Appendix D.

Toxic Air Contaminants

Criteria air pollutant and TAC emissions associated with the WRF operation are discussed qualitatively. The facility is estimated to treat a maximum of 2.2 mgd. A back-up diesel engine (emergency generator) would be the only potential source of criteria air pollutant or TAC emissions from the WRF. This engine would be operated infrequently and used in the event of an emergency. Ultraviolet light would be used for effluent disinfection. There would be no burning of flare gas, or digester gas. Influent generated by office, retail, non-research and development (R&D) commercial, and recreational uses of the Proposed Project would not be expected to contain any heavy metals or organic chemicals that could be released during the treatment process. As indicated in the Project Description, if an R&D user in the business park produces an industrial-type wastewater, pre-treatment of the wastewater prior to release to the on-site WRF will be required by project CC&Rs, which would reduce the level of hazardous constituents, if any, that may be present in the influent.

Criteria air pollutant and TAC emissions associated with potential R&D activities that could be accommodated the Proposed Project are discussed qualitatively. For purposes of the analysis, it is assumed that toxic air contaminant emissions that could be generated by project R&D uses would be subject to SJVUAPCD standards previously described.

Project Impacts and Mitigation Measures

Impact 4.5.1 The Proposed Project would involve operation of a water reclamation facility (WRF) that could generate odors.

Substances that produce odors through the wastewater treatment process commonly include: hydrogen sulfide, ammonia, and certain organic compounds containing nitrogen and sulfur that have not been completely oxidized. Odors occur in fresh or incompletely treated wastewater and liquid process sidestreams, or raw sludge, screening, grit, and skimmings contain malodorous matter, and emissions from the treatment processes.

Major sources of odors at wastewater treatment plants typically include the headworks, flow basin, digester and sludge dewatering facilities. However, the Proposed Project WRF would be enclosed within new buildings. Features included as part of the WRF design (headworks, 80,000-gallon concrete tanks, and aerobic digesters) would be covered and ventilated. Exhaust air from these processes, along with foul air from the influent pumping station, solids handling room, and headworks building would be routed to an odor control facility. This facility would be equipped with foul air fans, ducting, and a compost bed biofilter for odor control. During routine operation of the treatment facilities, no substantial amount of particles will be generated. With proper design, operating, and maintenance procedures, which have been incorporated into the Proposed Project, potential odors from the proposed wastewater treatment plant are not expected to occur.[6] This would be a **less-than-significant impact**.

Mitigation Measure

MM 4.5.1 None required.

Project Impact

Impact 4.5.2 Dust from construction activities could cause adverse localized effects for sensitive land uses surrounding the project site.

During the ten-year, five-phased construction buildout timeframe, emissions of dust could cause localized effects for sensitive land uses surrounding the project site. Using the URBEMIS7G emission rate of 10 lbs/day/acre, a substantial amount of PM_{10} could be generated during buildout of the project area and with development of the off-site improvements.

Dust from off-site improvements would be generated during grading and trenching activities required to install pipeline. Sensitive receptors most likely to be affected when the off-site potable water or non-potable untreated surface water/recycled water line and related improvements are installed are located along Tracy Boulevard and Eaton Avenue.

In order to minimize potential neighborhood effects of dust and other air emissions from construction activities, the project would be required to implement "best management practices" specified by SJVUAPCD's Regulation VIII. Site watering, soil stabilization, covering trucks and storage piles, and street cleaning are each practices that are required by the existing regulation. Measures specified in Regulation VIII would ensure that fugitive dust and PM_{10} associated with construction activities would be controlled and that sensitive receptors would not be adversely affected. Therefore, this impact would be **less than significant**.

Mitigation Measure

MM 4.5.2 None required.

6 HDR Engineering, Inc., Wastewater System Tracy Gateway Development Technical Memorandum, March 29, 2002.

Project Impact

Impact 4.5.3 Construction activities would generate NO_x and ROG emissions above the air districts daily thresholds of 55 lbs/day and 10 tons/ year for NO_x and ROG.

Construction of the Proposed Project and off-site improvements would result in NO_x and ROG emissions generated by the use of mobile construction equipment. Off-site improvements would primarily include trenching and grading activities for the installation of pipelines and roadway improvements that would involve the use of diesel powered equipment. Construction equipment is frequently diesel-fueled, which generates more pollutants than construction equipment that uses gasoline. Given the size of the project area, and the intensity of land uses that could occur within the plan area, construction activities would generate substantial quantities of NO_x and ROG emissions and could exceed the SJVUAPCD thresholds.

Installation of the off-site potable water and non-potable untreated surface water/recycled water line, would be phased and would occur over a number of years. As a result, the amount of construction equipment used within any given day for the trenching and installation activities would be minimal. At most, it is estimated that 11 pieces of equipment would be operating within a 24-hour period. Potential NO_x and ROG emissions associated with construction of the pipelines are shown in Table 4.5-5.

TABLE 4.5-5

TRACY GATEWAY
SUMMARY OF CONSTRUCTION EMISSIONS

Construction Activity	ROG		NO_x		CO		PM_{10}	
	Tons/year	Lbs/Day	Tons/Year	Lbs/Day	Tons/Year	Lbs/Day	Tons/Year	Lbs/Day
Site Grading (On-site and Off-site)	2.91	23.30	27.54	220.35	-	-	94.82	758.56
Construction Worker Trips	2.73	21.87	3.87	30.94	7.34	58.68	0.74	5.94
Stationary Equipment	0.23	1.85	0.19	1.51	-	-	0.01	-
Diesel Mobile Equipment	3.96	31.68	62.81	502.48	-	-	3.88	31.06
Asphalt Offgassing	0.19	38.51	-	-	-	-	-	-
Off-Site Improvements	1.6	12.6	14.8	118.6	12.1	96.9	9.0	62.1
Total Construction Emissions	11.62	129.81	109.21	883.88	19.44	155.58	100.95	807.6
Significance Threshold	10	55	10	10	N/A	N/A	N/A	N/A

Notes: Estimates are results of modeling using the California Air Resources Board's URBEMIS7G.
Source: EIP Associates, 2002.

In addition to exhaust from construction equipment, the use of architectural coatings and asphalt paving generate emissions. Specifically, these additional activities can result in the generation of ROGs.

NO_x and ROG are ozone precursors and ultimately result in the creation of ozone. Because the project could exceed district thresholds for NO_x and ROG during construction activities, and the area is already designated as nonattainment for ozone, this would be a significant impact. A summary of the construction activity emissions as calculated using the California Air Resources Board's URBEMIS7G is presented in Table 4.5-5.

The SJVUAPCD has developed mitigation measures that are intended to reduce NO_x and ROG emissions. Although these measures would reduce the magnitude of the impact, it is unlikely that they would reduce the amount of ROG and NO_x generated by construction activities to a level below the SJVUAPCD daily thresholds. Therefore, this impact would remain a **significant and unavoidable** impact.

Mitigation Measure

MM 4.5.3
(a) If feasible, use alternative fuel construction equipment.
(b) The maximum allowable time limit for idling equipment is 10 minutes.
(c) Limit the hours of operation of heavy duty equipment and/or the amount of equipment in use.
(d) Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).
(e) Curtail construction during periods of high ambient pollutant concentrations: This may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.
(f) Implement activity managements (e.g. rescheduling activities to reduce short-term impacts).

Timing/Implementation: During all phases of project construction
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.5.4 Operational emissions associated with motor vehicle trip generation would exceed ROG, NO_x and CO standards.

As buildout of the Proposed Project occurs, the number of vehicles, vehicle trips, and associated emissions would increase. As indicated in Table 4.5-6, vehicle emissions associated with the Proposed Project would exceed adopted thresholds and would contribute to an existing air quality problem. This is considered a **significant** impact.

TABLE 4.5-6

TRACY GATEWAY
SUMMARY OF OPERATIONAL EMISSIONS (TONS PER YEAR)

Operational Activity	ROG		NO_x		CO		PM_{10}	
	Tons/Year	Lbs/Day	Tons/Year	Lbs/Day	Tons/Year	Lbs/Day	Tons/Year	Lbs/Day
Area-wide Sources	0.63	3.15	7.91	43.35	3.35	17.34	0.02	0.08
Mobile Sources	125.29	855.88	253.21	1,509.76	1159.42	8,379.34	9.65	52.87
Total Operational Emissions	125.92	859.03	261.12	1,553.11	1162.77	8,396.68	9.67	52.98
Significance Threshold	10	55	10	55	-	N/A	--	N/A

Notes: Estimates are results of modeling using the California Air Resources Board's URBEMIS7G.
Source: EIP Associates, 2001.

Operation of the WRF would also result in some additional motor vehicle trips. Operation and maintenance personnel would travel to the WRF on a daily basis, and trucks would periodically deliver chemicals for use in the wastewater treatment process, and would remove biosolids for off-site disposal. Vehicle emissions associated with chemical deliveries and biosolids removal would also contribute to the degradation of air quality by generating additional ROG and NO_x pollution. Criteria air pollutants are also generated when any engines that require fossil fuel are used. Because the Proposed Project would not incorporate the use of flare gas, blowers, or a heater, the only fossil-fueled engine used at the WRF would be a stand-by emergency diesel-powered generator. The occasional operation of the generator would also result in the generation of ROG, NO_x, and CO; however, these emissions would be significantly less than those associated with the vehicle trips that occur on a daily basis.

Implementation of the policies and actions contained in the air quality element of the City's General Plan provide the opportunity for reduced vehicle trip lengths, minimize new vehicle trips and would reduce the amount of mobile source criteria air pollutants created during the buildout of the project area. These polices would also maximize pedestrian activity and transit use and promote alternative forms of transportation to further reduce the magnitude of this impact.

Implementation of the City's air quality policies and the mitigation measures 4.5.4 a-c would reduce the magnitude of emissions associated with mobile sources created by buildout of the project area. However, the impact would remain **significant and unavoidable** because the success of the transportation plan is unknown and development of the project area would still result in an increase in mobile source emissions contributing to an existing air quality problem.

Mitigation Measure

MM 4.5.4: Implementation of the goals policies and actions outlined in the air quality element of the Tracy Urban Management Plan and the following additional mitigation measures would reduce the magnitude of emissions associated with mobile sources created by the buildout the project area.

(a) Encourage the use of alternative fuel vehicles by large employers within the project area;
(b) Provide transit-enhancing infrastructure that includes transit shelters, benches, route signs, and bus turnouts to promote the use of public transportation; and
(c) Provide pedestrian enhancing infrastructure that includes bike paths, sidewalks and pedestrian paths, direct pedestrian connections, street trees to shade sidewalks, pedestrian safety designs/infrastructure, street furniture, street lighting, and pedestrian signalization and signage.

Timing/Implementation: Prior to approval of any FDP
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.5.5 Operation of the WRF could result in the generation of toxic air contaminants.

Toxic air contaminants are generally created from the vaporization of volatile liquids present in the wastewater solids and flaring of digester gas. A facility that does not have a sludge incinerator and whose maximum facility throughput does not exceed 10 mgd is excluded from the requirements of the Toxic Emission Inventory Criteria and Report of the Air Toxics "Hot Spots" regulation.[7] As previously discussed, the WRF would be housed within a concrete building and would treat a maximum of 2.2 mgd of influent. Because the facility is excluded from the requirements of the Toxic Emission Inventory Criteria and because it would treat wastewater only from the business park, it is not expected to create a health risk level greater than 10 in 1 million. Consequently, the operation of the plant is not anticipated to generate a substantial amount of TACs. Therefore, this would be a **less-than-significant impact**.

Mitigation Measures

MM.4.5.5 None required.

Project Impact

Impact 4.5.6 Operation of the Proposed Project could include research and development (R&D) land uses could result in the generation of toxic air contaminants.

Development under the Proposed Project would include land uses that may include sources of TACs (e.g., R&D activities). Depending upon the nature of each individual activity, some level of TAC emissions could be generated. As previously described, the SJVUAPCD Guide for Assessing and Mitigating Air Quality Impacts provides specific screening-level thresholds for evaluating potential TAC sources and considering mitigation on a project-by-project basis. The SJVUAPCD would evaluate all projects requiring air quality permits for emissions of toxic air

7 Cadrett, John. San Joaquin Valley Unified Air Pollution Control District. Air Quality Planner. Personal Communication. March 28, 2002 and March 29, 2002.

contaminants, regardless of their location. According to the SJVUAPCD Guide, an adequate buffer space would be required to reduce impacts so that (1) the probability of contracting cancer for the maximally exposed individual (MEI) does not exceed 10 in one million, and (2) the ground-level concentrations of non-carcinogenic toxic air contaminants would result in a hazard index of less than 1 for the MEI. Depending on the emissions levels, BACT would be required to reduce emissions to below adopted thresholds.

The specific types of R&D activities or their location relative to adjacent uses within the project site have not been identified. Although each individual business may not exceed established thresholds, it is possible that the combined TAC emissions effect of the aggregate of all R&D activity at the site could exceed established thresholds. This is considered a significant impact.

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

Mitigation Measure

MM.4.5.6 The project applicant shall coordinate with the SJVUAPCD regarding potential toxic air contaminant emissions from R&D activities. This shall include preparation of necessary documents (e.g., facility design and controls, and risk evaluation, as appropriate). Evidence of this coordination with the SJVUAPCD shall be provided to the City of Tracy Department of Development and Engineering Services. Best available control technology (BACT) shall be installed if adopted thresholds are exceeded.

Timing/Implementation: Prior to occupancy of each R&D use that requires a permit from the SJVUAPCD, or upon written verification from the SJVUAPCD that permit requirements do not apply.

Enforcement/Monitoring: City of Tracy

Cumulative Impacts and Mitigation Measures

Impact 4.5.7 Project-related traffic would contribute to an increase of localized CO concentrations.

Project development would contribute traffic to existing conditions. Vehicles operating at intersections with high levels of congestion could trigger violations of the ambient air quality standard for carbon monoxide. Intersections that are rated to operate at Level of Service (LOS) E or F are locations where a potential CO violation could occur.[8] Under future conditions (the year 2025) the traffic analysis identifies the intersections of 11th Street and Lammers Road and Tracy Hills E-W Arterial and Lammers Road as having PM peak hour LOS of D and C/D, respectively. In future conditions, without traffic mitigation, these intersections are expected to

8 San Joaquin Valley Unified Air Pollution Control District. Guide for Assessing and Mitigating Air Quality Impacts, August 20, 1998.

experience LOS F and D, respectively. In future conditions, with traffic mitigation, these intersections are expected to experience LOS A and D, respectively. Localized CO concentrations were analyzed at these intersections.

Tables 4.5-7A and 4.5-7B show the modeled CO concentrations for each of the intersections considered in this analysis. As predicted by the CALINE4 model, project contributions to localized CO concentrations do not exceed the 1-hour or 8-hour California Ambient Air Quality Standards. Therefore, the project contributions to localized CO concentrations would be expected to be minimal with no violations. The effects of the project to localized CO concentrations would be considered to be a **less-than-significant** impact.

TABLE 4.5-7A

TRACY GATEWAY
SUMMARY OF LOCALIZED CO ANALYSIS (1-HOUR)

Intersection	1-Hour CO Concentrations (ppm)		
	2025 without Project	2025 with Project (unmitigated)	2025 with Project (mitigated)
11th Street/Lammers Road	8.7	9.7	8.8
Tracy Hills E-W Arterial/Lammers Road	7.6	7.9	7.9
1-Hour Ambient Air Quality Standard	20.0	20.0	20.0

Source: EIP Associates, 2001.

TABLE 4.5-7B

TRACY GATEWAY
SUMMARY OF LOCALIZED CO ANALYSIS (8-HOUR)

Intersection	8-Hour CO Concentrations (ppm)		
	2025 without Project	2025 with Project (unmitigated)	2025 with Project (mitigated)
11th Street/Lammers Road	6.8	7.5	6.9
Tracy Hills E-W Arterial/Lammers Road	6.1	6.2	6.2
8-Hour Ambient Air Quality Standard	9.0	9.0	9.0

Notes: Concentrations are based on CALINE4 outputs which are adjusted with anticipated background CO concentrations of 6.4 ppm (1-hr) and 5.2 ppm (8-hr).
Source: EIP Associates, 2001.

Mitigation Measure

MM 4.5.7 None required

Cumulative Impact

Impact 4.5.8 The cumulative impact of the Proposed Project, in combination with other development in the air basin, could hinder the SJVUAPCD's ability to bring the air basin into attainment.

As discussed in Chapter 3.0 Project Description, the project site is being rezoned from residential uses to commercial and open space uses. Commercial land uses generate more emissions than those associated with residential uses due to higher vehicle trip generation rates associated with the square footage of each building.

The San Joaquin Valley Air Quality Management Plan's emission estimates are based on future development that would occur consistent with that presented in local General Plans. Although emissions associated with regional development are accounted for in the City of Tracy's General Plan, these emissions are based on a residential land use zoning consisting of 3.5 dwelling units per acre. As indicated in Table 4.5-8, mobile source emissions associated with the existing land use designations are substantially lower than those associated with the Proposed Project.

TABLE 4.5-8

SUMMARY OF OPERATIONAL EMISSIONS WITH DEVELOPMENT OF 1,883 SINGLE FAMILY HOMES (TONS PER YEAR)

Operational Activity	ROG (Tons/Year)	NO_x (Tons/Year)	CO (Tons/Year)	PM_{10} (Tons/Year)
Area -wide Sources	17.63	7.20	5.30	0.07
Mobile Sources	50.16	53.08	410.46	1.42
Total Operational Emissions	67.79	60.28	415.76	1.49
Significance Threshold	10	10		

Notes: Estimates are results of modeling using the California Air Resources Board's URBEMIS7G
Source: EIP Associates, 2001

In addition to the above, the San Joaquin Valley Air Basin is currently designated as nonattainment for ozone and PM_{10}. Development of the Proposed Project and other development in the region would result in the generation of additional ozone and PM_{10} pollutants. Because the land uses associated with the project are more intense and would result in higher emissions than those associated with the current land use designation and because the project site is currently in designated as nonattainment for ozone and PM_{10}, development of the Proposed Project in combination with other regional development would result in a significant cumulative impact.

Implementation of the following mitigation measure would reduce the magnitude of the impacts, however, cumulative impacts to air quality would remain **significant and unavoidable**.

Mitigation Measure

MM 4.5.8 Implement MM 4.5.3 and 4.5.4.

Cumulative Impact

Impact 4.5.9 Implementation of the Proposed Project, in combination with other development in the Tracy Planning Area, could generate unacceptable cumulative toxic air contaminant health risks.

As discussed in Impact 4.5.6, the Proposed Project would include the construction and operation of a WRF and R&D facilities that could generate TACs. At this time, it is unknown what type or the amount of TACs that could be generated from the R&D facilities because the specific uses and sources have not been identified. However, implementation of Mitigation Measure 4.5.6 would reduce the Proposed Project's TAC emissions to ensure applicable SJVUAPCD risk thresholds are not exceeded. The WRF is not expected to generate substantial TAC emissions.

The SJVUAPCD has prioritized several facilities that emit TACs in the Tracy Planning Area. Each source of TACs within the Tracy Planning Area would be required to comply with applicable SJVUPACD rules and regulations (e.g., permitting process and use of BACT).[9] However, the incremental contribution of TACs from the Proposed Project, in combination with other existing and future sources of TACs in the Tracy Planning Area, could result in combined TAC health risks to the surrounding population. This would be a significant impact.

Implementation of Mitigation Measure MM 4.5.6 would reduce the Proposed Project's contribution to cumulative TAC impacts. However, no authoritative regulatory body has adopted any standard to determine whether the risks posed by existing ambient levels of TACs should be considered acceptable and, in turn, whether possible increases in ambient risks on a cumulative level could be considered significant. Because the project could, by itself, pose a significant impact, this EIR assumes that the cumulative impact of the project could also be significant with respect to combined toxic air contaminant sources. Therefore, the impact remains **significant and unavoidable**.

Mitigation Measure

MM 4.5.9 Implement MM 4.5.6.

9 City of Tracy, Urban Management Plan/General Plan Environmental Impact Report, July 19, 1993, pp.202 and 208.

4.6 BIOLOGICAL RESOURCES

This section of the EIR addresses the Proposed Project's potential to affect significant biological resources. The setting descriptions and impact analyses presented in this section are based on the review of existing documentation and biological data bases, correspondence with resource agencies, and on-site field surveys.

1. EXISTING SETTING

Project Site

The project site is located on a 538-acre parcel that is located adjacent to the City of Tracy in San Joaquin County, California, and lies within the Tracy USGS 7.5 minute quadrangle. The site is bordered by 11th Street on the north and Lammers Road on the east, and by agricultural land on the south and west. Agricultural land also occurs north of 11th Street, and east of Lammers Road.

Two biological surveys of the project site have been conducted. The first, by LSA Associates was performed on June 20, 2000. A report entitled, "Results of Reconnaissance-Level Survey of Biological Resources - Tracy Business Park - San Joaquin County" presents the results of this survey. LSA Associates, also performed the second, in September 28, 2000. That survey report is entitled, "Results of Reconnaissance - Level Survey of Biological Resources - Tracy Business Park Addition - San Joaquin County" presents the results of this survey. Copies of these survey reports are included in Appendix E. Surveys consisted of driving all access roads to and on the site, and by walking random meander transects through all portions of the site that were not being irrigated. During the surveys, vegetation types were identified and wildlife species that were observed were recorded. The primary focus of the surveys was to identify habitat that could potentially support special-status plant or wildlife species, and to record any incidental occurrences of special-status species on the project site.

The entire project area is highly disturbed and has been subject to active agricultural use for many years. Vegetation at the project site consists almost exclusively of alfalfa, and various row crops. Virtually no natural vegetation exists on the site, with only narrow strips of weedy annual grasses and forbs such as wild oats (*Avena* sp.), prickly lettuce (*Lactuca serriola*) and mustard (*Brassica* sp.) growing along the edges of access roads to and on the site. A small number of trees occur along the access roads along the western portion of the project site. These trees include introduced ornamental species such as elm (*Ulmus* sp.), and Tree of Heaven (*Ailanthus altissima*). Given the degree of disturbance resulting from many years of active agriculture, it is extremely unlikely that any of the special-status plants known from the region could persist within the project area.

Due to the highly disturbed nature of the project site, wildlife diversity is very low. Bird species that were observed during the surveys included rock dove (*Columba livia*), mourning dove (*Zenaida macroura*), cliff swallow (*Hirundo pyrrhonota*), barn swallow (*Hirundo rustica*), American crow (*Corvus brachyrhyncos*), red-winged blackbird (*Agelaius phoenicus*), western

meadowlark (*Sturnella neglecta*), Brewer's blackbird (*Euphagus cyanocephalus*), and house finch (*Carpodacus mexicanus*). Mammals observed on the project site included California ground squirrel (*Spermophilis beecheyi*) (burrows only), Botta's pocket gopher (*Thomomys bottae*) (burrows only), and coyote (*Canis latrans*) (road killed individual). No reptiles or amphibians were observed during either survey.

Special-status species that were observed at the project site included northern harrier (*Circus cyaneus*), and loggerhead shrike (*Lanius ludovicianus*). Additionally, four Swainson's hawks (*Buteo swainsoni*) were observed approximately one mile to the north of the project area during the June 8, 2000 survey. Although no nesting habitat for this species exists, Swainson's hawk may forage in the alfalfa or other crop fields at the project site.

California ground squirrel burrows near agricultural fields on the project site also represent suitable habitat for western burrowing owl (*Athene cunicularia hypugea*). Occurrence of western burrowing owl has been documented within one mile of the project area. Additionally, due to the proximity of known records, San Joaquin kit fox (*Vulpes macrotis mutica*) may travel through the project area.[1] However, due to its highly disturbed nature, it is unlikely that this species uses the project area on anything more than an occasional basis.

Although no wetlands or other Jurisdictional Waters of the United States were observed during the special-status species surveys conducted at the project site, a jurisdictional delineation for wetlands was not conducted. Due to the highly disturbed nature of the project site, it is unlikely that any wetlands occur there. However, it is possible that portions of the irrigation system such as the irrigation sediment pond bordering Lammers Road may meet the definition of an "other waters" of the United States.

Table 4.6-1 below is a list of special-status species that could be expected to be found in the general vicinity of the project area. This list was compiled from observations made during previous biological surveys of the project site; the search results of California Department of Fish and Game's (CDFG) Natural Diversity Database of the Tracy, Midway, Vernalis, Clifton Court Forebay, Union Island, Lathrop, Cedar Mountain, Lone Tree Creek and Solyo USGS 7.5 minute quadrangles; and from a species list contained in a letter from the U. S. Fish and Wildlife Service (USFWS) dated March 12, 2001. Species contained in the above sources that are not included in Table 4.6-1 were those that were either from habitats that do not occur in or near the project area, or ones that the project area is outside of the known range for that species. Copies of the CNDDB database results, and the USFWS letter, and species list are included in Appendix E.

1 California Department of Fish and Game, 2001, Natural Diversity Database – Rarefine 2.

TABLE 4.6-1

SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT AREA

Scientific Name	Common Name	State/ CNPS	Federal	Habitat Requirements/ Potential to Occur in the Project Area
Birds				
Athene cunicularia	Burrowing owl	CSC / NA	SC	Open grasslands and deserts with mammal burrows for nesting. Potential habitat in project area. Known records for this species occur within 1 mile of the project area.
Buteo regalis	Ferruginous hawk	CSC / NA	SC	Not known to nest in California. May use area for foraging.
Buteo swainsoni	Swainson's hawk	T/ NA	None	Large (usually riparian) trees for nest sites. Open grasslands and agricultural fields for foraging. No nesting habitat in project area, but may forage there. Observed within 1 mile of the project area.
Circus cyaneus	Northern harrier	CSC/ NA	None	Grasslands, agricultural fields and open marshes. Observed on the project site.
Falco peregrinus anatum	American peregrine falcon	None	D	Nests on high cliffs, forages in open areas. No nesting habitat in project area, may use area for foraging.
Lanius ludovicianus	Loggerhead shrike	CSC/ NA	SC	Open grasslands, often adjacent to wooded areas. Observed on project site.
Mammals				
Antrozous pallidus	Pallid bat	CSC/ NA	None	Crevices in rock, caves, mines, bridges or buildings. No roosting habitat. May forage over area.
Corynorhinus townsendii townsendii	Pacific western big-eared bat	CSC/ NA	SC	Roosts in open areas of caves, mines, or occasionally buildings. No roosting habitat. May forage over area.
Eumops perotis californicus	Greater western mastiff bat	CSC/ NA	SC	Roosts in crevices in cliffs, large trees, and occasionally bridges or buildings. No roosting habitat. May forage over area.
Myotis ciliolabrum	Small-footed myotis	None / NA	SC	Crevices in rock, caves, mines, bridges or buildings. No roosting habitat. May forage over area.
Myotis evotis	Long-eared myotis	None/ NA	SC	Crevices in rock, caves, mines, bridges or buildings. No roosting habitat. May forage over area.
Myotis thysanodes	Fringed myotis	None/ NA	SC	Crevices in rock, caves, mines, bridges or buildings. No roosting habitat. May forage over area.
Myotis volans	Long-legged myotis	None/ NA	SC	Crevices in rock, caves, mines, bridges or buildings. No roosting habitat. May forage over area.
Myotis yumanensis	Yuma myotis	None/ NA	SC	Crevices in rock, caves, mines, bridges or buildings. No roosting habitat. May forage over area.
Vulpes macrotis mutica	San Joaquin kit fox	None	E	Open grasslands and scrub habitats. Occasionally found near agricultural fields. Potential habitat in project area.

TABLE 4.6-1

SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT AREA

Scientific Name	Common Name	State/ CNPS	Federal	Habitat Requirements/ Potential to Occur in the Project Area

Status:

D = Delisted
E = State or Federally listed as Endangered
T = State or Federally listed as Threatened
SC =Federal Species of Concern (threat and/or distribution data are insufficient to support federal listing).
CSC = California Species of Special Concern

Off-Site Potable and Non-Potable Water System Improvements

A reconnaissance-level biological survey of the proposed routes for the off-site potable and non-potable water distribution system was conducted on March 15 2002 by EIP Associates.

As illustrated in Figures 3-4 and 3-6, most of the pipeline alignments are within existing roadways that pass through urban areas. However, there are two segments that are in undeveloped agricultural land. The first segment extends north from West Schulte Road across an agricultural field to the project site. The second segment extends north from 11th Street to I 205 through what is primarily agricultural land with some urban development until it reaches a western extension of Grant Line Road.

The vegetation along all of the open land segments of the proposed pipeline alignments consist of either crops such as alfalfa, or a cover crop of annual grasses. Due to the continued agricultural activities that occur on these lands, no wetlands or habitat for special-status plant and wildlife species occur there. However, these lands would provide foraging habitat for Swainson's hawk and other raptors.

In addition to the agricultural lands described above, there are a series of irrigation ditches that follow portions of the proposed alignments along several roadways including Lammers Road, Larch Road, Grant Line Road, Tracy Blvd., and Corral Hollow Road. Although these ditches are clearly man-made, some of them may be considered to be "other waters of the U.S." by the US Army Corps of Engineers. Depending upon the placement of the pipelines in relation to the road right-of-way, these ditches could be affected by the proposed pipeline installation.

The proposed location for the proposed water tank that would store reclaimed water from the Proposed Project's water reclamation facility (WRF) is within the City's Wastewater Treatment Plant (WWTP). The vegetation at the WWTP consists of similar ruderal grassland (formerly agricultural land) and active agricultural land. It is expected that the site would support foraging habitat for Swainson's hawk and other raptors.[2]

2. REGULATORY FRAMEWORK

Federal

Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) implements the Federal Endangered Species Act (FESA; 16 USC 153 *et seq.*). Projects that would result in "take" of any federally-listed threatened or endangered species are required to obtain authorization from the USFWS through either Section 7 (interagency consultation) or Section 10(a) (incidental take permit) of FESA, depending on whether the federal government is involved in permitting or funding the project. The authorization process is used to determine if a project would jeopardize the continued

2 City of Tracy, Tracy Wastewater Treatment Plant Expansion Draft Environmental Impact Report (SCH No.200012039), October 2001, Section 4.8 (Biological Resources).

existence of a listed species and what mitigation measures would be required to avoid jeopardizing the species.

"Take" under the federal definition means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Section 10 of FESA provides an exception to the Section 9 prohibitions against take. This exception provides a regulatory mechanism to permit the "incidental take of federally-listed fish and wildlife species by private interests and non-federal government agencies during lawful land, ocean, and water use activities." Incidental take is defined as a take of listed fish or wildlife species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a Federal agency or applicant. Section 10(a)(1)(B) requires an applicant for an incidental take permit to submit a "conservation plan that specifies, among other things, the impacts that are likely to result from the taking and the measures the permit applicant will undertake to minimize and mitigate such impacts." FESA compliance through Section 10 is typically undertaken only when compliance cannot be conducted through Section 7 (i.e., when there is no federal funding, approval, or permit process other than the incidental take permit process).

Migratory Bird Treaty Act of 1918

Under 16 U.S.C. 703-711, the Migratory Bird Treaty Act makes it "unlawful to take any migratory bird listed in 50 C.F.R. Part 10, including nests, eggs, or products." This regulation is pertinent to any shrub or tree removal required for a Proposed Project, or project-related disturbance that could affect nesting migratory birds. It could require that elements of the Proposed Project (particularly vegetation removal) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by the CDFG and/or USFWS. Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "take."

The majority of bird species in North America are protected by the Migratory Bird Treaty Act, as they are considered migratory in one form or another. Species such as loggerhead shrike, northern harrier, Swainson's hawk, and burrowing owl, which were observed in the project area, or are known to occur in the vicinity of the project area are protected under this Act.

Clean Water Act

The objective of the Clean Water Act (CWA, 1977, as amended) is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Section 401 prohibits the discharge of any pollutant into the Nation's waters without a permit, and Section 402 sets up the permit program. Section 404 of the CWA regulates activities that result in discharge of dredged or fill material into waters of the United States. The term "waters of the United States" as defined in the Code of Federal Regulations (33 CFR 328.3[a]; 40 CFR 230.3[s]) includes:

- All interstate waters including interstate wetlands. (Wetlands are defined by the federal government [CFR, Section 328.3(b), 1991] as those areas that are inundated or saturated

by surface or 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.)

- Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with EPA [328.3(a)(8) added 58 FR 45035, Aug. 25, 1993].

In 1987, the Corps published a manual which standardized the manner in which wetlands are to be delineated nationwide. To determine whether areas that appear to be wetlands are subject to Corps jurisdiction (i.e., are "jurisdictional" wetlands), a wetlands delineation must be performed. Under normal circumstances, positive indicators from three parameters (1) wetland hydrology, (2) hydrophytic vegetation, and (3) hydric soils must be present to be classified as a jurisdictional wetland. Wetlands generally include swamps, marshes, bogs, and similar areas.

State

California Endangered Species Act

The CDFG administers a number of laws and programs designed to protect plant, fish, and wildlife resources. The most significant of these regulations is the California Endangered Species Act of 1984 (CESA - Fish and Game Code Section 2050) which regulates the listing and take of state-endangered (SE) and state-threatened (ST) species. CESA declares that deserving species will be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the state. CESA has established that it is state policy to conserve, protect, restore, and enhance endangered species and their habitats.

Species listed under CESA cannot be taken without adequate mitigation and compensation. The definition of take under CESA is the same as described above for FESA. However, based on findings of the California Attorney General's Office, take under CESA does not prohibit indirect harm by way of habitat modification. Typically, the CDFG implements endangered species protection and take determinations by entering into management agreements (Section 2081 Management Agreements) with project applicants.

The CDFG maintains lists for Candidate-Endangered Species (SCE) and Candidate-Threatened Species (SCT). California candidate species are given protection that is equal to that provided to listed species. CDFG also lists Species of Special Concern (CSC) based on limited distribution, declining populations, diminishing habitat, and/or unusual scientific, recreational, or educational value. These species are not afforded the same legal protection as listed species, but may be added to official lists in the future. The designation of CSC is intended by the CDFG as a management tool for consideration in future land use decisions. As a consequence, the CDFG typically requests that CEQA lead agencies give consideration to minimization of impacts to CSC species when approving projects.

Fish and Game Code - Sections 3503, 3503.5, and 3513

Fish and Game Code Section 3503 states that it is "unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Fish and Game Code Section 3503.5 protects all birds-of-prey (raptors) and their eggs and nests. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act. These regulations could require that elements of the Proposed Project (particularly vegetation removal) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFG and/or USFWS. Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered "take."

California Environmental Quality Act

The CEQA Guidelines state that an impact may be significant if it affects rare or endangered species. Within the California Code of Regulations (CCR), CEQA Guidelines Section 15380, defines "rare" in a broad sense that includes species other than those designated as State or federally threatened or endangered. On this basis, plants or animals can be considered rare or endangered if they meet the criteria of Section 15380(b). Examples of species that may meet this criteria include, CNPS List 1A, 1B, 2, 3, and 4 species, species of special concern, and species of concern and Federal candidates for listing (USFWS).

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) has authority over wetlands through the CWA. The CWA requires that an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) to first obtain a certificate from the appropriate State agency stating that the fill is consistent with the State's water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the SWRCB to the nine regional boards. A request for certification should be submitted to the regional board at the same time that an application is filed with the Corps. Because no Corps permit is valid under the CWA unless "certified" by the State, these boards may effectively veto or add conditions to any Corps permit.

Local

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

The San Joaquin County Council of Governments (COG) began the process of preparing the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) in 1994. The SJMSCP was subsequently adopted by the COG on February 27, 2001. The SJMSCP is administered by a Joint Powers Authority (JPA), which consists of members of the San Joaquin COG. This plan addresses impacts to 100 special-status plant and wildlife species found in 52

vegetative communities that occur in scattered localities throughout San Joaquin County. The SJMSCP provides compensation for the loss of open space lands, which currently provides wildlife habitat. The SJMSCP offsets impacts of the loss of multi-purpose open space uses that affect wildlife and plant species by requiring the replacement of those lands through the payment of fees for the purchase of mitigation lands or through in-lieu land dedication. Funds contributed towards the SJMSCP also allow for management of the in-lieu lands in perpetuity.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

Project impacts are considered significant if the project results in the following:

- substantial, or potentially substantial, adverse change in the flora, fauna, or any of the physical conditions within the area affected by the project;
- significant impact to rare or endangered plants or animals, or the habitat of such species;
- substantial interference with the movement of resident or migratory fish or wildlife species;
- substantial impacts to federal and State candidate species and state species of special concern; or
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Project Impacts and Mitigation Measures

Impact 4.6.1 The Proposed Project may result in impacts to wetlands or other Waters of the U.S.

Although no wetlands have been identified in the project area, an irrigation sediment pond borders Lammers Road on the project site. Additionally, a series of irrigation ditches occur in various locations alongside the proposed alignments where non-potable water lines would be installed. There are occasions where the ACOE will take jurisdiction of irrigation sediment ponds or irrigation canals if they provide certain wetland functions or values, and/or were part of a historic wetland or other waters of the United States that once occurred in the area.

If the features are determined to be jurisdictional Waters of the U.S., they would be regulated under Section 404 of the CWA. Section 404 of the CWA and its implementing regulations prohibit dredge and fill actions in jurisdictional Waters of the U.S. without first notifying the U.S. Army Corps of Engineers (Corps). It appears that the project would qualify for a Nationwide Permit 39, which regulates fill being placed in less than 0.5 acre of jurisdictional Waters of the U.S. Additionally, both the CDFG and USFWS have established no-net-loss policies for

wetlands based on extensive losses of these resources in California and elsewhere as a result of agricultural practices and urban development. Therefore, the loss of potential wetlands would be considered a significant impact. If this pond or any part of the irrigation system is determined to be jurisdictional by the ACOE, then loss of these jurisdictional wetlands or other waters due to implementation of the Proposed Project would be considered a significant impact.

Implementation of the following mitigation measure will ensure that there is no net loss of wetlands or other waters of the United States through compliance with the provisions of the Section 404/401 permit/certification. This compliance will include preservation or replacement of wetland habitat as determined by the ACOE. Implementation of this mitigation measure will reduce this impact to a level that is **less than significant**.

Mitigation Measure

MM 4.6.1 Prior to the issuance of a grading permit, an evaluation of the irrigation sediment pond and the associated distribution system shall be made to determine if either would be considered jurisdictional. If it is determined that the irrigation sediment pond or distribution system on the site is not jurisdictional then no further mitigation would be required.

If it is determined that the irrigation sediment pond or associated distribution system on the site is jurisdictional then a formal delineation shall be prepared and submitted to the ACOE.

Prior to site grading for the project, the project applicant shall be in compliance with the programmatic 404/401 permit that has been established for the SJMSCP.

Timing/Implementation: Prior to issuance of a grading permit
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.6.2 The Proposed Project could conflict with the San Joaquin County Multi Species Habitat Conservation and Open Space Plan

Without complying with the policies and regulations in the SJMSCP, the Proposed Project would result in a loss of lands that provides wildlife habitat and would conflict with the goals and objectives of preserving special status plants and animals. This would result in a significant impact. Implementation of the following mitigation measure will ensure that the applicant provides compensation for the loss of wildlife habitat and offset the impact of the loss of the land, resulting in a **less than significant** impact.

Mitigation Measure

MM 4.6.2 The applicant shall be required to comply with the policies and regulations of the SJMSCP.

Timing/Implementation: Prior to issuance of a grading permit
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.6.3 The Proposed Project may result in loss of Swainson's hawk foraging habitat.

Four Swainson's hawks were sighted within one mile of the project area, and several known nest sites for this species occur within 10 miles of the project area (primarily in nearby riparian areas). This species often forages within a 10-mile radius of its nest. Although no potential nest trees are found on the project site, the agricultural fields (i.e., alfalfa and other row crops) provide foraging habitat for Swainson's hawk. Development of the Proposed Project would result in a loss of 538 acres of foraging habitat for this species. Loss of Swainson's hawk foraging habitat would be considered a significant impact.

Implementation of the following mitigation measure will ensure that there is no net loss of Swainson's hawk foraging habitat. Payment of fees that will be used to preserve appropriate mitigation lands in perpetuity, will ensure that foraging habitat for Swainson's hawk will continue to be available in the region. Implementation of this mitigation measure will reduce this impact to a level that is **less than significant**.

Mitigation Measure

MM 4.6.3 Pursuant to the provisions of the SJMSCP, the project applicant shall purchase one acre of mitigation land, to be enhanced and managed in perpetuity, for each acre of Swainson's hawk foraging habitat (i.e., agricultural land) that is converted from compatible agricultural use.

The project applicant shall either purchase mitigation credits at a rate of $1,500 to $1,690 per acre of agricultural land that is converted to non- open space use, or the project applicant may, in-lieu of fee payments, offer suitable land for dedication. Dedications shall be approved by the JPA with concurrence from the permitting agencies. In-lieu lands shall meet minimum parcel sizes designated in the SJMSCP preserve design descriptions, or if smaller, should be adjacent to an existing preserve which, in combination with in-lieu lands, meets Preserve size minimums.

Additionally, in-lieu lands shall include an endowment payment (equal to the management endowment and administration costs of land acquisitions as

prescribed in Sections 7.2.3 and 7.2.4 of the SJMSCP) to ensure management of the dedicated land in perpetuity as described in Section 5.3.2.2 of the SJMSCP.

Timing/Implementation: Prior to issuance of grading permit or any building permit
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.6.4 The Proposed Project may result in impacts to nesting raptors.

Raptors such as northern harrier have been documented to occur within the project site. Northern harriers nest on the ground in open marshy areas, grasslands and agricultural fields. Ground disturbance that would occur as a result from grading prior to construction of the Proposed Project during the nesting season for this species may result in loss of individuals and, or nest sites. Additionally, the two non-native trees on the project site and trees that occur along water supply distribution system alignments may provide nesting opportunities for other raptor species such as white tailed kite (*Elanus leucurus*) and red-tailed hawk (*Buteo jamaicensis*). Although no raptor nest structures were observed during surveys of the project site, it is possible, that raptors could establish nests there prior to project construction. Removal of those trees or other disturbance that results from the implementation of the Proposed Project during the nesting season may result in the loss or abandonment of any nests that may have been established there. Loss of nesting raptors or disturbance to nesting raptors that results in nest abandonment would be considered a significant impact.

Implementation of the following mitigation measure will ensure that there is no loss of nesting raptors by protecting active nest sites. Restricting construction activities to outside of the nesting season, or outside of a certain buffer distance will reduce or eliminate construction related disturbance of the nest(s) and prevent their loss or abandonment. Implementation of this mitigation measure will reduce this impact to a level that is **less than significant**.

Mitigation Measure

MM 4.6.4 Prior to the commencement of any construction activities, a survey of the project site by a qualified biologist should be conducted to determine if any raptors are nesting in the area. If it is determined that no raptors are nesting in the project area, then no further mitigation is necessary.

If any raptors are determined to be nesting in the project area, then construction activities shall be conducted outside of the breeding season for the species in question. The nesting season is generally between mid-March to late August, but may vary by species.

If construction outside of the breeding season is not feasible, then a buffer zone (100 feet for white-tailed kite and other tree nesting raptor nest sites, and 500 feet

for northern harrier nest sites) shall be established and maintained during the nesting season for the period encompassing nest building and continuing until the young have fledged. This setback applies whenever construction or other ground disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

Timing/Implementation: Prior to issuance of grading permit or any building permit
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.6.5 The Proposed Project may result in impacts to loggerhead shrike.

Loggerhead shrike were sighted within the project area during the June 2000 surveys of the project area. Although no nest sites for loggerhead shrike were observed during surveys of the project area, it is possible that they may establish a nest in the trees prior to construction. Therefore, implementation of the Proposed Project could result in the loss of nesting loggerhead shrikes due to ground disturbance near the nest site, or by removal of the nest trees. Loss of, or disturbance to active loggerhead nest sites would be considered a significant impact.

Implementation of the following mitigation measure will ensure that there is no loss of nesting loggerhead shrike by protecting active nest sites. Restricting construction activities to outside of the nesting season, or outside of a certain buffer distance will reduce or eliminate construction related disturbance of the nest(s) and prevent their loss or abandonment. Implementation of this mitigation measure will reduce this impact to a level that is **less than significant**.

Mitigation Measure

MM 4.6.5 Prior to the commencement of any construction activities, a survey of the project site by a qualified biologist should be conducted to determine if any loggerhead shrike are nesting in the project area. If it is determined that no loggerhead shrike are nesting in the project area, then no further mitigation is necessary.

If loggerhead shrike are determined to be nesting in the project area, then construction activities shall be conducted outside of their breeding season. The nesting season for loggerhead shrike occurs from March to July.

If construction outside of the breeding season is not feasible, then a buffer zone of 100 feet shall be established and maintained during the nesting season for the period encompassing nest building and continuing until the young have fledged. This setback applies whenever construction or other ground disturbing activities must begin during the nesting season in the presence of nests which are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

Timing/Implementation: Prior to issuance of grading permit or any building permit
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.6.6 The Proposed Project may result in impacts to western burrowing owl.

Western burrowing owl has not been documented to occur on the project site. However, potential habitat for western burrowing owl is present on the project site in the California ground squirrel burrows that occur on the project site. Additionally, this species is documented to occur within one mile of the project area (CNDDB, 2001). If it is determined that western burrowing owl does occur on the project site, grading and other ground disturbing activities associated with construction of the Proposed Project would result in disturbance to, or loss of western burrowing owl, or their nest sites. Loss of individual burrowing owls, or disturbance to their nest sites would be considered a significant impact.

Implementation of the following mitigation measure will ensure that there is no loss of individual burrowing owls or their nest sites by protecting active burrows during the nesting season and by excluding them from the area during the non-nesting season. Restricting construction activities to outside of the nesting season, or outside of a certain buffer distance will reduce or eliminate construction related disturbance of the nest(s) will prevent their loss or abandonment. Passive exclusion of owls from the burrows with the one-way doors will protect individual owls by discouraging their use of the area. Implementation of this mitigation measure will reduce this impact to a level that is **less than significant**.

Mitigation Measure

MM 4.6.6 Within Nesting Season (March through August)
Prior to the commencement of any construction activities, a survey of the project site by a qualified biologist should be conducted to determine if any western burrowing owl are present in the project area. If it is determined that no western burrowing owl are present in the project area, then no further mitigation is necessary.

If burrowing owl are determined to be nesting in the project area, then construction activities shall be conducted outside of their breeding season. The nesting season for burrowing owl in this region occurs from March through August.

If work must be conducted during the nesting season, then a buffer of 250 feet shall be established around all active burrowing owl nests. No disturbance shall be allowed within these buffers, and the buffer areas shall remain in place until the young have fledged.

Outside of Nesting Season (September through February)
If any western burrowing owl are determined to be inhabiting the project area, then pursuant to the provisions of the SJMSCP that pertain to burrowing owls, the project applicant may install one-way doors, as approved by the JPA in burrows outside of the nesting season so that owls may exit the burrows, but not re-enter them.

To discourage colonization, or recolonization of the site by burrowing owls, the project applicant may plant and maintain new vegetation that will cover the entire area of potential nesting habitat at a height of 36 inches above the ground. This vegetation shall be maintained until construction begins. Vegetation of this type will discourage use of the site by ground squirrels and burrowing owls.

Timing/Implementation: Prior to issuance of grading permit or any building permit
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.6.7 The Proposed Project may result in impacts to San Joaquin kit fox.

San Joaquin kit fox have not been recorded for the project area. However, records for San Joaquin kit fox occur within one mile of the project area. Due to the high degree of disturbance, it is unlikely that San Joaquin kit fox make significant use of the project site. However, given the proximity of known occurrences, it is possible that areas that support ground squirrel colonies on the project site could also support San Joaquin kit fox den sites. Additionally, San Joaquin kit fox may forage in the project area, or use it as a travel corridor to and from other more appropriate foraging habitat in the region. Ground disturbing activities that result from implementation of the Proposed Project may result in the loss of San Joaquin kit fox individuals, denning or foraging habitat, or an interruption of their travel corridors to and from other foraging sites. Loss of San Joaquin kit fox individuals, denning habitat, foraging habitat, or restricting their travel corridors as a result of implementation of the Proposed Project would be considered a significant impact.

Implementation of the following mitigation measure will ensure that there is no loss of individual San Joaquin kit fox, and no net loss of kit fox foraging habitat or would not result in the restriction of their travel corridors that may be in the area. This will be accomplished through protection of natal dens, and replacement of potential foraging habitat as described above. Implementation of this mitigation measures will reduce this impact to a level that is **less than significant**.

Mitigation Measure

MM 4.6.7 Prior to the commencement of any construction activities, the project applicant shall retain a qualified biologist to conduct preconstruction surveys for potential kit fox dens within two calendar weeks to thirty calendar days prior to commencement of ground disturbing activities. If no potential dens are discovered, then no further mitigation is necessary.

If potential dens are discovered, then the potential den entrances shall be dusted with flour or bentonite for three calendar days to register tracks of any San Joaquin kit fox that may be present. If no San Joaquin kit fox activity is identified, then the potential dens may be destroyed.

If San Joaquin kit fox activity is identified, then the dens shall be monitored by a qualified biologist to determine if it is a natal den, or if it is occupied only by adults. If only adults occupy the den, then the den may be destroyed after the den has been vacated. If the den is a natal den, then a buffer zone of 250 feet shall be established and maintained around the den until a qualified biologist has determined that the den has been vacated.

Loss of foraging habitat or movement corridors shall be mitigated by compliance with the compensation measures for Swainson's hawk described above.

Timing/Implementation: Prior to issuance of grading permit or any building permit
Enforcement/Monitoring: City of Tracy

Cumulative Impacts and Mitigation Measures

Impact 4.6.8 The Proposed Project, in combination with other cumulative development in the project study area, would convert undeveloped land to urban uses, resulting in the loss of general wildlife foraging and sheltering habitat for resident and migratory species.

Agricultural land provides habitat for foraging and cover for many resident and migratory species during various times of the year. These species include the nomadic tri-colored blackbird as well as wide ranging winter migrating species such as ferruginous hawk, prairie falcon, golden eagle that may utilize the land in the Tracy vicinity as foraging habitat. Additionally, many resident species including red-tailed hawks, northern harriers, a wide variety of small birds, as well as coyotes, skunks, raccoons and many other species are known to forage and find shelter in and adjacent to the agricultural land at the project site and surrounding region. The Proposed Project would result in the conversion of 538 acres of agricultural land to urban uses. This development, in combination with other approved and planned development projects within the west Tracy area that are expected to achieve buildout by the year 2025, would result in a significant cumulative loss of biological resources in the region.

The cumulative loss of habitat would be partially offset through participation in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan. However, even with implementation of the following mitigation measure, the cumulative loss of general wildlife foraging and sheltering habitat would remain a **significant and unavoidable** impact.

Mitigation Measure

MM 4.6.8 Implement MM 4.6.1, 4.6.3, 4.6.4, and 4.6.5-4.6.7.

4.7 PUBLIC UTILITIES

A. WATER SUPPLY

This section discusses and analyzes the City's existing and future water supply resources, the City's existing and projected water demands, the Proposed Project's water demands, water supply sources, supply reliability, and storage and distribution capacities. This analysis is based on technical data compiled by the City for the Proposed Project and is intended to comply with Sections 10910 and 10911 of the California Water Code regarding Water Supply Assessments (see Section 4.7.A.2, Regulatory Framework). Copies of technical studies are included in Appendix F. Additional sources of information include the City of Tracy General Plan and the General Plan EIR, the 2000 City of Tracy Urban Water Management Plan (UWMP), and the City Water Inventory Report.

1. EXISTING SETTING

The City of Tracy lies along the western border of the San Joaquin Valley. Ground surface elevations in Tracy range from 600 feet above mean sea level (msl) in the Diablo Range foothills along the southwestern boundary of the Tracy urban limit to 9 feet msl at the northern boundary. The City is located adjacent to the State Water Project California Aqueduct and the Delta-Mendota Canal (DMC). The Old River flows east to west just north of the City and receives the City's treated wastewater discharges. Spring, summer, and fall are generally hot in Tracy. Winters are usually mild, although dense "Tule fog" forms often. Most of the precipitation occurs during winter; the average annual precipitation during the period 1949-98, as recorded by the National Weather Service, is approximately 9 inches.[1]

Project Site

The project site is located adjacent to the City's western boundary in the North Schulte Community Area, as defined in the City's 1993 General Plan. The project site is included in the "Westside Planning Area," an area that includes and which has been delineated by the Project's impacts on Pressure Zones 1 and 2 of the City's water distribution system for purposes of water supply infrastructure planning. As shown in Figure 4.7-1, the Westside Planning Area generally includes the Lammers, North Schulte and portions of South Schulte and Patterson Pass Community Areas.[2] The City has a network of existing potable water transmission and distribution pipelines throughout the City that delivers water to its customers. The City's current water distribution system consists of water mains ranging from 2 to 36 inches in diameter.

The project site has historically been used for agricultural purposes. Untreated water supply for irrigation has been provided by the West Side Irrigation District (WSID) from its Upper Main Canal system using its licensed appropriative water right on the Old River, supplemented by contractual supplies from the Central Valley Project (CVP). According to the property owner,

1 Erler & Kalinowski, Inc., City of Tracy Urban Water Management Plan, December 2000, pp.2-4 to 2-7.
2 West Yost & Associates, Technical Memorandum No.2 – Water Infrastructure (Revised), March 18, 2002, p.2.

Figure 4.7-1

existing water use for irrigating crops at the 538-acre project site ranges from 2,770 to 3,077 ac-ft/yr.[3] Excess irrigation water is collected in a series of ditches, pipes, and sediment basins and is discharged to the WSID Lower Main Canal.

Currently, there are no water mains along either the 11th Street or the Lammers Road Project frontage.

Water Supplies

Existing and Planned Supplies in the City of Tracy

The City of Tracy's existing long-term sustainable water supplies are from three sources: the City's U.S. Bureau of Reclamation (USBR) CVP contract (10,000 ac-ft/yr); groundwater (up to a planned 9,000 ac-ft-/yr maximum operational yield); and water from the Plain View Water District (up to 517 ac-ft/yr). The annual quantity available from these supplies can vary year to year, depending on hydrologic conditions and other environmental factors (e.g., wet year compared to dry year) but based on historic delivery patterns, the long-term sustainable yield from these existing supplies is anticipated to be 16,890 ac-ft/yr.

The City is working to expand the variety of its water supply sources so that the City has enhanced water supply reliability through multiple water supply sources during times of drought or natural disaster. A new water treatment plant (WTP) that will be part of the South County Surface Water Supply Project (SCSWSP) will provide additional redundancies in supplying treated water and could serve as backup in the event that the City's John Jones WTP is temporarily not in operation. The City has taken action to secure other surface water supplies. Agreements have been executed for assignment of 10,000 ac-ft/yr total of WSID's and Banta Carbona Irrigation District's USBR contract supplies to the City. In addition, the City is implementing a demonstration Aquifer Storage and Recovery (ASR) program, which allows surplus treated surface water to be stored in the confined aquifer beneath the City and extracted to improve reliability by supplementing surface water supply sources during dry years. During a critically dry year or prolonged drought condition, the City's existing and planned water supplies will be able to provide approximately 25,340 ac-ft/yr of reliable supply.[4] Use of untreated surface water and recycled treated wastewater for landscape irrigation through direct application or through a water exchange program is also planned to reduce demand for potable water. Additional water supplies from outside the Tracy area could be obtained and delivered to the City's existing turnout on the Delta-Mendota Canal. The City could also obtain supplemental water from other sources such as the State Water Project (SWP), or from private parties.[5] Additional information on these water supplies is described in the water supply technical memoranda included in Appendix F of this EIR.

3 Tom Morse, BKF, communication to Jim Miller, Harris & Associates, March 21, 2002.
4 West Yost & Associates, Technical Memorandum No.2 – Water Supply (Revised), March 18, 2002, Figure 8.
5 Erler & Kalinowski, Inc., City of Tracy Urban Water Management Plan, December 2000, Sections 2 and 3.

Demand

Actual water demand in the City of Tracy in 2001 was about 15,300 ac-ft/yr. This water demand was higher than projected for 2001 because 2001 was a relatively dry year. Projected City water demand for 2019 is 27,500 ac-ft/yr, and projected demand for 2045 is 47,000 ac-ft/yr. [6]

In compliance with Section 10910 of the California Water Code, the City Council of the City of Tracy approved a Water Supply Assessment for the Tracy Gateway Project on October 16, 2001 (Resolution No. 2001-378). The approval was based on the following:

- The City of Tracy adopted its most recent Water Management Plan (UWMP) in December 2000. The 2000 UWMP uses the 1993 City of Tracy Urban Management Plan [General Plan] as a basis for projecting population and water demands within the Urban Management Plan area. Thus, the Tracy Gateway Project area, which is located within the North Schulte Community Area, is incorporated into the projection.

Per the adopted UWMP, the estimated maximum water supplies planned during the next 20-year period will provide approximately 46,700 acre-feet per year of water to the City of Tracy.

Based on the City's Water Supply Assessment for the Proposed Project (see Appendix F), the City's projected long-term sustainable water supplies during normal, wet, and dry years are sufficient to meet projected water demands in the City, including the Proposed Project, through at least the year 2019. However, planned supplies may not be available in time to serve the initial phases of the Proposed Project (2004 through 2006).[7] The planned supplies may not be available for the following reasons: the environmental review processes for the BCID, WSID, and SCSWSP water supply projects are not fully completed, so the projects have not been approved or authorized; the ASR program is still being developed; and water deliveries from these other sources would require construction or expansion of water treatment facilities, which has not yet occurred. Therefore, another source of water supply must be identified. The proposed water supply for the project, which is described below, remains the only source of water that the City has control over at this time.

Proposed Project Water Supply

Two supply sources have been identified to provide potable and non-potable water for the Proposed Project from initial phases through buildout. These sources are West Side Irrigation District supply and a "water exchange program." The following discussion provides a description of existing supplies and programs (baseline conditions) that are relevant to the Proposed Project water supply analysis.

If water from the WSID, BCID, SCSWSP, or ASR supplies summarized above becomes available to the City in the future and the water treatment plant capacity to treat the additional supplies is available, the City will consider delivery of this additional source of potable water to the Proposed Project instead of using the water exchange program. Delivery of potable water to

6 West Yost & Associates, Technical Memorandum – Water Supply (Revised), March 18, 2002, p.2.
7 West Yost & Associates, Technical Memorandum – Water Supply (Revised), March 18, 2002, p.16.

the project site from the expanded City supplies would be subject to appropriate environmental review.

West Side Irrigation District

The WSID has two water supply sources, from which portions of both supplies are available to the City and to the Proposed Project: USBR CVP contractual water supply and a licensed appropriative water right to Old River. Existing supplies and historic and future demand are summarized below.

The WSID was organized in 1915 and made its first water deliveries in 1919. The WSID was originally about 11,993 acres. In June 1977, WSID entered into a long-term contract with the USBR for 7,500 ac-ft of CVP supply from the Delta Mendota Canal. CVP water is diverted from the canal through two turnouts. Both turnouts tie into the WSID's Upper Main Canal. The most recent interim contract was executed in February 2000, and the USBR and WSID are currently negotiating a long-term water service contract that would extend to 2025. Environmental review for renewal of long-term water service and repayment contract to address potential environmental impacts related to contract renewals within the Delta-Mendota Canal Unit of the CVP, including the long-term contracts between the USBR and the WSID for the period 2001-2026 was provided in an Environmental Assessment (EA) prepared by the USBR.[8] The Final EA has not been prepared. The Finding of No Significant Impact (FONSI) is anticipated to be concluded and available for comment in March 2003.[9]

Untreated surface water from the WSID's licensed appropriative water right from Old River is WSID's primary water supply.[10] This supply is also a source of non-potable water for the City that can also be used for irrigation. WSID has a licensed appropriative water right on Old River dating back to 1916 to divert up to 82.5 cfs for irrigation purposes from April 1 through October 31. This water right has a relatively high priority, but is for irrigation use on the lands within the original WSID boundary, (includes the project site and major portions of the City). This priority becomes very important in drought years. In essence, only riparian users and pre-1914 water rights holders would have more senior rights (a very limited group). WSID's rights are senior to those held by the State and federal government for the State Water Project and the CVP. Over the 85-year history of the WSID's water diversions, it has never been directed by the State Water Resources Control Board to reduce or cease diversions.

Water supplied to WSID is delivered for agricultural purposes within the service area. CVP water delivered to WSID is used for the production of food and fiber within its service area. Major crops in the WSID service area include alfalfa, beans, corn, deciduous orchards, tomatoes, sugar beets, wheat/grain, fields crops, and pasture. The CVP supplies have historically been available to supplement other WSID water sources, especially during peak irrigation months (May to July). WSID historic water use and acreage irrigated for the 10-year period (1990-1999)

8 US Bureau of Reclamation, Delta-Mendota Canal Unit Environmental Assessment Long-Term Contract Renewal, October 2000.

9 Sammie Cervantes, U.S. Bureau of Reclamation, personal communication, April 4, 2002.

10 West Side Irrigation District, Initial Study/Environmental Assessment for the WSID/City of Tracy Water Assignment Project, 2002, p.3-2.

has shown an overall decrease. In 1990, 35,274 ac-fty/yr were used to irrigate 7,874 acres. In 1999, water use was 23,038 ac-ft/yr for 6,318 irrigated acres. Future water demand in WSID will vary in response to requests for service, hydrologic conditions, cropping patterns, and other factors, but is expected to continue to decline as surrounding lands are urbanized and detached from the district, as discussed below.[11]

WSID has undertaken a series of water transfers of its CVP allocation, enabling them to convey these supplies to other parties. WSID has consistently transferred significant quantities of water other users on an annual basis. In 2001, WSID transferred 2,617 af (71 percent) of its 3,675-af CVP allocation to various south of Delta districts. During the past 11 years, when transfers occurred, the quantity transferred ranged from 1 to 81 percent of CVP allocation. The transfer of water has not resulted in increased water deficiencies for other users in the WSID service area.[12]

Currently, the WSID is an agricultural district and does not provide any water for municipal and industrial (M&I) use. The WSID would prefer to continue to be solely an agricultural district. The WSID is working with the City of Tracy to permanently assign 5,000 ac-ft of CVP supply to meet Tracy's growth demand. This assignment would allow the WSID to continue to be strictly an agricultural district.[13]

As lands within WSID have urbanized and annexed to the City, the land has historically been detached from WSID. Total acreage within WSID's service area has varied during the past with implementation of various land annexations and detachments. Currently, the WSID contains 6,161 acres, reflecting an approximately 50 percent reduction since its creation in 1915.[14] WSID can continue to provide untreated water to lands even after detachment, but such service is secondary to service within WSID. If lands are not detached upon development, those lands continue to receive untreated water service on an equal basis with all WSID landowners.[15]

Water Exchange

In concept, if untreated water conveyance facilities are constructed to provide untreated or recycled water to large irrigation demand areas within the City (e.g., parks and recreation fields), then the City could make available, through reduction of potable water demands, treated water supplies and delivery capacity equivalent to the quantity of untreated water delivered. This "water exchange program" would function as follows. Non-potable untreated surface water or recycled water that is available to or generated by the Proposed Project would be conveyed to the City parks and fields for irrigation purposes. In return, potable water supplies, currently dedicated for the irrigation of these parks and fields would be made available for use by the

11 West Side Irrigation District, Initial Study/Environmental Assessment for the WSID/City of Tracy Water Assignment Project, 2002, p.3-2.
12 West Side Irrigation District, Initial Study/Environmental Assessment for the WSID/City of Tracy Water Assignment Project, 2002, pp.3-3 to 3-4.
13 US Bureau of Reclamation, Delta-Mendota Canal Unit Environmental Assessment Long-Term Contract Renewal, October 2000, p.4-21 and 4-95.
14 West Side Irrigation District, Initial Study/Environmental Assessment for the WSID/City of Tracy Water Assignment Project, 2002, p.3-2.
15 West Yost & Associates, Technical Memorandum – Water Supply (Revised), March 18, 2002, p.10

Proposed Project. As further discussed in the Regulatory Setting, the City has adopted an ordinance and revised Urban Water Management Plan that provides for such an exchange, which would apply to the Proposed Project.

West Side Irrigation District Water Delivery

The City has identified City parks and other large landscaped areas that could be served with untreated water. These areas have the potential to free up approximately 780 ac-ft/yr of potable water that could be used for the Proposed Project.[16] These parks and other irrigated areas are listed by phase in Table 4.7-1 and correspond with the phased increase of potable water demands for the Proposed Project. It should be noted that the irrigated areas listed in Table 4.7-1 are only those associated with the Proposed Project water exchange. The City could expand the water exchange program in the future to allow additional areas to convert to recycled/non-potable water.[17]

The WSID has provided a will-service letter to the City for 174 ac-ft/yr from WSID surplus supplies to be used at Presidio Park and Plasencia Field (included in Appendix F). These two parks are outside the WSID boundaries; however, WSID would provide the surplus water to the parks upon the same terms and conditions it provides surplus water to other out-of-district property, subject to any additional provisions required because irrigation of the parks is considered a municipal use of water by the Bureau of Reclamation.[18]

The WSID has also indicated in another will-service letter that it can provide untreated surface water to meet golf course irrigation and landscaping demands at the Proposed Project because it is within the district and currently receives irrigation water (included in Appendix F). The project site will remain within the WSID boundaries. The water delivery would be subject to reductions because irrigation of the golf course is considered a municipal use of water by the Bureau of Reclamation.[19]

Recycled Water

Because the WSID water is limited to use within the district, an additional approximately 606 ac-ft/yr of non-potable water would need to be provided by the Proposed Project to maintain the water exchange program. As discussed in more detail in the Project Description, in Section 4.7.B, Wastewater, and in Impact 4.7.1 in this section, this additional water for the exchange would be recycled water generated by the Proposed Project's on-site water reclamation facility (WRF).

16 West Yost & Associates, Technical Memorandum – Water Supply (Revised), March 18, 2002, Table 4.

17 West Yost & Associates, Technical Memorandum – Infrastructure Requirements for Water Exchange Program, March 22, 2002, p.2.

18 West Side Irrigation District, "West Side Irrigation District Will Service Letter for City of Tracy Parks at Plascencia Fields and Presidio," letter from Jack Alvarez, President, to Steven G. Bayley, City of Tracy.

19 West Side Irrigation District, "West Side Irrigation District Will Service Letter for Gateway Industrial Park Golf Course," letter from Jack Alvarez, President, to Steven G. Bayley, City of Tracy, October 18, 2001.

TABLE 4.7-1

CITY PARKS AND OTHER IRRIGATED AREAS AVAILABLE FOR WATER EXCHANGE

Park Name	Approximate Irrigated Area (acres)	Unit Water Use (af/ac/yr)[1]	Total Annual Water Use (af/yr)	Total Potable Water Available for Exchange by Phase
Phase 1				
Presidio Park	26.6	4.5	119.7	175
Plasencia Field	20	2.75	55.0	
Phase 2				
Ceciliani Park	10	2.75	27.5	
Patzer Park	1	2.75	2.8	
Daniel Busch Park	5	2.75	13.8	
Fabian Park	2	2.75	5.5	142
Zanussi Park	5	2.75	13.8	
Souza Family Park	5	2.75	13.8	
Verner Hanson Park	3.5	2.75	9.6	
Merrill West High School	20	2.75	55.0	
Phase 3				
West Valley Mall	20	2.75	55.0	
Kenner Park	10	2.75	27.5	
Dr. Powers Park	10.6	2.75	29.2	
Tracy Park Apartments	10	2.75	27.5	235
Monte Vista Ball Park	9.4	2.75	25.9	
Central School	3.3	2.75	9.1	
Lincoln Park	14.3	2.75	39.3	
Tracy Ball Park	11.5	2.75	31.6	
Phase 4				
El Pescadero Park	14.5	2.75	39.9	
South School Park	10	2.75	27.5	
Hoyt Park	7	2.75	19.3	110
Tracy Press Park	1.5	2.75	4.1	
Barboza Park	2	2.75	5.5	
Gretchen Talley Park	5	2.75	13.8	
Phase 5				
Hirsch Elementary School	7.5	2.75	20.6	
Larsen Park	5	2.75	13.8	
Thoming Park	5	2.75	13.8	109
Garden Court Park	7	2.75	19.3	
Veterans Park	15	2.75	41.3	
		TOTAL	780	780

Note:

(1) Presidio Park Unit Water Use is based on an allocated quantity, since actual deliveries to the Park have not begun. Other park irrigation demands are based on use.

Source: West Yost & Associates, Technical Memorandum – Water Supply (Revised), March 18, 2002, Table 4.

Additional recycled water would also become available when the City's planned wastewater treatment plant (WWTP) improvements are completed. After completion of the upgrade and expansion, it is anticipated the WWTP would produce an effluent suitable for unrestricted reuse as recycled water under the requirements of Title 22 of the California Code of Regulations. Water treated to such standards is suitable for non-potable water uses (e.g., landscape irrigation, agriculture). However, this recycled water would not be available until after Phase 2 of the Proposed Project, at the earliest.[20] Additional information regarding the WWTP and environmental review process for that project is presented in Section 4.7.B, Wastewater.

2. REGULATORY FRAMEWORK

State Laws and Regulations Pertaining to Water Supply Assessments

CEQA Guidelines Section 15083.5(b) and California Water Code Section 10910 et seq. (SB 901). Section 10910 et seq. of the California Water Code, also referred to as "SB 901," specifically requires the following:

> 10910(d): The City or County... [shall] assess whether the projected water demand associated with a proposed project was included in the most recently adopted urban water management plan adopted [by the agency]. As part of the assessment, the public water system shall indicate whether its total projected water supplies available during normal, single-dry, and multiple-day water years included in the 20-year projection contained in the urban water management plan will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses.

The Water Code further stipulates,

> 10911(a): If, as a result, of its assessment, the public water system concludes that its water supplies are, or will be insufficient, the public water system shall provide to the city or county its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies…

Public Resources Code Section 21151.9 implements Section 10910 of the Water Code.

As previously noted, the City has completed a Water Supply Assessment for the Proposed Project. The results of the assessment are provided in Appendix F of the EIR.

Recently passed legislation (SB 610, Costa) has amended Section 21151.9 of the Public Resources Code and Water Code Sections 10631, 10656, 10910, 10911, 10912, and 10915 and others relating to urban water management plans, groundwater, and water supply and demand assessments. This legislation requires additional information to be included in water supply assessments and plans with regard to groundwater supplies.

20 West Yost & Associates, Technical Memorandum – Infrastructure Requirements for Water Exchange Program, March 22, 2002, p.6.

State Laws and Regulations Pertaining to the Use of Recycled Water

There are several California Water Code and California Government Code sections pertaining to the use of recycled water and non-potable water for irrigation of common areas, agricultural irrigation and industrial uses. All of the requirements in these sections are designed to meet the goals of preserving potable water and putting California's water resources to their highest and best use. Recycled water refers to wastewater treatment plant effluent that has received treatment that meets the state requirements for direct non-potable use (for example, irrigation of landscaping, industrial cooling purposes). The use of recycled water has been demonstrated to be an effective means for meeting the demands for new water caused by drought conditions or growth in California (Water Code section 13555.2). Per Government Code sections 65601 through 65604, any local public entity that produces recycled water and determines that it will provide recycled water within the boundaries of a local agency within ten years must notify the agency of this fact. Upon receiving the notice, the local agency that will utilize the recycled water must adopt and enforce a recycled water ordinance within 180 days of receiving notice.

State Department of Health Services

According to the State Department of Health Services (DHS) regulations, untreated water must be conveyed in a totally separate distribution system from the potable water supply. Professional landscape maintenance contractors and City maintenance staff must maintain areas where untreated surface water will be utilized for irrigation. The City is responsible for implementing a cross-connection program to ensure that future potable services are not accidentally connected to the untreated or recycled water system and a public information program (including signage) to notify the public of the use and location of non-potable water application.[21]

Prior to using the recycled water for irrigation, the City would be required to prepare an Engineering Report in accordance with Title 22 of the California Code of Regulations, which would be reviewed by DHS. Additional regulatory considerations pertaining to the treatment of wastewater for reclamation purposes are described in Section 4.7.B, Wastewater.

City of Tracy General Plan

The following General Plan goals, policies, and actions addressing water demand and supply are included in the Public Facilities and Services Conservation Elements: Policies PF 1.1, PF 1.4, PF 1.5, CO 2.1, and CO 2.2 and associated implementing actions, and General Plan EIR Mitigation Measures M60.1 and 60.3.

City of Tracy Urban Water Management Plan

The Urban Water Management Planning Act was established in 1983 and was most recently amended in 2000. The Act requires urban water suppliers, such as Tracy, to prepare a management plan of its current and future water resources so as to continue to provide its customers with an adequate and reliable water supply. The Urban Water Management Plan

21 West Yost & Associates, Technical Memorandum – Water Supply (Revised), March 18, 2002, p.13

(UWMP) describes the projected uses for all water resources within an agency to meet the goal of managing water supplies for their highest and best uses. The City of Tracy adopted its latest UWMP in January 2001 and amended it in March 2002.

Urban Water Management Plans must be updated every five years, and the next update is due in 2005. However, recent legislation has increased the importance of an UWMP as a planning tool, and enough new information regarding recycled water and groundwater is available to warrant an update at this time.

State law requires adoption of a recycled water ordinance when a city plans to utilize recycled water within a 10-year planning horizon. A recycled water ordinance has been prepared and was approved by the City Council in April 2002. The UWMP was amended on March 19, 2002 (City Council Resolution 2002-095) to include the City's recycled water ordinance (see below), revised groundwater yield, and water exchange program information. Minor revisions are included to the text and tables to correct errata and provide an update to relevant sections.

City of Tracy Recycled and Non-Potable Water Ordinance

On March 19, 2002, the City of Tracy adopted a "Recycled and Non-Potable Water" Ordinance (Ordinance 1035) that added Chapter 11.30 to the Tracy Municipal Code. This ordinance incorporates the requirements of the California Government Code sections 65601 through 65604 and Water Code Section 13555.2 for such an ordinance. Additionally, the ordinance incorporates other non-potable water use within the City, including the use of non-potable surface water and non-potable groundwater. This allows the City of Tracy to regulate the use of non-potable water for direct beneficial uses within the City. Per the ordinance, all non-potable water will be distributed and used in compliance with California Code of Regulations Title 22 standards.

It should be noted that the ordinance designates the entire City as a recycled water use area. This allows flexibility to evaluate and consider any parks; medians or other publicly owned landscaping for irrigation with recycled or non-potable water. Also, the ordinance requires the installation of a recycled water distribution system for all new subdivisions within the City, after February 2, 2002 which is the date that the City provided notice of its intent to provide recycled water within the City limits. However, the requirement for the installation of such a system can be waived if the subdivider demonstrates that there is a higher and better use for the recycled water, the use is not economically justified, or the use is not financially and technically feasible. Finally, the ordinance contains an appeal process for any staff determination regarding the requirements for developers.

City of Tracy Water Master Plan (WMP)

Following the adoption of the General Plan, the City prepared the Water Master Plan to address future water infrastructure demands and to provide a detailed evaluation of additional infrastructure facilities required to service City buildout. The Water Master Plan assumed that at buildout of the General Plan, water demands would be met entirely by surface water supplies,

and groundwater would be used for emergency supplies only. Master Plan water system facilities have been designed to meet estimated maximum peak hour water demands of the municipal service area at ultimate buildout.

City of Tracy Water Conservation Program

The City has developed and implemented a program that encourages water conservation through use of Best Management Practices (BMPs). These BMPs address metering, landscape water conservation requirements, toilet retrofit program, distribution system audits and repair, education and information programs, and BMP evaluation.

City of Tracy Water Management Ordinance

The City has adopted a Water Management Ordinance (Chapter 11.28 of Tracy Municipal Code) which calls for voluntary and mandatory water conservation to ensure proper management and distribution of water supplies during a drought or emergency situation. The ordinance identifies five water demand reduction stages of action, and water conservation requirements for each stage. The proposed reductions provide enough water to maintain health and safety standards and to provide water for fire protection needs. The ordinance identifies prohibitions against specific water use practices and administrative mechanisms to analyze effectiveness and implement fiscal controls.[22]

City of Tracy Groundwater Management Policy

The Groundwater Management Act, Assembly Bill 3030 (AB 3030), signed into law in 1992, established provisions by which local water agencies could develop and implement groundwater management plans. The City is participating in a Groundwater Management Plan for the Tracy groundwater basin in conjunction with agencies that draw water from the aquifer within the DMC's northern service area, including PVWD, BCID, DPWD (Del Puerto Water District), PWD (Patterson Water District), WSID, and San Joaquin County. The plan will help to assure that over drafting of the aquifer, potentially leading to poor water quality or subsidence, does not occur.[23]

In May 2001, the City adopted a Groundwater Management Policy for the incrementally increased extraction and allocation of the additional 2,300 ac-ft/yr of groundwater from 6,700 ac-ft/yr to 9,000 ac-ft/yr. The City Council has determined that this increased water supply will be allocated within the next three-year period to those projects within the City limits as of May 24, 2001. Because the Proposed Project was not within the City limits as of that date, it is not eligible for available groundwater supplies.

City policy currently allows new development to use the groundwater basin as an emergency source of supply. Developments can meet their emergency supply requirements using wells with a capacity equal to the projected average day demand. The City determines the well location and

22 Erler & Kalinowski, Inc., City of Tracy Urban Water Management Plan, December 2000, Section 6.
23 Erler & Kalinowski, Inc., City of Tracy Urban Water Management Plan, December 2000, p.1-4.

designs and constructs the wells. The Proposed Project's funding for emergency groundwater supply well(s) will be determined in the FIP.[24]

City of Tracy Water Supply Evaluation Criteria

On November 6, 2001, the City Council adopted Resolution 2001-399, Water Supply Evaluation Criteria, which establishes requirements for the evaluation of potential water supplies to ensure that reliable supplies are available to meet water demands of specific development projects under all hydrologic conditions. The results of this evaluation are further used to assist with the development of project-specific FIPs. The results of the evaluation, as they relate to the Proposed Project, are presented in the Environmental Setting and incorporated into the analysis in Impact 4.7.1, as appropriate.

City of Tracy Design Standards

The Design Standards set forth requirements regarding the design and operation of public improvements, including requirements for the design and operation of water distribution facilities. Section 6.0 of the Design Standards includes standards for pipe design, fire hydrant spacing, and other associated facilities.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this EIR, impacts are considered to be significant if the following could result from implementation of the Proposed Project:

- demand that exceeds supply of existing and planned entitlements and resources, resulting in the need for other new or expanded resources; or

- increased demand for water treatment and distribution facilities, resulting in the need for new or expanded facilities.

Methodology

Introduction

Evaluation of the potential water supply impacts of the Proposed Project was prepared by West Yost and Associates in accordance with the City's Water Supply Evaluation Criteria and General Plan EIR Mitigation Measure M60.3. Demand, supply, and infrastructure assumptions developed by West Yost are summarized below, and are discussed in greater detail in four technical memoranda included in Appendix F.

24 West Yost & Associates, Technical Memorandum – Water Supply (Revised), March 18, 2002, p.7.

Assumptions

Project Demand

The Project would be developed in five phases. Phase 1 includes development of the golf course and first phase of building construction, which is anticipated to begin in 2003. Phases 2, 3, and 4 would be completed approximately every two years. The last phase of building construction, Phase 5, is anticipated to begin development in 2011.

Table 4.7-2 shows the total potable and non-potable (recycled or untreated water) demands at buildout and by development phase. At buildout, the Proposed Project's potable demand is projected to be 780 ac-ft/yr, and the non-potable demand would be 760 ac-ft/yr, for a total water demand of 1,540 ac-ft/yr.

Projected water demands were calculated based on Proposed Project land uses and on the City's standard water use factors. These standards have allowed the City to effectively plan for future water supplies to serve future development. For purposes of the analysis, these standards were used to reflect the specific types of buildings proposed for the Proposed Project and to develop an estimate of the potable and non-potable water demands for the project. Per direction from the City Fire Marshal, Type V non-rated construction was assumed for fire flow estimates.[25]

Supply

The Proposed Project's potable water demand (780 ac-ft/yr) at project buildout would be met exclusively through the exchange of non-potable water supplies for potable water supplies now available to the City.

The non-potable Proposed Project golf course and other irrigation demand (760 ac-ft/yr) at project buildout would be met through the use of untreated surface water supplies provided by WSID according to an agreement established between the City of Tracy and the WSID that is specific to the Proposed Project.

The water exchange program would be developed in phases. The timing of implementing these phases would depend on the growth rate of Proposed Project potable water demand. The Phase 1potable water demand of 174 ac-ft/yr would be met through the exchange of 174 ac-ft/yr of non-potable irrigation water for 174 ac-ft/yr of potable water the City now uses to irrigate Presidio Park and Plasencia Field. For Phases 2 through 5, additional potable water demand would be met through a further expansion of the water exchange program.[26]

25 West Yost and Associates, Technical Memorandum No.1 – Water Infrastructure (Revised), March 18, 2002, p.9.

26 West Yost and Associates, Technical Memorandum – Infrastructure Requirements for Water Exchange Program, March 22, 2002.

TABLE 4.7-2

SUMMARY OF THE CITY OF TRACY'S GATEWAY PROJECT WATER DEMANDS

Land Use Designation	Potable Demands (af/yr)	Non-Potable Demands (af/yr)
Office	655	--
Commercial		
Retail	25	--
Hotel (150 room)	25	--
Hotel (200 room)	34	--
Second Floor Office	38	--
Golf Course		
Golf Course	1	335
Golf Clubhouse	2	--
Golf Maintenance	1	--
Landscaped Areas	--	361
Roadway/Parkway Medians	--	67
Total Water Demand at Buildout (Percent of Total Water Demand)	780 (51%)	760 (49%)
Total Water Demand at Completion of Each Development Phase (Percent of Buildout Demand)		
Phase 1 (Golf Course): 2003	4 (1%)	335 (44%)
Phase 1: Construction start: 2003	170 (22%)	440 (58%)
Phase 2: Construction start: 2005	280 (36%)	500 (66 %)
Phase 3: Construction start: 2007	540 (69%)	640 (84 %)
Phase 4: Construction start: 2009	670 (86 %)	710 (93%)
Phase 5: Construction start: 2011	780 (100%)	760 (100%)

Source: West Yost & Associates, Technical Memorandum No.1 – Water Infrastructure (Revised), March 18, 2002, Table 5 and Figure 4.

Infrastructure

As indicated above, the Proposed Project is located within the City's water service Pressure Zones 1 and 2. The Proposed Project would be responsible for a proportionate share of the treatment, storage, transmission and other facilities required to provide the Proposed Project with potable supplies from Pressure Zones 1 and 2. The Proposed Project would also be responsible for the distribution of non-potable water used to implement the project's water exchange program in the City (non-potable) and associated storage/pumping facilities.

Potable and non-potable conveyance lines and storage/pumping facilities for the potable supply and water exchange program are assumed to be installed at the locations shown in Figures 3-4

through 3-6. Installation of this distribution and storage system could result in temporary construction-related environmental effects related to air quality (fugitive dust and construction equipment emissions), noise, cultural resources, or disturbance of biological resources. Potential effects on these resources are discussed in other technical sections of this chapter, as appropriate.

Potential Effects on WSID CVP Supply

Current WSID water deliveries to the project site (2,770 to 3,077 ac-ft/yr) would exceed Proposed Project untreated irrigation water demand (760 ac-ft/yr at project buildout) by approximately 1,990 to 2,697 ac-ft/yr. To the extent that all or a portion of current irrigation water is from the WSID's CVP contract, and because the Proposed Project would result in a net reduction in WSID deliveries compared to existing conditions, no new entitlements or additional demand on WSID CVP contractual water would occur as a result of the Proposed Project. Therefore, there would be no WSID CVP-related environmental effects that require further analysis in this EIR.

Potential Effects Related to Delivery of Planned Future City Supplies

Potential environmental effects related to the treatment and delivery of planned future City water supplies (e.g., WSID, BCID, and SCSWSP and additional water treatment facilities) have been or will be described in environmental documents prepared in accordance with CEQA and/or NEPA, as appropriate. Potential environmental effects related to the SCSWSP were evaluated in the *South County Surface Water Supply Project Environmental Impact Report* (SCH #98022018), prepared by the South San Joaquin Irrigation District in July 1999. A challenge to the adequacy of the SCSWSP EIR for this project was recently upheld; however, an appeal has been filed. Environmental effects associated with the John Jones WTP expansion were evaluated by the City in the *John Johns Water Treatment Plant Expansion Project Environmental Impact Report* (SCH# 2001042078), which was circulated for public review and comment in late 2001. That EIR addressed the potential environmental effects of construction and operation of the expanded WTP, including cumulative and long-term growth-related impacts associated with development under the Tracy General Plan. Environmental documentation for the WSID and BCID water assignments is currently being prepared for USBR review and is expected to be completed in 2003.

As previously noted, if water from the WSID, BCID, SCSWSP, or ASR supplies becomes available to the City in the future and the water treatment plant capacity to treat the additional supplies is available, the City could allow the Proposed Project to participate in them. Implementation of the Proposed Project as currently designed would not preclude use of these supplies, should they become available. The delivery of potable water to the project site from the expanded City supplies would be subject to appropriate environmental review.

Project Impacts and Mitigation Measures

Impact 4.7.1 Depending on Proposed Project phasing, potable water obtained through the proposed water exchange program with the City may not be sufficient to meet

project demand if recycled water treated to tertiary standards at the City's Wastewater Treatment Plant is delayed.

Background

At buildout, the Proposed Project's potable demand is projected to be 780 ac-ft/yr, and the non-potable demand would be 760 ac-ft/yr, for a total water demand of 1,540 ac-ft/yr (Table 4.7-2). The Proposed Project includes a significant amount of landscaped area, including a 75-acre nine-hole golf course and other landscaped areas, including roadway medians. Because of this large landscaped area, the total projected irrigation demand comprises almost 50 percent of the total water demand for the Project. Approximately 23 percent (339 ac-ft/yr out of 1,540 ac-ft/yr) of the total water demand would be incurred during Phase 1 of the Proposed Project. Approximately 44 percent (335 ac-ft/yr out of 760 ac-ft/yr) of the total non-potable demand would occur during Phase 1. The remaining demands would be incurred in the subsequent four phases of the Proposed Project. The project area and projected total water demands for the Proposed Project represent approximately 11 percent of the project area and approximately 14 percent of the projected annual water demand of the Westside Planning Area within the City's water service pressure zones 1 and 2.[27]

Potable Water Supply

Potable demands of the Proposed Project would be met, initially, through the exchange of 174 ac-ft/yr of untreated surface water obtained through a will-service letter from the WSID to the City of Tracy. This water, from WSID's Upper Main Canal, would be delivered to a storage pond in the western part of the project site and then pumped from the pond into the non-potable distribution system. The storage pond would have a capacity of approximately 2 million gallons and covering about two acres.[28] This WSID water would also be used to irrigate the proposed golf course and landscape areas (see "Non-Potable Water Supply," below).

Water Exchange Program Phasing

Phase 1: Initial Proposed Project potable water demand of 174 ac-ft/yr would be met through the exchange of 174 ac-ft/yr of non-potable irrigation water for 174 ac-ft/yr of potable water the City now uses to irrigate Presidio Park and Plasencia Field. Under the Proposed Project, the potable water intended for use at these two recreation facilities would be delivered to the project site through the potable water supply infrastructure illustrated in Figures 3-4 and 3-6 and further described in Impact 4.7.2 (Water Distribution System). The WSID water would be used for this exchange initially and then would be replaced by the recycled water generated by the on-site Water Reclamation Facility (see Section 4.7.B, Wastewater) as the flows from this facility increase with development.

27 West Yost & Associates, Technical Memorandum No.1 – Water Infrastructure (Revised), March 18, 2002, p.11.
28 West Yost & Associates, Technical Memorandum No.2 – Water Infrastructure (Revised), March 18, 2002, Figure 3.

Phases 2-5: Subsequent phases of the project would increase the potable demand by approximately 606 ac-ft/yr, to a total of 780 ac-ft/yr. This additional potable water demand would be met through a further expansion of the water exchange program infrastructure shown in Figure 3-6. The source water for the expansion of the water exchange program to serve Phases 2 through 5 of the Proposed Project would be recycled wastewater from the on-site WRF (see Impact 4.7.4 in Section 4.7.B, Wastewater). This recycled water would be supplemented by WSID untreated surface water that can be used to irrigate Presidio Park and Plasencia Field in Phase 1. The recycled water generated by the Proposed Project could be used indefinitely under the water exchange program.

Non-Potable Water Supply

The non-potable (irrigation) water supply demand for the Proposed Project is estimated to be 760 ac-ft/yr at buildout. This demand would be met entirely through the use of untreated surface water supplies provided by WSID according to the terms of a will-service letter provided by WSID to the City of Tracy that is specific to the Proposed Project. As discussed above, WSID water would be delivered to a storage pond in the western part of the project site and then pumped from the pond into the non-potable distribution system. The storage pond would have a capacity of approximately 2 million gallons and covering about an acre. The non-potable (irrigation) demands of the Proposed Project would represent a decrease in WSID deliveries to the project site, as compared to existing conditions, and would not result in any demand on existing or planned future City water supplies or treatment capacity.

When surplus recycled water generated by the on-site WRF becomes available (see Impact 4.7.4, in Section 4.7.B, Wastewater), it would be used to replace some of the untreated surface water. Recycled water produced from the City's expanded and upgraded WWTP could also be used for irrigation purposes at the Proposed Project and elsewhere in the City.

Potable and Non-Potable Water Supply Impacts

As a result of the water exchange program, potable water would no longer be available to the City parks and fields, and these facilities would essentially be "disconnected" from potable supply. Potable water would still be available for drinking and restrooms. With the exception of Plascencia and Presidio fields, untreated surface water from WSID is not available to the remaining parks and fields because they are outside of the district service area. Under the water exchange program, the Proposed Project would provide 780 ac-ft/yr of untreated/recycled water to the City parks and fields to ensure these facilities remain a recreation and aesthetic resource through regular irrigation. The recycled water would be applied through the existing sprinkler system, and no modification of these systems within the parks and fields would be required. Additional infrastructure improvements to convey water to these facilities would be needed, however. This issue is discussed in Impact 4.7.2.

Based on the design criteria for the WRF, during the summer months, when irrigation demands are higher at the City parks and fields than during other months, the amount of water generated

by the on-site WRF would not be sufficient to meet the estimated demand. On an annual basis, the shortfall would be a maximum of 101 million gallons, or approximately 309 ac-ft/yr. [29]

To make up for this deficit, recycled water could be obtained from the City's WWTP when planned improvements are completed (anticipated to be in 2007). This would correspond to Phase 3 of the Proposed Project. However, if the recycled water from the City's WWTP is delayed beyond the completion of Phase 2 of the Proposed Project, there would not be sufficient irrigation water for the City parks and fields. This is considered a significant impact. Further, under these circumstances, the aesthetic and recreation value of the parks and fields could be adversely affected as a direct result of the Proposed Project if they are not regularly irrigated. (Under drought conditions, other mechanisms and/or restrictions could affect irrigation of the parks and fields, but such conditions would be unrelated to the Proposed Project.) Implementation of the following mitigation measure would ensure a **less than significant** impact.

Mitigation Measure

MM 4.7.1 Development of Phase 3 of the Proposed Project shall not proceed until seasonal storage has been provided at the Proposed Project. Up to 309 ac-ft/yr of storage shall be accommodated within the project site to balance the annual demands of the water exchange program with the annual supplies from the on-site WRF. If seasonal winter storage is developed, the Proposed Project shall comply with conditions, if any, imposed by the Regional Water Quality Control Board and/or Department of Health Services. Such conditions could include, but would not be limited to, minimizing the potential for the stored recycled water to hydraulically connect with on-site storm drainage features or the underlying aquifer.

Timing/Implementation: Prior to Phase 3, if the volume of recycled water from the City's WWTP is not available or if winter disposal of the WRF effluent fails, see Mitigation Measure MM 4.7.5, the pond size would be sufficient to balance high summer demand period at City parks and fields.

Enforcement/Monitoring: City of Tracy

Implementation of Mitigation Measure 4.7.1 would provide for storage of recycled wastewater generated during low irrigation demand periods for use during the high summer demand periods if recycled water is not available from the City's WWTP. The storage would be located on either the driving range or the golf course. As discussed in Impact 4.7.6, recycled water generated by the on-site WRF would not pose a public health threat through contact, and conditions set forth by the Regional Water Quality Control Board and/or Department of Health Services would minimize the potential for adverse water quality effects. Any effluent not stored or used for

29 West Yost & Associates, Technical Memorandum – Infrastructure Requirements for Water Exchange Program, March 22, 2002, p.9.

irrigation would be applied to the subsurface emitter system (see Impact 4.7.5 in Section 4.7.B, Wastewater).[30]

Project Impact

Impact 4.7.2 Development of the Proposed Project includes off-site connections to the City's potable water system, and installation of pipelines, pumps, and storage for the water exchange program.

Currently, there are no water mains along either the 11th Street or the Lammers Road project frontage that could deliver water to the Proposed Project, and extension of existing additional infrastructure would be needed. The Proposed Project would require the extension of the City's potable water distribution system at the locations shown in Figure 3-4. These water lines would also serve future developments in the vicinity of the project site.

Based on fire hydrant flow data, there appears to be adequate water flow and pressure to serve the Proposed Project. The project water mains discussed above would provide a looped system into both Pressure Zones 1 and 2 of the City system. Water mains on-site would be designed and constructed in conformance with the City of Tracy Design Standards and would be dedicated to the city as public facilities.

Pumps and Storage Facilities

The Proposed Project and other developments planned in the general location of the Proposed Project would require the construction of water storage and booster pumping capacity. A 1.7-million-gallon storage reservoir and a 260-horsepower booster pump station pumping into Pressure Zone 2 would be constructed on-site in the general vicinity of 11th Street overcrossing at Interstate 205. The tank would be buried and would be approximately 30 feet deep and 100 feet in diameter. A separate 260-horsepower booster pump station pumping into Pressure Zone 1 would be required to provide operational and fire storage for the Proposed Project and adjacent future development areas.

Water Exchange Infrastructure

To implement the Proposed Project's water exchange program, the construction of new infrastructure (i.e., pipelines and pump stations) would be needed to deliver non-potable water to City parks and recreation areas that currently use potable water supplied by the City. In accordance with existing regulations, the water must be conveyed in a totally separate distribution system from the potable water supply. Existing infrastructure already constructed near the intersection of Lammers Road and 11th Street in anticipation of a future recycled water supply distribution system would be completed as a dual-piped system to convey the untreated water to the City parks.

30 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, pp.8-9.

A pipeline to convey non-potable surface water would be installed at the project site, which would exit the site at the intersection of Lammers Road and 11th Street and extend east along 11th Street to Presidio Park and Plasencia Field (see Figure 3-5). To continue the water exchange, additional non-potable conveyance lines would be installed at locations shown in Figure 3-6 to deliver project-generated recycled water for irrigating the other parks and fields. The City would be responsible for implementing a cross-connection program to ensure that future potable services are not accidentally connected to the untreated or recycled water system, and a public information program (including signage) to notify the public of the use and location of non-potable water application. Professional landscape maintenance contractors would maintain areas where untreated surface water will be used for irrigation.

Summary of Water Distribution System Potential Environmental Effects

The project applicant has identified the necessary off-site infrastructure improvements to convey potable water to the project site and for the water exchange program. The potable supply facilities would be consistent with the facilities identified in the City Water Master Plan and the General Plan. The project's costs for these potable water system improvements will be addressed in the project's FIP. To participate in the water exchange program and receive the 780 ac-ft/yr allotment for potable supply, the City will require the Proposed Project to fund the completion of the non-potable water system (storage facilities, pump stations and distribution pipelines). This is considered a **less-than-significant** impact.

Installation of the potable and non-potable conveyance lines and storage/pumping facilities for the potable supply and water exchange program could result in temporary construction-related environmental effects related to traffic disruption, noise, air quality (fugitive dust), cultural resources, or disturbance of biological resources. These effects can be mitigated to less-than-significant levels through implementation of mitigation measures MM 4.3.9, MM 4.4.2, MM 4.5.2, MM 4.6.1, MM4.6.4, MM 4.6.5, MM 4.6.6, MM 4.6.7, and MM 4.10.1. Construction-related ROG and NO_x emission would be reduced through implementation of mitigation measure MM 4.5.3, but not to less-than-significant levels. Changes in visual character would also occur at off-site above-ground non-potable water storage tank locations. Potential significant and unavoidable effects related to changes in the visual environment are discussed in Impacts 4.9.1, 4.9.3, 4.9.4, and 4.9.6 in Section 4.9, Visual Resources/Light and Glare, in this EIR.

Mitigation Measure

MM 4.7.2 None required.

Cumulative Impacts and Mitigation Measures

Impact 4.7.3 The delivery and use of the proposed potable and non-potable water supplies to serve the Proposed Project, in combination with other urban and non-urban uses in the City of Tracy served by regional supplies, would not result in any significant cumulative water supply impacts.

The Proposed Project would use untreated surface water obtained from WSID to meet non-potable demands and potable water obtained through an untreated surface water/recycled water exchange program managed by the City. The potable water used in the exchange would be water that is now being used to irrigate existing City parks and fields. There would be a net reduction in the amount of WSID water delivered to the project site as a result of the conversion from irrigated crops to urban development. As previously stated, no new entitlements would be needed to serve the Proposed Project potable and non-potable water needs. Therefore, the Proposed Project would not incrementally contribute to increased demand for local and regional water supplies, and there would be **no cumulative impact** on water supplies that could result in adverse environmental effects.

Mitigation Measure

MM 4.7.3 None required.

B. WASTEWATER TREATMENT

This section discusses the City's wastewater conveyance and treatment and analyzes the Proposed Project's impact on wastewater services. The evaluation is based on technical analyses developed by HDR Inc. for the Proposed Project. Other sources of information include the City of Tracy Urban Management Plan/General Plan and the General Plan EIR. These sources can be reviewed at the City of Tracy Department of Development and Engineering Services.

1. EXISTING SETTING

The City of Tracy owns and operates wastewater collection systems consisting of collection sewers, lift stations, pump stations, and force mains. Wastewater treatment is provided by the City at the City-owned wastewater treatment plant (WWTP).

Project Site

The project site is undeveloped and is not connected to the City sewer system. Major wastewater conveyance facilities in the project area consist of the Hansen Road Sanitary Sewer Collection System ("Hansen Sewer Line"), which generally extends from Schulte Road to the City's Wastewater Treatment Plant (WWTP) north of Interstate 205 (I 205), the Corral Hollow Trunk Sewer, and the C Street Sewer lift station. In the vicinity of the project site, the Hansen Sewer Line conveys flows to the northeast in a 36-inch line that runs underneath the West Side Irrigation District (WSID) Upper Main Canal in the northwestern corner of the project site.

City of Tracy Wastewater Treatment Plant

Wastewater treated at the City's WWTP is discharged to Old River. The Tracy WWTP has a design capacity of 9.0 mgd. The average dry weather wastewater flows to the plant in 2000 were approximately 7.0 mgd. The peak hourly wet weather flow was 15.0 mgd. The existing plant has an unused capacity of 2.0 mgd, which is approximately the capacity needed to serve additional population growth of 20,000. The Proposed Project is not included in the unused capacity, and the remaining 2.0 mgd of capacity has been committed to planned and approved uses.[31]

The City is in the process of renewing the WWTP's existing National Pollutant Discharge Elimination System (NPDES) permit issued by the Regional Water Quality Control Board (RWQCB) as Waste Discharge Requirements Order No. CA0079154 to upgrade and expand the existing WWTP from 9.0 mgd to 16.0 mgd. The 16.0-mgd expansion would provide treatment and disposal capacity for development projects that have already been approved or for which the City has committed capacity and are within the City's existing city limits.

After completion of the upgrade and expansion, the WWTP would produce an effluent suitable for either direct discharge to Old River or unrestricted reuse as recycled water under the requirements of Title 22 of the California Code of Regulations. Water treated to such standards

31 CH2MHill, City of Tracy WWTP Facilities Plan, May 2001; City of Tracy, 2002.

is suitable for non-potable water uses (e.g., landscape irrigation and agriculture). A Draft EIR for the WWTP expansion has been prepared and was released for public and agency comment in October 2001.[32] The Final EIR is currently being prepared. The Tracy City Council is expected to consider certification of the WWTP EIR in Spring 2002.

Upon certification of the WWTP expansion EIR, approval of the expansion project by the City of Tracy, and renewal of NPDES permits, the first phase of the expansion to 10.8 mgd is scheduled for completion by 2007. If required, the City has the ability to oversize the WWTP treatment capacity expansion within the existing space; however, the maximum discharge limitation of 16.0 mgd would not be increased due to Old River discharge limitations. Consequently, even with expansion of treatment capacity, disposal capacity for the Proposed Project would not be available.

Other Potential Wastewater Treatment and Disposal Facilities

An average dry weather flow (ADWF) of 9.58 mgd and a peak wet weather flow (PWWF) of 23.46 mgd would be generated by development in the Westside area, including the Proposed Project. Discharge of treated wastewater effluent in excess of 16.0 mgd to Old River will not be allowed under the revised NPDES permit. To accommodate these additional flows from the Westside area, other regional wastewater treatment and disposal options are being considered by the City. These facilities may become available to the Proposed Project; however, these options have not yet been approved or constructed. The following is provided for informational purposes to inform the decision-making process.

The City of Tracy Wastewater Master Plan prepared in 1993 identified three potential locations for Water Reclamation Facilities (WRFs) that could treat wastewater from the Westside area: the Lammers Road site, the Tracy Hills site and the Valpico Road site. Final WRF site selection would be made by considering factors such as land availability, development patterns in the City, and the future availability of disposal lands. If the Tracy Hills Specific Plan proceeds and a WRF is constructed to serve that project, a joint Westside/Tracy Hills WRF at the Tracy Hills site could be constructed, as opposed to constructing both a Tracy Hills WRF and Lammers WRF.[33] None of these facilities have been approved or constructed. If these regional facilities are developed, the City could allow the Proposed Project to connect to them. Additional environmental review would need to be completed for connection of the project site to any of the regional WRFs.

32 City of Tracy, Tracy Wastewater Treatment Plant Expansion (State Clearinghouse No. 20000012039), prepared by Pacific Municipal Consultants, October 2001.

33 CH2MHill, Tracy Gateway and Westside Area Wastewater Master Plan, August 2001, p.22.

2. REGULATORY FRAMEWORK

Treatment and Reuse of Recycled Water

As discussed in Section 4.7.A, Water Supply, the use of recycled water has been demonstrated to be an effective means for meeting the demands for new water caused by drought conditions or growth in California (Water Code section 13555.2). Recycled water refers to wastewater treatment plant effluent that has received treatment that meets the State requirements for direct non-potable use (e.g., irrigation of landscaping, industrial cooling purposes). These treatment requirements are set forth in Section 60301 et seq. of Title 22 of the California Code of Regulations (CCR). Section 60301.230 specifies the following requirements that are applicable to the Proposed Project's water reclamation facility (WRF):

> "Disinfected tertiary recycled water" means a filtered and subsequently disinfected wastewater that meets the following criteria:
>
> (a) The filtered wastewater has been disinfected by either:
>
> (1) A chlorine disinfection process following filtration that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or
>
> (2) A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.
>
> (b) The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

As also discussed, in Section 4.7.A, Water Supply, State Department of Health Services (DHS) regulations require that untreated water must be conveyed in a totally separate distribution system from the potable water supply. Professional landscape maintenance contractors and City maintenance staff must maintain areas where untreated surface water will be utilized for irrigation. The City is responsible for implementing a cross-connection program to ensure that future potable services are not accidentally connected to the untreated or recycled water system and a public information program (including signage) to notify the public of the use and location of non-potable water application. Section 60301 of the regulations establishes specific use area requirements that address proximity of application areas to domestic supply wells and runoff control.

Biosolids

Federal requirements for disposal of biosolids are set forth in 40 Code of Federal Regulations (CFR) Part 503. Both 40 CFR 258 and 503 regulations serve as the basis for the requirements of the RWQCB for biosolid disposal by land application or in a landfill.

Hazardous Materials

The management of hazardous materials and hazardous wastes in the City of Tracy and San Joaquin County, as they relate to public safety and environmental protection, occurs within the context of a complex interaction of federal, State, and local requirements. The primary federal agencies with responsibility for hazardous materials management include the U.S. Environmental Protection Agency (EPA), U.S. Department of Labor Occupational Safety and Health Administration (OSHA), and the U.S. Department of Transportation (DOT). Specific requirements for implementation of these statutes are codified in Title 40 of the Code of Federal Regulations (CFR). Additional regulations that apply to workplace safety and transportation of hazardous materials are contained in CFR Titles 29 and 49, respectively.

The California Environmental Protection Agency (Cal/EPA) has established regulations governing the use of hazardous materials in the State. Within Cal/EPA, the Department of Toxic Substance Control (DTSC) has primary hazardous materials regulatory responsibility, but can delegate enforcement responsibilities to local jurisdictions that enter into agreements with DTSC, for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law (HWCL). State regulations applicable to hazardous materials are contained primarily in Title 22 of the California Code of Regulations (CCR). Title 26 of the CCR is a compilation of those chapters or titles of the CCR that are applicable to hazardous materials management. Permitting and monitoring of many hazardous waste regulations is typically the responsibility local jurisdictions, such as San Joaquin County.

The California Department of Industrial Relations, Division of Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing work place safety regulations within the State. Cal/OSHA standards are more stringent than federal OSHA regulations, and are presented in Title 8 of the CCR. The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations. The California Office of Emergency Services (Cal/OES) is the state office responsible for establishing emergency response and spill notification plans related to hazardous materials accidents.

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCB) regulate surface and groundwater quality according to the provisions of State and federal legislation including the Porter-Cologne Water Quality Act. The project site is located within the jurisdiction of the Central Valley RWQCB (Region 5). The RWQCB can delegate responsibilities, such as permitting and monitoring, to local jurisdictions, such as San Joaquin County.

City of Tracy General Plan

General Plan goals, policies, and actions addressing wastewater are Goal PF1 and policies PF 1.1 and PF 1.7. As described in Section 4.1, Land Use, the project would be consistent with the General Plan.

City of Tracy Wastewater Master Plan

Following the adoption of the City of Tracy General Plan, the City prepared a Wastewater Master Plan (*Wastewater Master Plan*, prepared by CH2MHill, 1994) to address future demands and to provide a detailed evaluation of additional infrastructure facilities and anticipated regulatory requirements required to serve City buildout.

City of Tracy Design Standards

The City of Tracy Design Standards set forth requirements regarding the design and operation of public improvements. All new development within Tracy is served by a sanitary sewer system pursuant to the Tracy Municipal Code. Section 4.0 of the Design Standards sets forth requirements for the design and operation of wastewater collection and conveyance facilities. These requirements include estimates on average sewer flows based on land use and associated densities, standards for pipe design and pump systems, and other associated facilities.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this EIR, impacts on wastewater are considered to be significant if implementation of the project will result in the following:

- require or result in the need for new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- increase in wastewater flows that would exceed existing conveyance, treatment, or disposal capacity;
- violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality; or
- create a significant hazard to the public or the environment through routine transport, use, or disposal or hazardous materials, or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Methodology

The analysis of potential wastewater impacts are based upon technical data developed by HDR Engineering, Inc., and presented in *Wastewater System, Tracy Gateway Development, Technical Memorandum*, April 2002. The technical memorandum is included in Appendix F of this EIR.

Assumptions

Treatment Demand

Development of office, commercial, retail, and golf course/recreation amenities at the Tracy Gateway Project would generate wastewater. Tables 4.7-3 and 4.7-4 summarize the projected wastewater flows for the Tracy Gateway Project by land use type and by phase. The data presented in Table 4.7-4 indicate that an average dry weather flow (ADWF) of 0.71 mgd and a peak wet weather flow (PWWF) of approximately 2.2 mgd would be generated by the Proposed Project.

TABLE 4.7-3

TRACY GATEWAY SANITARY SEWER FLOWS

Planning Area	Land Use	Area	Unit Flow (gal/cap/day) or (gal/ac/day)	Average Dry Weather Flow (MGD)	Peaking Factor	Peak Wet Weather Flow (MGD) (2)
GATEWAY	Office (sf)	6E + 06	0.1	0.58	3.15	1.841
		sf				
	Commercial Retail (sf)	189,300	0.1	0.02	3.50	0.066
		Rooms	**gpd/rm**			
	Hotel (150-room)	350	150	0.05	3.50	0.184
		sf	**gpd/sf**			
	Office	293,400	0.1	0.03	3.50	0.103
		acres	**gal/ac/day**			
	Golf course	74.6	275	0.02	3.50	0.072
		sf	**gpd/sf**			
	Golf Clubhouse	20,000	0.1	0.002	3.50	0.007
	Golf Maintenance	7,500	0.1	0.001	3.50	0.003
	Roadway/Parkway	0				
TRACY GATEWAY TOTALS				**0.71**	**3.10**	**2.20**

Notes:
(1) 1 ECU = 300 gal/day. As per wastewater system fee studies.
(2) Peak Wet Weather Flow = I/I plus Design Peak Sanitary flow.
(3) Includes Castro, Souchek, Kagehiro properties that are inside existing City Limits.
(4) Refers to 319,000 gal/day treatment allocation to Patterson Pass Business Park.

Source: CH2MHill, *Tracy Gateway and Westside Area Wastewater Master Plan*, 2001, Table 2.

TABLE 4.7-4

TRACY GATEWAY WASTEWATER FLOWS BY PROJECT PHASE

Phase	Average Dry Weather Flow (MGD)	Peaking Factor	Peak Wet Weather Flow (MGD)
1	0.17	3.50	0.61
1+2	0.27	3.50	0.95
Buildout	0.71	3.10	2.20

Source: CH2MHill ,*Tracy Gateway and Westside Area Wastewater Master Plan*, 2001, Table 13.

Treatment Facilities

The Proposed Project would include an on-site wastewater treatment facility, also referred to as a water reclamation facility (WRF). The WRF would be adjacent to the golf course maintenance building in the southeast corner of the project site and would occupy approximately one acre. The ultimate total combined average dry weather and peak hour wet weather flow capacities would be 0.71 and 2.2 mgd, respectively. As described in more detail in the Project Description, the WRF would include a headworks, influent pumping station, membrane bioreactor (MBR), aerobic sludge digester and solids dewatering system, ultraviolet (UV) disinfection system, effluent storage and recycled water pumping facilities, compost bed, and emergency storage. The MBR, digester, and solids dewatering system would be housed in an enclosed building. The headworks, UV disinfection system, pump stations and storage, and compost bed would be located outside the building, but within the WRF site. The locations of these features are shown in Figure 4.7-2. Figures 4.7-3 and 4.7-4 illustrate the processes for liquids and solids handling.

Potential traffic, noise, air quality, solid waste, and visual resource impacts associated with on-site WRF operation are discussed in Section 4.3 (Traffic and Circulation), Section 4.4 (Noise), Section 4.5 (Air Quality), Section 4.8 (Public Services), and Section 4.9 (Visual Resources/Light and Glare) in this EIR.

Biosolids

Dewatered solids from the WRF process (biosolids) would be managed in accordance with applicable regulations and temporarily stored on-site until removed for disposal at the Forward Landfill, as discussed in greater detail in Section 4.8.D, Solid Waste.

Conveyance

Conveyance lines and storage/pumping facilities would convey water from the WRF to City parks and fields, as illustrated in Figures 3-5 and 3-6. The non-potable recycled water lines that would be installed as part of the water exchange program are described and analyzed in Section 4.7.A, Water Supply.

Figure 4.7-2

Figure 4.7-3

Figure 4.7-4

Project Impacts and Mitigation Measures

Impact 4.7.4 The Proposed Project would include an on-site water reclamation facility (WRF) designed and sized to accommodate flows from the Proposed Project. Consequently, this would not increase the demand on existing or planned wastewater treatment or conveyance facilities that would result in the need for expansion of these facilities.

The WRF would be designed and operated to produce effluent that meets or exceeds standards consistent with "Disinfected Tertiary Recycled Water" as defined by Title 22 of the California Code of Regulations (Division 4, Chapter 3, Section 60301.230) for golf course and landscape irrigation and percolation. In accordance with State regulations (Title 22, Section 60341), storage of influent (untreated wastewater) for a 24-hour period would be provided on-site in a 710,000-gallon storage tank. Multiple treatment units would also be provided to ensure adequate treatment capacity with one unit not in operation. Although not part of the project, 24-hour storage could be provided by diverting the influent to the Hansen Sewer Line, which would convey flows to the City's WWTP. Use of the Hansen Sewer Line option would occur only in an upset condition and would be temporary. There would be no permanent effect on Hansen Sewer Line or WWTP capacity under this option.

As discussed in Section 4.7.A, Water Supply, treated effluent generated at the on-site WRF would be incorporated into the City's water exchange program to irrigate City parks and recreation fields. Figures 3-5 and 3-6 show the locations of pipelines, pump stations, and storage for the Proposed Project's recycled water system. Impact 4.7.2 in Section 4.7.A, Water Supply, provides additional discussion regarding the non-potable pipe distribution system associated with WRF operation. Treated effluent from the on-site WRF would be applied to City parks and fields at rates equal to current City irrigation rates. As described in Impacts 4.7.5 and 4.7.6, below, excess effluent (wet season) would be applied to an on-site subsurface percolation system.

For the reasons described above, operation of the Proposed Project on-site WRF would not increase the demand on existing City of Tracy conveyance, treatment, or disposal facilities. Therefore, the impact would be **less than significant**.

As discussed in the Existing Setting, the City of Tracy Wastewater Master Plan identified three potential locations for regional WRFs that could treat wastewater from the Westside area, which includes the project site. These facilities have not been approved or constructed. If these regional facilities are developed, the City could allow the Proposed Project to connect to them. Implementation of the Proposed Project, as currently designed, would not preclude connection to a regional WRF; however, connection of the project site to any of these regional facilities would be subject to appropriate environmental review.

Mitigation Measures

MM 4.7.4 None required.

Project Impact

Impact 4.7.5 The on-site water reclamation facility (WRF) would generate flows during winter months that would exceed the irrigation demand of City parks and fields. Disposal of these excess flows could not be accommodated within existing or planned water or wastewater systems.

As noted in the Project Description and as further discussed in Impact 4.7.4 (Wastewater Facilities), the on-site WRF would generate recycled water that would be in excess of the amount needed to irrigated City parks and fields during the winter months. If this excess water were applied to over-saturated soils during the winter, it could result in or exacerbate ponding. This could reduce the recreational and/or aesthetic value of the parks and fields. As noted above, project-generated wastewater cannot be conveyed to the City's WWTP, except under emergency conditions.

Therefore, to accommodate this unused water, treated effluent would be applied to land within the Proposed Project during the wet season (November through March), as needed. The effluent would be applied to an on-site subsurface percolation system located beneath parking lots. A Geoflow® drip emitter system consisting of perforated polyethylene drip irrigation tubing would be used for applying treated effluent at the project site. Distribution system tubing would be buried at a shallow depth (typically 1 foot) and manufactured with an herbicide at each emitter to minimize root clogging. Distribution tubing would be preferentially located under parking lots with application in irrigation areas as a back-up location. Based on prior geotechnical investigation of the project site, the permeability of on-site soils appears to be adequate for this system. However, application rates during the wet season would be based on actual measured sustainable soil permeability, which would be developed during detailed system design. The application site is expected to consist of 30 acres of irrigation and parking lot areas for the Phase 1 development. Ultimately, the application areas would include 145 acres, beneath the parking lots for the ultimate flow of 0.71 mgd.[34]

Discussions with staff from both the Regional Water Quality Control Board (RWQCB) and Department of Health Services (DHS) indicated that the Geoflow® system is a good option for year-round land application of recycled water, provided that treated effluent is applied in such a manner to avoid ponding of recycled water and that land is designated to provide redundancy in the event that the land application sites "fail." The on-site distribution system would be designed to include several Geoflow® zones to allow governing parameters (such as application rate, number of applications per day, and length of application time) to be adjusted to monitor soil saturation and to ensure that surface ponding does not occur. In addition, a 100 percent

34 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, p.8.

redundant application area would be designated within Tracy Gateway to serve as backup (redundancy).[35]

The use of emitters under the parking areas is anticipated to be an effective method of disposing excess recycled water that is not needed for City and park irrigation. However, in the event the on-site emitter system does not function as expected, there would be no available reuse or disposal method to accommodate the excess flows. This is considered a significant impact. Implementation of the following mitigation measure would result in a **less than significant** impact.

Mitigation Measures

MM 4.7.5 In the event the results of detailed site design for the on-site emitter system indicate that on-site permeabilities may preclude the effective operation of the system, or if the installed system does not function as anticipated, implement MM 4.7.1 (provide wet-season recycled water storage at the project site).

Timing/Implementation: Prior to Phase 1, if the results of on-site permeability testing indicate the system cannot be designed to achieve the necessary application criteria, or during operation if the emitter system does not function as expected.

Enforcement/Monitoring: City of Tracy

Implementation of MM 4.7.1 would provide storage for treated effluent in the event the system cannot achieve the desired wet season application rates without adverse effect (e.g., excess ponding at the project site or damage to pavement at parking areas from oversaturated subsurface soil conditions), or if the on-site emitter system does not function as expected. This would ensure there would be an adequate disposal mechanism for project-generated recycled wastewater that would not affect the City's existing or planned wastewater treatment and disposal facilities.

It is also noted that the RWQCB has prepared draft regulations that address groundwater recharge reuse. These regulations apply to planned groundwater recharge reuse projects that recharge groundwater basins designated in the Water Quality Control Plan for the purpose of using them as a source of domestic drinking water. Based on the draft language of the regulations and the Proposed Project's reuse of recycled water through the water exchange program, City staff has determined these regulations are not expected to pertain to the Proposed Project. However, in the event the RWQCB imposes more stringent discharge limitations in these regulations that cannot be achieved by the on-site WRF for effluent percolation during the wet season, the on-site seasonal storage (MM 4.7.1) could be used to contain flows. [36]

35 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, p.9.
36 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, p.8.

Project Impact

Impact 4.7.6 Treated effluent generated by the on-site WRF would be applied through spray irrigation at City parks and recreation fields and applied at the project site through an underground emitter system. People using the parks and fields could come in contact the recycled water, or applied water could migrate to groundwater.

Potential Public Health Effects

Treated effluent generated by the on-site WRF would be applied through spray irrigation at City parks and recreation fields. Individuals using or maintaining these facilities could come in contact with the water when the fields are being irrigated, from water adhering to grass and other landscaping, or through any remaining water that has not yet infiltrated into the subsurface. Ponding would be minimized by controlled rates and frequency of application during the summer months. During the winter months, disposal of excess irrigation water would be provided by the Proposed Project through an underground emitter system at the project site. If the emitter system does not function properly, as discussed in Impact 4.7.5, on-site storage of recycled would be required under MM 4.7.5.

The WRF would be designed and operated to produce effluent that meets or exceeds standards consistent with "Disinfected Tertiary Recycled Water" as defined by Title 22 of the California Code of Regulations (Division 4, Chapter 3, Section 60301.230). The standards are summarized in "Regulatory Framework," above. Water meeting these standards (referred to as "tertiary-2.2 criteria") may be used for unrestricted use, which includes (but is not limited to) body contact recreation (swimming), irrigation of food crops, and irrigation of parks, playgrounds, and schoolyards. The DHS considers a properly filtered and disinfected water meeting the tertiary-2.2 standard to be essentially pathogen-free and adequately protective of public health.[37] The City would be responsible for ensuring the application sites comply with the siting and use requirements established in Section 60310 of the regulations.

Therefore, implementation of the Proposed Project in accordance with adopted standards would not create a significant hazard to the public through the reuse of recycled water for landscape irrigation, and impacts related to public health would be **less than significant.**

Potential Water Quality Effects

The wastewater influent is anticipated to have the characteristics listed in Table 4.7-5, which would classify it is as medium to strong.[38] As indicated in the Project Description, if an R&D user in the business park produces an industrial-type wastewater, pre-treatment of the wastewater prior to release to the on-site WRF will be required by project CC&Rs, which would reduce the level of hazardous constituents, if any, that may be present.

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37 Jeff Stone, California Department of Health Services, "San Diego Unified School District Unrestricted Landscape Irrigation," letter to San Diego City Schools, June 24, 1999.

38 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, p.2.

Treatment plant performance is expected to achieve the average maximum contaminant concentrations listed in Table 4.7-6.

TABLE 4.7-5

ANTICIPATED INFLUENT WASTEWATER CHARACTERISTICS

Constituent	Units	Anticipated Monthly Average
BOD_5	mg/L	400
Total Suspended Solids	mg/L	300
Total Nitrogen	mg-N/L	70

Source: HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, Table 1.

TABLE 4.7-6

ANTICIPATED EFFLUENT QUALITY

Constituent	Units	Anticipated Monthly Average
BOD_5	mg/L	<5
Total Suspended Solids	mg/L	<5
Turbidity	NTU	<0.2
Total Coliform	MPN/100 mL	2.2
Total Nitrogen	mg-N/L	<10

Source: HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, Table 2.

Nitrogen

The proposed treatment plant would be designed for nitrification and subsequent denitrification. As such, influent ammonia would be ultimately converted to nitrogen gas and released to the atmosphere. The treatment plant would be designed to produce an effluent containing less than 10 mg-N/L of total nitrogen. It is assumed that soil permeability, and not nitrogen loading rates, would limit effluent irrigation rates during the wet season.[39]

Total Dissolved Solids

Potable water that would be used in the Proposed Project, and that would be conveyed to and treated in the on-site WRF, would come from City supplies, which is a blend of treated surface water from the DMC and groundwater. According to a 1999 study, TDS in DMC surface water is 210 mg/L.[40] In general, the City's groundwater exceeds the State's secondary maximum contaminant level (MCL) of 500 mg/L (Title 22, Section 64449, Table B). Higher levels of TDS occur at shallower depths than in deeper zones in the aquifer.[41] Therefore, wastewater generated

39 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, p.9.

40 City of Tracy, Water for the City of Tracy, 1999 Consumer Confidence Report.

41 City of Tracy, Wastewater Treatment Plant Expansion Draft Environmental Impact Report, October 2001, p.4.6-18. Secondary drinking water quality regulations pertain to contaminants that affect taste, odor, and color, but do not pose health risks.

from this blend of water sources would result in wastewater with a TDS level nearly equal to or less than groundwater.

The treatment process would not use significant quantities of chemical and, therefore, would only increase the TDS of the effluent by less than 20 mg/L. The minimal contribution of TDS from the effluent, combined with percolation of effluent, surface water used for irrigation, and natural rainfall, would not be expected to substantially worsen TDS levels in groundwater. [42]

Application of Recycled Water During Wet Season

The Geoflow® system has been approved by the RWQCB for year-round irrigation in other areas of California because the emitters and distribution systems are located below the surface and outside of the influence of rainfall. The emitter is located low enough in the soil profile to prevent any restriction to effluent percolation. The Geoflow® system would be beneath the parking lots. Other irrigated areas on the site would be considered as alternative locations for the Geoflow® system.[43]

Irrigation Runoff and Ponding

Routine WRF operations would include monitoring irrigation rates to eliminate runoff and ponding associated with effluent irrigation. Discussions with Department of Health Services staff indicate that this method would be acceptable and is utilized for recycled systems such as spray irrigation. Monitoring the irrigation system in this manner would eliminate or minimize the potential of treated effluent mixing with stormwater runoff or water stored in any on-site ponds or water features. [44]

For the reasons described above, the proposed disposal methods would not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality, and impacts would be **less than significant.**

Mitigation Measure

MM 4.7.6 None required.

Project Impact

Impact 4.7.7 The WRF would use chemicals that would be transported, stored, and used at the project site.

Operation of the WRF would involve the use of chemicals for membrane bioreactor (MBR) cleaning, polymer for sludge dewatering, and smaller quantities of products such as citric acid and chemicals used for wastewater quality testing. Of the chemicals that would be used and

42 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, p.10.
43 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, p.10.
44 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, p.10.

stored at the WRF, sodium hypochlorite solution for MBR cleaning would be used in the greatest amount. Sodium hypochlorite is the active component household bleach and is a moderately hazardous chemical. It is commonly used at wastewater treatment facilities. The proposed WRF would not use chlorine gas, a highly corrosive lung and skin irritant, that is sometimes used in wastewater treatment operations for disinfection.

Typical cleaning intervals involving the use of sodium hypochlorite would be three to six months, depending on site- and influent-specific parameters. For this type of cleaning, the membranes would be removed and placed in a separate 2,100-gallon dip tank and allowed to soak for a period of 5 to 10 hours. Typically, the dip tank contents would consist of a 200- to 1,000-milligrams per liter (mg/L) solution of sodium hypochlorite, which would be brought on-site via tanker or delivery trucker. Sodium hypochlorite (12.5 percent strength) for membrane cleaning would only be brought on-site when required. The sodium hypochlorite (along with other chemicals used and stored on-site) would be stored in accordance with applicable city, county, State, and federal regulations that require dual containment. Following membrane cleaning, the sodium hypochlorite solution would be slowly fed into the wastewater influent stream over a prolonged period of time (approximately one- to two-week period). This would substantially reduce the amount of hazardous chemicals that could require off-site disposal. The solution is not expected to have any impact on plant performance or effluent quality.[45]

Ultraviolet (UV) disinfection would be used to disinfect the effluent. The UV disinfection facilities would be in accordance with Title 22 requirements and UV disinfection guidelines for wastewater reuse. UV disinfection facilities would include two covered concrete channels that house arrays of UV lamps, controls, and lamp cleaning equipment.[46] Because UV radiation can be harmful, the UV facilities would not be accessible to the public, and worker safety would be subject to CCR Title 8 (Occupational Health and Safety) requirements.

Therefore, routine use of chemicals at the WRF would not create a significant hazard to the public or the environment transport, use, or disposal or hazardous materials, or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Assuming implementation of applicable laws and regulations pertaining to hazardous materials, impacts would be **less than significant.**

Mitigation Measure

MM 4.7.7 None required.

Project Impact

Impact 4.7.8 The WRF would generate biosolids that would be temporarily stored at the project site until removed for disposal at a landfill.

45 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, p.4.
46 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, p.5.

The treatment process at the WRF would generate sewage sludge that would be dewatered in a system consisting of a progressive cavity pump, polymer feed system, and belt filter press. Biosolids are wastewater solids derived from the sludge that are processed and subject to federal treatment regulations (40 CFR 503 and 258).[47] As noted in Impact 4.7.6, if an R&D user in the business park produces an industrial-type wastewater, pre-treatment of the wastewater prior to release to the on-site WRF will be required by project CC&Rs, which would reduce the level of hazardous constituents, if any, that may be present.

Biosolids typically contain nutrients, minerals, and organic matter, which make the material processed in accordance with federal standards suitable for many agricultural, silvicultural, horticultural, and land reclamation activities where such application is not prohibited or restricted. Most of the pollutant load treated at wastewater treatment facilities is organic matter. During treatment, some organic constituents are removed through biological and physical processes. Others may concentrate in the sludge. Pathogens (disease-causing agents including helminthes, bacteria, viruses, and protozoa) can be present in significant concentrations.[48]

The Proposed Project would produce an average of approximately 35 cubic feet of dewatered Class B biosolids per day initially, then approximately 160 cubic feet per day at the ultimate treatment capacity. Class B biosolids are required to meet the vector attraction and pollution concentration limits established I 40 CFR Part 503 and pathogen reduction standards specified in 40 CFR Part 503.32(b). The biosolids would be conveyed to a storage bin meeting Department of Transportation requirements that would be taken for off-site disposal each day the belt press is operated. The storage bin would be covered and secured to prevent unauthorized access. As discussed in Impact 4.8.10 in Section 4.7.D, Solid Waste, the biosolids would be disposed of at the Forward Landfill.[49]

Because of the limited quantity, site controls, and transport to a landfill that can accept Class B biosolids, the biosolids generated by the proposed WRF would not create a significant hazard to the public or the environment through routine operations or reasonably foreseeable upset and accident conditions involving the release of the material into the environment. This is considered a **less-than-significant** impact.

Mitigation Measure

MM 4.7.8 None required.

Cumulative Impacts and Mitigation Measures

Impact 4.7.9 The Proposed Project, in combination with existing and planned development in the City of Tracy, would not result in an increase in wastewater flows that could exceed capacity of existing treatment and disposal systems or require extensions of wastewater infrastructure.

47 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, p.5.
48 State Water Resources Control Board Water Quality Order No.2000-10-DWQ [Biosolids], pp.1-7.
49 HDR Engineering, Inc., Tracy Gateway - Wastewater System Technical Memorandum, March 29, 2002, p.5.

The cumulative context for wastewater impacts is development in the City of Tracy through 2025. As described in Impact 4.7.4, the Proposed Project would not incrementally increase the demand on City wastewater collection, treatment, and disposal facilities because project-generated flows would be managed at an on-site WRF. The off-site infrastructure to convey recycled water to City parks and fields would be constructed and sized to meet the demands of the potable/non-potable water exchange program described in Impact 4.7.1. As indicated in the Environmental Setting, other options for the treatment and disposal of wastewater generated City-wide are being pursued that would accommodate future growth. These projects include expansion of the WWTP and development of WRFs on the west side of Tracy. However, the Proposed Project would not contribute flows to these facilities, assuming construction and operation of the on-site WRF. Therefore, there would be **no cumulative impact** related to wastewater systems.

Mitigation Measure

MM 4.7.9 None required.

Cumulative Impact

Impact 4.7.10 The Proposed Project, in combination with existing and planned development in the City of Tracy that would use recycled water from the City's WWTP, would not result in any cumulative effects on receiving water quality (surface water or groundwater) through the use of recycled water for landscape irrigation.

Treated effluent produced by the Proposed Project's WRF would meet Title 22 standards for tertiary disinfected recycled water. After completion of the upgrade and expansion, the WWTP would also produce an effluent that meets these same standards. Recycled water from the City's WWTP could be applied to parks and fields as new areas are developed within the City. As discussed in Impact 4.7.6, there would be no significant water quality effects related to spray irrigation as a result of the Proposed Project. Because the effluent produced by the on-site WRF would be treated to the same standards as the City's WWTP effluent, the application of Proposed Project's recycled water from the on-site WRF at City parks and fields, in combination with the application of recycled water that could be made available from the City's WWTP for the same purpose, would not be cumulatively considerably. Therefore, the cumulative impact would be **less than significant.**

Mitigation Measure

MM 4.7.10 None required.

Cumulative Impact

Impact 4.7.11 The Proposed Project, in combination with existing and planned development in the City of Tracy, would result in the increase use, storage, and transport of hazardous materials.

Operation of the on-site WRF would involve the use, transportation, storage, and disposal of varying volumes and types of hazardous materials. The use of hazardous materials at the on-site WRF would be limited both in terms of volume, rate of use, and frequency of delivery, and minimal hazardous wastes would be generated at the WRF.

As growth occurs in the City of Tracy, it is reasonable to assume more hazardous materials and wastes would be managed within the City as growth in the commercial and industrial sectors occurs. However, as described in the Regulatory Framework and the project-specific impact discussions above, hazardous materials and non-hazardous solid wastes are highly regulated by numerous federal, State, and local regulations created to ensure public safety and reduce the potential for adverse environmental effects. All development within the City of Tracy and San Joaquin County, including the Proposed Project, would be required to comply with applicable federal and state hazardous materials regulations.

The Proposed Project's contribution to hazardous materials impacts would not be cumulatively considerable, the cumulative impact would be **less than significant**.

Mitigation Measure

MM 4.7.11 None required.

C. STORM DRAINAGE

This section discusses and analyzes the effects of the Proposed Project on City storm drainage facilities. This analysis is based on technical data developed by Stantec for the Proposed Project (*Initial Storm Drainage Conclusions for Tracy Gateway Project, Storm Drainage Master Plan, Westside Channel Outfall System Hydrologic Analysis and Supplement to Storm Drainage Master Plan*) Tracy Hills Specific Plan EIR, Presidio Planned Urban Development EIR, City of Tracy Urban Management Plan/General Plan and the General Plan EIR.

1. EXISTING SETTING

Regional Hydrology

The project site is located in San Joaquin County along the western edge of the City of Tracy, east of the Diablo Range. The City of Tracy Planning Area (TPA) is generally located within the Old River watershed. Natural drainages and major human-made water facilities in the TPA include Old River, Tom Paine Slough, Corral Hollow Creek, California Aqueduct, Delta-Mendota Canal, and the West Side Irrigation District's (WSID) Upper and Lower Main Canals.

The City of Tracy typically receives lower amounts of precipitation relative to other portions of the region. Average annual precipitation is approximately 10 inches, a majority of which occurs in the winter months. As identified in the City of Tracy Storm Drainage Master Plan (1994), storm runoff in the TPA generally drains as sheet flow to the north towards Old River. However, subsequent development of the TPA has altered historic drainage patterns.[50]

Project Site Drainage

The 538-acre undeveloped project site is bounded by 11th Street on the north, Lammers Road on the east, and the West Side Irrigation District (WSID) Upper Main Canal on the south and west. An additional 328 acres of agricultural land to the south currently drains across the project site. The project site has historically been used for agricultural purposes. Untreated water supply for irrigation has been provided by the WSID from its Upper Main Canal system using its appropriative water right on the Old River. Excess irrigation water is collected in a series of ditches, pipes, and sediment basins and is discharged to the WSID Lower Main Canal.

Surface flows from the combined 865 acres drains from southwest to the northeast as a single "watershed" with a slope of approximately 2 to 5 percent. There are no natural streams or drainages courses located on the project site, but there is a network of irrigation ditches and pipes that serves the Project site and agricultural land to the south. Figure 4.7-5 shows the boundaries of the Tracy Gateway Watershed within the context of Tracy area drainages and waterways.

50 City of Tracy, Community Development Department, Presidio Planned Unit Development Draft Environmental Impact Report (State Clearinghouse No. 98112020), prepared by Pacific Municipal Consultants, 1999.

Figure 4.7-5

There are currently no public storm drain facilities adjacent to the project site, and the watershed currently lacks a permanent outfall. Existing drainage from the project site is collected in perimeter drainage ditches that ultimately drain to the WSID Lower Main Canal (north of the project) and to adjacent properties to the north. The Lower Main Canal carries water eastward and eventually discharges to the Sugar Cut Outfall on the northeast side of the City of Tracy.

Hydrologic soil group types within the project site are B, C, and D, which comprise approximately 10 acres, 437 acres and 418 acres of the 865-acre local watershed, respectively. Soil types C and D are characterized by moderate to high runoff potential. Soil type B has a lower runoff potential. For the purposes of quantifying existing (and future) flows, nine on-site and two off-site sub-basins were delineated. Sub-basin areas range from 32.4 acres to 235.3 acres. Future drainage area boundaries are roughly aligned along proposed street alignments, project boundaries, and the golf course. Figure 4.7-6 shows the watershed sub-basin boundaries at the project site. For the 100-year storm, under existing (pre-developed) conditions, the watershed is estimated to generate a peak runoff rate of about 143 cubic feet per second (cfs), generally entering the 11th Street/Lammers Road intersection as shallow flooding.[51]

Off-Site Drainage Conditions

Currently, the overall Tracy West Area, which includes Tracy Gateway and numerous surrounding properties, consists primarily of agricultural uses. Many of these agricultural lands are drained via tailwater ditches that ultimately connect with and drain into Old River to the north. As Tracy Gateway and the overall Tracy West Area develops, the majority of these agricultural properties will be converted to urban land uses. The City intends to require that new development in the overall Tracy West Area install and utilize a network of stormwater detention basins to store and attenuate runoff to a level that will ultimately reduce the peak rate of outflow that currently has the potential to discharge into Old River. The network of stormwater detention basins will also serve to provide water quality treatment prior to stormwater being discharged into Old River.

Storm Drainage Requirements

The City requires new development projects to eventually utilize a City-owned and maintained storm drainage outfall that would discharge to Old River to the north at the Wickland outfall, as shown in Figure 4.7-5. The outfall alignment has not been specifically defined at this time but would generally consist of a combination storm drain and open ditch that would ultimately deliver a controlled rate of discharge. The outfall would serve the project site watershed and the overall Tracy West Area, which includes numerous surrounding properties. Generally, the City intends to limit the maximum discharge rate for this outfall to about 30 cfs during a 100-year storm to significantly limit new discharges into Old River. The City will require that the controlled rate of discharge be achieved through stormwater detention storage at new development projects in the Westside area.

51 Stantec Consulting, Technical Report, Storm Drainage Analysis and Supplement to the SDMP, Tracy Gateway Project, August 2001.

Figure 4.7-6

Until such time as a permanent outfall is constructed, watershed runoff is allowed to be discharged into irrigation facilities owned and operated by the WSID per an agreement that has been executed between Tracy Gateway LLC and WSID. This agreement is intended to allow sufficient discharge capacity for up to 20 years, provided on-site stormwater detention facilities are used. Although the WSID has indicated up to 12 cubic feet per second (cfs) peak flow runoff can be discharged into the WSID Lower Main Canal as a temporary measure until a permanent, publicly-owned outfall solution is identified, as described above, outflows conveyed to the permanent outfall system will eventually need to be reduced to 4 cfs to provide an available downstream capacity allowance for other future Tracy West Area flows.

2. REGULATORY FRAMEWORK

City of Tracy General Plan

General Plan goals, policies, and actions addressing storm drainage are included in the Public Facilities and Services Element. Policy PF 1.11 directs that effective storm drainage facilities for planned development be provided in accordance with existing standards. Implementing actions address the need for updates to the City's Storm Drainage Master Plan and conveyance capacity. Policy PF 1.12 encourages the integration of drainage facilities with paths and landscaping. Policy PF 1.13 recommends the use of existing facilities for storm drainage, particularly the use of agricultural drains as storm drainage outfalls (Action PF 1.13.1).

City of Tracy Storm Drainage Master Plan

The Storm Drainage Master Plan facilitates planning and implementation of infrastructure improvements required to accommodate stormwater runoff under buildout conditions per the General Plan. The Storm Drainage Master Plan provides design guidelines for the future development of infrastructure improvements.

City of Tracy Design Standards

The Design Standards set forth requirements regarding the design and operation of public improvements, including requirements for the provision of hydrology calculations, appropriate estimation methods and models for stormwater flows, and design parameters for drainage basins and piping systems. In general, design parameters are based on planning parameters set forth in the City's Master Plans.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this EIR, an impact is considered to be significant if the following could result from implementation of the Proposed Project:

- a substantial increase in surface runoff that requires new drainage facilities or taxes the capacity of existing drainage facilities.

Methodology

Evaluation of the potential storm drainage impacts of the Proposed Project was prepared by Stantec Consulting, Inc. in August 2001. A detailed hydrologic analysis estimating the 100-year peak flow discharges and runoff volumes for the Tracy Gateway project and adjacent land use that contributes to the watershed was prepared using the U.S. Army Corps of Engineers (Corps) computer program HEC-HMS. The HEC-HMS model was used to evaluate the effectiveness of proposed on-site storage ponds in meeting an outflow limitation requirement of 4 cfs. The specific methodology used for the selection of hydrologic parameters and model input are described in *Technical Report, Storm Drainage Analysis and Supplement to the SDMP, Tracy Gateway Project*, which is included in Appendix F in this EIR.

Project Impact and Mitigation Measure

Impact 4.7.12 The Proposed Project could result in an increase in impervious surfaces, which could increase the rate and amount of stormwater runoff.

Under existing conditions, the watershed consists of agricultural uses and generates a limited amount of runoff during most rainfall events. In a 100-year storm, the watershed is estimated to generate a peak runoff rate of about 143 cfs, generally entering the 11th Street/Lammers Road intersection as shallow flooding. With the introduction of impervious surfaces (streets, rooftops, parking lots, etc.) as a part of site development, peak flow runoff rates and volumes will increase.

Storage volume would be provided within the water features associated with the site development. Initially, until such time as a permanent outfall is constructed, up to 12 cfs of watershed runoff could be discharged into the Lower Main Canal, per agreement with the WSID. Stormwater runoff collected on-site would be conveyed and directed to a common point of outfall at roughly the intersection of 11th Street and Lammers Road. The ability of the downstream system comprising the Lower Main Canal to accept 12 cfs has become possible due to a reduction in agricultural tailwater contributing to the downstream system caused by the conversion of several agricultural lands to urban uses having different storm drainage outfalls. The ability of the Lower Main Canal to accept this contribution in the future will be the responsibility of WSID to maintain and regulate.

However, as discussed in the Existing Setting, the City requires the project development to eventually utilize a City-owned and maintained storm drainage outfall that would discharge to Old River (see Figure 4.7-5). The watershed (including Tracy Gateway) will be allocated 4 cfs of the maximum discharge rate of 30 cfs, which is necessary to ensure that a sufficient capacity allowance remains for other future development within the Tracy West Area. Although the project could discharge up to 12 cfs with the interim solution, the Tracy Gateway storm drainage system has been conservatively designed to meet the 4 cfs limit. The project would provide

roughly 134 acre-feet of stormwater detention storage to achieve this level of runoff attenuation. Because the on-site detention storage would also serve as landscape/recreational amenities, operation of the detention facilities would be based upon mutual agreement between the Proposed Project developer and the City of Tracy.

Table 4.7-7 shows the 100-year peak discharge from each sub-basin, and Table 4.7-8 presents peak inflow and outflow from each sub-basin having detention facilities. For the flow estimates listed in Table 4.7-8, all flows from the various sub-basins ultimately drain into the pond proposed to be located within sub-basin number 1, with attenuation also being provided via storage within ponds located in the other sub-basins. Figure 4.7-6 illustrates the peak inflow and outflow from each sub-basin with storage ponds. The peak rate of discharge of 4 cfs from sub-basin number 1 represents the maximum accumulated rate of discharge that will be discharged as attenuated runoff generated from the 865-acre watershed (Tracy Gateway plus upstream 328 acres). When the outfall system is completed, the project's features would minimize the project's flow rate contribution to less than 20 percent of the total peak flow rate generated/contributed by the overall Tracy West Area, once developed.

TABLE 4.7-7

100-YEAR STORM EVENT PEAK DISCHARGES

Sub-basin Number	Sub-basin Area (acres)	Peak Discharge (cfs)
1	65.4	53.6
2	49.2	38.2
3	36.5	29.0
4	87.6	23.6
5	235.3	74.6
6	62.1	48.7
7	71.5	52.8
8	69.4	54.9
9	92.0	31.1
10	32.4	27.0
11	60.4	49.5

Source: Stantec Consulting, *Technical Report, Storm Drainage Analysis and Supplement to the SDMP, Tracy Gateway Project,* August 2001.

TABLE 4.7-8

INFLOW AND OUTFLOW FROM EACH SUB-BASIN WITH DETENTION POND

Sub-basin Number	Peak Inflow (cfs)	Peak Outflow (cfs)	Peak Storage (ac-ft)	Peak Elevation Change (ft)
1	56.0	4.0	19.9	2.6
2	38.2	0.4	8.9	2.8
3	29.0	0.4	6.6	3.0
4	130.5	4.5	46.0	3.0
6	48.7	0.4	11.5	2.3
8	81.1	1.9	22.6	3.9
10	27.1	0.5	6.6	1.6
11	49.5	0.5	11.5	1.6

Source: Stantec Consulting, *Technical Report, Storm Drainage Analysis and Supplement to the SDMP, Tracy Gateway Project,* August 2001.

The Tracy Gateway project does not propose to use stormwater retention as a permanent storm drainage solution. As previously discussed, the interim solution will be to utilize WSID irrigation facilities as a storm drainage outfall, with a future City owned and maintained storm drainage outfall offering the permanent solution. Both the interim and permanent proposed solutions will work in conjunction with on-site storage provided via stormwater detention facilities.

It is possible that certain phases of development would incorporate the use of temporary retention facilities. If this is the case, such facilities would be designed in conformance with City Standards that call for a retention storage volume equivalent to the volume of runoff generated by two 48-hour, 10-year return period storm events. Temporary retention facilities would only be allowed as a temporary measure, similar to other locations in the City where such facilities have been allowed.

Should retention become desired as a permanent solution in the future, the design requirements would be more rigorous than for temporary retention facilities. The requirements include retaining the volume of runoff generated by a series of storms that constitute a 100-year return period calendar year event, less anticipated evaporation and percolation losses. This condition would produce a storage volume requirement that is substantially greater than the temporary retention volume requirement.

With the inclusion of an appropriate level of stormwater detention and the interim and permanent outfall systems, the Tracy Gateway project would result in storm drainage impacts that are considered to be **less than significant.**

Mitigation Measures

MM 4.7.12 None required.

Cumulative Impacts and Mitigation Measures

Impact 4.7.13 The Proposed Project, in combination with other development in the City of Tracy, would result in an increase in impervious surfaces, which could increase the rate and amount of stormwater runoff.

The topography and existing land uses of the Tracy area is such that there is very little stormwater inflow from surrounding areas into the City's planning area. Consequently, stormwater drainage that flows to local and regional waterways is generated primarily by development within the City. Lands to the north and east of the City drain north to the San Joaquin River. South Corral Hollow and foothill areas to the south drain in an easterly direction to the valley floor, where drainage is dissipated on agricultural lands. Lands to the west of the City drain toward the northeast towards Old River and do not contribute to the City's facilities. On the southwest, there is a large watershed that was once tributary to the Tracy Planning Area.

However, there are presently several human-made barriers that prevent stormwater flow from reaching the City.[52]

As discussed in the Existing Setting, the overall Tracy West Area, which includes Tracy Gateway and numerous surrounding properties, consists primarily of agricultural uses within the Old River watershed. As the Proposed Project and the overall Tracy West Area develops, the majority of these agricultural properties will be converted to urban land uses. Development of urban land uses would increase the rate and amount of stormwater runoff discharged to the Old River watershed. The Proposed Project would incrementally contribute to the demand for storm drainage facilities.

The City is requiring new development projects to eventually utilize a City-owned and maintained storm drainage outfall that would discharge to Old River to the north at the Wickland outfall. The maximum discharge rate for the outfall will be limited to about 20-30 cfs during a 100-year storm to significantly limit new discharges into Old River. New development in the Tracy West Area is required to install and utilize a network of stormwater detention basins to store and attenuate runoff to a level that will ultimately reduce the peak rate of outflow that currently has the potential to discharge into Old River. These basins would also provide significant water quality treatment.

Therefore, the Proposed Project, in combination with other development that contributes stormwater flows to Old River, would not result in increased peak flows or runoff volumes that would exceed the capacity of existing and planned improvements. The project's incremental contribution to flows (4 cfs) would not be cumulatively considerable, and impacts would be **less than significant**.

Mitigation Measures

MM 4.7.13 None required.

52 City of Tracy, City of Tracy Urban Management Plan/General Plan EIR (SCH #91092060), July 1993, Section 3.3

D. ENERGY

This section addresses the existing electricity and natural gas services for the project and evaluates the ability of the service providers to accommodate development resulting from the project. This analysis is based upon review of the City of Tracy Urban Management Plan/General Plan (General Plan), the General Plan EIR and responses to the Notice of Preparation.

1. EXISTING SETTING

State legislation was enacted in 1996 that restructured California's electricity market. In accordance with AB 1890, the generation of electricity is open to competition, but the transmission and distribution remain a regulated monopoly. The utilities are required to purchase all their electricity needs from the wholesale market. The goal of the legislation was to open the state's energy market to competition, with the expectation that competition would drive down the cost of electricity. Basically, the legislation gave the customers of investor-owned utilities, such as Pacific Gas and Electric (PG&E), the ability to choose who provides their electric energy, much the same way they can choose long distance telephone companies.

The demand for electricity grew faster than expected during the 1990s due to a number of factors. These include the rapid growth in the State's economy, the spread of computer technology, the lack of new power plants since the mid 1980s, the lack of widespread conservation due to relatively low electricity costs to consumers, and the State's population growth. At the same time, the west, and in particular the northwest, also experienced dramatic growth, which reduced the amount of energy available from that area.[53] The State produces only part of its electricity needs and the rest must be bought from other western states. In 1999, California produced approximately 82-percent of the electricity it used.[54]

Because most power plants in California are powered by natural gas, the cost of making electricity increased during this same time due to dramatic increases in the price of natural gas during 2000. This is due to several factors including the increased demand resulting from the strong economy, colder than normal winters in recent years, and the State's population growth. It is unknown at this time how long the current supply situation will continue.[55] California produces a small portion of its natural gas needs and must import the rest. In 1999, 84-percent of the State's natural gas supply was imported.[56]

PG&E supplies both natural gas and electricity to the City of Tracy. Major electrical facilities in the project area include towers and lines that traverse the northwest corner of the project site. These are major transmission facilities and would not provide electric service directly to the site. The existing house on the site is currently served with electricity and natural gas.

53. Pacific Gas & Electric Company website, http://www.pge.com, A Concise Guide to the California Energy Crisis.
54. California Energy Commission website, http://www.energy.ca.gov, accessed on June 14, 2001.
55. Pacific Gas & Electric Company website, http://www.pge.com, accessed on April 12, 2001.
56. California Energy Commission website, http://www.energy.ca.gov, accessed on June 14, 2001.

2. REGULATORY FRAMEWORK

California Public Utilities Commission (CPUC)

CPUC Decision 95-08-038 contains the rules for the planning and construction of new transmission facilities, distribution facilities and substations. The decision requires permits for the construction of certain power line facilities or substations if the voltages would exceed 50 kilovolts or the substation would require the acquisition of land or an increase in voltage rating above 50 kilovolts. Distribution lines and substations with voltages less than 50 kilovolts do not need to comply with this decision; however, the utility must obtain any non-discretionary local permits required for the construction and operation of these projects. CEQA compliance is required for facilities constructed in accordance with the decision.

Title 24, California Code of Regulations (CCR)

Title 24, California Building Standards, contains the energy efficiency standards related to construction and operation of nonresidential buildings. These standards are based, in part, on a State mandate to reduce California's energy demand.

City of Tracy General Plan

The General Plan contains policies to ensure efficient energy usage in the City through well-planned urban development and adherence to existing building codes that require efficient energy construction standards.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

Project impacts are considered significant if the Proposed Project results in:

- the need for new or physically altered generation facilities, the construction of which could cause significant environmental impacts in order to provide service;
- wasteful, inefficient and unnecessary consumption of energy during construction or operation; or
- demand in excess of capacity of transmission or distribution facilities.

Methodology

The assessment of electricity and natural gas service is a qualitative review of services available to the project site and a determination of whether they are adequate to serve the needs of the Proposed Project. Standard generation rates were used for the projected electrical and natural gas demand for the Proposed Project.

Project Impacts and Mitigation Measures

Impact 4.7.14 The Proposed Project could increase the demand for electricity and natural gas.

On-Site Improvements

Development of the project site, including the water reclamation facility, would result in a yearly demand of approximately 107,331,408-kilowatt hours (kWh) of electricity and 2,593,047 thermal units of natural gas. (See Tables 4.7-9 and 4.7-10) Approximately 1,883 single-family residential units could be constructed on the project site in accordance with the current land use designation of 3.5 units per acre. Development of the project site in accordance with the current land use designation would generate a yearly electrical demand of 12,710,250 kWh and a yearly natural gas demand of 941,500 thermal units.[57] Therefore, the Proposed Project would result in an increase in the electrical demand by 94,621,158 kWh and increase the natural gas demand by 1,651,547 thermal units per year as compared to development of the project site in accordance with the current land use designation of the site.

TABLE 4.7-9

TRACY GATEWAY
YEARLY ELECTRICITY DEMAND RATE

Land Use Type	Usage Generation Rate	Square Footage of Project	Estimated Electrical Demand (kWh)
Retail, Office, Hotel, Golf Course	16 kWh per square foot[1]	6,648,838	106,381,408
Water Reclamation Facility (WRF)			950,000[2]
Offsite Potable and Non Portable Water Improvements			1,600,000

kWh = kilowatt hour

Sources:
1. California Energy Commission, California Energy Demand 2000-2070, June 2000.
2. Kevin Kennedy, P.E., HDR Engineering, March 21, 2002
3. Jim Miller, Program Manager, personal communication with EIP Associates, March 28, 2002.

TABLE 4.7-10

TRACY GATEWAY
YEARLY NATURAL GAS DEMAND RATE

Land Use Type	Usage Generation Rate	Square Footage of Project	Estimated Natural Gas Demand (therms)
Retail, Office, Hotel, Golf Course	.39 therms per square foot*	6,648,838	2,593,047

therm = thermal unit ***1 therm = ` 100 cubic feet of natural gas***

*Source: California Energy Commission, *California Energy Demand 2000-2070*, June 2000.

57 California Energy Commission, *California Energy Demand 2000 - 2070* Staff Report, June 2000.

Off-Site Improvements

Development of the Proposed Project would require off-site utility improvements for potable and non-potable water. The water storage facilities and the pumping facilities for the waterlines would result in a yearly demand of approximately 1,600,000 kWh.

Therefore, when added to the electrical demand of the on-site improvements, the project would generate a total yearly demand of approximately 108,931,408 kilowatt hours.

There is no evidence, despite the State's current uncertainty about a reliable supply of electricity and natural gas, that the Proposed Project would result in the need for a new electric and/or natural gas generating facility. Because electricity and natural gas can be transmitted for long distances, it can be obtained from a wide range of sources, both in and out of California. As a result of this characteristic, it would be speculative to assume development of Tracy Gateway would generate the need for new electrical and/or natural gas generating facilities. The Proposed Project would be required to comply with Title 24 of the California Code of Regulations and City of Tracy General Plan policies to reduce overall energy demand, although the resulting demand would be considered a significant impact.

Implementation of the Mitigation Measure 4.7.14 would ensure that sufficient electrical and natural gas supplies are available to serve each of phase of the Proposed Project, thereby reducing the impacts related to energy supply to a **less-than-significant** level.

Mitigation Measure

MM 4.7.14 Prior to approval of each phase of the Proposed Project, the applicant must demonstrate that sufficient electrical and natural gas supplies are available to serve the Proposed Project.

Timing/Implementation: Prior to approval of each FDP.
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.7.15 Construction or operation of the Proposed Project could result in wasteful, inefficient and unnecessary consumption of energy.

The Proposed Project would be required to comply with Title 24 of the California Code of Regulations and City of Tracy General Plan policies to reduce overall energy demand through the use of energy efficient materials and methods during both construction and operation. These measures would ensure that the Proposed Project does not result in wasteful, inefficient or unnecessary consumption of energy and the impact would be **less than significant.**

Mitigation Measure

MM 4.7.15 None required.

Project Impact

Impact 4.7.16 The Proposed Project could require the extension of electrical and natural gas transmission and distribution infrastructure.

Electrical power to the project site could be supplied by PG&E, who would need to extend transmission and/or distribution facilities in order to serve the Proposed Project. It is unknown at this time what new or upgraded electrical facilities, if any, would be necessary in order to serve the off-site utility improvements. PG&E has indicated that improvements necessary to serve the project with electricity could include upgrading existing substations and transmission line equipment and/or the construction of new substations and transmission lines.[58] PG&E would be required to comply with CPUC Decision 95-08-038 for the installation or upgrading of electric facilities, which includes the requirement for environmental review of such a project. Distribution lines and substations with voltages less than 50 kilovolts do not need to comply with this decision. This is considered a significant impact.

Depending upon the location of the upgraded and/or new electrical facilities to serve the on and off-site project improvements, construction in easements outside of existing road rights of way could be necessary. The construction of the on- and off-site electrical infrastructure could affect the environment, particularly during construction when impacts related to soil erosion, storm runoff, increased noise, dust and vehicle emissions could result. In addition, cultural resources could be affected. These impacts are analyzed in the appropriate sections of this EIR.

Implementation of Mitigation Measure 4.7.14 would require that, prior to approval, the applicant demonstrate that sufficient electrical and natural gas distribution facilities exist, or will exist prior occupancy of the first building, to supply the electrical and natural gas demands for the Proposed Project, thus reducing impacts to a **less-than-significant** level.

Mitigation Measure

MM 4.7.16 The project applicant shall coordinate with PG&E regarding the extension of electrical and natural gas service to the project site and off-site improvements. This shall include preparation of detailed plans for utility placement and the project's participation in energy conservation programs provided by PG&E. Evidence of this coordination with PG&E shall be provided to the City of Tracy Department of Development and Engineering Services.

Timing/Implementation: Prior to issuance of grading permits for each phase of construction.

Enforcement/Monitoring: City of Tracy

58. Written correspondence, Christoffer Ellis, Land Project Specialist, PG&E, March 5, 2001.

Cumulative Impacts and Mitigation Measures

Impact 4.7.17 The Proposed Project, along with development in the region, could result in the need for new or physically altered energy generation facilities.

The cumulative context for electricity demand for the Proposed Project would be development of the region served by the providers of electrical and natural gas energy to the area. Sources of electricity are diverse and widespread. The primary electricity-generating sources for the western states are hydroelectric, nuclear, coal, natural gas, and renewable sources. The western states and Canada are joined in an extensive regional network to share the energy produced from these sources. In 1999, approximately 18 percent of California's energy was imported and nine percent came from the Pacific Northwest, seven percent from the southwest, with the remaining two percent from other sources.[59] The exact source that would supply to the project is not known, and it is beyond the purview of this EIR to speculate about the impacts of using any particular source of electricity.

The sources of supply for natural gas are equally diverse. In 1999, 28 percent of California's natural gas supply came from Canada, 10 percent from the Rockies, and 46 percent from the Southwest.[60] The exact source that would supply to the project is not known, and would vary over time. It would be speculative to attempt to assess the impacts of using any particular source of natural gas.

The project, and other development within the State, must comply with Title 20 and Title 24 California Code of Regulations to reduce overall energy demand. Therefore, this development would not result in wasteful, inefficient and unnecessary consumption of energy during construction or operation and their contribution to cumulative energy demand would be less than significant.

There is no evidence, despite the State's current uncertainty about a reliable supply of electricity and natural gas, that the cumulative development in the region would result in the need for a new electric and/or natural gas generating facility, such as a power plant. Because electricity and natural gas can be transmitted for long distances, it can be obtained from a wide range of sources, both in and out of California. As a result, it would be speculative to assume that cumulative development would generate the need for a new electric generating facility, where new facilities would be located, or to evaluate environmental impacts resulting from the construction and operation of the new facilities in California. The California Energy Commission would prepare an environmental document that analyzes and discloses environmental impacts from the construction and operation of new power plants and imposes mitigation measures to address significant impacts. For these reasons, the cumulative impacts related to energy supply and demand would be **less than significant**.

59. California Energy Commission website, http://www.energy.ca.gov//energysources.html, June 14, 2001, California's Major Sources of Energy.
60. California Energy Commission website, http://www.energy.ca.gov//energysources.html, June 14, 2001, California's Major Sources of Energy.

Mitigation Measure

MM 4.7.17 None required.

4.8 PUBLIC SERVICES

This section addresses the potential impacts of the Proposed Project on public services. These public services include law enforcement, fire protection, emergency medical response, schools, parks and recreation, and solid waste collection and disposal. The section focuses on the physical impacts associated with the construction of new or physically altered facilities that are necessary in order to maintain acceptable performance standards for these public services as a result of the Proposed Project.

A. LAW ENFORCEMENT, FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

1. EXISTING SETTING

Law Enforcement

The Tracy Police Department provides police protection services to the City of Tracy. The Tracy Police Department is located at 1000 Civic Center Drive in a facility completed in 1996. The Department's current level of service is 1.015 officers to 1,000 residents.[1] Capitol facilities are funded from the City's Public Building Fee, which is a developer impact fee and supplemented as necessary from the General Fund. Personnel for the Tracy Police Department are funded from the General Fund, with periodic assistance through State and Federal grants.

The sole Police facility is located on Civic Center Drive and no more are planned at the present time. Substations in the future are a possibility. These facilities are usually located in donated or very inexpensive space.[2]

Fire Protection

The Tracy Fire Department provides fire protection services to the City of Tracy and the Tracy Sphere of Influence. In addition, the Department provides mutual aid assistance to agencies serving the surrounding area. There are currently seven stations. Three stations are located within the City limits and the remaining four are in outlying areas.[3] The nearest fire station to the project site is Station 94 located at 1650 W. Schulte Road, to the south of the project site. A new station, scheduled to begin construction in 2002, will be located at the corner of 11th Street and Alden Glen Road, and will be the nearest station to the project site.[4]

1 Captain Gary Hampton, Support Operations Bureau Commander, Tracy Police Department, verbal communication with EIP Associates, July 24, 2001.
2 William Dean, Associate Planner, Development and Engineering Services, City of Tracy, written communication with EIP Associates, November 21, 2001.
3 Carol Zandona, Executive Assistant, Tracy Fire Department, verbal communication with EIP Associates, July 18, 2001.
4 Carol Zandona, Executive Assistant, Tracy Fire Department, verbal communication with EIP Associates, July 18, 2001.

The Department has established a five-minute response time within the City limits, which includes notification response and arrival of the first unit on the scene. Current response times vary, but generally the Department arrives on the scene in less than five minutes.[5] Capitol facilities and personnel for the fire department are funded through development impact fees and the City's General Fund.

The Department is currently ranked Class Three by the Insurance Service Organization (ISO). The ISO rating system was established to reflect the industry's ranking of available fire protection services within a community and is used by insurance companies to determine fire insurance rates. The rating scale ranges from 1-10, with a Class One indicating excellent fire protection. Several factors influence the determination of ratings, including the sufficiency of available water, the number of full time fire fighters versus volunteers, the condition of available equipment, and the extent to which building code provisions encourage fire safety.[6]

Special fire fighting equipment and additional personnel can be obtained through the mutual aid agreements with other cities within the County. Fire protection services in Tracy are supplemented by mutual aid agreements with the Manteca Fire Department, Manteca-Lathrop Fire Department, California Department of Forestry (CDF), Alameda County Fire Department, Stanislaus County Fire Department, Tracy Defense Depot, and Livermore Laboratory Fire Department.[7]

Tracy Fire Department can provide service for buildings that are up to 7 stories high. The District has truck ladders that reach up to 105 feet. Any buildings that are three or more stories high are required by the City's Municipal Code to have automatic fire extinguishing systems installed. Although there is a mutual aid contract between Tracy and other surrounding fire fighting agencies, extra equipment and personnel would be needed to serve a building over 7 stories high.[8]

The City's fire flow requirements are a standard requirement based on land use. The City's required fire flow demand for the Proposed Project would be 4,000 gallons per minute (gpm) for a duration of four hours.[9] See Section 4.7, Utilities, for further discussion of water supply and infrastructure related to fire flow.

The Water Reclamation Facility (WRF) would use hazardous materials, such as 12.5-percent strength sodium hypocholorite. The Fire Department is also responsible for responses to hazardous spills.

5 Carol Zandona, Executive Assistant, Tracy Fire Department, verbal communication with EIP Associates, July 18, 2001.
6 City of Tracy Urban Management Plan/General Plan EIR, July 19, 1993.
7 The City of Tracy website: www.ci.tracy.ca.us/fire/html.
8 Zandona, Carol, Executive Assistant, Tracy Fire Department, Personal Communication with EIP Associates September 26, 2001.
9 West Yost and Associates, Technical Memorandums No. 2 - Water Infrastructure, (Revised), March 18, 2002, page 9.

Emergency Medical Services

In Tracy, the Fire Department provides first response for emergency medical service and American Medical Response, a private ambulance company, provides paramedic service.

The personnel, equipment and funding for the Tracy Fire Department emergency medical services are incorporated into the fire department's staffing, equipment and funding. The Department's five-minute response time for emergency calls is also applicable to emergency medical responses.

2. REGULATORY FRAMEWORK

There are no specific federal or State regulations pertaining to minimum levels of service for law enforcement, fire protection and emergency services.

City of Tracy General Plan

The City's General Plan contains policies to ensure that the City continues to provide the necessary levels of fire and police service to maintain a safe living environment.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

Project impacts are considered significant if the project results in the following in order to maintain acceptable service ratios, response times or other performance objectives for law enforcement, fire protection and/or emergency medical services:

- The need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts.

Law Enforcement:

Project Impacts and Mitigation Measures

Impact 4.8.1 The Proposed Project could cause an increased demand on law enforcement services and new facilities related to those services.

Development of the Proposed Project would result in approximately 22,000 employees on the project site that would require the services of the Tracy Police Department. As previously stated, that new or expanded police facilities are currently planned; and therefore, there would be no environmental impacts associated with construction of new or expanded facilities. Because these employees would require service from the Tracy Police Department and this may result in the need for additional police officers, this would be a significant impact.

Policy 3.1 of the Safety Element of the General Plan provides for funding of the Police Department, as well as individual project review by the Department. Although the tax revenue generated from the Proposed Project's property taxes would assist in compensating any increase staffing and/or facility requirements associated with development of the project site, there could also be increased demands for staffing and/or facilities.

Implementation of the following mitigation measures and compliance with Policy 3.1 of the Safety Element of the General Plan would ensure that revenues are available to fund any new facilities in the future that would be necessary in order to maintain performance objectives, ensuring a **less than significant** impact.

Mitigation Measures

MM 4.8.1(a) The project applicant shall coordinate with the City and the Police Department in the placement of any necessary facilities. These facilities will be included in the project's Finance and Implementation Plan (FIP). Once sited and designed, these facilities will be subject to environmental review, as appropriate, for CEQA compliance

Timing/Implementation: Prior to the issuance of a building permit for each phase of development.
Enforcement/Monitoring: City of Tracy.

MM 4.8.1(b) The project's contribution to law enforcement equipment and facilities will be included in the project's FIP. The City shall ensure that the FIP adequately mitigates the project's increased demand for law enforcement services.

Timing/Implementation: Prior to or adoption of the FIP.
Enforcement/Monitoring: City of Tracy.

Cumulative Impacts and Mitigation Measures

Impact 4.8.2 The Proposed Project, in combination with future development in the City will create demand for additional law enforcement services and facilities.

As the City grows, an increase in law enforcement services would be necessary to provide adequate levels of protection. Funds for future law enforcement staffing and for the construction and operation of new facilities would be generated by the City's Project Improvement Finance Plan, which requires all developers to contribute their fair share of costs. Development of the project in combination with other development in the City would result in a cumulatively significant impact to law enforcement services.

With implementation of the following mitigation measures, adequate funding would allow law enforcement services to maintain their current standards and response times. It would also allow, if necessary, for the construction and operation of future facilities. Therefore, with

implementation of the following mitigation measure, cumulative impacts to law enforcement would be **less than significant**.

Mitigation Measure

MM 4.8.2 Implement MM 4.8.1(a) and 4.8.1(b).

Fire Protection:

Project Impacts and Mitigation Measures

Impact 4.8.3 The Proposed Project could cause an increased demand in fire protection services and related facilities.

The Proposed Project will increase the amount of development on the project site and will convert a site currently used for agricultural production and one single family residence to business park, commercial, and research and development uses. Implementation of the Proposed Project could cause an increased demand for fire protection services and new facilities, resulting in a significant impact.

The Proposed Project will be required to conform to Mitigation Measure M 70.1 of the City's General Plan EIR, which requires City review of individual development applications within the General Plan area for adequate fire prevention measures, including: street widths, water supply, fire sprinklers, and public access.

The buildings in the Proposed Project could be up to 15 stories tall, which would make them the tallest buildings in the City. Extra equipment and personnel would be necessary in order to serve buildings over 7 stories high.

While it is anticipated that tax revenue generated from the Proposed Project's property taxes would assist in compensating any increase fire department staffing and/or facility requirements associated with development of the project site, there could also be increased demands for staffing and facilities.

Implementation of the following mitigation measures and compliance with Policy 3.1 of the Safety Element of the General Plan would reduce the impacts related to the provision of new or physically altered fire protection facilities to a **less than significant** level.

Mitigation Measures

MM 4.8.3(a) The project applicant shall coordinate with the City Department of Development and Engineering Services and the Fire Department in the placement of any necessary facilities, including those necessary to serve buildings up to 15 stories high. The City will hire a Consultant, at the developer's expense, to address fire department related impacts of the project. This study shall include, but not be

limited to, requirements for training, equipment, infrastructure, and any necessary City of Tracy Code revisions. Any required facilities will be included in the project infrastructure plans and financed through the FIP. When assigned and sited, any new facilities will be subject to environmental review, as appropriate for CEQA compliance.

Timing/Implementation: Prior to adoption of the FIP and Development Agreement.
Enforcement/Monitoring: City of Tracy.

MM 4.8.3(b) The project applicant will coordinate with the City regarding the project's contribution to fire protection equipment and facilities, which will be included in the project's FIP. The City shall ensure that the FIP adequately mitigates the project's increased demand for fire protection services.

Timing/Implementation: Prior to adoption of the FIP.
Enforcement/Monitoring: City of Tracy.

See Section 4.7 for a discussion of water supply for fire suppression.

Project Impact

Impact 4.8.4 Operation of the WRF could require special fire protection/hazardous materials services beyond what is currently anticipated for the project area.

It is anticipated that operation of the WRF could require additional fire protection/hazardous material considerations as a result of the use of hazardous materials. The WRF would use sodium hypochlorite (12.5-percent strength) for membrane cleaning, that will be brought on-site when required. Sodium hypochlorite is a moderately hazardous chemical that could be subject to accidental explosion. Such an incident could require special fire services and/or facilities, resulting in a significant impact. Implementation of the following mitigation measure would reduce the fire hazard impacts related to operation of the WRF to a **less-than-significant** level.

Mitigation Measures

MM 4.8.4 The City of Tracy Fire Department shall review plans for the WRF facilities to determine if special fire protection/suppression services, equipment or facilities are required (e.g., special hazardous materials equipment, temporary and/or water tanks, and fire breaks). The recommendations of the Fire Department shall be incorporated into the improvement plans for the WRF.

Timing/Implementation: Prior to approval of the improvement plans for the WRF.
Enforcement/Monitoring: City of Tracy

Cumulative Impacts and Mitigation Measures

Impact 4.8.5 The Proposed Project, in combination with future development in the City, could create demand for additional fire protection and emergency service.

As the City grows, fire protection services would need to be increased if current ratios of personnel to residents are to be maintained or improved. Implementation of the Proposed Project would result in a cumulatively significant impact by creating demand for additional fire protection and emergency services that could result in the construction of new facilities. Funds for future fire department staffing and for the construction and operation of new facilities would be generated by the Project's FIP, which requires all developers to contribute their fair share of costs.

With implementation of the following mitigation measures, adequate funding would allow fire protection and emergency response services to maintain their current standards and response times. It would also allow, if necessary, for the construction and operation of future facilities. Therefore, with implementation of the following mitigation measure, cumulative impacts to fire protection and emergency services would be **less than significant**.

Mitigation Measure

MM 4.8.5 Implement MM 4.8.3(a), (b), and 4.8.4.

B. SCHOOLS

1. EXISTING SETTING

The project site falls within the boundaries of the Tracy Unified School District (TUSD). There are 12 elementary schools (serving 6,929 students), three middle schools (serving 2,823 students) and two high schools (serving 4,673 students) in the TUSD.

2. REGULATORY FRAMEWORK

Proposition 1A/Senate Bill 50

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statutes of 1998) is a school construction measure that was approved in 1998. It authorized the expenditure of State general obligation bonds primarily for the modernization and rehabilitation of older school facilities and the construction of new school facilities related to new growth. The bill also implements significant fee reform by amending the laws governing developer fees and school mitigation in a number of ways:

- establishes the base (statutory) amount (indexed for inflation) of allowable developer fees at $0.31 per square foot for commercial construction;

- prohibits school districts, cities, and counties from imposing school impact mitigation fees or other requirements in excess of or in addition to those provided in the statute; and

- suspends for a period of at least eight years, a series of court decisions allowing cities and counties to deny or condition development approvals on grounds of inadequate school facilities when acting on certain types of entitlements.

Proposition 1A/SB 50 resulted in full State preemption of school mitigation. Satisfaction of the statutory requirements through the payment of State-established fees, is deemed to be "full and complete mitigation."

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this EIR, impacts are considered to be significant if the Proposed Project would result in:

- a substantial adverse physical impacts associated with the provision of new or physically altered school facilities, need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable performance objectives for schools.

Methodology

Because the Proposed Project does not include the development of residential units, no students would be generated and the project would not directly create an additional demand on the existing schools system. However, development of the project could result in future employees, who are currently residing outside of the school district, relocating to an area within the school district due to employment opportunities associated with the Proposed Project. Because there are no generation rates available for indirect impacts, all impacts to schools associated with the project will be qualitatively analyzed.

Project Impacts and Mitigation Measures

None.

Cumulative Impacts and Mitigation Measures

Impact 4.8.6 Cumulative development within the City of Tracy, in combination with the Proposed Project, could require the construction of new schools.

Development of the Proposed Project could result in the relocation of residents that currently reside outside the TUSD boundaries to an area within the TUSD boundaries. Development of the project site will provide employment opportunities in the City and may draw residents and their families to the area. This could indirectly increase enrollment at local schools thereby affecting facilities.

Consultation with the school district indicates that there is capacity at the elementary school level district-wide. However, Clover and Monte Vista middle schools are at capacity, and Monte Vista Middle School currently accepts overflow students from the other two middle schools and has capacity to accept approximately 100 more students. Both high schools are very close to capacity.[10]

Development of the Proposed Project in combination with other development in the TUSD would increase demand on schools. Existing schools would not be able to accommodate the projected future population at their current capacities. In order for projected demands to be served, additional schools would be needed.

Pursuant to Proposition 1A/Senate Bill 50 (Chapter 407, Statutes of 1998), payment of statutory fees or alternate fees, as discussed above, is deemed to be full and complete mitigation of school impacts. Generally, the impact fees would be applicable to any future development within the school district, including the Proposed Project; however, non-residential development on the project site would not be subject to the Districts' fees. Therefore, the cumulative impacts related to schools resulting from the Proposed Project would be **less than significant.**

10 Mrs. Riddle, Student Service Department, Tracy Unified School District, personal communication with EIP Associates, October 4, 2001.

Mitigation Measure

MM 4.8.6 None required.

C. PARKS AND RECREATION

This section discusses the existing parks and recreation facilities near the project site, and identifies potential impacts and mitigation measures related to these facilities. The section also identifies the anticipated demand for recreational facilities resulting from the Proposed Project and evaluates the ability of the project facilities and service providers to meet this projected demand.

1. EXISTING SETTING

The site is currently in agricultural production, with one residence in the northeast corner of the site. There are no existing parks, recreation facilities, or trail networks on the project site.

The City of Tracy has 52 established mini-, neighborhood, and community parks with various recreational facilities.[11] The closest established parks to the site are:

- Fabian Park, with open turf areas, picnic tables, a playground, and basketball court;
- Tracy Sports Complex, a 27-acre facility with four softball fields, four soccer fields, picnic tables, and a playground;
- Richard Hastie Park, with a picnic area and gazebo, half-court basketball area, "tot-lot" playground area, older kids play area, and open turf area;[12] and
- Souza Park, with picnic areas and a gazebo, half-court basketball court, skate park, "tot-lot" playground area, and older kids play area.[13]

County parks are Mossdale Boat Ramp and Oak Grove Regional Parks. State parks in the Tracy vicinity include Durham Ferry, Bethany Reservoir, and Caswell State Park.[14] Bicycle and pedestrian trails the vicinity of the project site are described in Section 4.3 (Transportation and Circulation) in this EIR.

2. REGULATORY FRAMEWORK

State Regulations

There are currently no state regulations that require the provision of parklands for business park development.

11 City of Tracy Web page, http://www.ci.tracy.ca.us/parks-listing.html, accessed July 26, 2001. Also, City of Tracy UMP/GP Final Environmental Impact Report, July 19, 1993, page 328.
12 Janet Baniewich, Plan Reviewer, City of Tracy Parks and Community Services Department. Personal communication, August 6, 2001.
13 Janet Baniewich, Plan Reviewer, City of Tracy Parks and Community Services Department. Personal communication, August 6, 2001.
14. City of Tracy UMP/GP Final Environmental Impact Report, July 19, 1993, page 331.

City of Tracy Urban Management Plan/General Plan

The City of Tracy General Plan contains policies that guide the development of parks and recreation within the Tracy Planning Area.

City of Tracy Parks and Parkways Design Manual

The City's Parks and Parkways Design Manual provides design guidelines, standards, details, and specifications for park development.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

Project impacts are considered significant if the project:

- requires the construction or expansion of recreational facilities that might have an adverse physical effect on the environment; or

- increases the use of existing neighborhood and regional parks or other recreational facilities, such that a substantial physical deterioration of the facility would occur or be accelerated.

Methodology

The City is currently in the process of developing a Retail, Industrial and Office Impact Fee Ordinance. It is anticipated that the Proposed Project would be subject to the Ordinance. It is unknown at this time what fees and/or other provisions of the proposed ordinance would apply to the Project.

Project Impacts and Mitigation Measures

Impact 4.8.7 The Proposed Project could increase the demand for park facilities.

The project developer proposes an 83-acre public golf course as part of their project. Development of the Proposed Project could bring additional residents into the City, thereby increasing the demand for park facilities. This would be a significant impact. The City is in the process of developing a Retail, Industrial and Office Impact Fee. The Proposed Project will be required to comply with the provisions of this Ordinance. Compliance with the provisions of the ordinance would be considered as mitigation for the impact of the Proposed Project on the recreational facilities of the City; and therefore, this impact would be **less than significant**.

Mitigation Measure

MM 4.8.7 The City shall adopt, and the project applicant shall comply with, the provisions of the Retail, Industrial and Office Impact Fee Ordinance.

Timing/Implementation: Prior to issuance of each building permit.
Enforcement/Monitoring: City of Tracy.

Project Impact

Impact 4.8.8 The Proposed Project could cause increased use of existing park facilities.

As a design feature of the Proposed Project, a 9-hole golf course, lighted driving range and clubhouse would be integrated in the central portion of the project site. This facility would also incorporate on-site pedestrian trails that would be linked with the rest of the City. It is also expected that tenants of the business park would use the pedestrian trail encircling the golf course at various times throughout their workday. As familiarity with the community grows by non-resident tenants, it is possible that these individuals could use existing park resources as well. However this impact is estimated to be minimal. It is more likely that the Proposed Project would provide a recreational amenity to the area that would help alleviate pressure placed on existing park facilities. The inclusion of a golf course, bike lanes, and pedestrian trails throughout the proposed business park would be consistent with policies of the Tracy General Plan. Therefore, this impact is considered **less than significant**.

The environmental impacts of developing these facilities were evaluated as part of the total project. For example, the traffic that could be generated by the golf course was assumed in the traffic model and incorporated into that topical area's impacts and mitigation measures. Water used as part of the golf course was discussed in the Public Utilities section of this EIR. Likewise the visual impacts were considered in the visual resource section of this EIR.

Mitigation Measure

MM 4.8.8 None required.

Cumulative Impacts and Mitigation Measures

Impact 4.8.9 The Proposed Project in combination with future development in the City could result in the cumulative need for additional park/recreation sites in the City.

The Proposed Project would provide a 9-hole golf course, open to the public, that includes a lighted driving range and clubhouse. Residents from the City, as well as from considerable distances outside the project boundaries, could use this facility. Additionally, the Proposed Project would include pedestrian and bicycle trails that would link the site with the surrounding community. When evaluated against the planned growth in the City, the Proposed Project

provides substantial recreation amenities that would serve more than project site resulting in **less than significant** cumulative park/recreation impacts.

Mitigation Measure

MM 4.8.9 None required.

D. SOLID WASTE

This section of the EIR addresses solid waste generation and disposal capacity as it relates to the Proposed Project. Existing solid waste transfer station and disposal facilities, and Material Recovery Facility (MRF) are discussed, as are the impacts to those facilities and available capacity.

1. EXISTING SETTING

As part of the Proposed Project, the site will be annexed into the City of Tracy and, therefore, the City will become the agency responsible for the collection and disposal of solid waste and recyclables. Collection of solid waste for the City is provided by Tracy Delta Solid Waste Management Inc, a private firm. There are no landfills within the City limits, so waste is sent to the Tracy Material Recovery and Transfer Station (TMR&TS), located at 30703 South MacArthur Drive. A transfer station includes facilities to receive solid wastes and temporarily store, separate, convert, or otherwise process the materials in the solid wastes, or to transfer the solid wastes directly from smaller to larger vehicles for transport (Public Resource Code Section 40200 et seq.).

The City currently directs its solid waste to the Foothill Sanitary Landfill, located approximately 42 miles from Tracy and eight miles east of Linden. It is anticipated that waste generated by the project site would be directed to this facility by way of the TMR&TS. This Landfill has a current capacity of approximately 45 million tons, which is anticipated to provide 46 years of service.[15] In 1998, the City of Tracy diverted 39-percent of all solid waste from entering the landfill.

The on-site Water Reclamation Facility (WRF) would generate biosolids that would need to be removed from the project site and disposed of on a periodic basis. The biosolids would be stabilized in the on-site digester, then dewatered on-site, and taken to the Forward Landfill

2. REGULATORY FRAMEWORK

Volume 40 of the Code of Federal Regulations, Part 258 (Resource Conservation and Recovery Act RCRA, Subtitle D) contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design, groundwater monitoring, and closure of landfills. In 1998, the City of Tracy diverted 39 percent of all solid waste from entering the landfill.[16]

15. Benner, Bill, Parks and Community Services Department, City of Tracy, personal communication with EIP Associates, September 27, 2001.
16 Bill Benner, Parks and Community Services Department, City of Tracy, personal communication with EIP Associates, September 27, 2001.

Federal requirements for disposal of biosolids are set forth in 40 Code of Federal Regulations (CFR) Part 503.

State

The federal regulations are enacted by the California Public Resource Code Sections 40000 et seq. (California Integrated Waste Management Act). The State agency charged with the permitting of solid waste facilities is the California Integrated Waste Management Board.

Assembly Bill 939 (AB 939) (Public Resources Code 41780) is designed to increase landfill life and conserve other resources through increased source reduction and recycling. AB 939 requires cities and counties to prepare Solid Waste Management Plans to implement AB 939's goals, particularly to divert approximately 50 percent of solid waste from landfills. AB 939 also requires cities and counties to prepare Source Reduction and Recycling Elements. This element is to develop programs to achieve the landfill diversion goals, stimulate local recycling in manufacturing and stimulate the purchase of recycled products.

40 CFR 258 and 503 regulations serve as the basis for the requirements of the RWQCB for biosolid disposal by land application or in a landfill.

Local

Regulations for solid waste collection and disposal within the City are contained in Title 5, Chapter 5.20, of the Tracy Municipal Code.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

Project impacts are considered significant if the project results in the following:

- create a demand for solid waste services and generate solid waste in an amount greater than the ability of local transfer station and landfill facilities to accommodate such waste.

Methodology

The analysis of solid waste service impacts are based upon consideration of the estimated amount of solid waste anticipated to be generated by the project and information from the California Integrated Waste Management Board.

The City of Tracy uses an all-inclusive (i.e. residential, commercial and industrial average) solid waste generation factor of 7.52 pounds per person per day.[17] It is anticipated that approximately

17 City of Tracy, Final EIR for the City of Tracy Urban Management Plan/General Plan, 1993, Page 305.

22,000 employees would be generated by the Proposed Project. Therefore, the project is anticipated to generate approximately 165,440 pounds (83 tons per day) of solid waste per day or 60,385,600 pounds per year (30,193 tons per year).

Project Impacts and Mitigation Measures

Impact 4.8.10 The Proposed Project could result in the need for expansion of the existing, or construction of a new, landfill or transfer facility to accommodate the solid waste generated by the project.

The Tracy Gateway project would generate approximately 30,193 tons of solid waste per year. The generation of this waste could result in the expansion of existing landfills or contribute the need to construct a new landfill, resulting in a significant impact. Solid waste produced in Tracy is transferred to the Tracy Materials Recovery and Transfer Station, where the waste either is moved to a recycling facility or is transferred to the Foothill Landfill. The Transfer Station has a daily intake capacity of 1,000 tons, and on average, takes in 300 tons/day.[18] Since the daily amount of waste that would enter the Transfer Station is less than the daily intake capacity of the Transfer Station, this impact is considered less than significant. In addition, because the daily amount of waste that would enter the landfill is less than the capacity of the landfill, this impact is also considered less than significant.

The Proposed Project would include the development of over 6 million square feet of business park uses which would result in a large amount of construction debris requiring disposal. It has been estimated by the California Integrated Waste Management Board that construction (and demolition) waste represents approximately 28 percent of the total solid waste stream. Construction activities tend to generate wood scraps rather than whole lumber for reuse. The scraps lend themselves to reuse through the manufacture of particleboard and strand board that could be used in nonstructural applications. Efforts at construction sites should be focused on developing techniques that minimize the generation of waste on-site. However, specifying this type of construction requires forethought in the planning stages. The materials most often separated and recovered from general construction activities include wood waste, drywall, metal, paper and cardboard. It is acknowledged that collection of recyclable material falls under the Franchise Agreement and would be collected by Tracy Delta Solid Waste Management for recycling and diversion.

As discussed above, the landfill has ample capacity to accept solid waste from the Proposed Project, including additional construction debris.[19] However, it is recommended that the mitigation measures be implemented to ensure further reduction of potentially recyclable material from entering the waste stream to help the City comply with the diversion requirements of AB 939.

18 Miller, Harry, Tracy Materials Recovery Facility, personal communication with EIP Associates, September 28, 2001.

19 Benner, Bill, Parks and Community Services Department, City of Tracy, personal communication with EIP Associates, September 27, 2001.

Implementation of the following mitigation measures would ensure that the Proposed Project would not contribute an amount of solid waste that is greater than existing facilities can process and, therefore, the impacts to solid waste collection and disposal facilities would be **less than significant**.

Mitigation Measures

MM 4.8.10(a) Prior to approval of the project, the applicant shall develop an integrated waste management plan. The contents of the plan shall, at a minimum, include provisions for redirecting the following types of materials from the landfill: landscaping materials and other green waste, cardboard, office paper, wood (i.e. pallets), and food waste when feasible. The plan shall also include provisions for incorporation of garbage and recycling containers within and outside of buildings.

Timing/ Implementation: Prior to issuance of first grading permit.
Enforcement/Monitoring: City of Tracy

MM 4.8.10(b) The construction contractor shall set up bins or other means of containment to hold separated scraps of recyclable material (i.e. cardboard, lumber, etc). The contractor shall work with Tracy Delta Solid Waste Management, Inc. in accordance with the Tracy Municipal Code to recycle at the maximum level possible.

Timing/ Implementation: Prior to issuance of first grading permit.
Enforcement/Monitoring: City of Tracy

MM 4.8.10(c) The contractor shall work with the City of Tracy to establish construction recycling measures to reduce the amount of construction waste disposed of at the landfill.

Timing/ Implementation: Prior to issuance of first grading permit.
Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.8.11 Operation of the on-site WRF would require the disposal of biosolids into a landfill, which could affect existing landfill capacity.

As noted in Section 4.7, Utilities, the WRF would require the disposal of biosolids. It is anticipated that biosolids from the Proposed Project would be disposed of at the Forward Landfill Waste Disposal in Stockton.

It is estimated that, at buildout of the Proposed Project, the WRF would generate approximately 24,960 to 41,600 cubic feet of biosolids per year. The biosolids would be stabilized to conform to Class B sludge requirements as defined in 40 CFR 258 and 503.

The landfill has adequate capacity to serve the Tracy Gateway project and would accept the biosolids from the WRF. The landfill has over thirty years capacity remaining.[20] Although not required, implementation of the following mitigation measures will ensure that the disposal of biosolids would be **less than significant**.

Mitigation Measure

MM.4.8.11 (a) Final plans for the WRF shall include a dewatering system that is capable of processing biosolids generated by the to reduce the amount of potential disposal into area landfills.

Timing/ Implementation: As a condition of approval of the improvement plans for the WRF.
Enforcement/Monitoring: City of Tracy

MM 4.8.11 (b) As part of the final improvement plans for the WRF, the applicant shall prepare a biosolids disposal plan. If the plan includes disposal at a landfill, it shall be demonstrated that the landfill has adequate capacity and disposal would be consistent with AB 939, as well as all applicable regulations of the California Integrated Waste Management Board (IWMB) and Regional Water Quality Control Board (RWQCB).

Timing/ Implementation: As a condition of approval of the improvement plans for the WRF.
Enforcement/Monitoring: IWMB, RWQCB, City of Tracy.

Cumulative Impacts and Mitigation Measures

Impact 4.8.12 The Proposed Project, in combination with future development in the City, could increase the demand for solid waste collection and disposal.

With buildout of the Proposed Project, in conjunction with other development in the City of Tracy, there would be an increased demand for solid waste collection and disposal services. It is anticipated that the existing landfill has capacity to accept waste for another 46 years, which is well beyond the cumulative analysis year of 2025. Solid waste recycling programs could help to extend the life of the landfill and would further reduce amount of waste going to the landfill. Compliance with AB 939 will help preserve the capacity of landfill space by requiring agencies to divert 50 percent of their solid waste from landfill disposal. In addition, the Proposed Project

20 Joe Griffith, Sales Representative, Forward Landfill Waste Disposal, personal communication with EIP Associates, April 4, 2002.

would use recycled construction material, thereby further minimizing the creation of solid waste. For the reasons above, the Proposed Project's contribution to solid waste is considered cumulatively **less than significant**.

Mitigation Measures

MM 4.8.12 None required.

4.9 VISUAL RESOURCES/LIGHT AND GLARE

This section discusses and analyzes the visual and aesthetic impacts of the project site. Visual and aesthetic issues related to project implementation include the change of the rural/agricultural character of the project site to urban uses, the introduction of nighttime lighting, and glare from reflective building surfaces.

1. EXISTING SETTING

Visual Character of the Area

The project site is located in San Joaquin County along the western edge of the City of Tracy, east of the Diablo Range. The project site slopes gently from approximately 100 feet above sea level in the southwest to approximately 60 feet at the northeast boundary. Topographic relief is limited, with slopes ranging from 2 to 5 percent. Views to and from the project site are generally unobstructed.

Views of the Project Site

The western portion of the site is highly visible from both westbound and eastbound travel lanes of Interstate 205 (I 205). As viewed from adjacent properties and roadways, the project site is agricultural, with row crops dominating the landscape. There is little natural vegetation on the site, with the exception of a few small trees, shrubs and grasses adjacent to the I 205/11th Street. The remainder of the site is covered with a network of dirt roads and irrigation ditches with pumps to irrigate crops. There is single-family residence on 15 acres in the northeast corner, which is visible from the intersection of 11th Street and Lammers Road. High-voltage electricity transmission line towers are visible along with overhead power lines and poles along the project site's Lammers Road frontage. The adjacent WSID Upper Main Canal is several feet higher than the site topography, and it is visible from the southwest portions of the project site. Because of the relatively flat topography and rural residential and agricultural nature of surrounding development, long-distance views of the project site from all directions are unobstructed.

Views Across the Project Site

Short- and mid-range views from and across the project site from off-site locations consist predominantly of row crops and various structures associated with agricultural operations. A few residences are also visible. Interstate-205 is visible from northern locations in the project site. Long-distance views from and adjacent to the project site to the northwest, west, and southwest are dominated by the Diablo Range, which comprises a group of northwest-trending ridges that extend along the west side of the valley. These ridgelines separate the western San Joaquin Valley from the Coast Range, creating a major visual and physical barrier between Tracy and the East Bay Area and San Francisco to the west. Although the eastern slopes of the Diablo Range have not been developed with urban uses, on exceptionally clear days the electricity-generating windfarms are visible from the east near the ridgetops. Grassy hillsides

with trees are the most prominent natural visual feature. On exceptionally clear days, the Sierra Nevada foothills may be visible to the east from hills and valley locations.

Light and Glare

Sources of nighttime lighting and glare in the immediate project area consist of rural residential development and agricultural operations, highway commercial uses, motor vehicles on local and regional roadways, and street lighting. The most dominant nighttime light sources in the project area are nearby residential and commercial development (e.g., West Valley Mall and Patterson Pass Business Park) and the City of Tracy core area, located just over a mile east of the project site. Night lighting at the Presidio Community Park, 1/4 mile east of the project site along 11th Street, was designed to avoid light spillage through special design features of the lights.

Other Proposed or Planned Land Uses That Could Affect the Viewshed

Major proposed or planned development in the project area that would contribute to changes in the visual environment from agriculture to urban uses include North Schulte Community Area, South Schulte Community Area, Patterson Pass Business Park, Old River/Northwest Tracy Special Purpose Plan (County), Filios/Dobler project, and other smaller projects located within an approximately four- to five-mile radius. Specific projects planned or contemplated by the City of Tracy are discussed further in Section 4.1, Land Use.

Scenic Vistas, Public Views, and Significant Features

As with the City of Tracy, the visual character of the area is defined largely by expansive agricultural lands that surround the City. Interstate 205 (I 205), adjacent to and north of the project site, transects large open space parcels. These large open space parcels surrounding Tracy provide motorists with a sense of separation from urbanized areas. Interstate 580 (I 580) and Corral Hollow Road, south of I 580, are designated scenic routes. The project site is not adjacent to these roadways, but the roadways provide regional access to the project site.

2. REGULATORY FRAMEWORK

There are no federal or State regulations pertaining to aesthetic resources, and no federal, State or regional agencies have jurisdiction over such resources. The City of Tracy General Plan is the primary source of guidance.

City of Tracy General Plan

City of Tracy General Plan goals, policies, and actions addressing visual resources/light and glare that are applicable to the Proposed Project are addressed through the Land Use, Circulation, Open Space, and Conservation Elements of the General Plan. Specific policies are: Policy LU2.1, Policy LU2.2, Policy LU3.2, Policy LU6.2, Policy LU7.3, Policy CI4.3, and Policy CI5.2. The policies and associated implementing actions provide direction for land use compatibility, circulation patterns, setbacks and landscaping, and siting of development that

would affect the visual environment. As described in Section 4.1, Land Use, the project would be consistent with the General Plan.

Tracy Tomorrow Community Enrichment Task Force

In 1999, the Tracy Tomorrow Community Enrichment Task Force compiled aesthetic issues derived from citizen input in Tracy as well as surrounding areas. The Task Force identified several "gateways" to the City. The Task Force recommendations were directed at enhancing the aesthetic value of views from these gateways to provide visitors to the City with a "sense of arrival." West 11th Street at Lammers Road is a designated community entry point.

City of Tracy Design Standards

The Proposed Project will be required to conform with City policies, the project Conditions, Covenants and Restrictions (CCRs), and any design guidelines adopted with the Proposed Project's Conceptual Development Plan (CDP).

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this EIR, impacts are considered to be significant if the following could result from implementation of the Proposed Project:

- substantial or demonstrable negative aesthetic alteration to the existing character or the area. A substantial alteration is characterized by a negative "sense of loss" of character or unique resource;

- disruption or blockage of existing views or scenic vistas; and/or

- production of light and glare that would result in negative aesthetic effects to adjacent areas.

Methodology

Descriptions of the project site were developed using a visit to the site and review of an aerial photograph, site photographs, topographic maps, and documents prepared for developments in the project vicinity. These documents were used to determine the visual characteristics that would be considered valuable to those who would be likely to view the project site at some time, i.e. City of Tracy and San Joaquin County residents and travelers along the I 205 corridor. The Tracy Gateway CDP was used to determine where development would occur on the project site, standards and guidelines that would be imposed on development, and how the project features would interact with existing visual characteristics. The changes that would occur as a result of the Proposed Project were evaluated for their potential to degrade views from I 205 and nearby development and to introduce noticeable, artificial light and glare into the project vicinity.

The visual effects of construction activities are not evaluated in this section because they would be intermittent and temporary. That is, the entire site is not anticipated to be developed in a single construction season, and views of construction activities would vary depending on where such activities were occurring.

Project Impacts and Mitigation Measures

Impact 4.9.1 The Proposed Project could result in an alteration in the visual character of the area from agricultural land to developed urban uses.

The Tracy Gateway project would create approximately six million square feet of office/R&D facilities, a nine-hole golf course, and roadways and other circulation features along the I 205 corridor west of Lammers Road, as illustrated in Figure 3-3 in Chapter 3, Project Description. High-tech office and research space would occupy mid- to high-rise office buildings located on the periphery of a centrally located golf course. The commercial component would consist of open space, retail space, two hotels, and second-floor office space. The golf course would be situated on approximately 83 acres and would include 16 acres of stormwater management ponds. A clubhouse, lighted driving range, and maintenance facility would be included as part of this complex. An at-grade water recycling facility (WRF) would be located on a 1-acre site near the maintenance facility for the golf course. (See Appendix F, Site Land Use Plan, of Wastewater System Technical Memorandum, Figure 2) The equipment for the WRF would be enclosed in a building of similar design to the golf maintenance facility. A compost bed, pump station and effluent storage tank would also be visible on the WRF site. Approximately 60 acres of the project site would be used for roads, pedestrian trails and sidewalks, bike trails, fitness course and turnouts for public transit uses. Many of these features would be visible to motorists on I 205 and nearby land uses.

The project area would also include construction of a potable water tank, however, this would be located underground and therefore would not alter the visual character of the area.

The Tracy Gateway CDP indicates project development would be guided by both the City of Tracy and the developers through Community Codes and Regulations (CC&Rs), and project's CDP. The Design Guidelines would set forth illustrative interpretations of the CC&Rs regarding architectural site development and would be part of the CDP. The project site has been divided into five areas for which land uses, setbacks and buffers, structure heights, parking criteria, and landscaping standards have been prepared. The development of specific, individual projects within Tracy Gateway would be guided by these standards, which are intended to ensure consistency with General Plan policies that address aesthetic issues.

Height zone areas have been identified, at a conceptual level, for the project site, as shown in Figure 4.9-1. Office and research space would occupy mid- to high-rise office buildings located on the periphery of a centrally located golf course. The CDP indicates buildings as high as 15 stories would be situated in the northwest and north- central portion of the project site adjacent to

Figure 4.9-1

I 205. Lower-rise buildings (up to five stories) would be placed along the eastern and southern edges of the site. Height standards would be evaluated against criteria in the City's Zoning Ordinance. The location and mix of land uses within the project site is shown in Figure 3-3, in Chapter 3, Project Description.

The CDP provides for the grouping of two to four buildings into neighborhood clusters oriented around a landscaped central forecourt. Each cluster would have its own architectural character, identity, and image. Buildings in each neighborhood would share a level of architectural cohesiveness and would be designed to complement each other. A clustered arrangement of architecturally similar buildings, landscape treatments, and well-defined borders and setbacks within and surrounding the project site would be used to reduce the overall visual scale of the development.

The CDP indicates building materials would consist of light-colored material such as natural stone, concrete, brick, metal, ceramic tile, and stucco, which could reflect light. Buildings are proposed to include a natural-lighted environment for occupants while conserving energy. Features such as atriums, glazed stair towers, glazed buildings, and glass-enclosed mechanical equipment penthouses would be used. Pre-engineered, low-quality tilt-up, and pre-fabricated buildings would not be permitted. Architectural massing treatment, colors, textures, and scale in each building cluster would be designed to be complementary.

The project would include extensive landscaping placed throughout the office complex. Approximately 46 acres of water features (e.g., stormwater management ponds, and fountains) and an additional 83 acres of landscaping associated with the golf course would be a dominant component of the complex. Roadways would be designed as curvilinear parkways and would be landscaped with trees in the medians and along the sides. To reduce the visual presence of parking areas, employee parking lots would be located behind buildings. Parking areas would include landscaping to provide shade. The use of open space features and recreational amenities would provide visual relief to plan occupants and adjacent land uses.

Implementation of the Proposed Project would result in an alteration of the visual character of the area since it would replace agricultural uses with buildings and parking areas. This would be a significant impact.

Off-Site Water Infrastructure

An off-site water tank would be required as part of the non-potable water improvements. The tank to store non-potable water would be located on the existing City wastewater treatment plant site located on Larch Road, east of Tracy Boulevard. The tank would be below-grade and, therefore, not visible.

The Tracy Gateway project has identified, at a conceptual level, a variety of elements and administrative mechanisms to reduce effects on views and visual compatibility with adjacent uses, consistent with policies adopted in the General Plan. However, the conversion of agricultural land to urban uses that would include mid- to high-rise office towers, low-to mid-rise

buildings, golf course and park amenities, commercial and retail uses, and roadways and parking lots in undeveloped area generally surrounded by agricultural lands and low-density residential development would represent a significant irreversible change in the existing viewshed.

Depending on the phasing of project construction relative to future development in the vicinity, the change in the viewshed could be less noticeable if surrounding development were to occur within the same timeframe as the Proposed Project. No other means are available to the City of Tracy to further reduce project impacts to a less-than-significant level, and the impact would remain **significant and unavoidable**.

Mitigation Measure

MM 4.9.1 None available.

Project Impact

Impact 4.9.2 The Proposed Project would develop a mixed-use business center at the intersection of 11th Street and Lammers Road, which has been designated as a community entry point by the City of Tracy.

West 11th Street provides primary access to Tracy from Interstate 5 and I 205. Eleventh Street and Lammers Road has been designated by the City as a community entry point. Whereas the site is currently undeveloped, and there are no streetscaping, landscaping, or other features that provide a strong, visual identity at the project site, local improvements are underway for portions of west 11th Street. The project would incorporate a gateway to the City of Tracy with a sense of arrival and would provide a visually cohesive community designed in accordance with the project's CDP. The Proposed Project would help support the goals of the Tracy Tomorrow Community Enrichment Task Force, which would be a benefit of the Proposed Project. Therefore, this is a **less-than-significant** impact.

Mitigation Measure

MM 4.9.2 None required.

Project Impact

Impact 4.9.3 The Proposed Project could partially obstruct distant views of the Diablo Range and short-range and distant views of agricultural lands.

The placement of high-rise (up to 15-story) buildings in the northwest portion of the project site adjacent to I 205, (up to 12-story) buildings in the north-central part of the project site, could alter distant views of the Diablo Range from westbound travel lanes on I 205 and some existing and proposed future residential development north and east of the project site. Development of the high-rise buildings is not anticipated to occur until the last two phases of development, however. With regard to the taller structures, the Tracy Gateway CDP indicates two to four

buildings oriented around a landscaped area would be grouped into neighborhood clusters. Such placement would result in a discontinuous line of buildings, so views would only be partially obscured. Because I 205 has not been designated a scenic route, and there are no established public viewing areas along the I 205 corridor, 11th Street, or Lammers Road, there would not be an impact on a scenic route. There is no development west of the project site, so potential blockage of distant views of the Sierra Nevada foothills to the east would not be observable to any residents or visitors.

Agricultural land on the project site is a prominent feature of the visual landscape. Until development proposed in the City of Tracy General Plan or San Joaquin County General Plan is approved that would convert agricultural land to urban uses, existing large expanses of agricultural land would remain north, west, and south of the Tracy Gateway project. Less agricultural land remains east of the project site. To the extent that agricultural lands adjacent to the project site and in the project vicinity can be seen by motorists and nearby rural residential development, these lands would continue to be highly visible. However, the permanent interruption of agricultural viewscapes would be a significant impact. Because the Proposed Project will partially obstruct distant views and since no mitigation is available to reduce the magnitude of this impact, it would remain **significant and unavoidable.**

Mitigation Measure

MM 4.9.3 None available.

Project Impact

Impact 4.9.4 The Proposed Project could introduce new sources of nighttime light within the project area.

The Proposed Project would be a source of artificial light. Exterior building illumination, roadways, and parking lots would produce extensive, urban lighting that would alter the nighttime landscape. Unshielded lighting from project uses would be visible from I 205 and surrounding areas. Spillover lighting, particularly from security lights, could occur within the project site, particularly where building envelopes are in close proximity to one another. The golf course driving range would be lighted, but the golf course would not be illuminated at night. The driving range would be located in the interior of the site. Mature landscaping, the height, intensity, and orientation of driving range lights, and buildings would shield adjacent development and roads from light spillover, but spillover will occur until development of landscaping and surrounding structures are fully developed.

The Tracy Gateway CDP indicates conventional building illumination such as flood lighting or washing would be minimized. As an alternative, the glass-enclosed atriums, domes, light wells, stair towers, common functions, and mechanical equipment penthouses described above could be lit from the inside, with the objective of creating an attractive high-tech identity at the Gateway that would be visible from Altamont Pass and I 205. Although the amount of light emanating from these elements would increase the amount of light visible at night over existing conditions, the use of lighting in this manner would provide a soft, glowing effect at night, which would

reduce the effects that would otherwise be created by harsh nighttime lighting. These restrictions would be enforceable through CC&Rs and would minimize "skyglow" as a result of project implementation.

Although the City considers the urban lighting that would occur in this area an ancillary result of growth anticipated in the General Plan, artificial lighting from urbanized uses alters the rural landscape and, in sufficient quantity, "lights up" the nighttime sky and reduces the visibility of astronomical features, such as stars and comets. Project lighting could generate "skyglow" sufficient to interfere with views of astronomical features, the introduction of artificial lighting would alter the existing nighttime short-range and distant views of the project site. This is considered a significant impact.

Implementation of the following mitigation measure would reduce the impacts from artificial lighting by reducing spillover effects and restricting the hours of recreational use night lighting and designating the type of light fixtures to be used, however they would not be reduced to a less than significant level and would remain **significant and unavoidable.**

Mitigation Measure

MM 4.9.4

a. Parking lot lighting shall be designed in accordance with the City of Tracy Standard Plan #154, Sheet 3.

b. Lighting shall be designed to confine light within the site boundaries of both on and off-site improvements, while providing safety and security.

c. Exterior lighting, including lighting of the parking lot, recreational facilities, and off-site improvements shall be designed to prevent light spillover onto adjoining properties or roads. This shall be accomplished by limiting the height of light poles, intensity of night lighting and the use of cutoff fixtures and shields.

Timing/Implementation: Design to be approved as part of any PDP/FDP that provides for development of such facilities that includes this type of lighting.

Enforcement/Monitoring: City of Tracy

Project Impact

Impact 4.9.5 Reflective surfaces within the Proposed Project could create glare that distracts drivers on I 205.

Glare occurs when light reflects off of pavement, vehicles, and building materials such as reflective glass and polished surfaces. During daylight hours, the amount of existing glare depends on the intensity and direction of sunlight. At night, artificial light can create glare.

The CDP indicates building materials would consist of light-color natural stone, concrete, brick, metal, ceramic tile, and stucco, which could reflect light. Buildings are proposed to include a natural-lighted environment for occupants while conserving energy. Features such as atriums, glazed stair towers, glazed buildings, and glass-enclosed mechanical equipment penthouses would be used to achieve this effect. The CDP indicates window glass would be clear or lightly tinted; very dark tinted, or black mirrored glass is not anticipated. If large clear or lightly-tinted windows or enclosures are visible from I 205, they could reflect glare into the eyes of passing motorists. Glare would also be noticeable to adjacent residential land uses. The amount of glare would depend on the time of day, the time of year, and the orientation of windows. The areas near I 205 (e.g., mid- to high-rise office towers and buildings) would have the greatest potential to produce glare. It is anticipated that few low-rise building windows would be of the magnitude or orientation to expose passing motorists to glare, however. Internal roadways are less likely to be subject to glare-related hazards because of slower speeds and the likelihood that landscaping would interfere with reflections from buildings. In addition to building reflective surfaces, other on-site sources of glare could include water features such as ponds, pavement, and windshields and metal surfaces of parked vehicles. Because the reflective surfaces could create glare, this would be a significant impact.

Implementation of the following mitigation measure would reduce the severity of potential glare effects, but new reflective surfaces and resultant glare would represent a substantial increase over existing conditions. For this reason, the impact would remain **significant and unavoidable**.

Mitigation Measure

MM 4.9.5 Design features to reduce the amount of reflective surfaces shall be considered. Such measures could include, but would not be limited to: use of non-reflective window glass, reducing the percentage of window area that could reflect glare onto motorists traveling on I 205, or building orientation.

Timing/Implementation: At the time approval of each Final Development Plan.
Enforcement/Monitoring: City of Tracy.

Project Impact

Impact 4.9.6 The Proposed Project could contribute to a cumulative alteration of aesthetic characteristics of the City of Tracy by increasing urban development in existing rural and undeveloped natural areas.

Cumulative development in the project area is anticipated under both the City of Tracy and San Joaquin County General Plans. As this development occurs, the existing landscape will become more urbanized. As described in Section 4.1, Land Use, there are numerous developments proposed and/or approved in the vicinity of the project site. These include 1,150 acres in the adjoining Lammers Community area and 1,198 acres in the remainder of the North Schulte Community area.

The Proposed Project and off-site improvements would not in itself be visible to travelers long enough to substantially alter their visual experience of the area surrounding I 205. However, the Proposed Project, in combination with development proposed for the surrounding area, would result in extensive alterations in the landscape for several miles, which could substantially alter the visual experience of highway travelers. The General Plan concluded that such changes to the visual character of open, agricultural areas was a significant and unavoidable cumulative impact. The Proposed Project would contribute to this impact by resulting in development in an area that is undeveloped at present. Because the Proposed Project would contribute to a cumulative alteration of aesthetic characteristics of the City by increasing urban development in an existing rural area, this would be a significant impact. At this time, no other means are available to the City of Tracy to further reduce cumulative impacts to a less-than-significant level, and the cumulative impact would remain **significant and unavoidable.**

Mitigation Measure

MM 4.9.6 None available.

Cumulative Impacts and Mitigation Measures

Impact 4.9.7 The Proposed Project could contribute to the cumulative introduction of artificial light into a rural area.

One of the effects of urbanization is that the night sky lightens; urban areas create a glow that is visible from quite far away and stars become less visible. Rural or agricultural areas tend to be darker than urban areas, because lighting is confined to residences and outbuildings that appear intermittently throughout the landscape. As development moves into agricultural areas, exterior lighting on streets and around buildings lessens the darkness and makes stars and other astronomical features less visible. Artificial nightlighting is particularly evident when there are clouds or haze present, because they reflect light. As discussed in Impacts 4.9.1 and 4.9.2, substantial development could occur to the south, west, north of the project site, with lesser amounts to the east. This development will have extensive artificial lighting, which will create a large area where the sky is lighter than it now appears. Although the project's CC&Rs would reduce artificial light through specific design features, the Proposed Project would still contribute to the cumulative introduction of artificial light in a rural area, resulting in a significant impact. At this time, no other means are available to the City of Tracy to further reduce cumulative impacts to a less-than-significant level, and the cumulative impact would remain **significant and unavoidable.**

Mitigation Measure

MM 4.9.7 None available.

4.10 HISTORIC AND CULTURAL RESOURCES

This section summarizes the literature review conducted for prehistoric and historic resources within the vicinity of the Proposed Project area. The cultural resources evaluation prepared for the Proposed Project is provided in Appendix G.

1. EXISTING SETTING

Ethnographic Background

The Tracy area was originally inhabited by the Yokut Indians, who occupied the floor of the San Joaquin Valley from the Tehachipi Mountains to Stockton, as well as the lower Sierra Nevada foothills south of the Fresno River. The Yokuts lived in permanent villages on high ground near watercourses and subsisted by fishing, hunting, catching fowl, and intensive collecting. Most Yokut houses were circular or oval single family dwellings constructed from tule mats over pole frames.[1]

Indian populations were reduced and settlement patterns were disrupted in the San Joaquin Valley area as a result of Spanish colonial expeditions and mission recruitment after 1770 A.D. The permanent Hispanic populations on the coast became a source for disease, to which the Indians had no resistance. By the nineteenth century, an epidemic swept through the interior Indian populations as well as the coastal mission peoples. By 1846, disease had reduced Valley Indians by about 75 percent. Complete destruction of the Valley Indian cultures occurred with American settlement of the area. The discovery of gold in the Sierra Foothills attracted large numbers of mines in the middle 1800s, driving the Yokuts from their homes along the streams and rivers.

Historic Background

Permanent settlement of the Tracy area began in 1869 following the construction of the Central Pacific Railroad through the Altamont Pass between San Joaquin County and the Bay Area. In 1878 a second rail line was constructed to the north, connecting the county with Martinez. In 1887 a third line was extended south from the junction of these two railways, connecting the Bay Area with Los Angeles. Southern Pacific established the "Town of Tracy" around the junction of the three lines in 1882. The town was named after Lathrop J. Tracy, an Ohio railroad man and grain merchant. Tracy quickly became an important commercial and service center due to the town's strategic location, and was incorporated in 1910. The town was laid out along symmetrical arc shaped streets on either side of the railroad junction. Many of the buildings in the area of the railroad junction are of local historical significance and several are on the National Register.

Tracy's growth has been influenced by three factors during the last 50 years: 1) the establishment of the Tracy Defense Depot during World War II creating thousands of jobs and bringing many new residents to the area; 2) major agricultural industries locating in Tracy after the war, further

1 City of Tracy, City of Tracy Urban Growth Plan/General Plan EIR, Page 139, July 19, 1993.

fueling the city's growth; and 3) escalating home prices and a shortage of developable land in the Bay Area causing additional growth in Tracy, especially over the last two decades.

Cultural and Historic Resources/Sites

There are 32 recorded cultural resource sites in the Tracy Planning Area.[2] Nineteen of these recorded cultural resources are historic sites (5 of which are on the National Register of Historic Places), 12 are prehistoric sites, and one exhibits both prehistoric and historic features.

A records review at the Central California Information Center at California State University, Stanislaus indicated that the entire project area was part of a survey area investigated by L. Kyle Napton, Ph.D., in 1989.[3] In a survey of 1,250 acres that included all of the current project area, Napton found only a single isolated artifact, a baked clay ball. The boundaries of the Napton survey were very like the current project boundaries except that he covered additional area to the south and east.

Baked clay was used in lieu of stone in parts of the San Joaquin Valley where cobbles could not be found. Cobbles (or the baked clay alternative) were used in cooking. The food was placed in a basket and heated cobbles were dropped into the soup or mush to bring it to a boil. Despite the use of baked clay balls, the prehistoric inhabitants did not have a pottery industry and did not use ceramics. They could, however, weave baskets so tight that they held water. In any event, baked clay objects were normally left at the cooking site and are, therefore, almost always found in the context of a larger archeological site. The baked clay ball is an unusual object to find in isolation. It is possible that this example had been removed from its original location as a curiosity.

Other than this single artifact, Napton=s crew found no evidence of cultural resources in the project area. While Napton's survey is now 12 years old, more recent confirmation of the scarcity of cultural resources in this vicinity is provided by the results of surveys adjacent to Napton=s. These include two corridor surveys along Interstate 205[4] and wide area surveys adjacent to the current project area.[5,6] None of these surveys resulted in identification of any cultural resources near the Tracy Gateway project area.

2 City of Tracy, City of Tracy Urban Growth Plan/General Plan EIR, Page. 139, July 19, 1993.

3 Peak and Associates, Inc., Tracy Gateway Project: Cultural Resources Evaluation Page. 1, July 20, 2001.

4 Chavez, David, Negative Historic Property Survey Report, I-205 Post Mile L0.0/R0.45 (District 4) and L0.0/R3.37 (District 10). Ms. on file, Central California Information Center. 1995 and Verrone, Jennifer, Historic Property Survey Report, Negative Findings, Tracy Widening Stage II and III. Ms. on file, Central California Information Center, 2001.

5 Napton, L. Kyle, Ph.D., Cultural Resource Investigation of 95 Acres Proposed for Development in Tracy, San Joaquin County, California. Ms. on file, Central California Information Center, 1990.

6 Foster, Daniel and John Foster, An Archaeological and Historical Resource Survey of the Proposed Citation/Souza Project: A Planned Unit Development in Tracy, California. Ms. on file, Central California Information Center. 1994.

2. REGULATORY FRAMEWORK

CEQA Guidelines

Under CEQA Guidelines, "A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment" (Section 15064.5 [b]). Substantial adverse change is considered "…physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (Section 15064.5 (b)[2]).

Under the newly revised and recently adopted CEQA Guidelines in Section 15064.5, a "historical resource" includes: a resource listed in or eligible for the California State Register of Historical Resources; or listed in a local register of historical resources; or identified in a historical resource survey and meeting requirements in section 5024.1(g) of the Public Resources Code; or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines historically significant, provided the determination is supported by substantial evidence in light of the whole record; or a resource so determined by a lead agency as defined in Public Resources Code sections 5020.1(j) or 5024.1.

While alteration of the setting of an archaeological site that is eligible only for its information potential may not affect the site's significant characteristics, alteration of a property's location (e.g., removing or damaging all or part of the site) may have a significant adverse effect.

California Health and Safety Code (Section 7052)

Health and Safety Code Section 7052 prohibits disturbance of human remains except under certain conditions. The Code specifies procedures to be followed in the event that Native American graves are found. If human remains are discovered, ground-disturbing activities must cease. A coroner must then be contacted to analyze the remains. If the coroner determines that the remains are Native American in origin, the California Native American Heritage Commission must be consulted on the matter.

City of Tracy General Plan

Goal 6 of the Conservation Element of the General Plan references the conservation of cultural resources. The policies and actions provided to implement this goal include additional historic resource surveys as well as formal recognition and preservation of important historic sites. Other actions require a records search to be conducted through the Central California Information Center for any project with a potential impact to historic or prehistoric resources.

National Register and California Register

The National Register of Historic Places (National Register) is the nation's master inventory of known historic resources. The National Register is administered by the National Park Service

and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state or local level.

Structures, sites, buildings, districts and objects over 50 years of age can be listed on the National Register as significant historic resources. However, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included on the National Register. The criteria for listing on the National Register include resources that:

- are associated with events that have made a significant contribution to the broad patterns of history;
- are associated with the lives of persons significant in our past;
- 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
- have yielded or may likely yield information important in prehistory or history.

The California Register of Historical Resources is an authoritative listing of the State's significant historical and archaeological resources. Any resource listed in or formally determined eligible for the National Register is automatically listed in the California Register of Historical Resources, pursuant to Section 4851(a) of the Public Resources Code.

3. IMPACTS AND MITIGATION MEASURES

Standards of Significance

Cultural resource impacts may be considered significant if implementation of the project would result in one or more of the following:

- demolish or materially alter in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources (CEQA Guidelines, Section 15064.5[b][2][A]);

- demolish or materially alter in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to local ordinance or resolution (PRC Section 5020.1[k]), or its identification in an historical resources survey meeting the requirements of PRC Section 5024.1(g) (CEQA Guidelines Section 15064.5[b][2][C]);

- demolish or materially alter in an adverse manner those physical characteristics of a resource that convey its historical significance and that justify its eligibility for inclusion on the California Register as determined by a lead agency for purposes of CEQA; and/or

- disturb any human remains, including those interred outside of formal cemeteries (Health and Safety Code Sec. 7052).

It is noted that archaeological resources are considered to be historical resources for the purpose of impact evaluation under the CEQA Guidelines.

Methodology

To meet CEQA requirements, archaeologists usually organize their studies in three phases (de Barros and Webber, 1993). Phase I is the inventory or identification of archaeological resources within a project area, which usually includes a prefield records or literature search, field survey and a written report. A Phase I inventory may also include preliminary evaluations of importance and estimates of potential effects.

Phase II is a comprehensive evaluation of any archaeological resources discovered during Phase I. Phase III is the treatment of those resources considered "important" as a result of the Phase II evaluation. Phase III includes either avoidance of the resources, a means to lessen any adverse effects, mitigation, or a combination of the two.

Native American rights are also considered during archaeological studies. California law protects Native American burials, skeletal remains and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains (Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.94 et seq.).

Project Impact and Mitigation Measure

Impact 4.10.1 The Proposed Project could negatively affect previously unidentified cultural resources.

Due to the lack of evidence of cultural resources in the project area, it is unlikely the proposed Tracy Gateway project would adversely affect identified cultural resources. However, because it is difficult to determine the existence of buried prehistoric archaeological resources on the project site or at locations where off-site potable water or non-potable untreated surface water/recycled water line improvements would be installed until construction activities begin, project-related ground disturbance could indirectly affect previously unknown cultural resources that may be significant under CEQA Guidelines Section 15064.5.

No human remains, including those interred outside or informal cemeteries, are known to exist on the project site or at locations where off-site water improvements would be sited. While unlikely to occur, it is difficult to determine the existence of buried human remains at these locations until construction begins. Project-related ground disturbance could indirectly affect previously unknown burials if such resources exist on the property, resulting in a potential significant impact. These mitigation measures, if implemented, would reduce potential impacts to unknown cultural resources and human remains to a **less-than-significant** level.

Mitigation Measures

MM 4.10.1 (a) If construction activities at the project site or at off-site potable water or non-potable untreated surface water/recycled water line and related improvements locations expose unusual amounts of non-native stone (obsidian, fine-grained silicates, basalt), bone, shell, or prehistoric or historic period artifacts (purple glass, etc.), or if areas that contain dark-colored sediment that do not appear to have been created through natural processes are discovered, work shall cease in the immediate area of discovery. A professionally qualified archaeologist shall be contacted immediately for an on-site inspection of the discovery, shall assess the significance of the find, and develop mitigation recommendations (e.g., manual excavation of the immediate area), if warranted.

MM 4.10.1 (b) In the event of discovery or recognition of any human remains on the project site or at off-site potable or non-potable water line locations, the project sponsor shall contact the San Joaquin County Coroner, pursuant to Section 7050.5(b) of the California Health and Safety Code. In this event, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner determines that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

MM 4.10.1(c) The Coroner, upon recognizing the remains as being of Native American origin, shall contact the Native American Heritage Commission within 24 hours. No further disturbance of the site may be made except as authorized by the County Coroner. The Commission has various powers and duties to provide for the ultimate disposition of any Native American remains, including the designation of a Native American Most Likely Descendant. Sections 5097.98 and 5097.99 of the Public Resources Code also call for "protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction." To achieve this goal, construction personnel on the project shall be instructed as to both the potential for discovery of cultural or human remains, and the need for proper and timely reporting of such finds, and the consequences of failure to do so.

Timing/Implementation: During all phases of project construction
Enforcement/Monitoring: City of Tracy

Cumulative Impacts and Mitigation Measures

Impact 4.10.2 Cumulative impacts to historical and cultural resources could occur with development of the Proposed Project.

As previously discussed, there are no known historical or cultural resources found on the project site. The likely of such resources in the vicinity of the project site is low. Because development of the project would not result in any adverse impacts to cultural or historic resources and because the likelihood of these resources being found on adjacent lands is also low, the Proposed Project would not result in a direct known cumulative impact to cultural resources. However, there is a possibility that development of the project site and off-site potable and non-potable water infrastructure improvements would result in the discovery of previously unknown cultural resources, result in a potentially significant cumulative impact. Implementation of the following mitigation measures would reduce this impact to a **less-than-significant** level.

Mitigation Measure

MM 4.10.2 Implement MM 4.10.1 (a)-(b)

5.0 ALTERNATIVES TO THE PROJECT

5.1 INTRODUCTION

The purpose of the alternatives analysis in an EIR is to describe a reasonable range of alternatives to the project that could feasibly attain most of the basic goals and objectives of the project, and to evaluate the comparative merits of the alternatives (CEQA Guidelines, Section 15126.6(a)).

Additionally, Section 15126.6(a,b) of the CEQA Guidelines requires consideration of alternatives that could reduce or eliminate any significant adverse environmental effects of the Proposed Project, including alternatives that may be more costly or could otherwise impede the project's objectives. The range of alternatives considered must include those that offer substantial environment advantages over the Proposed Project and may be feasibly accomplished in a successful manner considering economic, environmental, social, technological, and legal factors.

5.2 ALTERNATIVES CONSIDERED BUT REJECTED FROM FURTHER ANALYSIS IN THE EIR

During the preliminary planning and scoping process of the Proposed Project, several alternatives were considered but rejected from further analysis in the EIR because they were: a) unable to meet most of the basic project objectives, b) deemed infeasible when weighed against economic, environmental, social, technological, and/or legal factors, or c) unable to provide substantial environmental advantages avoid significant environmental impacts (CEQA Guidelines, Section 15126.6(c)). These alternatives are described below.

A. Industrial Center/No Office Space

Consideration was given to creating a large industrial center with close proximity to I 205. However, the City of Tracy already has in its General Plan the Northeast Industrial Area (NEI), which is where the City has made accommodation for this type of land use. In addition, the alternative was found not to meet most of the project objectives listed in Chapter 3 of this EIR and offered no substantial environmental advantages.

B. Proposed Project Reduced in Scale by One-Half

This alternative considered the number of jobs that would be created by a significantly smaller project and determined that the high demand for jobs in the area could only be marginally met with a smaller facility. More important, the cost of infrastructure improvements and project development expenses could not be offset with a smaller project making such an option infeasible for economic and engineering reasons.

C. Mixed Office/Residential Project

Numerous variations on this theme were explored. One option looked at creating approximately 200 acres of office space and 100 acres of single-family residential around a golf course. The principal concept to this theme was to create office space in close proximity to residential areas, thereby reducing commute times and encouraging the use of alternative forms of transportation. However, the passage of Measure A in November 2000 placed restrictions on the rate of new

housing development. Thus, alternatives with a substantive residential component were eliminated from further consideration by the applicant.

D. No Development/No Annexation

This alternative assumed that the project site would not be developed or the project site annexed into the City. It also assumes that the County zoning designation of Agriculture 40 would remain and agriculture would continue as the dominant land use. More important, this alternative assumed that the site would not be developed as outlined in the City's General Plan. Since growth on the west side of Tracy was analyzed as part of the General Plan, a reassessment of planned growth in the City would need to be conducted which would not meet the goals or objectives of the project for either the City or the applicant.

5.3 PROJECT ALTERNATIVES

In addition to the Proposed Project described in Chapter 4.0 of this EIR, several other alternatives are proposed in keeping with the requirements of CEQA. These alternatives include:

- Alternative 1 calls for the replacement of 160,000 sf of commercial space (proposed for the Proposed Project) with approximately 300 apartment units.

- Alternative 2 provides for the same uses as the Proposed Project *except* the golf course would be replaced by additional office space bringing the leasable office space up to approximately 7,000,000 square feet (s.f.).

- Alternative 3 is the No Project alternative. Under this scenario, the 538-acre project site would remain in the County and the City's Sphere of Influence. While agriculture would presumably continue in the short term, the site would retain its low-density residential zoning of 3.5 dwelling units per acre.

The environmental effects associated with each of these alternatives are compared with those resulting from implementation of the Proposed Project and are summarized at the end of this section. This section also identifies an "environmentally superior" alternative, as required in Section 15126.6(e)(2) of the CEQA Guidelines. These alternatives were chosen based on their ability to reduce anticipated environmental effects of the Proposed Project and still meet most of the basic project objectives.

Alternative 1: Reduced Commercial/Open Space Project with 300 Apartments

This alternative considers the environmental effects of developing the Proposed Project with 300 rental apartment units occupying approximately 160,000 s.f. To accommodate the apartments, second floor office space would be reduced to approximately 180,000 s.f. from the Proposed Project's estimation of 340,000 s.f.

Comparative Analysis

Land Use and LAFCO Conformity
This alternative would replace a portion of the proposed commercial uses with residential uses. All other land uses would remain the same. The residential development alternative would consist of second floor apartments. This alternative would not increase the density of development along the property boundaries or develop land uses that would be incompatible with adjoining land uses. The issue of compatibility of land uses within the site would be addressed during the development of the Tracy Gateway Concept Development Plan. The General Plan states that Medium and High Density Residential will most often be located near high activity areas that provide access to major arterials or alternate transportation systems and that such residential uses may be appropriate as part of a integrated and designed commercial project through the planned unit development process. Because the residential component of this alternative would be approved as part of the Planned Unit Development (PUD) for the Tracy Gateway project, the design of the project can incorporate buffers and other features to mitigate potential impacts related to any incompatible land uses.

In November 2000, Measure A was passed that amended the provisions of the City's Growth Management Ordinance, primarily through changes to the rate at which the City may provide Residential Growth Allocations and issue residential building permits. The measure enacted a single year limit of 750 building permits with a 10 year annual average of 600 permits.

Agriculture and Mineral Resources
This alternative would have the same impacts on agriculture and mineral resources as the Proposed Project because the same amount of land would be converted to urban uses.

Traffic and Circulation
Traffic conditions would be slightly better under this alternative, relative to the Proposed Project, because the vehicle generation rate for residential use is substantially less than that of commercial use. This would reduce the duration of congestion at key intersections around and within the project site.

Noise
The addition of 300 apartments would not substantially alter the noise impacts from those described for the Proposed Project. Traffic generated noise would be slightly lower due to traffic generated by the residential component of the Alternative.

Air Quality
Air quality impacts would improve slightly under this alternative. This is because residential uses generate less air pollutants than commercial uses; therefore, it is the reduction in commercial area that creates the air quality benefit. It is assumed that wood burning fireplaces would not be installed in the residential units because they would be apartments.

Biological and Natural Resources
Impacts on biological and natural resources would be identical to those identified for the Proposed Project since both alternatives would grade the entire project site.

Public Utilities
The total water demand for this alternative would be 1,630 ac-ft/yr – approximately 1,000 ac-ft/yr more than the Proposed Project. Of the total amount, the potable water demand would be approximately 860 ac-ft/yr, or 80 ac-ft/yr greater than the Proposed Project, assuming the golf course is irrigated with untreated surface water, as identified for the Proposed Project.[1] Additional potable water would need to be obtained through the water exchange program or through the delivery of City supplies. This additional demand could exceed available supply, resulting in potential water supply impacts that could be more severe than the Proposed Project. However, because there would be more wastewater generated under this alternative because potable demand would be higher, the additional treated wastewater could partially make up for the deficit in summer irrigation flows for City parks that would occur with the Proposed Project.

This alternative would require similar amounts of storm drainage and energy services as those identified for the Proposed Project. Further, the infrastructure improvements that would serve this alternative would also serve the North Schulte Community Area in essentially the same manner as the Proposed Project.

Public Services
Alternative 1 provides for 300 apartment units that would have the potential to house school age children. The project site is located within the Tracy Unified School District (TUSD). Student generation rates are used to determine the number of new students per dwelling unit. At the elementary and middle school levels (grades K-8), this alternative would generate 101 new students for multi-family units (.338 students per multi-family dwelling unit). At the high school level (grades 9-12), this alternative would generate approximately 22 new students (.073 students per dwelling unit).

There is capacity at the elementary school level district-wide. However, Clover and Monte Vista Middle Schools are at capacity, and Monte Vista Middle School currently accepts overflow students from the other two middle schools and has capacity to accept approximately 100 more students. Both high schools are very close to capacity.[2]

Development of the 300 residential units would increase demand on schools. Because they are at, or close to, capacity existing middle and high schools may not be able to accommodate the projected future population at their current capacities. In order for projected demands to be served, additional schools could be needed.

Pursuant to Proposition 1A/Senate Bill 50 (Chapter 407, Statutes of 1998), payment of statutory fees or alternate fees is deemed to be full and complete mitigation of school impacts. Generally,

1 West Yost & Associates, Technical Memorandum No.1 – Water Infrastructure, March 18, 2000, Table 5.
2 Mrs. Riddle, Student Service Department, Tracy Unified School District, personal communication with EIP Associates, October 4, 2001.

the impact fees would be applicable to any future development within the school district, including the Proposed Project; however, non-residential development on the Proposed Project site would not be subject to the Districts' fees. Under this alternative there would be 300 units within the Proposed Project site that would be subject to impact fees.

The TUSD would require that the project participate in school mitigation in conformance with the District's Comprehensive School Facility Capital Improvement and Finance Plan (CFD), as provided by the General Plan and the Growth Management Ordinance. However, Government Code Section 65995 restricts the District and the City from requiring participation in a CFD that would require school mitigation fees above the statutory school fee cap.

The impact on recreation resources from development of this alternative would be the same as those presented for the Proposed Project. The Quimby Act applies to residential projects. However, the golf course would be developed under this alternative and the same benefits of this facility identified for the Proposed Project would apply.

Visual Resources/Light and Glare
Visual impacts would remain largely unchanged from the Proposed Project since the land uses are nearly the same and the apartments would not substantially contribute to ambient night lighting.

Historic and Cultural Resources
Impacts to cultural resources would be identical to those identified for the Proposed Project since both alternatives would grade the entire project site.

Alternative 2: No Golf Course/Increased Office Space

Alternative 2 provides for the same uses as the Proposed Project *except* the golf course would be replaced by additional office space bringing the leasable office space up from approximately 5,800,000 s.f. to approximately 7,000,000 s.f. The water features included in the golf course would be relocated throughout the project since they would still serve as part of the project storm drain management system.

Comparative Analysis

Land Use and LAFCO Conformity
The No Golf Course/Increased Office Space Alternative would change the land uses and would increase the density on the project site. The additional office space would be placed in the center of the site and would not increase the density of the site along the property boundaries. Therefore, the issues of land use compatibility, both within the site and with adjoining lands, would not be different than the Proposed Project. Because the proposed alternative does not include land uses different than the Proposed Project, the increase the impacts due to possible inconsistencies with the General Plan, other City policies, or LAFCO policies would not be greater.

Agriculture and Mineral Resources
This alternative would have the same impacts on agriculture and mineral resources as the Proposed Project because the same amount of land would be converted to urban uses.

Traffic and Circulation
Traffic volumes would increase under this alternative with the conversion of the golf course to urban uses. The greater traffic volumes would further impact roadways that are already impacted to unacceptable levels.

Noise
Given that traffic would increase under this alternative with the conversion of the golf course to urban uses, noise impacts are expected to be slightly greater than under the Proposed Project. The most affected areas would be those portions of the project immediately adjacent to the major roads around the project site.

Air Quality
Air quality impact under this alternative would be worse than the Proposed Project due to the replacement of the golf course with urban uses.

Biological and Natural Resources
Impacts on biological and natural resources would be identical to those identified for the Proposed Project since both alternatives would grade the entire project site.

Public Utilities
Alternative 2 is projected to use less non-potable water but more potable water than the Proposed Project and would require additional potable water infrastructure to support the additional commercial space. A larger water supply entitlement would be required to support this alternative and the demand for treated water would increase, whereas the demand for untreated surface water/recycled water would be reduced. Additional potable water would need to obtained either through the water exchange program or City supplies, which may result in water supply impacts more severe than those identified for the Proposed Project if demand exceeds available supply and treatment capacity. However, this alternative would also generate more wastewater, which could be used for irrigating City parks, thus reducing the summer irrigation deficit that would occur with the Proposed Project, assuming an on-site WRF is developed. There could also be additional locations for on-site storage of excess WRF effluent (e.g., under-pavement emitters or ponds), because there would be fewer acres developed for golf course uses. The capacity of on-site storm drainage ponds would need to be modified to accommodate additional impervious surfaces, while maintaining the 4 cfs discharge limit as described for the Proposed Project. Energy demands of this alternative would be greater than the Proposed Project. The off-site infrastructure for water supply, recycled water distribution, storm drainage, and energy would similar to the Proposed Project.

Public Services
Alternative 2 would have slightly more impact on public services, namely police and fire services, than the Proposed Project because of the potential for additional persons at the site. Without the golf course, the Proposed Project would have impacts on recreational facilities

because that recreational land use would be replaced with a commercial land use. Because the Quimby Act would not apply to this alternative, no park facilities would be required under this alternative. More important, without the golf course, additional pressure could be placed on existing park resources. This would create a potential park use impact greater than under the Proposed Project.

Visual Resources/Light and Glare
Visual resource impacts would be similar to the Proposed Project since this alternative includes the structures of the same heights as the Proposed Project (e.g., up to 15 stories tall). The improvement with this alternative would be the substantial reduction in ambient light since the lighted driving range would be eliminated from the project.

Historic and Cultural Resources
Impacts to cultural resources would be identical to those identified for the Proposed Project since both alternatives would grade the entire project site.

Alternative 3: No Project

For the purpose of this EIR, the No Project Alternatives means that the Proposed Project would not be developed and that the project site would remain in San Joaquin County and inside the City of Tracy's Sphere of Influence as part of the North Schulte Community Area. The site would retain its current land use designation of Low Density Residential which would allow for residential development at a density of 3.5 dwelling units per acre. The environmental impacts of this alternative were already considered in the City of Tracy General Plan EIR.

Comparative Analysis

Land Use and LAFCO Conformity
The No Project Alternative would maintain the site in agriculture for the short term, however the site would retain its land use designation of low- density residential allowing for future residential development at a density of 3.5 dwelling units per acre.

Agriculture and Mineral Resources
This alternative would have the same impacts on agriculture and mineral resources as the Proposed Project because the same amount of land would be converted to residential uses. However, it is anticipated that site would remain in agricultural production until such time that an application for development is received by the City.

Traffic and Circulation
Traffic volumes would be reduced compared to the Proposed Project due to substantially lower trip generation rates for Low density residential use relative to commercial use. It is expected that weekend traffic would be higher with a residential project than a commercial one. Weekday traffic would be substantially higher for the Proposed Project. It is likely that the commute over the Altamont Pass could worsen under this alternative since a completely residential project would not directly provide any jobs around the project site.

Noise
Noise impacts would be expected to be similar to those analyzed for the Proposed Project. Developing the site for residential uses would have less vehicle traffic than a commercial site, however, developing the golf course area with single-family units would generate offsetting traffic.

Air Quality
Due to reduced traffic generation, air quality impacts of the Alternative would be reduced relative to the Proposed Project.

Biological and Natural Resources
Impacts on biological and natural resources would be identical to those identified for the Proposed Project since both alternatives would grade the entire project site.

Public Utilities
For a residential project, the non-potable water demand would likely be lower than for a commercial project, but the potable demand would likely be higher. Additional potable water would need to obtained either through the water exchange program or City supplies, which may result in water supply impacts more severe than those identified for the Proposed Project if demand exceeds available supply and treatment capacity. Because of higher potable water use, this alternative would generate more wastewater, which could be used for irrigating City parks, thus reducing the summer irrigation deficit that would occur with the Proposed Project, if an on-site WRF is developed. There could also be additional locations for on-site storage of excess WRF effluent (e.g., under-pavement emitters or ponds), because there would be fewer acres developed for golf course uses. However, development of an on-site WRF under this alternative could result land use incompatibilities (e.g., noise, aesthetics) that would not occur under the Proposed Project. The capacity of on-site storm drainage ponds would need to be modified to accommodate additional impervious surfaces, while maintaining the 4 cfs discharge limit as described for the Proposed Project. Energy demands of this alternative could be greater than the Proposed Project. The off-site infrastructure for water supply, recycled water distribution, storm drainage, and energy would similar to the Proposed Project.

Public Services
This alternative would have similar impacts to the Proposed Project since it is assumed the entire site would be developed with residential units at 3.5 dwelling units per acre.

Development under this alternative would develop park sites at the City's current standard of 4 acres of parkland for every 1,000 residents, in accordance with the City's Park Dedication Ordinance.

Visual Resources/Light and Glare
The visual qualities of this alternative would be better than the Proposed Project. This is largely due the reduced height of structures in a residential project providing greater viewscapes of hills to the west of the site.

Historic and Cultural Resources
Impacts to cultural resources would be identical to those identified for the Proposed Project since both alternatives would grade the entire project site.

5.4 CONCLUSIONS

Table 5-1 provides a summary of the evaluation of the project alternatives as compared to the Proposed Project.

TABLE 5-1

COMPARISON OF ALTERNATIVES TO THE GATEWAY PROJECT

Environmental Categories	Alt. 1 300 Apartments	Alt. 2 No Golf/Increased Office	Alt. 3 No Project
Land Use/LAFCO	S	S	S
Agriculture & Minerals	S	S	S
Traffic	B	W	B
Noise	S	W	S
Air Quality	B	W	B
Biological Resources	S	S	S
Public Utilities	S	W	W
Public Services	S	W	S
Visual Resources	S	B	B
Cultural Resources	S	S	S

B = Better than the Proposed Project in terms of environmental impact.
S = Similar to the Proposed Project in terms of environmental impact.
W = Worse than the Proposed Project in terms of environment impact.

As shown on Table 5-1, the No Project alternative would be the environmentally superior alternative because buildout with residential land uses would reduce the amount of traffic generation and air contaminants released from the site. In addition, visual impacts would be less than the Proposed Project due to a reduction in the amount of ambient light generated by the Proposed Project. The 300-apartment alternative (which assumes future limited residential development on the project site) would be considered the next superior alternative. The increased office alternative would be the least superior option because of its contribution of air pollutants and traffic impacts as well as the increased demand for public services and public utilities and higher noise levels.

6.0 CUMULATIVE IMPACTS SUMMARY

This section identifies the cumulative impacts associated with the Proposed Project. Cumulative impacts are the result of combining the potential effects of the project with other cumulative development and foreseeable development projects.

6.1 LEGAL CONSIDERATIONS

CEQA Guidelines Section 15355 defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." This Section states further that "[I]individual effects may be changes resulting from a single project or a number of separate projects." "The cumulative impact from several projects is [defined as] the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor, but collectively significant projects, taking place over a period of time."

Section 15130(a)(3) states also that an EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund its fair share of mitigation measures designed to alleviate the cumulative impact.

Finally, Section 15130(b) indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, that is should reflect the severity of the impacts and their likelihood of occurrence, and that it should be focused, practical, and reasonable.

6.2 CUMULATIVE SETTING

In accordance with CEQA Guidelines 15130 (b) (1), there are two methods for assessing future cumulative impacts. This analysis relies on the first method presented in the Guidelines where a list of past, present and probable future projects producing related impacts are discussed in conjunction with the Proposed Project. The cumulative context for this EIR is based on projected buildout under the City's General Plan, as well as additional foreseeable growth in the City through the planning horizon year 2025. Table 6-1 includes a list of potential future development projects in the City of Tracy, including residential, industrial and commercial projects. Regional growth forecasts outside of Tracy are consistent with SJCOG is market based 20-year projection of housing and employment for San Joaquin County.

6.3 CUMULATIVE IMPACT ANALYSIS

Identified below is a summary of the cumulative impacts that would result for the implementation of the proposed Tracy Gateway project. Each cumulative impact is determined to have one of the following levels of significance: less than significant, significant, or significant and unavoidable. The following cumulative impacts have been identified in this EIR.

TABLE 6-1

TRACY GATEWAY
CUMULATIVE DEVELOPMENT ASSUMPTIONS FOR 2025

Specific Plans and PUDs	Level of Buildout Potential at 2025
Residential Specific Plan (RSP)	100%
Industrial Specific Plan (ISP)	100%
I 205 Specific Plan (I 205 SP)	100%
Infill	100%
Plan C	100%
Northeast Industrial (NEI)	100%
Elissagaray	100%
Lourence Ranch	100%
Presidio	100%
Tracy Hills Specific Plan	100%
South Schulte Specific Plan	25% (Residential Only)
Castro	25%
Kagehiro	25%
Saddlebrook	25%
Moitoso II	25%
Souchek	25%
Bright, Catellus Business Park, Filios, Larch-Clover, TLC (Tracy Learning Center)	0%

Land Use and LAFCO Conformity

No cumulative impacts were identified for land use or LAFCO conformity.

Agriculture and Mineral Resources

The cumulative loss of agricultural resources at the project site was previously identified and evaluated in the General Plan EIR when the North Schulte Community Area was designated for low-density residential uses. However, as identified in Section 4.2, development of the Proposed Project in combination with other development would result in a **significant and unavoidable** impact on agricultural resources.

Traffic and Circulation

Freeways

Traffic modeling for local roadways revealed that under cumulative, or horizon year 2025 conditions, the Proposed Project would add a considerable amount of new traffic on local streets. When project-generated traffic is combined with the traffic generated by other projects also maturing in the study area, LOS reductions at key intersections appear imminent. To offset this impact, additional roadway improvements would be required to support cumulative development beyond what has been funded through existing development fees. These improvements include the following:

- Construct new Lammers Road extending from I 205 to I 580 as a 6-lane expressway; (its completion includes the construction of a grade-separated railroad crossing at UPRR, two new structures over the Delta-Mendota Canal and the California Aqueduct);

- Construct new freeway interchanges at I 205 and I 580 with Lammers Road;

- Widen Corral Hollow Road to four lanes between Linne Road and the new Lammers Parkway in the Tracy Hills Plan Area;

- Construct the Chrisman Road/I 205 interchange;

- Construct four-lane Schulte Road between Crossroads Drive and Lammers Road;

- Construct Street B, "Pavilion Parkway", from Naglee Road to Byron Road as a four-lane arterial. This new arterial will connect directly with the western segment of Grant Line Road to improve access between Tracy and Mountain House;

- Widen Grant Line Road to six lanes between Tracy Boulevard and Corral Hollow; and

- Upgrade City-portions of Linne Road, Chrisman Road and 11th Street east of MacArthur to Expressway status.

- Widening of 11th Street from four to six lanes from the project site to Lincoln Blvd.;

- Construct a Grade-separation at the intersection of Lammers Road/11th Street or alternative measure of comparable mitigation ability;

- Construct a second southbound left-turn lane from Lammers Road onto Valpico; and

- Provide right-of-way to allow for dual left-turn lanes into the Proposed Project at the signalized intersections into the project from both 11th Street and Lammers Road.

Because the Proposed Project would contribute to the cumulative degradation in LOS on roadways, this would be a significant impact. A separate Finance and Implementation Plan study will be conducted by the City to determine project contribution requirements for this and the other projects in the study that would collectively contribute to the need for the above-mentioned improvements.

During A.M. peak hour, with the westbound freeway mainline operating at capacity, the westbound onramp traffic from 11th Street may experience unacceptable delays. This condition would occur as a result of cumulative growth with or without the Proposed Project. However, the project's incremental contribution to this existing condition would be considerable and is considered a **significant and unavoidable** impact.

Noise

Construction noise would create an intermittent impact on the noise environment that would be short-term occurring only through the duration of the construction phases. Because the duration of the construction noise impact would be limited to the duration of the construction phases, no cumulative impacts would occur.

Cumulative noise level impacts would primarily occur as a result of increased traffic on the study-area roadway segments. The noise levels associated with cumulative development were identified previously in Table 4.4-3. These noise levels compare favorably to the future noise contour map (Exhibit 6-2) in the Tracy General Plan. However, the project will contribute cumulatively to elevated noise levels along study area roadways and there is no mitigation available to reduce the magnitude of this impact. Therefore, the increase in cumulative noise levels caused by the Proposed Project cumulative impact would be a **significant and unavoidable impact**.

Air Quality

CO Impacts

Project development would contribute traffic to existing conditions. Vehicles operating at intersections with high levels of congestion could trigger violations of the ambient air quality standard for carbon monoxide. As predicted by the CALINE4 model, project contributions to localized CO concentrations do not exceed the 1-hour or 8-hour California Ambient Air Quality Standards. Therefore, the cumulative effects of the project on localized CO concentrations would be considered to be a **less-than-significant impact** and no mitigation is required.

Consistency with Adopted Air Quality Plans

As discussed in Chapter 3.0, Project Description, the project site would be redesignated from residential uses to commercial uses under the Proposed Project. Commercial land uses generate more emissions than those associated with residential uses due to higher vehicle trip generation rates associated with the square footage of each building.

The emission estimates in the San Joaquin Valley Air Quality Management Plan (SJVAQMP) are based on future development that would occur consistent with that presented in local General Plans. Although emissions associated with regional development are accounted for in the City of Tracy's General Plan, these emissions are based on a low density residential land use zoning consisting of 3.5 dwelling units per acre. As indicated in Table 4.5-5, mobile source emissions associated with commercial development are substantially higher.

In addition to the above, the San Joaquin Valley Air Basin is currently designated as nonattainment for ozone and PM_{10}. Development of the Proposed Project and other development in the region would result in the generation of additional ozone and PM_{10} pollutants and hinder the ability of SJVUAPCD to bring the region into attainment. Because the land uses

associated with the project are more intense and would result in higher emissions than those associated with the initial land use designation and because the project site is currently in designated as nonattainment for ozone and PM_{10}, development of the Proposed Project in combination with other regional development would result in a **significant and unavoidable cumulative impact**.

Toxic Air Contaminants

The Proposed Project would include the construction and operation of a WRF and R&D facilities that could generate TACs. The SJVUAPCD has prioritized several facilities that should emit TACs in the Tracy Planning Area. Each source of TACs within the area would be required to comply with applicable SJVUIAPCD rules and regulation (e.g., permitting process and use of BACT). However, the incremental contribution of TACs from the Proposed Project, in combination with other existing and future sources of TACs in the Tracy Planning Area, could result in combined TAC health risks to the surrounding population. This would be a **significant and unavoidable** cumulative impact.

Biological Resources

As discussed in Section 4.6, development of the Proposed Project in combination with other development in the City of Tracy would result in the loss of general wildlife foraging and sheltering habitat for resident and migratory species. The Proposed Project would result in the loss of 538 acres of agricultural lands, and future development will result in the loss of additional agricultural lands adjacent to the project site. Although the applicant will contribute to the Tracy Habitat Conservation Plan, the cumulative loss of wildlife habitat and foraging areas would remain **significant and unavoidable**.

Public Utilities

Water Supply

The Proposed Project would use untreated surface water obtained from WSID to meet non-potable demands. Potable water would be obtained through a untreated surface water/recycled water exchange program managed by the City that would use existing potable supplies. With the water exchange program and WSID supply, no new entitlements would be needed to serve the Proposed Project potable and non-potable water needs. The potable water used in the exchange would be water that is now being used to irrigate existing City parks and fields. There would be a net reduction in the amount of WSID water delivered to the project site as a result of the conversion from irrigated crops to urban development. Therefore, the Proposed Project would not incrementally contribute to increased demand for local and regional water supplies or treatment that could result in adverse environmental effects, and there would be **no cumulative impact**.

Wastewater

As currently proposed, the Proposed Project would not contribute flows to the existing or planned expansion of the City's Wastewater Treatment Plant (WWTP), which discharges to Old River. All wastewater generated by the Proposed Project would be processed at an on-site water reclamation facility (WRF). The WRF would be sized to accommodate flows generated by the Proposed Project. Recycled water from the WRF would be used to irrigate City parks and fields, consistent with the City's Recycled and Non-Potable Water Ordinance (Ordinance 1035), and would not contribute flows to the existing WWTP. Therefore, there would be **no cumulative impact**.

Operation of the on-site WRF, in combination with recycled water that would be produced by the City's WWTP and growth within the City of Tracy, could result in additional City parks and fields irrigated with recycled water. Because recycled water from both facilities would be treated to the same stringent standards, cumulative impacts would be **less than significant.**

Operation of the on-site WRF, in combination with growth in the City of Tracy and San Joaquin County, would increase the amount of hazardous materials used, stored, transported, and disposed of. As growth occurs, more people could be exposed to hazards posed by these materials. Extensive regulatory mechanisms are in place at the federal, State, and local level to reduce potential risks to people and the environment associated with hazardous materials. The Proposed Project's incremental contribution to this increased use would not be cumulatively considerable, and impacts related to hazardous materials would be **less than significant.**

Storm Drainage

The Proposed Project in combination with other development within the City of Tracy would result in an increase in impervious surfaces, which could increase the rate and amount of stormwater runoff. However, the City requires new development projects within the Tracy West Area to eventually use a City-owned and maintained storm drainage outfall that would discharge to Old River to the north at the Wickland outfall. New development in the Tracy West Area is also required to install and use a network of stormwater detention basins to store and attenuate runoff to a level that will reduce the peak rate of outflow. With these improvements to the existing stormwater system, there would be adequate capacity to handle flows, and cumulative stormwater impacts would be **less than significant**.

Energy

Development of the project in combination with other development in the City could result the need for new or physically altered energy generation facilities. There is no evidence, despite the State's current uncertainty about a reliable supply of electricity and natural gas, that the Proposed Project, in combination with other development in the City, would result in the need for a new electric and/or natural gas generating facility. Because electricity and natural gas can be transmitted for long distances, it can be obtained from a wide range of sources, both in and out of California. As a result of this characteristic, it would be speculative to assume cumulative

development in the City would generate the need for new electrical and/or natural gas generating facilities. Any new development would be required to comply with Title 24 of the California Code of Regulations and City General Plan policies to reduce overall energy demand. Therefore, the project would not result in wasteful, inefficient and unnecessary consumption of energy during construction or operation. Furthermore, the construction a new energy plant or facility, if required, would require the preparation of an environmental document that discloses any adverse environmental effects. Therefore, cumulative impacts associated with energy are **less than significant**.

Public Services

Law Enforcement Services

As discussed in Section 4.8, development of the project in conjunction with other development in the City of Tracy would create a significant demand for future law enforcement services. However, the applicants for this project and all future projects in the City will be required to contribute a fair share cost to the Project Finance and Implementation Plan. This fund will allow for the development of future facilities, if needed, and will allow law enforcement services to maintain their response times, resulting in a **less than significant** impact.

Fire Services/Emergency Response

As discussed in Section 4.8, development of the project in conjunction with other development in the City of Tracy would create a significant demand for future fire services and emergency response services. However, the applicants for this project and all future projects in the City will be required to contribute a fair share cost to the Project Finance and Implementation Plan. This fund will allow for the development of future facilities, if needed, and will allow fire services and emergency response services to maintain their response times, resulting in a **less than significant** cumulative impact.

Schools

Although the Proposed Project would not generate any students, the project may attract future residents to the City of Tracy. As a result, development of the Proposed Project, in conjunction with future development in the City, could result in an increased demand for school facilities. Pursuant to Proposition 1A/SB50, payment of statutory fees is deemed to be full and complete mitigation for school impacts. Compliance with Proposition 1A/SB50 will ensure that cumulative impacts to school facilities would be **less than significant**.

Parks and Recreation

The Proposed Project does not have a residential component attached to it that would enact the provisions of the Quimby Act requiring paying development fees into a City park development program. However, the development proposal does include an 83-acre public golf course that would not only provide recreation resources to the project itself, but also the City and immediate region. This golf course would include a pedestrian trail system that would connect with the

City's walking trails further integrating the recreation resources provided by the project into the larger community. Thus, this would be a **less than significant** impact on City recreation resources.

Solid Waste

As discussed in Section 4.8, the project in combination with other development in the City would generate solid waste. Foothill Sanitary landfill currently has capacity to accommodate solid waste for the next 46 years. Compliance with AB 939 and increased recycling activities would ensure this capacity. Because the landfill has adequate capacity beyond the year 2025, cumulative impacts are **less than significant**.

Visual Resources/Light and Glare

The night lighting features associated with the Proposed Project, including street lighting, security lighting, and the golf driving range, would contribute to the total amount of ambient light in the Tracy area when considered with future planned development. This impact cannot be effectively mitigated and would be **significant and unavoidable.**

Historic and Cultural Resources

Given the lack of historic and cultural resources identified in the literature for the project site and vicinity, the potential for uncovering important cultural resources is low. Furthermore, mitigation measures have been included that would require construction activities to cease in the event of discovering previously unknown resources. Consequently, development of the Proposed Project in combination with other development within the City would result in a **less than significant impact** to Historic and Cultural Resources.

7.0 CEQA CONSIDERATIONS

This section discusses the additional topics statutorily required by CEQA, pursuant to CEQA Guidelines Section 15126.2. The topics discussed include significant irreversible environmental effects, significant and unavoidable environmental impacts, and growth-inducing impacts.

7.1 SIGNIFICANT IRREVERSIBLE IMPACTS

Under CEQA, an EIR must analyze the extent to which a project's primary and secondary effects would commit resources to uses that future generations will probably be unable to reverse (CEQA Guidelines Section 15126.2[c]). An EIR is also required to evaluate the commitments of natural resources to assure that such consumption is justified. Irreversible damage can also result from environmental accidents that are associated with projects.

The development of the Proposed Project would result in the irreversible conversion of approximately 538-acres of agricultural land to urban uses. The site is located in the City's Sphere of Influence and is currently designated for Low Density Residential development as part of the North Schulte Community Area. This conversion was originally studied in the City's General Plan and General Plan EIR. The Proposed Project would annex this property into the corporate boundaries of the City and change the land use designation to Commercial and Open Space.

The Proposed Project would likely result in, or contribute to, the following irreversible environmental changes:

- The Proposed Project could convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use.

- The Proposed Project, in combination with future development in San Joaquin County, could result in the cumulative loss of Important Farmlands.

- Project-generated development could potentially affect I 205 and I 580 through an increase in the number of p.m. peak hour trips leaving the project site.

- If mitigation measures 4.3.2, 4.3.6, 4.3.9 are implemented, other environmental resource areas could be adversely impacted.

- Under cumulative conditions, the Proposed Project could contribute to traffic impacts on freeways that could exceed LOS standards.

- Development of the Proposed Project, in combination with other development within the City, could result in noise levels that exceed adopted standards.

- Construction activities would generate NO_x and ROG emissions above the air districts daily thresholds of 55 lbs/day and 10 tons/ year for NO_x and ROG.

- Operational emissions associated with motor vehicle trip generation would exceed ROG, NO_x and CO standards.

- The cumulative impact of the Proposed Project, in combination with other development in the air basin, could hinder the SJVUAPCD's ability to bring the air basin into attainment.

- Implementation of the Proposed Project, in combination with other development in the Tracy Planning Area, could generate unacceptable cumulative toxic air contaminant health risks

- The Proposed Project, in combination with other cumulative development in the project study area, would convert undeveloped land to urban uses, resulting in the loss of general wildlife foraging and sheltering habitat for resident and migratory species.

- The Proposed Project could result in an alteration in the visual character of the area from agricultural land to developed urban uses.

- The Proposed Project could partially obstruct distant views of the Diablo Range and short-range and distant views of agricultural lands.

- The Proposed Project could introduce new sources of nighttime light within the project area.

- Reflective surfaces within the Proposed Project could create glare that distracts drivers on I 205.

- The Proposed Project could contribute to a cumulative alteration of aesthetic characteristics of the City of Tracy by increasing urban development in existing rural and undeveloped natural areas.

- The Proposed Project could contribute to the cumulative introduction of artificial light into a rural area.

7.2 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL EFFECTS

According to CEQA Guidelines Section 15126.2(b), an EIR must include a description of those impacts identified as significant and unavoidable should the proposed action be implemented. These impacts are unavoidable because it has been determined that either no mitigation, or only partial mitigation, is feasible. This section identifies significant impacts that could not be eliminated or reduced to a less-than-significant level by mitigations imposed on the project by the Lead Agency. The final determination of significance of impacts and of the feasibility of mitigation measures would be made by the Lead Agency as part of the certification action.

The potential environmental impacts that would result from implementation of the Proposed Project are summarized in Table 2-1 in Chapter 2. In most cases, impacts that have been identified would be less than significant after incorporation of the mitigation measures described in Table 2-1. Those impacts that cannot be feasibly mitigated to a less-than-significant level would remain as significant unavoidable adverse impacts. These significant and unavoidable impacts would require adoption of a Statement of Overriding Considerations by the City if the project were to be approved. These significant and unavoidable impacts are discussed in detail in Sections 4.1 through 4.10; and are listed below:

- Development of the Proposed Project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a Non-Agricultural Use

- Development of the Proposed Project would result in the cumulative loss of Important Farmlands

- Project-generated development would increase the number of p.m. peak hour trips leaving the project site potentially affecting I 205 and I 580.

- Under cumulative conditions the Proposed Project could contribute to traffic impacts on freeways that could exceed LOS standards.

- Implementation of Mitigation Measures 4.3.1, 4.3.2, and 4.3.6 could adversely impact other environmental resources.

- Construction activities would generate NO_x and ROG emissions above the air districts daily thresholds of 55 lbs/day and 10 tons/year for NO_x and ROG.

- Operational emissions associated with motor vehicle trip generation would exceed ROG, NO_x and CO standards.

- The cumulative impact of the project in combination with other development in the air basin would hinder the SJVUAPCD's ability to bring the air basin into attainment.

- Implementation of the Proposed Project, in combination with other development in the Tracy Planning Area, could generate unacceptable cumulative toxic air contaminant health risks.

- The Proposed Project, in combination with other cumulative development in the area would generate traffic noise levels that could exceed adopted City standards.

- The Proposed Project, in combination with other cumulative development in the project study area, would convert undeveloped land to urban uses, resulting in the loss of general wildlife foraging and sheltering habitat for resident and migratory species.

- The proposed Tracy Gateway Project would result in an alteration in the visual character of the area from agricultural land to developed urban uses.

- The proposed Tracy Gateway Project would partially obstruct distant views of the Diablo Range and short-range and distant views of agricultural lands.

- The proposed Tracy Gateway Project would introduce new sources of nighttime light within the project area.

- Reflective surfaces within the Tracy Gateway Project would create glare that could distract drivers on I 205.

- The Tracy Gateway Project would contribute to a cumulative alteration of aesthetic characteristics of the City of Tracy by increasing urban development in existing rural and undeveloped natural areas.

- The Tracy Gateway Project would contribute to the cumulative introduction of artificial light into a rural area.

7.3 GROWTH-INDUCING IMPACTS

Introduction

An EIR must discuss the ways in which a Proposed Project could foster economic or population growth or the construction of additional housing in the vicinity of the project and how that growth would in turn, affect the surrounding environment (see CEQA Guidelines Section 15126.2 [d]). Growth can be induced in a number of ways, including through the elimination of obstacles to growth (such as expansion of a wastewater treatment plan would allow for more construction within its service areas), or through the stimulation of economic activity within the region. The discussion of the removal of obstacles to growth relates directly to the removal of infrastructure limitations or regulatory constraints that could result in growth not related to the Proposed Project.

A number of issues must be considered when assessing the growth-inducing effects of a project. These include the following:

1) **Elimination of Obstacles to Growth:** The extent to which infrastructure capacity provided to the project site or a change in regulatory structure would allow additional development in the region; and
2) **Promotion of Economic Expansion:** The extent to which development of the Proposed Project could cause increased activity in the local or regional economy. Economic effects can include such effects as:
    a) **Increased Indirect Demand:** The extent to which the buildout of the Tracy Gateway project would generate secondary or indirect effects on other employment industries in the County and/or City.

b) **Increased Pressure on Land use Intensification:** The extent to which expansion of commercial and open space development into areas that are currently designated for lower density residential development outside of, but adjacent to the project boundary, could result in increased pressure on the County to redesignate the land to higher land use intensities.

Under CEQA, induced growth is not considered necessarily detrimental or beneficial. Induced growth is considered a significant impact only if it directly or indirectly affects the ability of the agencies to provide needed public services, or if it can be demonstrated that the potential growth, in some other way, could significantly affect the environment.

Analysis

Development of the Proposed Project would include the annexation of the project site into the City and the redesignation of the site from Residential Low to Commercial and Open Space. The Proposed Project would include 335 net-acres of business park and retail uses, two hotels of 150 and 200 rooms, respectively, and a 83-acre golf course. Because of these project elements, this assessment assumes that growth-inducing impacts would result from the elimination of obstacles to growth and the extent to which development could cause increased activity in the local or regional economy.

Extension of Infrastructure

The project site lies in the North Schulte Community Area that has been planned for urban uses. As part of this effort, the General Plan identified the necessary infrastructure to support the conversion of this area from agriculture to urban. The infrastructure that will support the project site (e.g., off-site connections to the City potable water system and potable water storage) could also be used by others to support planned growth in the North Schulte Community Area. In addition, the development of off-site non-potable infrastructure in the City could be used by other new development projects to obtain potable water through the City's adopted water recycling ordinance (Ordinance 1035) allowing for the exchange of potable and non-potable water. This, in turn, could free up existing and planned water supplies, which could also accommodate growth. This growth was previously considered in the EIR for the City's General Plan, and the Proposed Project would not be stimulating growth in an area that was not already planned for growth.

Economic Growth and Population

Redesignating the site from residential to commercial and open space would change the economic and population assumptions from that described for the site in the General Plan. When the General Plan was approved, the City's Growth Management Ordinance guided the jobs/housing balance. With the passage of voter-approved Measure A, a cap was put the amount of residential development allowed per year. There is residential stock already being developed that would exceed the jobs created by the project. Consequently, the Proposed Project would

server to improve the jobs housing balance by creating additional local job opportunities. This is expected to stimulate local and regional economies.

The 335 acres of commercial uses on the site could induce secondary forms of business growth that could require ancillary services. The change in land use designation of the site from Low Density Residential to Commercial and Open Space is therefore considered growth inducing. The Proposed Project would likely cause secondary growth in the City that was not accounted for in the General Plan. As discussed below, the potential adverse environmental effects of this secondary growth are considered **significant and unavoidable**.

Secondary Effects of Growth

The Proposed Project is assumed to result in secondary growth inducing impacts, some of which could be significant and unavoidable. Those impact areas are described below.

Land Use

A secondary effect of the project is that other commercial projects could be attracted to the North Schulte Community Area given the momentum created by the Proposed Project. Additional requests of the City could be made for rezoning more of the North Schulte Community Area from residential to commercial-type uses. Although mitigation could reduce the severity of this impact, the potential effect on adjacent land uses is considered a **significant and unavoidable** impact.

Traffic

Secondary growth would likely adversely affect some area roadways that are already constrained, and projected to be constrained in the future. This impact is considered **significant and unavoidable**.

Noise

The increased noise that would result from secondary traffic increases could have a significant impact if they occur in areas where implementing noise mitigation is problematic. This impact is considered **significant and unavoidable**.

Air Quality

Increased traffic would also create new sources of air pollutants. Mitigation measures are not available to reduce this impact to less than significant. Therefore, this impact is considered **significant and unavoidable**.

Biological Resources

Secondary growth would result in the overall loss of biological habitat in the Tracy area. Project-specific mitigation would likely reduce on-site impacts to acceptable levels, however cumulative development in the Tracy area would contribute to the loss of habitats that may support Swainson's hawk, San Joaquin kit fox, and Western burrowing owls. This impact is considered **significant and unavoidable**.

Public Services and Utilities

Secondary growth related to the Proposed Project could result in increased demand on water supply, wastewater treatment, and other public services and utilities resulting in the construction of facilities that might adversely affect the environment. Until the actual demand for services is known and until needed facilities are identified, the exact extent of these impacts is unknown as are the availability and effectiveness of feasible mitigation measures. Therefore, the potential impact is considered **significant and unavoidable**.

Cultural Resources and Visual Resources/Light and Glare

Secondary growth related to the Proposed Project could result in potentially significant impacts on cultural and aesthetic resources. Until the nature and location of potential growth is determined, the exact extent of these impacts is unknown as are the availability and effectiveness of feasible mitigation measures. Therefore, the potential impact is considered **significant and unavoidable.**

Conclusion

The Proposed Project is expected to result in secondary growth that will generate potentially significant environmental impacts. The exact nature of this growth, the impacts associated with it, and the availability and effectiveness of potential mitigation measures is unknown at this time. The growth inducing impact of the Proposed Project, therefore, is considered **significant and unavoidable**.

8.1 PREPARERS OF THE EIR

CITY OF TRACY

Director of Development and Engineering Services	Bill Reeds
City Engineer	Kul Sharma, P.E.
Engineering Program Manager	Russ Pabarcus, P.E.
Director of Public Works	Nick Pinhey
Deputy Director of Public Works-Utilities	Steve Bayley
Associate Planner	William Dean
Director of Recreation and Community Services	Karen McNamara
City Attorney	Debra Corbett

EIP ASSOCIATES

Project Manager	Rick Hanson, Derek Kantar
Deputy Project Manager	Jennifer Hageman
Graphics	Mark Biegaj
Technical Section Writers	Sam Bacchini
	Brad Brewster
	Michael Brown
	Christina Erwin
	Rochelle Davisson
	Katie Morange
	Clifford Nale
	Alice Tackett
	Anna Price

HARRIS & ASSOCIATES

Engineering Program Manager	William James Miller, Jr., P.E.
	Steve Roberts, P.E.

PEAK & ASSOCIATES, INC.

Cultural/Historical Consultant	Robert Gerry

FEHR & PEERS ASSOCIATES INC.

Traffic Consultant	Jerry Walters, P.E.
	Winnie Chung, P.E.

BKF ENGINEERING

Developer Engineers	Todd Adair, P.E. Thomas Morse, P.E. Max Keech, P.E.

WEST YOST & ASSOCIATES

Water Supply and Infrastructure	Gerry Nakano, P.E. Jim Yost, P.E. Elizabeth Teien, P.E.

CH2MHILL

Wastewater Treatment and Infrastructure	Steven DeCou, P.E.

STANTEC CONSULTING

Stormwater	James Nelson, P.E. Shoja Amani

PACIFIC MUNICIPAL CONSULTANTS

Planning Consultant	Jeff Pemstein Brian Millar

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Bill Benner, Parks and Community Services Department, City of Tracy.

Captain Gary Hampton, Support Operations Bureau Commander, Tracy Police Department.

Carol Zandona, Executive Assistant, Tracy Fire Department.

Chandler Martin, Senior Planner, San Joaquin County Community Development Department.

Christoffer Ellis, Land Project Specialist, PG&E.

Harry Miller, Tracy Materials Recovery Facility.

Janet Baniewich, Plan Reviewer, City of Tracy Parks and Community Services Department.

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