

CITY OF TRACY GENERAL PLAN

DRAFT ENVIRONMENTAL IMPACT REPORT



The City of Tracy | October 4, 2005



DESIGN, COMMUNITY & ENVIRONMENT

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I INTRODUCTION

This Draft Environmental Impact Report (EIR) has been prepared to provide an assessment of the potential environmental consequences of adoption and implementation of the proposed City of Tracy General Plan. This assessment is designed to inform City of Tracy decision-makers, other responsible agencies and the public-at-large of the nature of the General Plan and its effect on the environment. This EIR has been prepared in accordance with and in fulfillment of California Environmental Quality Act (CEQA) requirements. The City of Tracy is the Lead Agency for the project.

A. *Proposed Action*

The proposed project, the City of Tracy General Plan, is a comprehensive update of the 1993 *City of Tracy General Plan: An Urban Management Plan*, which is the principal policy document for guiding future conservation and development of the City. The proposed Plan has a long-term planning horizon, addressing a 20-year time frame through 2025, yet it provides overall direction to the day-to-day decisions of the City Council, its commissions and City staff. The proposed General Plan is described in more detail in Chapter 3.

B. *EIR Scope, Issues and Concerns*

This document is a Program EIR that analyzes the proposed adoption and implementation of the City of Tracy General Plan. As a Program EIR, the EIR is not project-specific and does not evaluate the impacts of specific projects that may be proposed under the General Plan. Such projects will require separate environmental review to secure the necessary discretionary development permits. While subsequent environmental review may be tiered off this EIR, this EIR is not intended to address impacts of individual projects.

The scope of this EIR was established by the City of Tracy through the General Plan update process. Issues addressed in this EIR are the following:

1. Land Use
2. Population, Employment and Housing
3. Visual Quality
4. Traffic and Circulation
5. Cultural Resources
6. Biological Resources
7. Agricultural Resources
8. Mineral Resources
9. Community Services
10. Infrastructure
11. Geology, Soils and Seismic Hazards
12. Hydrology and Flooding
13. Hazardous Materials
14. Noise
15. Air Quality

C. Report Organization

This EIR is organized into the following chapters:

- ◆ Chapter 1: Introduction provides a preface and overview describing both the intended use of the document and the review and certification process of both the General Plan and the EIR.
- ◆ Chapter 2: Report Summary summarizes environmental consequences that would result from the proposed project, describes recommended mitigation measures and indicates the level of significance of environmental impacts before and after mitigation. A Summary Table is also included for clarity.
- ◆ Chapter 3: Project Description describes the proposed General Plan in detail, including a summary of the chapters of the General Plan and a listing of proposed land use designation changes.

- ◆ Chapter 4: Environmental Evaluation provides an analysis of the potential environmental impacts of the proposed project and presents recommended mitigation measures, if required, to reduce their significance.
- ◆ Chapter 5: Alternatives to the Proposed Project considers three alternatives to the proposed project, including the CEQA-required “No Project Alternative.”
- ◆ Chapter 6: CEQA-Required Assessment Conclusions discusses growth inducement, cumulative impacts, unavoidable significant effects and significant irreversible changes as a result of the project.
- ◆ Chapter 7: Report Preparers identifies the preparers of the Draft EIR.

D. Environmental Review Process

The Draft EIR will be available for review by the public and interested parties, agencies and organizations for a period of at least 45 days, as required by State law. A public hearing on the Draft EIR will be held during the review period, during which oral comments are welcome. Written comments on the Draft EIR are also encouraged for incorporation into the Final EIR and should be submitted to:

Mr. Bill Dean
Development & Engineering Services, City of Tracy
520 Tracy Boulevard
Tracy, CA 95376

Following the close of the public comment period, a Final Environmental Impact Report (FEIR) will be prepared to respond to all substantive comments regarding the Draft EIR. The FEIR will be made available for public review prior to consideration of its certification by the City of Tracy City Council. Once the City Council certifies the FEIR, the Council will also consider adoption of the Tracy General Plan itself, which may be approved as drafted or modified.

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2 REPORT SUMMARY

This summary presents an overview of the analysis contained in Chapter 4: Environmental Evaluation. It also summarizes the analysis of alternatives to the project and cumulative significant impacts discussed in Chapters 5 and 6, respectively. CEQA requires that this chapter summarize the following: 1) areas of controversy; 2) significant impacts; 3) unavoidable significant impacts; 4) implementation of mitigation measures; and 5) alternatives to the project.

A. Project Under Review

This Draft EIR provides an assessment of the potential environmental consequences of adoption of the City of Tracy General Plan. The General Plan is intended to serve as the principal policy document for guiding future development and conservation in and around the City. The proposed General Plan includes goals, objectives, policies and actions which have been designed to implement the City's and the community's vision for Tracy. The policies and actions would be used by the City to guide day-to-day decision-making so there is continuing progress toward the attainment of the Plan's goals. The proposed General Plan proposes land use designations that would implement the overall goals and vision of the General Plan. The General Plan is further detailed in Chapter 3 Project Description.

B. Areas of Controversy

The proposed General Plan is largely self-mitigating with regard to environmental impacts. However, there has been controversy in the past regarding several issues related to the General Plan, including:

- ◆ The rate, location and type of growth.
- ◆ Traffic impacts of proposed development.
- ◆ The loss of agricultural lands and open space around the City.
- ◆ The availability of infrastructure to support new development.

- ◆ The need to protect and enhance the unique qualities and urban design character of the community.
- ◆ The provision of adequate parks and recreation facilities for the community.

All of these issues were addressed in the proposed General Plan. To the extent that these issues have environmental impacts, they are also addressed in this EIR.

C. Significant Impacts

Under CEQA, a significant impact on the environment is defined 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.

Implementation of the proposed General Plan has the potential to generate 18 environmental impacts in a number of areas, including both plan level and cumulative impacts. These topic areas are listed below.

- ◆ Visual Quality
- ◆ Traffic and Circulation
- ◆ Biological Resources
- ◆ Agricultural Resources
- ◆ Noise
- ◆ Air Quality

Some of the impacts can be reduced to a less-than-significant level with mitigation measures, while others are significant unavoidable impacts. Each are discussed in the following two sections and summarized in Table 2-1.

D. Mitigation Measures

This Draft EIR suggests specific mitigation measures that would reduce seven of the impacts in the topic areas identified above to a less-than-significant level. Topic areas where impacts are mitigated to a less than significant level area:

- ◆ Visual Quality
- ◆ Cultural Resources
- ◆ Biological Resources
- ◆ Noise
- ◆ Air Quality

The mitigation measures in this DEIR will form the basis of a Mitigation Monitoring Program to be implemented in accordance with State law.

E. Significant Unavoidable Impacts

The proposed General Plan would have eleven significant and unavoidable impacts, as follows. These impacts are discussed further in Sections 4.3, 4.4, 4.7, 4.14 and 4.15 and in Chapter 6, which addresses cumulative impacts.

1. Visual Quality

There would be two significant unavoidable visual quality impacts under the proposed General Plan for the Tracy Planning Area and under cumulative conditions in the region as a whole. Despite policies in the proposed General Plan policies to preserve open space and agricultural lands and community character, policies in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) and the City's Agricultural Mitigation Fee Ordinance, development occurring within the City and its Sphere of In-

fluence would result in a change in visual character from an agricultural appearance to a more urban appearance.

2. Traffic and Circulation

The increase in population and employment under the proposed General Plan would result in two significant unavoidable impacts on the regional roadway system, as is discussed in Section 4.4 and Chapter 6. The six regional roadways that will be impacted are: I-205, I-580, I-5, Altamont Pass Road, Patterson Pass Road and Tesla Road.

3. Agricultural Resources

Three significant and unavoidable impacts to agricultural resources would occur under the proposed General Plan. Development under the General Plan would result in conversion of Prime and Unique Farmland, and Farmland of Statewide importance to urban uses. The proposed General Plan could also result in the development of incompatible urban uses adjacent to agricultural uses, which could result in the conversion of these lands from farmland. Finally, there would be a cumulative significant unavoidable impact associated with the proposed General Plan, which would contribute to the on-going loss of agricultural lands in the region as a whole. The permanent loss of farmland is considered, in each of these cases, to be a significant and unavoidable impact.

4. Noise

There would be two significant and unavoidable noise impacts under the proposed General Plan. As discussed in detail in Section 4.14, future noise level increases (3 dBA L_{dn} or greater) associated with increases traffic associated with new roadways facilitated by the proposed General Plan would occur adjacent to existing noise sensitive uses. This would result in a significant impact at the project and cumulative level.

5. Air Quality

There would be two significant and unavoidable air quality impacts as a result of the project. Firstly, the proposed General Plan would be inconsistent with

applicable air quality plans of the San Joaquin Valley Air Pollution Control District, since it results in a higher level of vehicle miles traveled than accounted for in the District's clean air planning efforts. The proposed General Plan would also contribute cumulatively to on-going air quality issues in the San Joaquin Valley, to an extent that cannot be mitigated by policies and programs to reduce pollutant emissions.

F. Alternatives to the Project

This Draft EIR analyzes alternatives to the proposed General Plan. The following three alternatives to the proposed project are considered and described in detail in Chapter 5:

- ◆ No Project Alternative
- ◆ Concentrated Growth Alternative
- ◆ City Limits Alternative

As is discussed in Chapter 5, the Concentrated Growth Alternative has the least environmental impact and is therefore the environmentally superior alternative. However, the Concentrated Growth Alternative would not satisfy numerous of the City's overall goals of the General Plan. First, since the majority of the new residential growth would be multi-family housing, it would not achieve a diversity of housing types. Second, the multi-family housing would result in a deterioration of the hometown feel due to the higher densities even though it could slightly improve the visual quality due to the reduced amount of undeveloped land converted to urban uses. Third, because growth would be concentrated, the Concentrated Development Alternative would not satisfy the City's desire to have a large land supply for industrial and commercial uses. This could harm the City's economic development goals. Finally, the Concentrated Development Alternative does not mitigate any of the significant and unavoidable impacts of the proposed General Plan to a less-than-significant level. For these reasons, the City of Tracy is moving forward with the proposed General Plan.

G. Summary Table

Table 2-1 presents a summary of impacts and mitigation measures identified in this report. It is organized to correspond with the environmental issues discussed in Chapter 4.

The table is arranged in four columns: 1) environmental impacts; 2) significance prior to mitigation; 3) mitigation measures; and 4) significance after mitigation. For a complete description of potential impacts and suggested mitigation measures, please refer to the specific discussions in Chapter 4. Additionally, this summary does not detail the timing of mitigation measures. Timing will be further detailed in the mitigation monitoring program.

TABLE 2-I SUMMARY OF IMPACTS AND MITIGATION MEASURES

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
LAND USE			
<i>There are no significant land use impacts, therefore, no mitigation measures are necessary.</i>			
POPULATION, EMPLOYMENT AND HOUSING			
<i>There are no significant impacts to population, employment and housing, therefore, no mitigation measures are necessary.</i>			
VISUAL QUALITY			
Impact V-1: As discussed on pages 4.3-10 through 4.3-11, in addition to policies in the SJMSCP and the City’s Agricultural Mitigation Fee Ordinance, the proposed General Plan contains policies to preserve open space and agricultural lands and community character. Despite such policies to enhance “hometown feel” and preserve open space, development permitted under the proposed General Plan will result in a significant impact to the existing visual identity and character of the City due to the amount of growth allowed.	S	No additional mitigation is available for this impact, since the permanent visual change from rural, agricultural lands to urban use is considered significant and unavoidable.	SU
Impact V-2: Despite policies and regulations to protect open space and agricultural areas under the proposed General Plan, some hillsides within the City limits in the Tracy Hills Specific Plan area would not remain in their natural state.	S	<u>Mitigation Measure V-2:</u> As part of the update to the Tracy Hills Specific Plan, the Plan shall provide guidelines to ensure the safe and sensitive treatment of hillsides, including the consideration of establishing a hillside ordinance that defines standards for mass grading, ridgeline protection, erosion control, viewshed analysis among other considerations.	LTS

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Impact V-3: Development permitted under the proposed General Plan could increase levels of light and glare to a level significant enough to result in adverse impacts to the visual quality of Tracy.	S	<u>Mitigation Measure V-3:</u> The City should include a policy under Objective CC-1.1 to require that lighting on private and public property should be designed to provide safe and adequate lighting while minimizing light spillage to adjacent properties.	LTS
TRAFFIC AND CIRCULATION			
Impact CIR-1: The proposed General Plan incorporates a range of features to help reduce the potential impact of future growth on regional roadways. However, traffic levels along regional roadways listed below will increase, creating a significant and unavoidable impact. <ul style="list-style-type: none"> ◆ I-205 ◆ I-580 ◆ I-5 ◆ Altamont Pass Road ◆ Patterson Pass Road ◆ Tesla Road 	S	No mitigation is available for this impact. Therefore, traffic levels on regional roadways are considered a significant and unavoidable impact.	SU

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
CULTURAL RESOURCES			
Impact CUL-1: Undiscovered archaeological and paleontological sites in the Planning Area, including human burial sites that could be impacted from development activities involving soil removal or disturbance.	S	<p><u>Mitigation Measure CUL-1a:</u> The City shall include a policy under Objective CC-3.1 (Policy 4) to require, as part of the development review process, a standard condition of approval that if any resources are found during construction, all operations within the project area shall halt until an assessment can be made by appropriate professionals regarding the presence of archaeological and paleontological resources and the potential for adverse impacts on these resources.</p> <p><u>Mitigation Measure CUL-1b:</u> The City shall include a policy under Objective CC-3.1 (Policy 5) to require that any archaeological or paleontological resources on private property be either preserved on their sites or adequately documented and conserved as a condition of removal. The policy shall further require that if any resources are found unexpectedly during development, then construction must cease immediately until accurate study and conservation measures are implemented.</p> <p><u>Mitigation Measure CUL-1c:</u> The City shall include a policy under Objective CC-3.1 (Policy 6) requiring that if Native American artifacts are discovered on a site, the City shall consult representatives of the Native American community to ensure the respectful treatment of Native American sacred places.</p>	LTS

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
BIOLOGICAL RESOURCES			
Impact BIO-1: Sensitive species, associated habitats, wildlife movement and reproductive areas could be impacted by development in Urban Reserve 6, commonly known as Cordes Ranch, which falls outside of Tracy's SJMSCP compensation maps.	S	<u>Mitigation Measure BIO-1:</u> The City shall require property owners of Cordes Ranch to amend the SJMSCP such that the area is included in the SJMSCP or shall ensure that adequate site-specific mitigation is undertaken to a level acceptable to meet State and federal requirements.	LTS
AGRICULTURAL RESOURCES			
Impact AG-1: As discussed in on pages 4.7-10 through 4.7-15, the proposed General Plan contains policies to preserve agricultural lands, in addition to policies in the SJMSCP and the City's Agricultural Mitigation Fee Ordinance. Despite these policies and regulations, development permitted under the proposed General Plan would result in the conversion of Prime Farmland, Unique Farmland and Farmland of Statewide Importance to urban uses.	S	No additional mitigation is available, since the permanent loss of farmland is considered significant and unavoidable.	SU
Impact AG-2: The proposed General Plan contains several policies to mitigate impacts to agricultural resources due to the conversion of additional farmland to urban uses. However, implementation of the proposed General Plan would result in additional and incompatible urban development adjacent to agricultural uses.	S	No additional mitigation is available, since the permanent loss of farmland is considered significant and unavoidable.	SU

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
MINERAL RESOURCES			
<i>There are no significant impacts on mineral resources; therefore, no mitigation measures are necessary.</i>			
COMMUNITY SERVICES			
<i>There are no significant impacts to community services, including police, fire, schools, solid waste collection and disposal, and parks and recreation facilities; therefore, no mitigation measures are necessary.</i>			
INFRASTRUCTURE			
<i>There are no significant impacts to infrastructure (e.g. water service, wastewater, stormwater, energy use and conservation), therefore no mitigation measures are necessary.</i>			
GEOLOGY, SOILS AND SEISMIC HAZARDS			
<i>There are no significant impacts to geology, soils and seismic hazards; therefore, no mitigation measures are necessary</i>			

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
NOISE			
Impact NOI-1: As discussed on page 4.14-22, the City's Noise Ordinance and policies in the proposed General Plan serve to control excessive sources of noise in the city and ensure that noise impacts from new projects are evaluated when they are reviewed. Despite these policies and regulations, significant noise levels increases (3 dBA Ldn or greater) associated with increased traffic would occur adjacent to existing noise sensitive uses along portions of Interstate 205, Grant Line Road, Schulte Road, Linne Road, Lammers Road, Corral Hollow Road, Tracy Boulevard, and MacArthur Drive. New roadways facilitated by the General Plan would also increase existing noise levels at receivers in Tracy.	S	This is a significant and unavoidable impact. No additional mitigation is available.	SU
Impact NOI-2: New development proposed along existing railroad lines could expose residents to vibration levels in excess of Federal standards. The proposed General Plan does not address potential groundborne vibration impacts.	S	<u>Mitigation Measure NOI-2:</u> A policy should be added to the proposed General Plan under Objective N-1.3 that states that the City will seek to reduce impacts from groundborne vibration associated with rail operations by requiring that vibration-sensitive buildings (e.g., residences) are sited at least 100-feet from the centerline of the railroad tracks whenever feasible. The policy should further state that development of vibration-sensitive buildings within 100-feet from the centerline of the railroad tracks would require a study demonstrating that ground borne vibration issues associated with rail operations have been adequately addressed (i.e., through building siting or construction techniques).	LTS

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Impact NOI-3: Construction associated with development projected during the planning horizon of the proposed General Plan would temporarily elevate noise levels at adjacent land uses by 15 to 20 dBA or more.	S	<p><u>Mitigation Measure NOI-3:</u> In addition to the time-of-day restriction in Objective N-1.2, P4, the following standard construction noise control measures should be included as requirements at construction sites to minimize construction noise impacts:</p> <ul style="list-style-type: none"> ◆ Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. ◆ Locate stationary noise generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area. ◆ Utilize “quiet” air compressors and other stationery noise sources where technology exists. ◆ When necessary, temporary noise control blanket barriers shall shroud pile drivers or be erected in a manner to shield the adjacent land uses. Such noise control blanket barriers can be rented and quickly erected. ◆ Foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile. The pre-drilling of foundation pile holes is a standard construction noise control technique. Pre-drilling reduces the number of blows required to seat the pile. ◆ The project sponsor shall designate a “disturbance coordinator” who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. The project sponsor shall also post a telephone number for excessive noise complaints in conspicuous locations in the vicinity of the project site. Additionally, the project sponsor shall send a notice to neighbors in the project vicinity with information on the construction schedule and the telephone number for noise complaints. 	LTS

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
AIR QUALITY			
Impact AIR-1: The General Plan would not be consistent with applicable clean air planning efforts of the SJVAPCD, since vehicle miles traveled that could occur under the General Plan would exceed that projected by SJCOG, which are used in projections for air quality planning. The projected growth could lead to an increase in the region's VMT, beyond that anticipated in the SJCOG and SJVAPCD's clean air planning efforts. Development in Tracy and the SOI would contribute to the on-going air quality issues in the San Joaquin Valley Air Basin.	S	<p><u>Mitigation Measure AIR-1:</u> The City of Tracy should study adopting an air quality impact mitigation fee program, which would provide for partial mitigation of adverse environmental effects associated with new development and establish a formalized process for air quality standards as growth and development requires. Fees collected could be used to fund transit, rideshare programs, pedestrian and bicycle facilities, or other programs that would offset vehicle trips. The specifics of the program should be developed in coordination with SJCOG and SJVAPCD to ensure that proceeds would effectively fund projects that would reduce air pollutant emissions.</p> <p>However, these policies and the mitigation measure identified above may not completely mitigate this impact. Therefore, it is considered significant and unavoidable impact.</p>	SU
Impact AIR-2: The proposed General Plan does not provide adequate buffers between new or existing sources of odors and new or existing residences or sensitive receptors.	S	<p><u>Mitigation Measure AIR-2:</u> Policy 11 of Objective AQ-1.2 should be modified to include sources of odors as follows:</p> <p>Policy 11: Residential developments and other projects with sensitive receptors shall be located an adequate distance from air pollution and odors sources such as freeways, arterial roadways and stationary air pollutant sources.</p> <p>This would mitigate potentially significant land use conflicts that may result in frequent odor complaints.</p>	LTS

LTS = Less-Than-Significant S = Significant SU = Significant Unavoidable Impact

3 PROJECT DESCRIPTION

This EIR provides an assessment of the City of Tracy General Plan that was published on June 30, 2005. The City of Tracy General Plan is an update to the City's existing 1993 General Plan entitled *The City of Tracy General Plan: An Urban Management Plan (Urban Management Plan)*. The Update involves reorganization and revisions to elements of the existing *Urban Management Plan*, a series of General Plan land use designation changes, and adoption of new goals, objectives, policies and actions. The proposed City of Tracy General Plan (General Plan) contains the following elements: Land Use, Community Character, Economic Development, Circulation, Open Space and Conservation, Public Facilities and Services, Safety, Noise and Air Quality. The Housing Element was prepared and reviewed under a separate environmental review process. This chapter describes the proposed General Plan and the planning process that created it.

A. Location and Setting

Tracy is located in San Joaquin County, east of the Coastal Range that separates California's Central Valley from the San Francisco Bay Area. The City lies 68 miles south of Sacramento and 60 miles east of San Francisco. Interstate 205 (I-205) runs through the northern-most part of the City and connects I-580 to I-5, a major north-south interstate corridor east of Tracy. Figure 3-1 shows Tracy's regional location.

Tracy began as an agricultural community centered on several rail lines, and eventually became the San Joaquin Valley headquarters for the Central Pacific Railroad. The City was incorporated in 1910 and grew rapidly after the first irrigation district was established in 1915. Towards the latter part of the twentieth century, the City transitioned into a primarily residential community, as more people arrived from the Bay Area seeking affordable housing, a small-town feel and respite from the highly-urbanized San Francisco region.

Today, Tracy is one of the fastest growing cities in California. Between 1990 and 2004, the population has increased 121 percent from 33,500 to 74,070¹ residents. This growth has brought proportionally more families to Tracy, increased diversity and increased percentages of home ownership and household size. From 1990 to 2000, Tracy became more racially and ethnically diverse, as the percentage of Caucasians dropped from 68 to 56 percent and African Americans, Asian or Pacific Islanders and Hispanics each increased by 3 to 5 percent.²

During this period of growth, the percentage of owner-occupied housing increased from 60 percent to 72 percent and the average household size increased from 3.0 to 3.21 people. This trend has been attributed in part to the increase of families with children and the shift in racial and ethnic composition, since Asian and Hispanic households are typically 30 percent larger than white households.³ Between 1990 and 2000, the median household income also increased in real terms from \$52,993 to \$62,794 and the City became proportionally more educated as the percentage of the population with college and graduate degrees increased from 20 percent to 27 percent.

As the population has grown and diversified so too has the economy, aided in part by numerous companies that have established facilities in Tracy to take advantage of inexpensive land and proximity to three major freeways. Between 1990 and 2003, the number of jobs in Tracy increased from 11,112 to 29,758.⁴ There is also a greater diversity of job types in the City, with over 8,000 jobs in each of the professional services and retail sectors and over 4,000 jobs in the manufacturing sector.

The existing incorporated area of the City of Tracy is approximately 22 square miles as of 2005. The majority of the City is located on flat land at the

¹ California Department of Finance estimate for January, 2004.

² U.S. Census, 1990 and 2000.

³ U.S. Census 2000.

⁴ *State of the City*, Presentation by Andrew Malik, City of Tracy Economic Development Director, 2004.

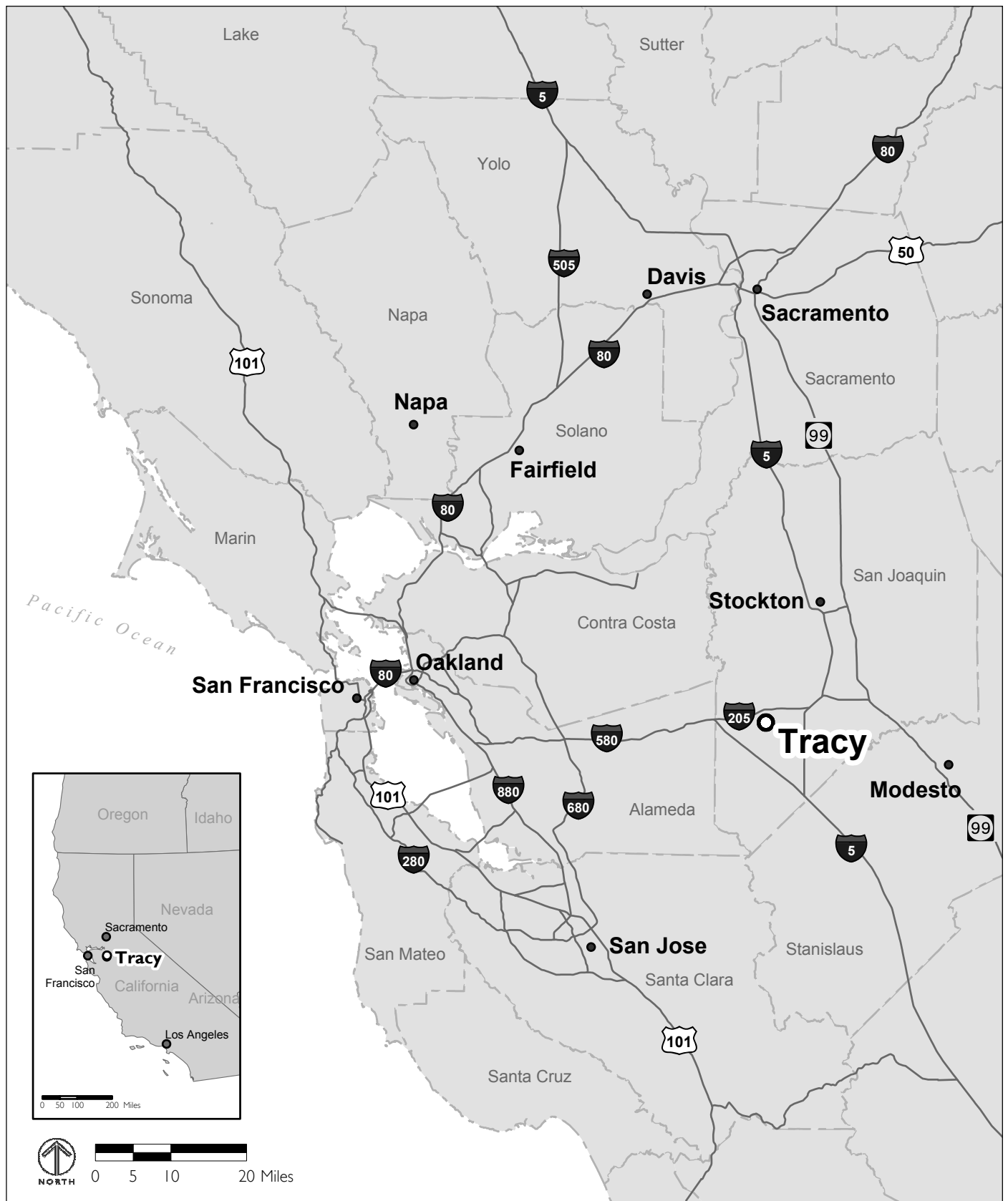


FIGURE 3-1

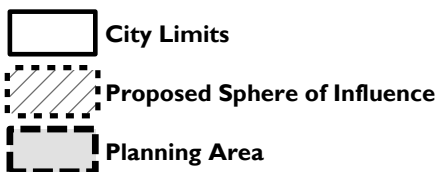
REGIONAL LOCATION

intersection of several Interstate highways (I-205, I-580 and I-5). The city also contains two large undeveloped areas to the southwest (the future Tracy Hills development) and the northeast (the expansion area for the Northeast Industrial Area).

The State of California encourages cities to look beyond their borders when undertaking the sort of comprehensive planning required of a General Plan. For this reason, the General Plan assesses two delineated areas known as the Sphere of Influence (SOI) and the Planning Area, both of which are larger than the City limits. Figure 3-2 depicts the boundaries for each area, as proposed in the General Plan.

The SOI is the area outside of the City limits that the City expects to annex and urbanize in the future. As in many communities, the SOI can accommodate more growth than is expected during the planning horizon of the General Plan. The proposed General Plan would make some changes to the existing SOI. The proposed SOI is approximately 51 square miles and is 29 square miles larger than the City limits.

State law also allows cities to identify a Planning Area. This is an area outside of its boundaries that bears a relation to the City's planning. While Tracy does not have any regulatory authority within the Planning Area, it is included in the General Plan as a signal to the County and to other nearby local and regional authorities that Tracy recognizes that development within this area has an impact on the future of the city. Under State law, the City is invited to comment on development within the Planning Area that is subject to review by the County. The unincorporated portion of the Tracy Planning Area will remain under the jurisdiction of San Joaquin County. The Planning Area contains approximately 114 square miles and is 92 square miles larger than the City limits and 63 square miles larger than the SOI.



TRACY CITY LIMITS, PROPOSED SPHERE OF INFLUENCE AND PLANNING AREA

B. What is the General Plan?

The City of Tracy's General Plan is the principal policy and planning document for guiding future conservation, enhancement and development in the City. It represents the basic policy direction of the Tracy City Council on basic community values, ideals and aspirations to govern a shared environment through 2025. The General Plan addresses all aspects of development including land use, transportation, housing, economic development, public facilities and infrastructure and open spaces, among other topics.

State Planning and Zoning Law requires that the General Plan must be comprehensive, internally consistent and long-term. Although required to address the issues specified in State law, the General Plan may be organized in a way that best suits the City. The plan must be clearly written, available to all those concerned with the community's development and easy to administer.

The City of Tracy General Plan meets these requirements. The Plan articulates a vision for the city's long-term physical form and development. It also brings a deliberate overall direction to the day-to-day decisions of the City Council, its commissions and City staff.

The overall role of the City of Tracy General Plan is to:

- ◆ Define a realistic vision of what the City intends to be in 20 years.
- ◆ Express the desires of Tracy residents in regard to the physical, social, economic, cultural and environmental character of the city.
- ◆ Serve as a comprehensive guide for making decisions about land use, community character, economic development, circulation, protecting open space and the environment, and public health and safety.
- ◆ Chart the course of coordinated development and conservation that will preserve the character and heritage of Tracy.
- ◆ Serve as the City's "constitution" for land use and community development. That is, provide the legal foundation for all zoning, subdivision

and public facilities, decisions and projects—all of which must be consistent with the General Plan.

C. The General Plan Update Process

The General Plan Update process began in 2002. At that time, a consultant team working for the City conducted an assessment of existing conditions in the City of Tracy and its environs on five major topic areas to help identify key issues:

- ◆ Land Use, Population and Housing
- ◆ Environmental Conditions
- ◆ Transportation and Circulation
- ◆ Infrastructure and Services
- ◆ Assessment of the 1993 *Urban Management Plan*, which was the City's General Plan prior to adoption of this document.

To complete these assessments, the consultant team conducted field observations, interviews, and database and archival research. Planning documents, government laws and regulations, and City codes and ordinances were also reviewed.

Concurrently, City staff and the consultant team worked closely with the City Council and Planning Commission to determine the scope and direction on policy issues to be addressed in the General Plan. Twenty-one joint City Council/Planning Commission workshops were held on the topics listed below. Members of the public were invited to comment at the end of each of the workshops.

- ◆ General Plan Update Process, Urban Design Principles, Vision Development (April 22, 2003)
- ◆ Urban Design and Transportation (May 12, 2003)

- ◆ Housing Element (May 20, May 25 and October 6, 2003 and May 10, 2004)
- ◆ Community Character (June 30 and November 3, 2003)
- ◆ Land Use Element (December 1, 2003)
- ◆ Land Use Designations (February 2 and March 1, 2004)
- ◆ Transportation and Circulation (April 5 and May 3, 2004)
- ◆ Open Space (April 12, 2004)
- ◆ Vision Statement and Open Space and Conservation Element (July 12, 2004)
- ◆ Presentation of City Council/Planning Commission Review Draft General Plan (November 15, 2004)
- ◆ Major Policies Discussion (December 16, 2004)
- ◆ Residential Growth Priorities (January 11, 2005)
- ◆ Affordable Housing (January 27, 2005)
- ◆ Jobs and Open Space (January 31, 2005)
- ◆ Final Comments to City Council/Planning Commission Review Draft General Plan (May 16, 2005)

In addition, three community workshops were held on the following topics:

- ◆ Introduction to the General Plan Update Planning Process (September 17, 2003)
- ◆ Land Use Designations within the City limits (January 13, 2004)
- ◆ Land Use Designations within the SOI (February 18, 2004)

D. General Plan Vision

The General Plan is based on a vision to enable the City of Tracy to retain its small-town character and provide a high-quality of life for its residents, while continuing to grow new opportunities for businesses, job creation for local employment and housing development. The following vision statement is included in the General Plan:

Through the year 2025, the City of Tracy will continue to enhance its place as a great community in which to live, work and play. Drawing on its small town character, the City will grow in a manner that provides a high quality of life for all current and future residents and employees. In the coming years, Tracy will:

- 1. Balance the development of new retail, job creating commercial, office and industrial development with the development of new housing so that residents have the opportunity to work in Tracy.*
- 2. Continue to provide a healthy setting for existing businesses while actively facilitating the establishment of new businesses, particularly those that reflect community aspirations.*
- 3. Preserve its “hometown feel” by creating residential neighborhoods with a sense of place and that are diverse, attractive, safe, walkable and affordable and by preserving significant historic and cultural resources.*
- 4. Meet the transportation challenges of the future, so that people can travel safely and conveniently on foot or by car, bicycle and transit.*
- 5. Require development and redevelopment to adhere to basic principles of high quality urban design.*
- 6. Strengthen its downtown and develop the cultural, retail and civic amenities of a vibrant city, without losing the spirit of a small town.*
- 7. Protect its unique identity and preserve buffers from neighboring cities with open spaces, parks and agricultural lands.*

8. *Protect public health, safety and the environment by taking steps to reduce noise and air pollution, conserve water and energy, and prepare for natural and man-made disasters.*
9. *Provide beautiful parks, exciting cultural amenities and civic institutions that inspire community pride.*
10. *Encourage high quality schools.*
11. *Enhance the cultural environment in the city by promoting arts and cultural activities.*
12. *Welcome people from all backgrounds, ages, income levels and physical capabilities and invite them to put down roots and stay awhile.*

The City will achieve its vision through bold civic leadership, citizen participation and assistance, and responsive, accountable government.

The vision statement is intended to guide the goals, objectives, policies and actions of the General Plan, which in turn guide growth and preservation in the City between 2005 and 2025.

E. General Plan Contents

The City of Tracy General Plan is guided by the vision statement and includes an introduction and a brief overview of Tracy, as well as ten separate “elements” that set goals, objectives, policies and actions for a given subject. Seven of these elements cover the topics required by State law, while the remaining three elements have been prepared by the City to meet local needs and concerns.

1. General Plan Elements

The ten elements that form the General Plan are briefly described below. Nine of the ten elements form the *General Plan Update*, which are reviewed in this document and are listed below.

- ◆ *Land Use Element.* The required Land Use Element designates all lands within the city for a specific use such as residential, office, commercial, industry, open space, recreation or public uses. The Land Use Element provides development regulations for each land use category, and also provides overall land use policies for the City.
- ◆ *Community Character Element.* The Community Character Element is not required by State law. However, due to the importance of Tracy's hometown feel, the community has decided to include this optional element to identify, protect and enhance the urban design character of the community.
- ◆ *Economic Development Element.* This optional element contains goals, objectives, policies and actions to encourage the development of desired economic activities throughout the city. The information in this element is derived from the City's Economic Development Strategy prepared in 2002.
- ◆ *Circulation Element.* This required element specifies the general location and extent of existing major streets, level of service, transit facilities, and bicycle and pedestrian network. As required by law, all facilities in the Circulation Element are correlated with the land uses foreseen in the Land Use Element.
- ◆ *Open Space and Conservation Element.* The Open Space Element and the Conservation Element are required under State law and are combined in this General Plan. Issues addressed include the preservation of open space and agricultural land, the conservation, development and utilization of natural resources, and the provision of parks and recreational facilities. Open Space goals for public health and safety are covered in the Safety Element.
- ◆ *Public Facilities and Services Element.* This optional element covers a wide range of topics related to the provision of public services and infrastructure in the City. Topics covered include law enforcement, fire protection, schools, public buildings, solid waste including diversion and the provision of water, wastewater and stormwater infrastructure.

- ◆ *Safety Element.* State law requires the development of a Safety Element to protect the community from risks associated with the effects of flooding, seismic and other geologic hazards, and wildland fires.
- ◆ *Noise Element.* This required element addresses noise in the community and analyzes and quantifies current and projected noise levels from a variety of sources, such as traffic, industry, rail and the airport. The Noise Element includes goals, objectives, policies and actions to address current and foreseeable noise problems.
- ◆ *Air Quality Element.* All jurisdictions in the San Joaquin Air Pollution Control District are required to address air quality impacts in their general plan. Therefore, this Element, outlines goals, objectives, policies and actions to mitigate the air pollution impacts of land use, the transportation system and other activities that occur in the City of Tracy.

A tenth element, the *Housing Element*, is being prepared and reviewed as part of a separate environmental review process. Each city and county has an obligation to contribute its part by including a Housing Element as one of the seven mandatory elements of the General Plan. The Housing Element provides a long-term, comprehensive plan to address the housing needs for all economic segments of the community. The Housing Element addresses existing and projected housing demand and establishes goals, objectives, policies and actions to assist the City in implementing the plan in accordance with other General Plan policies. Copies of the Housing Element and its environmental document will be available at the City of Tracy Development and Engineering Services Department.

2. Organization of the Elements

Each element of this General Plan contains background information and goals, objectives, policies and actions. Some elements also have additional sections that are specific to them. For example, the Land Use Element contains a series of land use designations that guide overall development in the City and the Circulation Element contains information on the network and hierarchy of streets in the City.

F. Proposed Land Use Changes

As part of the General Plan update process, jurisdictions typically revisit the extent of the SOI and land use designations, and modify both as necessary to meet the vision for the future of the City, and to meet City goals. The following is a summary of the proposed changes to the SOI, land use designation categories and land use designations on specific parcels.

1. Changes to the Sphere of Influence

The draft General Plan proposes to revise the City's existing SOI to more accurately reflect locations where the City may grow in the future. The proposed SOI in the updated General Plan consists of approximately 51 square miles, approximately 29 square miles of which are outside of the existing City limits. The proposed SOI represents a net increase of approximately 2 square miles when compared to the current SOI. Figure 3-3 shows both the existing and the proposed boundary for the SOI.

a. Proposed Expansion Areas

The areas where SOI expansions are included in the General Plan are listed below:

- ◆ **Holly Sugar.** In 2003, the City purchased a portion of the Holly Sugar plant. The former Holly Sugar property is included in the proposed SOI and will be designated as Agriculture with provisions to allow for the land application of treated effluent and effluent cooling. This area is an addition of approximately 350 acres.
- ◆ **Cordes Ranch.** In August 2003, the West Tracy Owners Group approached the City with a proposal to modify the SOI and annex Cordes Ranch. The proposed Plan calls for industrial and flex office uses with support commercial development. This area is 1,730 acres in size,

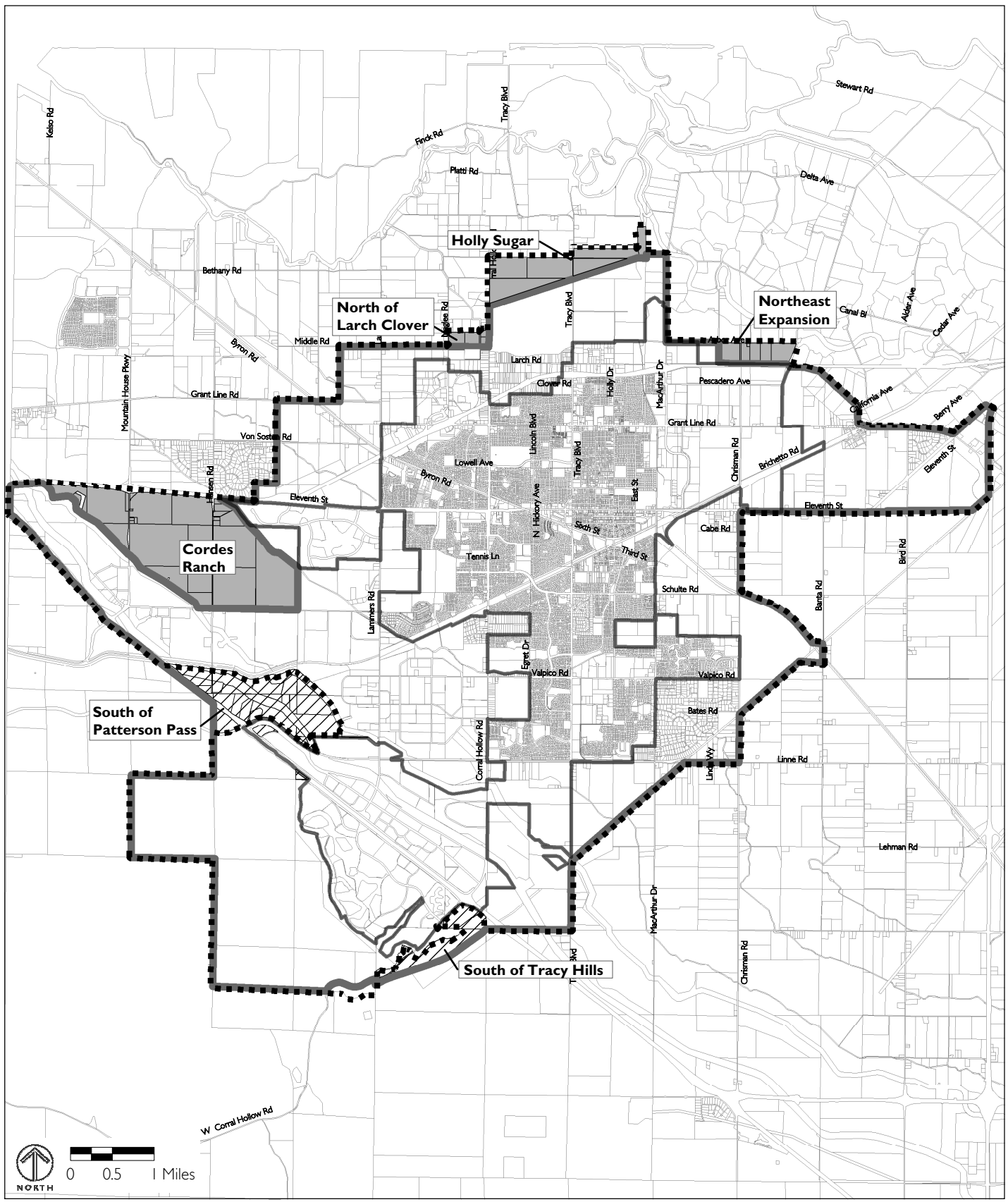


FIGURE 3-3

PROPOSED CHANGES TO THE SPHERE OF INFLUENCE

approximately 1,512 acres of which is outside of the existing City limits, and is referred to as Urban Reserve 6 in the proposed General Plan.

- ◆ **Northeast Expansion.** The proposed General Plan includes a proposed expansion of the SOI east of MacArthur Drive and north of I-205. This area is designated as Industrial and represents an increase of 139 acres.
- ◆ **North of Larch Clover.** A small expansion of 50 acres is proposed to rectify the SOI line which cut across property boundaries. The area added to the SOI is designated as Residential Very Low and will help to create a smooth transition between the urbanized area of Tracy and rural county land.

b. Proposed SOI Contractions

The General Plan also includes areas where the SOI is being contracted. These areas are described below and identified in Figure 3-3.

- ◆ **South of Patterson Pass.** A 575-acre area, south of the Patterson Pass Business Park, is proposed for removal from the SOI in the General Plan update because of its location between I-580, the Delta Mendota Canal and the California Aqueduct. As a result, it is an isolated area that would likely be difficult and expensive to provide with urban services.
- ◆ **South of Tracy Hills.** Land south of the Tracy Hills Specific Plan area and east of I-580 is proposed for removal from the SOI in the General Plan. This land consists of approximately 230 acres and contains a 44-acre former landfill; the remaining area consists of land that is vacant or in agricultural use.

2. Proposed Land Use Designations

The General Plan proposes to retain most of the land use categories in the existing *Urban Management Plan*. Figure 3-4 shows a map of the proposed land use designations. The existing land use categories to be retained as they currently exist are:

- ◆ Residential Very Low (VL)
- ◆ Residential Low (L)

- ◆ Residential Medium (RM)
- ◆ Residential High (RH)
- ◆ Commercial (C)
- ◆ Industrial (I)
- ◆ Public Facilities (Pub)
- ◆ Parks (P)
- ◆ Open Space (OS)
- ◆ Aggregate (Agg)
- ◆ Agriculture (Ag)

The General Plan also proposes the addition of several land use categories, as described below:

- ◆ **Office (O).** The newly proposed Office designation specifies a density/building intensity of 0.4 FAR⁶ and applies to medium- to large-scale office, such as research and development uses that accommodate high-tech, medical/hospital, legal, insurance and similar uses.
- ◆ **Downtown (D).** A density of 15 to 40 dwelling units per gross acre for residential development or up to 50 units per gross acre for senior housing is allowed within the Downtown designation. Non-residential (e.g., retail, service commercial and office) may have a maximum FAR of 1.0. Characteristics of areas with the proposed Downtown designation include pedestrian-oriented environment, vertical mixed-use development, a diverse mix of public and private uses, streets on a grid or modified grid, multi-modal street design, and direct pedestrian and bicycle connections to residential neighborhoods.

⁶ Floor Area Ratio (FAR) describes the relationship between the total floor area contained in a building as compared to the area of the land under the building. Cities often establish minimum and maximum FARs as part of a zoning ordinance.

FIGURE 3-4

PROPOSED GENERAL PLAN
LAND USE DESIGNATIONS

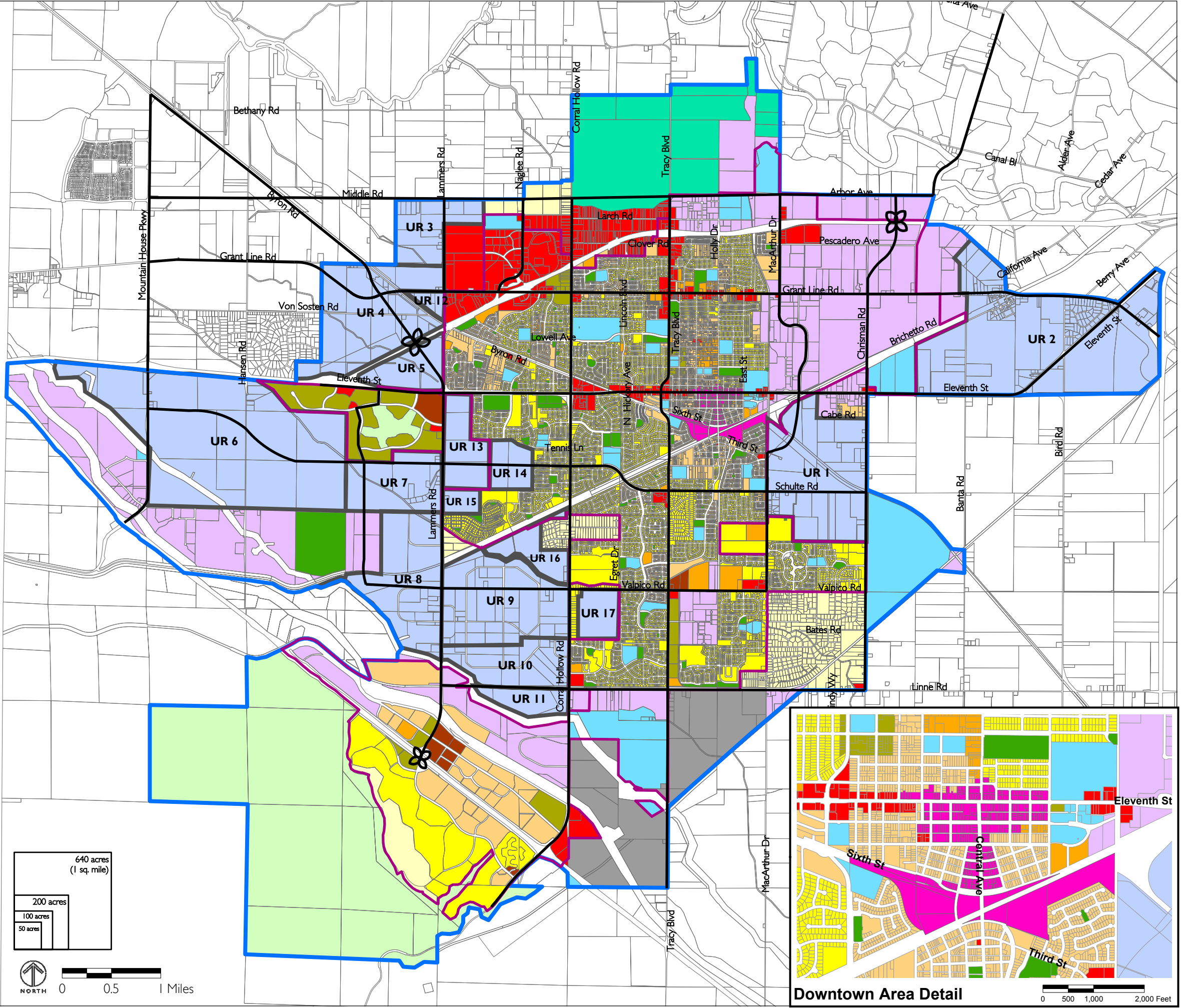


Figure 3-4: land use designations (back)

- ◆ **Village Center (VC).** The proposed Village Center designation would apply to relatively small retail or mixed-use development including, but not limited to, grocery stores, drug stores, banks, restaurants, small-scale professional offices such as beauty salons, daycare facilities and higher density residential development. The proposed density/building intensity is 12.1 to 25 units per acre. Non-residential (e.g., retail, service commercial and office) may have a maximum FAR of 1.0. Residential and non-residential uses may be combined on individual parcels. A higher FAR may be permitted where upper-story housing, off-site or structured parking, and/or pedestrian amenities are provided.
- ◆ **Urban Reserve (UR).** The proposed Urban Reserve designation would apply in areas which are not expected to develop for a number of years. It would allow a mix of land uses, in accordance with the statistical profiles for each Urban Reserve, without designating a specific location for these uses. Of the seventeen Urban Reserves, some areas are proposed to accommodate a mix of commercial and industrial uses, while others are to accommodate a mix of residential uses. This new designation would require comprehensive planning prior to development while also providing flexibility for the future.

In addition to land use designations and goals, objectives, policies and actions, the proposed General Plan includes additional, detailed and design guidance for eight specific areas, identified as Areas of Special Consideration. These Areas of Special Consideration are shown in Figure 3-5.

Four existing land use designations that appear in the current General Plan would be removed in the proposed General Plan, and lands that currently carry them would be redesignated. These designations are:

- ◆ **Urban Centers.** The existing General Plan identifies approximate locations on the Land Use Diagram for “Urban Centers,” that are defined as areas 60 to 80 acres in size, that are intended to serve as a higher intensity-use, “full-service ‘downtown’” for areas outside of the City limits that have not yet been developed. Based on an analysis of prevailing market

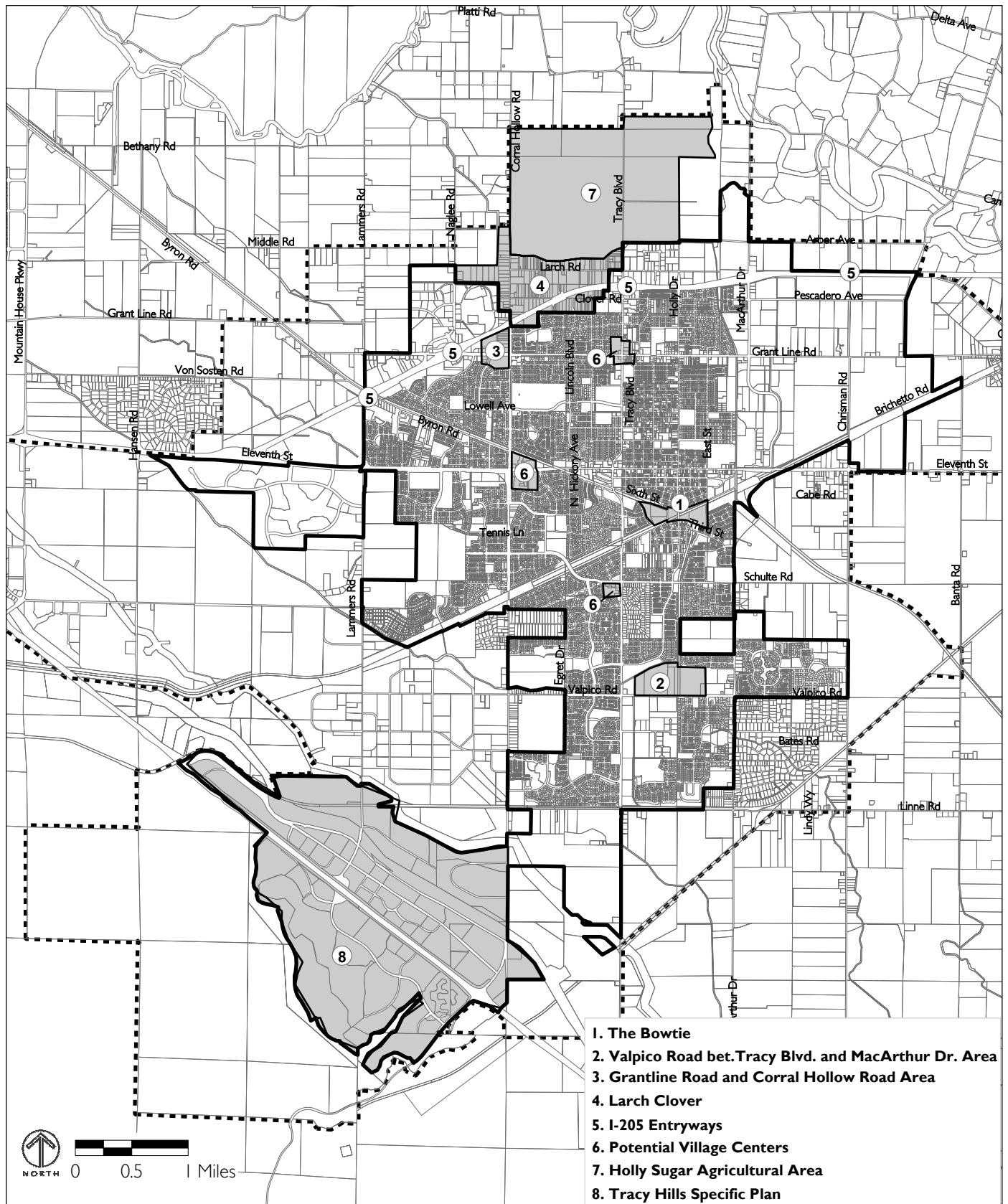


FIGURE 3-5

and economic trends and in support the City of Tracy's vision of preserving and enhancing its unique "hometown" character, the proposed General Plan has removed the "Urban Center" designation. Instead, the proposed General Plan establishes the Downtown and Village Center land use designations to promote the concept of focusing on the City's existing downtown area as the public and cultural focus of the entire City with smaller-scale retail and mixed-use or "village" centers distributed throughout the city on major corridors to serve the City's neighborhoods.

- ◆ **Community Plan Areas.** The existing General Plan put forth the concept of the Community Plan Area to organize future planning efforts and guide development. All areas within the Sphere of Influence (as of 1993) were divided into seven Community Plan Areas. One Community Plan Area, the "City Core Contiguous Community Area," consists of the existing urbanized area (as of 1993). The remaining six Community Areas are large, undeveloped areas outside of the City limits. The existing General Plan lays out short descriptions and summary tables indicating the type and mix of development envisioned for each Community Area. The Community Plan Areas do not change the underlying land use designations. The Community Area concept has been refined and replaced in the proposed General Plan by the proposed Urban Reserve land use designation.
- ◆ **Federal Reserve (FR).** According to the current General Plan, this designation was applied to U.S. Government owned lands where specialized testing, and other operations occur that are outside of the jurisdiction of the City of Tracy. The only area in the current General Plan with this designation, "Site 300" or the Lawrence Livermore Laboratory, is outside of the City's Sphere of Influence (proposed and existing) but within the Planning Area. The City does not have regulatory authority in areas within the Planning Area and outside of the SOI; San Joaquin County General Plan land use designations apply. Moreover, City General Plan land use designations outside the City's Sphere of Influence are not shown in the proposed General Plan land use map. Thus, this land use designation was removed.

- ◆ **Special Study Area(/S).** In the existing General Plan, this land use designation is defined as “a suffix to other land use designations to identify special study areas.”⁷ Only one area, the residential areas northwest of the Tracy Municipal Airport’s overflight zone, was designated with this overlay designation. Standards regarding compatibility and safety in areas near the Tracy Municipal Airport are set by the Federal Aviation Administration and promulgated by the San Joaquin County Airport and Land Use Commission (ALUC). In place of having a separate land use designation for areas that require “further study,” the proposed General Plan’s Land Use Element includes policy direction for new development and expansion of existing development to conform to the safety and development restrictions specified in the San Joaquin County Airport Land Use Plan.

3. Land Use Designation Changes

The proposed General Plan proposes several revisions to the land use designations of properties within the City limits and SOI as compared to the land use designations in the 1993 *Urban Management Plan*. These changes, which are intended to be in keeping with the goals, objectives, policies and actions of the proposed General Plan, are presented in Figure 3-6. In addition, Table 3-1 presents a comparison of the amount of acres and percentage of each land use designation between the 1993 *Urban Management Plan* and the proposed General Plan. The following is a summary of the types of changes proposed:

- ◆ **Specific Plans.** The City has approved numerous Specific Plans since the 1993 *Urban Management Plan* was adopted, including the Industrial Area Specific Plan, the I-205 Corridor Specific Plan and the Tracy Hills Specific Plan. Land use designations in the proposed General Plan reflect the land use designations in these adopted specific plans.
- ◆ **Planned Unit Developments (PUDs).** Since the *Urban Management Plan* was developed, there were numerous PUDs approved and/or built. These include Tracy Gateway, the Northeast Industrial Area PUD and

⁷ City of Tracy 1993 *Urban Management Plan*.

FIGURE 3-6

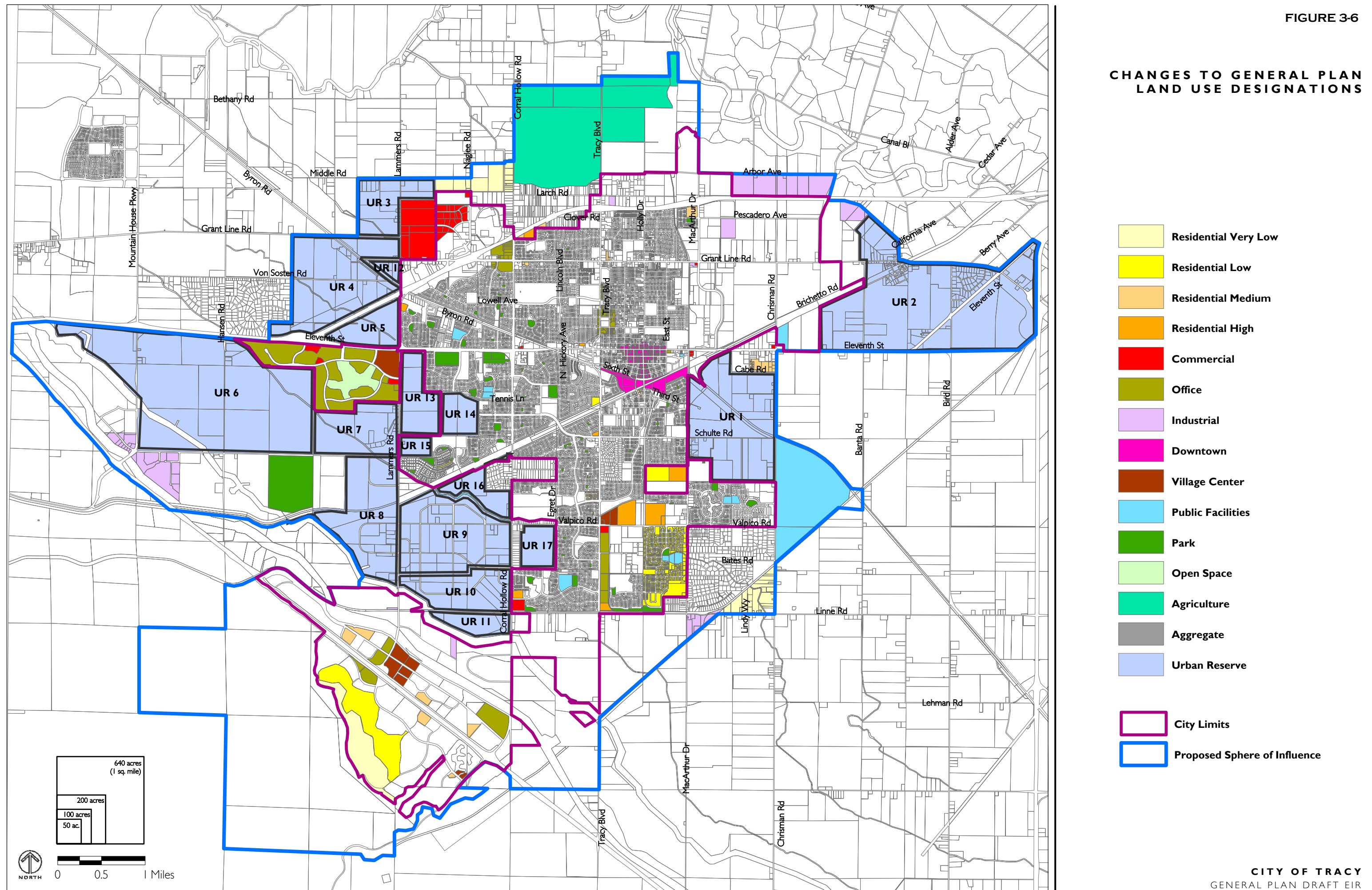


Figure 3-6: Land Use Designation Changes 11x17 color (back)

numerous residential developments on the south and west sides of the City of Tracy. In some instances, the approved PUD differed from the underlying land use designation in the 1993 *Urban Management Plan*. The proposed General Plan would change land use designations to be consistent with these PUDs.

- ◆ **Parks, Schools and Public Facilities.** In order to ensure that land use designations match existing land use, existing and planned parks are proposed to be designated “Park” and schools and other public facilities are proposed to be designated as “Public Facilities.”
- ◆ **New Land Use Designations.** The proposed land use designation map identifies locations where the new land use designations discussed in the previous section apply.
 - *Downtown.* This designation is to be applied to areas around the existing Downtown area in order to support the vision of this area becoming a vibrant, cultural and economic focal point for the City.
 - *Village Centers.* Several Village Centers are identified in order to provide the community with mixed-use, walkable “main street” areas.
 - *Office.* This designation is to be applied to parcels where the City would like to see medium- and large-scale office projects. The Office designations are primarily located in Tracy Gateway, Tracy Hills and along Tracy Boulevard south of Valpico Road.
 - *Urban Reserve.* This designation is to be applied to large undeveloped parcels outside of the City limits but inside of the SOI. Ten urban reserves were identified.

In addition, land use designation changes are proposed on some other parcels based on requests from property owners, comments made by the public, recommendations by the City Council and Planning Commission and to rectify potential conflicts between existing and proposed uses.

TABLE 3-1 LAND USE DESIGNATION CHANGES (CITY LIMITS AND SOI)

Land Use Designation	1993 Urban Management Plan (acres)	% of Total	Proposed General Plan (acres)	% of Total
Residential Very Low	1,445	5.6%	1,045	3.7%
Residential Low	7,690	29.8%	3,690	13.0%
Residential Medium	2,315	9.0%	1,565	5.5%
Residential High	145	0.6%	225	0.8%
Commercial	1,675	6.5%	1,230	4.3%
Office	N/A	--	545	1.9%
Downtown	N/A	--	115	0.4%
Village Center	N/A	--	120	0.4%
Industrial	6,310	24.4%	4,120	14.5%
Urban Reserve	N/A	--	7,890	27.9%
Public	1,135	4.4%	1,420	5.0%
Park	280	1.1%	460	1.6%
Open Space	3,435	13.3%	3,630	12.8%
Aggregate	1,045	4.0%	1,040	3.7%
Agriculture	365	1.4%	1,230	4.3%

Notes:

1. The designation, "Urban Center," used in the *1993 Urban Management Plan* is not included in the table above since the designation only was applied to approximate geographic areas which had other underlying General Plan land use designations; the acreages of the underlying land use designations are included in the table.

2. Total acres of the SOI and City limits differ between the *Urban Management Plan* and the proposed General Plan due to annexations and Sphere of Influence changes.

G. Community Character Element

The proposed General Plan includes a new Community Character Element that is intended to protect and enhance the unique qualities and urban design character of the community. The Element identifies six “building blocks” for the City of Tracy: Neighborhoods, Employment Areas, the I-205 Regional Commercial Area, the Downtown, Village Centers, and Corridors. Each area of the city is intended to conform to the design principles of one of these building blocks.

Neighborhoods are the primary residential areas of Tracy. They are to contain a mix of housing types designed around a focal point such as a park or school. Employment Areas are the primary job centers for Tracy and contain industrial, commercial and retail uses but also public spaces such as parks or plazas. The Downtown is the cultural and historic heart of the City. Characteristics of the Downtown that are described and supported by the Community Character Element include a concentration of civic and cultural uses, mixed-use development with a backbone of retail use, streets on a grid or modified grid, multi-modal street design, a pedestrian-oriented environment and direct pedestrian and bicycle connections to residential neighborhoods. The I-205 Regional Commercial Area is destination-oriented and serves as the City’s primary retail environment outside of the Downtown. Village Centers are retail and commercial areas that may also contain residential and small-scale public or publicly-oriented uses. Corridors are primarily linear commercial areas that may also contain residential and office uses.

The Community Character Element contains goals, objectives, policies and actions for the design quality and character of each of the building blocks. Important concepts include creating focal points for residential neighborhoods such as a park or plaza, orienting buildings and sites to the pedestrian environment, creating a mix of uses, providing access to goods and services, enhancing multi-modal connectivity, and ensuring high quality urban design and architecture.

H. Open Space Policies

The proposed General Plan includes new policies and actions intended to preserve and enhance open spaces in and around the City of Tracy. These concepts are detailed in the Open Space and Conservation Element but reinforced in the Land Use Element.⁸ Proposed policies and actions include the following:

- ◆ Preparing a comprehensive plan that identifies areas for different types of open space and determines the best methods of preserving, acquiring and maintaining open spaces.
- ◆ Working with San Joaquin County and the City of Lathrop to develop community separators or to retain significant undeveloped lands between the communities of Tracy, Mountain House and Lathrop.
- ◆ Identifying locations for soft and hard edges to the City. Soft edges are defined as a feathering of density between urban and rural uses. Hard edges are an abrupt separation between urban and rural uses such as a landscaped buffer, a fence or a highway.
- ◆ Working with landowners, non-profit organizations and San Joaquin County to identify and preserve agricultural uses.
- ◆ Ensuring that additional parks and recreational facilities are provided for residents that are available concurrently with need.

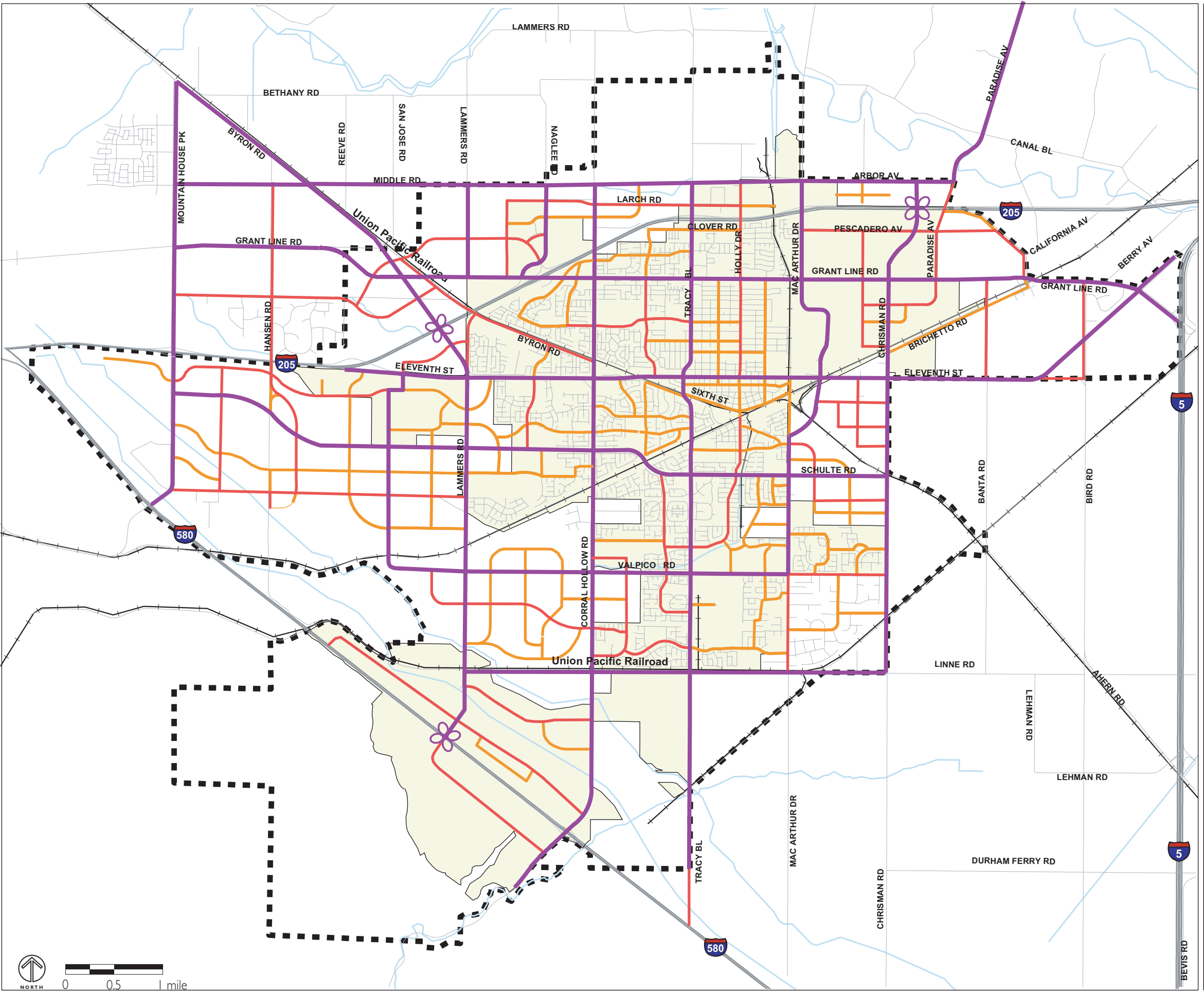
I. Circulation Improvements

Under the proposed General Plan, the City will implement a significant number of new roadways and other changes to its roadway network. These are

⁸ The 1993 General Plan has separate elements for the topics of Open Space and Conservation, whereas the proposed General Plan combines them into one element.

FIGURE 3-7

ROADWAY CLASSIFICATION
AND CONCEPTUAL ALIGNMENTS



- Major Arterial / Expressway / Boulevard
- Minor Arterial / Major Collector
- Other Collector
- City Limits
- Sphere of Influence

Data Source: Fehr & Peers, 2005.

- Notes:
- 1. Conceptual layout only
 - 2. Revisions/additions to minor arterials and other collectors will occur during development review

Figure 3-7 Roadway Classification and Conceptual Alignments (11x17, landscape, color) BACK

described below and shown in Figure 3-7. These new roadways primarily consist of arterials and new interchanges to serve future development in the western portion of Tracy, including connections from I-205 to Byron, Lambers and Grant Line Roads; a westward extension of Schulte and Linne Roads; and an extension of Valpico Road that connects to a north-south arterial to Eleventh Street. There is also a major arterial which connects Chrisman Road to I-205 and Arbor Avenue to the north, and several minor arterial and collector roadways which are proposed for the eastern edge of Tracy. In addition, as development occurs throughout the more localized improvements to existing roadways will be necessary. These improvements include the addition of travel lanes, new signals, widening of intersection and reclassifications of roadways.

In addition, proposed General Plan policies call for regular updates to plans for the bicycle, transit, freight and other circulation systems. However, no specific changes to these transportation systems are proposed in the General Plan.

J. Other Elements and Policies

In addition to the major changes and new elements and policies described above, the proposed General Plan also includes a new Economic Development Element. This new, optional element contains goals, objectives, policies and actions to encourage the development of desired economic activities throughout the City, which are also supported by policy direction in the Community Character and Land Use Elements.

The proposed General Plan also includes goals, objectives, policies and actions in the Safety, Noise, Public Facilities and Air Quality Elements. In particular, the Air Quality Element reflects recent rules and regulations promulgated by the San Joaquin Valley Air Pollution Control District SJVAPCD that pertain either directly or indirectly to land use development projects affected by General Plans.

K. General Plan Development Projections

The proposed Sphere of Influence (SOI) changes, land use designations and other policies would allow for new development in Tracy that responds to both market forces and City policy decisions. This section summarizes the amount of development expected under the proposed General Plan.

1. Development through 2025

This Draft EIR discussion focuses on this 20-year development projection because the proposed General Plan is intended to have a time horizon of 20 years with updates to occur before that time. Moreover, it is generally held that modeling traffic and associated air quality and noise impacts beyond a 20-year time period is increasingly inaccurate and not considered to be reliable. The General Plan's horizon year is 2025. The amount of growth projected for the 20-year period through 2025 has been calculated for residential, industrial, commercial and office development.

During the 20-year planning horizon, the proposed General Plan is expected to add 10,341 new housing units, 11 million square feet of industrial development, four million square feet of commercial development and 2 million square feet of office development. In 2025, the total residential population is projected to be approximately 109,000 people and the employee population is projected to be approximately 55,000.

a. Residential

The General Plan 20-year development projections are based on land use designations, available acres and the existing building allotment regulations in the Tracy. The City adopted a Growth Management Ordinance (GMO) in 1987, that has been amended several times, including an amendment in 2001 by the voter-initiated Measure A, which was passed in November of 2000. In general terms, the goal of the GMO is to achieve a steady and orderly growth rate that allows for the adequate provisions of services and community facilities,

and includes a balance of housing opportunities. According to the GMO, builders must obtain a Residential Growth Allotment (RGA) in order to secure a residential building permit. One RGA equals the public services and facilities required by one dwelling unit.⁹

For the proposed General Plan, residential growth is assumed to be limited by the GMO and by past allocations of RGAs. The GMO limits the number of RGA's and building permits to an average of 600 housing units per year of market rate housing and a maximum of 750 units in any single year, with exceptions for affordable housing. Thus, between the years 2000 and 2025, the number of residential units allowed under the City's Growth Management Ordinance is 15,000 units (600 per year times 25 years). Exceptions to allow for additional affordable housing is included. The General Plan Housing Element has a target of 1,200 affordable units during this same time period, bringing the total number of units to 16,200, resulting in an additional 52,000 people (using a multiplier of 3.21 persons per household based on the 2000 US Census), or a total population of 109,000 in the year 2025.¹⁰

In order to calculate the total number of units for analysis during the General Plan time frame (2005-2025), the number of permits issued between 2000 and 2005 must be included. This is because permits issued to vested projects between 2000 and 2005 were issued at a higher rate than 600 per year but count toward the yearly average of 600 units per year, according to the GMO.

Thus, the total number of *market rate* residential units allowed between 2000 (when the reductions of the GMO under Measure A took effect) and 2025 (the end of the planning horizon) is 15,000 (600 per year times 25 years). Between January 2000 and April 2004, 5,859 RGAs had been allocated to projects. Thus, for the purposes of this analysis, 9,141 more market rate residential units can be constructed before 2025.

⁹ City of Tracy *Residential Growth Management Plan*, 2005, p.5.

In addition, it is assumed that 1,200 affordable housing units over and above the 15,000 market rate units will be built between 2005 and 2025. This estimate is consistent with the goal stated in the Draft Housing Element of 60 affordable units per year. Thus, the preferred plan includes the addition of 10,341 units of housing.

The preferred plan also allocated the residential units between single family units and multi-family units (2-plus units). For purposes of this analysis, growth allocated to the Residential Very Low and Residential Low land use designations are assumed to be single family units. Units allocated to Residential Medium, Residential High, Downtown and Village Center designations are assumed to be multi-family units. Based on this methodology, the preferred plan has 6,455 single family units (62 percent) and 3,886 multi-family units (38 percent).

b. Industrial

The projected increase in industrial development over the planning horizon from 2005 to 2025 has been determined based on past trends. An analysis of the past five years of industrial development revealed that approximately 550,000 square feet on average was constructed each year. This EIR assumes that this trend will continue into the future. Thus, 11 million square feet of new industrial space is assumed in the preferred plan. Based on an average of one employee per 1,000 square feet of building space, this translates into 11,000 new employees in the industrial sector.

c. Commercial

The increase in commercial development over the planning horizon from 2005 to 2025 has been projected based on past trends. An analysis of the past five years of commercial development revealed that approximately 200,000 square feet on average was constructed each year. This EIR assumes that this

¹⁰ According to the 2000 US Census, the population of Tracy was approximately 57,000 people.

trend will continue into the future. Thus, 4 million square feet of new commercial space is assumed in the preferred plan. Based on an average of two employees per 1,000 square feet of building space, this translates into 8,000 new employees in the commercial sector.

d. Office

At present, there are no large-scale office uses in Tracy similar to those envisioned in the proposed General Plan. In order to determine a reasonable estimate for new office uses for the planning horizon, an analysis of office development trends over the last five years in the City of Livermore was conducted. Livermore was selected since it close to Tracy and experienced an expansion of office development over the last decade. Based on this analysis, this EIR assumes that an average of approximately 100,000 square feet per year of office space would be conducted. This translates into 2 million square feet of office space over 20 years and, based on three employees per 1,000 square feet, an addition of 6,000 new employees.

e. Development Locations

The amount of vacant and underutilized land within the existing City limits and proposed SOI will accommodate a larger amount of growth than is assumed for the planning horizon of the General Plan. For purposes of this EIR, new residential and non-residential growth was distributed throughout the City limits and Sphere of Influence based on a number of factors, including the availability of land, vested RGAs for projects that have not completed construction, existing approved specific plans, conversations with developers and landowners, and based on residential growth policies in the proposed General Plan. This represents a “best estimate” as to where growth will locate in the next 20 years. It is not a statement of policy.

In this EIR, new residential growth is assumed to be distributed throughout the existing City limits and on the west side of the SOI. It is assumed that 2,000 units would be infill development; that is, within the existing urbanized areas on vacant or underutilized parcels. This EIR also projects concentrations of multifamily housing in and around the Downtown, along Valpico

Road, and in the northern portion of Urban Reserve 13 that abuts Eleventh Street. Single family housing is projected to be located along the western and southern edge of the city (inside and outside of the City limits) in Urban Reserves 10, 13, 14, 15, 16 17 and in Tracy Hills.

New non-residential development is also projected to spread through the SOI. Industrial growth is assumed to be located in the Northeast Industrial Area, Urban Reserves 4 and 6, as well as a few areas in the Industrial Specific Plan (ISP) area, in Tracy Hills along I-580, and near the Tracy Municipal Airport in southern Tracy. Commercial growth is assumed to be distributed in the Downtown/Bowtie area, the I-205 area, along Grantline and Valpico Roads, Larch Clover, Urban Reserves 3, 4, 5 and 10, as well as in Tracy Hills. Office growth is focused in Tracy Gateway and on Tracy Boulevard south of Valpico Road, and near the intersection of Grant Line Road and Tracy Boulevard and in Tracy Hills along I-580.

2. Total Buildout

“Total buildout” refers to the scenario in which all available land within the City limits and SOI would be developed according to the land use designations in the proposed General Plan. When compared to the 2025 development projections, total buildout would result in more development and would occur much farther into the future.

4 ENVIRONMENTAL EVALUATION

This chapter consists of 15 sections that evaluate the environmental impacts of the proposed General Plan. Each section generally follows the same format, and consists of the following subsections:

- ◆ The *Existing Setting* portion describes current conditions with regard to the environmental factor reviewed.
- ◆ The *Standards of Significance* explain how an impact is judged to be significant in this EIR, based on various CEQA Guidelines standards.
- ◆ The *Impact Discussion* gives an overview of potential impacts, and tells why impacts were found to be significant or less than significant.
- ◆ The *Impacts and Mitigation Measures* number and list identified impacts and, where possible, identify measures that would mitigate each impact. A statement regarding the level of significance after mitigation is also included.

In Sections 4.1 through 4.15, each numbered impact discussed under the *Impacts and Mitigation Measures* section is considered significant prior to mitigation. As required, mitigation measures have been suggested that will reduce significant environmental impacts to less-than-significant levels, where feasible. Where mitigation would not reduce impacts to a less-than-significant level, impacts are noted as significant and unavoidable in the text.

All mitigation measures are stated with conditional language (“should”) because they are recommendations, and not conditions of approval for the project, unless they are specifically adopted as conditions by the City. Under CEQA, although an EIR is required to identify mitigation measures that could reduce identified impacts to less-than-significant levels, a City is not required by State law to adopt these mitigation measures, even after the EIR is certified. The City could instead require alternative mitigation measures that are equally effective, or it could find that the identified measures are infeasible and approve the General Plan without a specific mitigation under a finding of overriding consideration. If the City adopts the suggested mitigation measures as conditions of approval, then their language will be changed from the conditional “should” to the mandatory “shall.”

As required by CEQA guidelines, potential cumulative impacts for sections 4.1 through 4.15 are considered and discussed in Chapter 6.

4.1 LAND USE

This section presents information on existing land uses in the City of Tracy and describes potential environmental impacts the proposed General Plan would have on these uses.

A. Existing Setting

This section describes existing land uses in Tracy, the *1993 Urban Management Plan* land use designations, existing plans and policies related to land use, and San Joaquin County's land use designations for those unincorporated areas within the City's proposed Sphere of Influence (SOI).

1. Existing Land Use

The following provides qualitative and quantitative descriptions of existing land uses in the City of Tracy, both for the area within the City limits and the area in the SOI. Data on existing land use is based on information collected by the San Joaquin County Assessor and verified by the City of Tracy. Figure 4.1-1 shows a map of the existing land uses and Table 4.1-1 lists detailed acreages for each existing land use within the City limits and SOI, which are grouped into the following categories:

- ◆ **Residential — Single-Family Dwelling unit.** This classification describes parcels that contain one residential unit with possible related structures such as secondary residential units, a garage or shed. Ninety-one percent of residential units within Tracy's City limits and the SOI are single-family dwellings. There are a total of approximately 4,220 acres in this category, 3,200 in the City limits and 1,080 in the rest of the SOI.
- ◆ **Residential — Two or More Dwelling Units.** Sites containing more than one residence, such as a duplex, apartment building or townhouses are included in this category. In Tracy, approximately one percent of residential parcels contain more than one dwelling unit. There are a total of approximately 419 acres in this category, 279 in the City limits and 140 in the SOI.

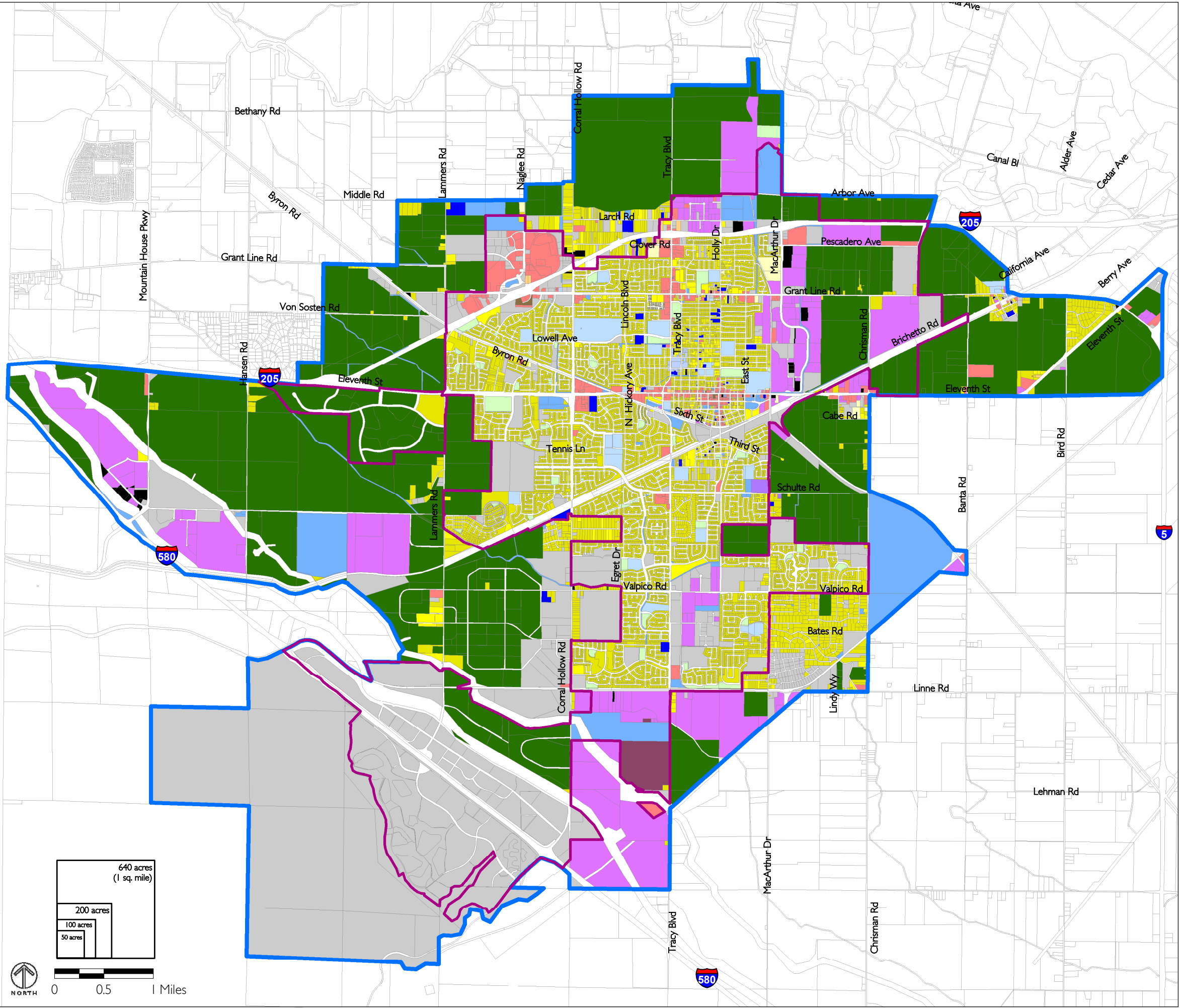
CITY OF TRACY
GENERAL PLAN DRAFT EIR
 LAND USE

TABLE 4.1-1 **EXISTING LAND USE ACREAGE IN TRACY**

Land Use Category	City Limits	% of Total in City Limits	SOI	% of Total in SOI	Total Acres
Residential - single unit	3,218	30%	1,002	6%	4,220
Residential - two+ units	279	3%	140	1%	419
Residential - mobile home	45	0.4%	13	0.1%	58
Motel/Hotel	13	0.1%	0.8	0%	14
Commercial	480	4%	92	0.5%	572
Industrial	841	8%	1,877	12%	2,718
Mixed-Use	7	0.1%	0.5	0%	8
Medical	21	0.2%	0.0	0%	21
Park	229	2%	20	0.1%	249
Public Facility	406	4%	788	5%	1,194
Vacant Building	42	0.4%	36	0.2%	78
Vacant Land	3,110	29%	4,830	28%	7,940
Agriculture	1,618	15%	8,576	49%	10,194
School	305	3%	13	0.1%	318
Airport	148	1%	0	0%	148
Place of Wor-ship	52	0.5%	41	0.2%	93
Cemetery	16	0.1%	1	0.1%	17
Total	10,830	100%	17,430	100%	28,260

FIGURE 4.1-1

EXISTING LAND USES IN TRACY
(AS OF 2003)



- Residential - Single Dwelling Unit
- Residential - Two or More Dwelling Units
- Residential - Mobile Home Park
- Motel or Hotel
- Commercial
- Industrial
- Mixed Use
- Medical
- Public Facilities
- Park
- Vacant Building
- Vacant Land
- Agriculture
- School
- Airport
- Church
- Cemetery
- City Limits
- Proposed Sphere of Influence

Figure 4.1-1 Existing Land Uses in Tracy (11x17 back)

- ◆ **Residential — Mobile Home Park.** Lands included in this category contain mobile homes or recreational vehicles that are for long-term residences. There are a total of approximately 58 acres of mobile home parks, 45 within the City limits and 13 in the SOI.
- ◆ **Motel/Hotel.** This use contains commercial lodging facilities of varying sizes. It includes bed and breakfast inns, motels and hotels. There are a total of approximately 14 acres within this category, 13 within the City limits and 0.8 in the SOI. A few hotels and motels are located along Eleventh Street close to the downtown area, with the remainder clustered in the northwest close to the I-205 Regional Commercial Area.
- ◆ **Commercial.** Sites with one or more types of retail and office facilities are included in this category. Typical parcels contain restaurants, grocery stores, shopping centers and office parks. There are approximately 571 total acres in this category, 479 in the City limit and 92 in the SOI. Major concentrations are along the Eleventh Street corridor and in association with the I-205 Regional Commercial Area in the northwest corner of the City.
- ◆ **Industrial.** These sites contain uses such as warehouses and distribution facilities, light manufacturing, self-storage facilities, aggregate deposits and extraction operations, and automobile garages. There are approximately 2,718 acres containing industrial uses, 841 in the City limit and 1,877 in the SOI. Several concentrations of these uses are in and around Tracy, including the Northeast Industrial Area, near Tracy Boulevard, West Tracy around Mountain House Parkway, and around the Airport.
- ◆ **Mixed-Use.** The mixed-use category includes parcels containing both commercial and residential uses, such as apartment units above retail stores. Currently there are approximately eight acres of mixed-use in Tracy.
- ◆ **Medical.** This classification refers to parcels containing doctor, dentist and health care provider offices, as well as hospitals. There are a total of approximately 21 acres of medical land uses, all of which are within the City. Sutter Tracy General Hospital, the City's single hospital, is located

on Tracy Blvd. approximately ¼ mile north of the Eleventh Street intersection. In addition, a new medical facility for Kaiser Permanente has been constructed near the intersection of Grant Line Road and Tracy Boulevard.

- ◆ **Park.** This category refers to established public and private open spaces and recreational facilities, such as playing fields, mini-parks, neighborhood and community parks. Currently there are approximately 249 acres of park land, 229 within the City limits and 20 in the SOI. Parks are typically moderately sized and distributed throughout the City, often in the context of playing fields associated with schools. There is one large public sports complex on the west side of town, south of Eleventh Street.
- ◆ **Public Facility.** Public facilities are government-owned parcels, and include civic uses such as libraries, police and fire stations, municipal offices and the court house, and utilities. There are a total of approximately 1,194 acres in this category, 406 within the City limits and 788 in the SOI. Large concentrations of this land use include the wastewater treatment facility on the north side of town, the Defense Depot on the eastern edge of the City and the Civic Center.
- ◆ **Vacant Building.** Parcels containing unoccupied structures are classified as vacant. There are approximately 78 total acres of this existing use, 42 in the City limit and 36 in the SOI. Several smaller vacant buildings are located within the downtown area and a few larger parcels are located on the northern edge of the City limits.
- ◆ **Vacant Land.** This category refers to parcels without any structure or building, or that are used for agriculture. Currently there are approximately 7,940 total acres of vacant land, 3,110 acres in the City limits and 4,830 in the SOI. There are both large single parcels and groupings of smaller parcels within the City limits.
- ◆ **Agriculture.** Working and non-working agricultural lands, for crops, grazing, dairy farms and related production are included in this category. A total of approximately 10,194 acres of agricultural lands exist on all

four sides of Tracy, 1,618 within the City limits and 8,576 in the SOI, adjacent to the urbanized boundary.

- ◆ **School.** This use includes public elementary, middle and high schools in school districts that serve the City. There are 318 total acres for schools, 13 acres within the SOI, and 305 acres interspersed throughout the City limits.
- ◆ **Airport.** Tracy has one regional airport within its City limits, located on a 148-acre parcel on the south side of the City.
- ◆ **Place of Worship.** This use includes churches, synagogues, mosques, religious residences and spiritual retreat locations, but does not include private homes used for individual or small-group study. There are 93 total acres of land for places of worship, 52 within the City limits and 40 in the SOI.
- ◆ **Cemetery.** There is one cemetery within the City's Sphere of Influence on a 1.3-acre site and there is a 16-acre cemetery located within the City limits.

2. Existing General Plan Land Use Designations

The land use map in the 1993 *Urban Management Plan* includes fourteen land use designations, within which a broad range of uses is permitted. The current land use designations shown in Figure 4.1-2 and the amount of land within the City limits and SOI associated with each of these classifications are detailed in Table 4.1-2.

3. San Joaquin County General Plan Land Use Designations

The unincorporated 40,000-acre Planning Area designated in the City of Tracy *Urban Management Plan* overlaps with San Joaquin County lands. San Joaquin County General Plan land use designations for this area are generally consistent with the Planning Area in Tracy's *Urban Management Plan*. These lands are primarily designated as General Agriculture and Limited Agriculture, which typically includes wetlands or steep slopes that are difficult to

cultivate but may be used for grazing or habitat conservation. County land use designations for this area are shown in Figure 4.1-3.¹

4. Existing Plans and Policies

In addition to the 1993 *Urban Management Plan*, other policy and planning documents that affect Tracy are described below.

a. Zoning Ordinance

Eighteen zoning designations are currently used in Tracy, which can be grouped into five basic types of land uses: residential, commercial, office, industrial and agriculture. The residential category is further subdivided by density, office and commercial categories are determined by type, and industrial zones are based on intensity of use. Zoning designations for the City are shown in Figure 4.1-4.

b. Growth Management Ordinance

The City of Tracy adopted a residential Growth Management Ordinance (GMO) in 1987 that has since been amended several times, including an amendment in 2001 by the voter-initiated Measure A, which was passed in November of 2000. In general terms, the goal of the GMO is to achieve a steady and orderly growth rate that allows for the adequate provision of services and community facilities, and includes a balance of housing opportunities. Under the GMO, builders must obtain a Residential Growth Allotment (RGA) in order to secure a residential building permit. One RGA equals the public services and facilities required by one detached single-family dwelling unit.² The GMO limits the number of RGA's and building permits to an average of 600 housing units per year for market rate housing, with a maximum of 750 units in any single year. There are exceptions for affordable housing.

¹ *San Joaquin County General Plan*, 2000.

² *City of Tracy Residential Growth Management Plan*, 2005, p.5.

FIGURE 4.1-2

1993 GENERAL PLAN
LAND USE DESIGNATIONS

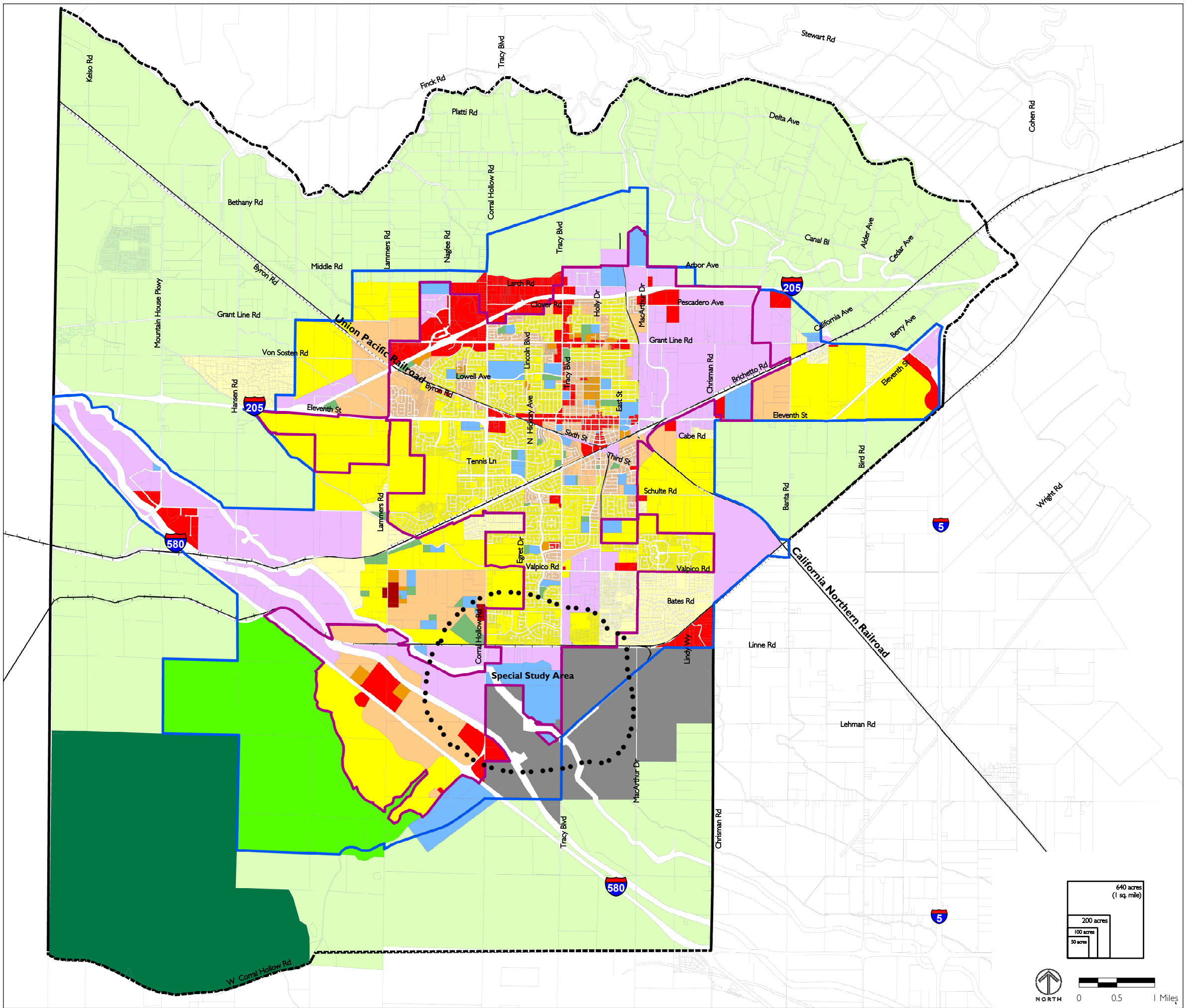


Figure 4.1-2 1993 General Plan Land Use Designations (11x17, color, back)

FIGURE 4.1-3

SAN JOAQUIN COUNTY
GENERAL PLAN LAND USE
DESIGNATIONS OUTSIDE OF
TRACY SPHERE OF INFLUENCE

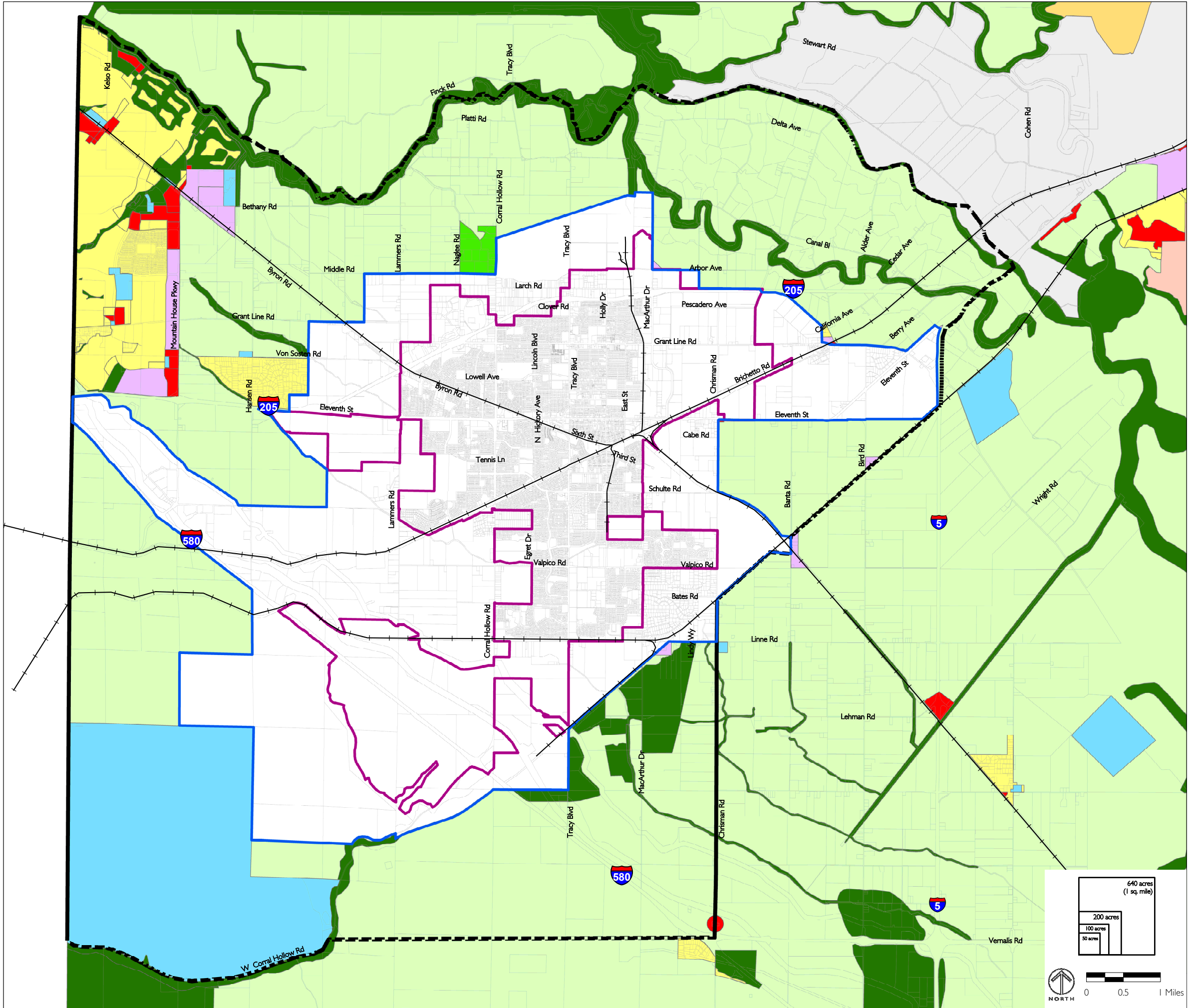
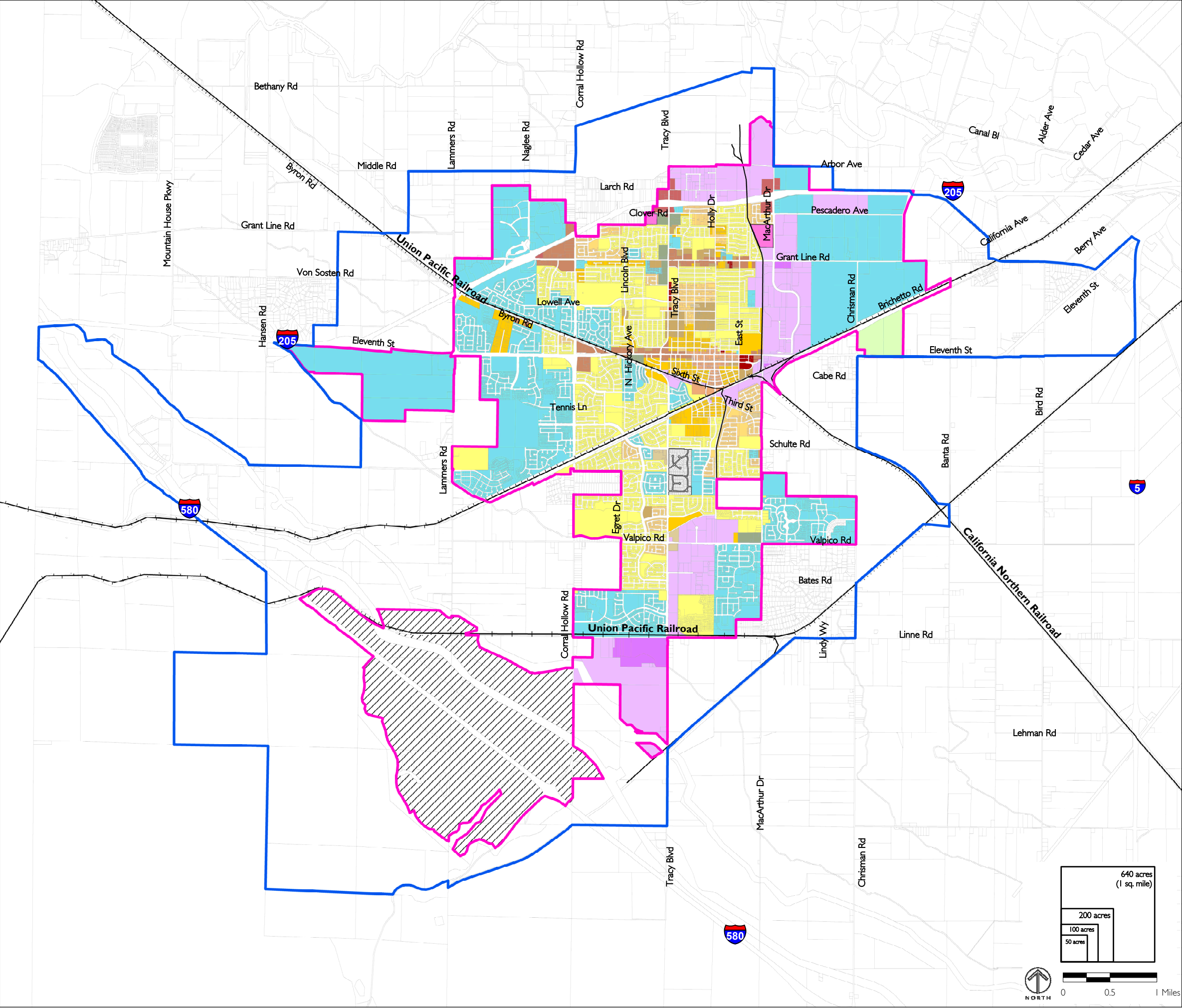


Figure 4.1-3 San Joaquin County General Plan Land Use Designations in Tracy's Planning Area (11x17, color, back)

FIGURE 4.1-4

CITY OF TRACY ZONING



- Residential Estate (RE)
- Low Density Residential (LDR)
- Medium Density Residential (MDR)
- Planned Unit Development (PUD)
- Medium Density Cluster (MDC)
- High Density Residential (HDR)
- Residential Mobile Home (RMH)
- Central Business District (CBD)
- Community Shopping Center (CS)
- Neighborhood Shopping Center (NS)
- General Highway Commercial (GHC)
- Highway Service (HS)
- Light Industrial (M-1)
- Heavy Industrial (M-2)
- Professional and Medical Offices (POM)
- Medical Office (MO)
- Agricultural (AG)
- Tracy Hills Specific Plan
- City Limit
- Existing Sphere of Influence

Figure 4.1-4 Zoning Designations in Tracy (11x17, color, back)

TABLE 4.1-2 **EXISTING GENERAL PLAN LAND USE DESIGNATIONS IN ACRES**

Land Use Designations	City Limits	% of Total in City Limits	Sphere of Influence	% of Total in SOI	Total Acres
Residential Very Low	227	2.0%	1,098	7.6%	1,325
Residential Low	4,514	40.4%	3,606	24.8%	8,119
Residential Medium	1,670	14.9%	1,240	8.5%	2,910
Residential High	161	1.4%	22	0.2%	183
Commercial	1,020	9.1%	574	4.0%	1,595
Industrial	2,523	22.6%	2,917	20.1%	5,440
Public Facilities	938	8.4%	359	2.5%	1,297
Parks	112	1.0%	159	1.1%	272
Open Space	0	0%	3,298	22.7%	3,298
Aggregate	10	0.1%	1,033	7.1%	1,042
Agriculture	0	0%	182	1.2%	182
Urban Center/ Mixed Use	0	0%	51	0.3%	51
Total	11,175	100%	14,538.0	100%	25,713

Implementation of the GMO to meet the goals and policies of the General Plan, including concentrated growth, infill development, and affordable housing as high priorities, is through the Growth Management Ordinance Guidelines, which are adopted by resolution of the City Council. The GMO Guidelines include a map that establishes an “RGA Eligibility Area” showing the area where property owners are eligible to apply for RGAs. The Guidelines

also include specific qualitative and quantitative criteria for the allocation of RGAs with said criteria periodically updated as provided by the resolution.

c. Specific Plans and Large Planned Unit Developments

Numerous Specific Plans and large-scale Planned Unit Developments (PUDs) have been adopted within the Tracy City limits and SOI to provide additional direction for development within each study area. The following is a list of the larger Plans:

- ◆ Tracy Residential Areas Specific Plan
- ◆ Plan C (a collection of PUDs)
- ◆ I-205 Corridor Specific Plan
- ◆ Northeast Industrial PUD
- ◆ Industrial Area Specific Plan
- ◆ South Schulte Specific Plan
- ◆ Tracy Gateway PUD
- ◆ Tracy Hills Specific Plan

d. San Joaquin County Airport Master Plan

The Tracy Municipal Airport is subject to the 1993 *San Joaquin County Airport Master Plan*. This plan identifies future improvements for the airport to meet future aviation needs. The plan also addresses land uses surrounding the airport, by identifying compatible land uses for the various safety zones since the type of development occurring in the airport environs impacts the safety of aircraft operation, as well as impacting the number of people exposed to aircraft hazards, such as airplane crashes.

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

Tracy is part of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), which covers the entire county, with the exception of the federally-owned Site 300 (Lawrence Livermore National Lab). The SJMSCP was prepared by the San Joaquin Council of Governments under a Memorandum of Understanding adopted by the San Joaquin Council of Governments, San Joaquin County, the U.S. Fish and Wildlife

Service, the California Department of Fish and Game, Caltrans, and the cities of Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy. The City of Tracy adopted the SJMSCP on November 6, 2001.

The 50-year plan addresses impacts to 97 special-status plant, fish and wildlife species found in 52 vegetative communities that occur in scattered localities throughout San Joaquin County. The SJMSCP compensates for Conversions of Open Space for the following activities: urban development, mining, expansion of existing urban boundaries, non-agricultural activities occurring outside of urban boundaries, levee maintenance undertaken by the San Joaquin Area Flood Control Agency, transportation projects, school expansions, non-federal flood control projects, new parks and trails, maintenance of existing facilities for non-federal irrigation district projects, utility installation, maintenance activities, managing preserves, and similar public agency projects.³

f. Land Use and Resource Management Plan for the Primary Zone of the Delta

The Primary Zone of the Sacramento-San Joaquin Delta includes approximately 500,000 acres of waterways, levees and farmed lands extending over portions of five counties: Solano, Yolo, Sacramento, San Joaquin and Contra Costa. The Delta's environment supports a strong agricultural economy in the region and has a critical role in preserving the region's water quality. In addition, the Delta provides habitat for many aquatic species as well as year-round and seasonal habitat for amphibians, reptiles, mammals, and birds, including several rare and endangered species. The area is also extremely popular for water-oriented recreation including fishing, boating, and water-skiing.

Recognizing the threats to the Primary Zone of the Delta from potential urban and suburban encroachment and the need to protect the area for agriculture, wildlife habitat, and recreation uses, the California Legislature passed

³ *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan*, November 2000, page 1-1.

and the Governor signed into law on September 23, 1992, the Delta Protection Act of 1992 (SB 1866). The Act directs the Delta Protection Commission to prepare a comprehensive resource management plan for land uses within the Primary Zone of the Delta (Plan).

The Delta Protection Act also includes a Secondary Zone; the Secondary Zone is not within the planning area of the Delta Protection Commission. The land use section of the *Land Use and Resource Management Plan for the Primary Zone of the Delta* does include one recommendation that “to the extent possible, any development in the Secondary Zone should include an appropriate buffer zone to prevent impacts of such development on the lands in the Primary Zone. Local governments should consider needs of agriculture in determining such a buffer.”⁴ All areas in the Tracy Planning Area that are part of the “Legal Delta” are classified as Secondary Zone areas by the Delta Protection Commission.

B. Standards of Significance

The City of Tracy General Plan would create a significant land use impact if it would:

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

⁴ Delta Protection Commission, *Land Use and Resource Management Plan for the Primary Zone of the Delta*, Adopted February 23, 1995, <http://www.delta.ca.gov/plan.asp>; accessed on 9/13/05.

- ◆ Allow development of land uses that would be incompatible with existing or planned surrounding uses.

C. Impact Discussion

The proposed General Plan provides a guide to future growth within the City limits and SOI, as well as a general discussion of the Planning Area. Chapter 3 of this EIR provides a detailed description of the proposed General Plan land use categories, location of land uses proposed within the City limits and SOI, and projections of future growth occurring during the 25 year planning period of the General Plan.

Implementation of the proposed General Plan would result in a change in existing land use for various parcels, both within the City limits and SOI. Table 3.2 depicts the anticipated change from existing land use to General Plan proposed uses.

1. Divisions of Existing Communities

As described in Chapter 3, the majority of the growth under the General Plan is anticipated to occur on land that is currently vacant or under agricultural production. In those areas where development is proposed in existing neighborhoods, the Community Character, Circulation and Land Use Elements would work to promote the redevelopment of Tracy's existing neighborhoods in a way that preserves and enhances the character, identity and quality of the areas and does not allow new development to physically divide an existing neighborhood (Objective CC-6.3, P4); and directs the City to ensure that there is a high level of street connectivity (Objective CIR-1.2, P1 through P6). As a result of the fact that the majority of development would occur on vacant land where no established community exists, and with implementation of the policies to preserve the character, identity and quality of redeveloped neighborhoods, the proposed General Plan would not physically divide an established community and no associated impact is anticipated.

2. Consistency with Related Plans

Implementation of the proposed General Plan could theoretically impact related land use plans that have been adopted for the purpose of avoiding or mitigating an environmental effect. This section evaluates the potential impacts.

a. Zoning Ordinance

Per State law, the General Plan is the primary planning document for a community. The proposed General Plan would replace the City's existing 1993 General Plan once adopted. Therefore, upon approval and implementation of the proposed General Plan, other City documents may need to be updated to ensure consistency. The General Plan includes actions (Objective LU-1.1, A1 and A2) to amend the zoning map for overall consistency with the General Plan and update the City's zoning code to reflect that existing uses in areas subject to new development and redevelopment may remain even though they are inconsistent with the City's long-term vision for this area. Implementation of these actions would avoid a significant impact.

b. Growth Management Ordinance

Residential growth controls in the GMO are consistent with the proposed General Plan's Objective LU-1.4 which states that the City shall promote efficient residential development patterns that maximize efficient use of existing public services and infrastructure. Supporting this Objective are five policies that state the City will follow the GMO requirements, prioritize the allocation of RGAs to meet General Plan goals such as, "but not limited to, concentrated growth, infill development, affordable housing, senior housing, and development with a mix of residential densities and housing types." The proposed General Plan also includes one action that requires the City to develop additional criteria to guide issuance of RGAs. Implementation of the objective and supporting policies would ensure that the General Plan and GMO are consistent with each other, thereby avoiding a significant impact.

c. Specific Plans and Large Planned Unit Developments (PUDs)

The proposed General Plan includes Objective LU-1.1, A4 which requires existing Specific Plans and PUDs to be amended as necessary to be in conformance with the General Plan prior to development of these areas. Implementation of this action would ensure that the Specific Plans and would be consistent with the proposed General Plan, as required by law. Thus, implementation of the proposed General Plan would not result any significant impacts since it would not result in any conflicts with existing Specific Plans or PUDs.

d. Sphere of Influence (SOI) and San Joaquin County LAFCo

As mentioned in the Project Description, the City would request the San Joaquin County LAFCo to update the City's SOI to include expansions ranging from 50 to 350 acres to the north and northeast, an expansion of approximately 1,730 acres to the west, and contractions to the southern portions of the SOI that total approximately 825 acres. The majority of the proposed expansions to the SOI would ultimately result in changes to the existing San Joaquin County General Plan Land Use designations from General Agriculture to a range of residential and non-residential uses, as properties are annexed to the City. Initially, the proposed General Plan would not be consistent with the existing San Joaquin County General Plan, because the City of Tracy's proposed General Plan would designate land for urban uses in the expanded SOI in areas currently designated by the County for agriculture uses. Although this could create an initial conflict with policies stated in the County General Plan, Objective LU-1.1, A2 of the proposed General Plan directs the City to initiate the process with the County LAFCo and with community members in affected areas to adjust the SOI. The City's General Plan land use designations apply once the property is annexed. Until they are annexed, San Joaquin County has jurisdiction in these areas.

If LAFCo does not approve the SOI in the proposed General Plan, the existing SOI will remain in effect. In this case, the City's land use designations outside the LAFCo-approved SOI would have to be removed and the County designations would remain in place. Therefore, either way, adoption and

implementation of the proposed General Plan would not result in a conflict with the County General Plan policies.

e. San Joaquin County Airport Land Use Plan

The proposed General Plan includes Objective LU-6.3, P1 and P2 which state that land uses and new development within the airport hazard zones, as designated in the San Joaquin County Airport Land Use Plan, will conform to safety and development restrictions specified in the Plan. This policy will ensure that growth allowed under the proposed General Plan is consistent with the Airport Land Use Plan, therefore no significant impact would occur related to inconsistencies between the two plans.

3. Consistency with Habitat and Resource Conservation Plans

The proposed General Plan includes policy direction that addresses the SJMSCP. Objective OSC-1.1 P2 states that the City should continue to work with San Joaquin Council of Governments and other agencies to implement and enforce the SJMSCP. As discussed above, the Tracy Planning Area is identified as a Secondary Zone of the Delta so it is outside of the Delta Protection Commission's planning area, as defined in the *Land Use and Resource Management Plan for the Primary Zone of the Delta* (Delta Plan). Regarding guidance in the Delta Plan to provide adequate buffer areas in the Secondary Area to the extent possible to avoid impacts to the Primary Zone, there are numerous policies in the Land Use and Open Space and Conservation Elements that address preserving agriculture and open space in areas outside of Tracy's Sphere of Influence and within its Planning Area (Objective LU-8.1, P3 and P4; Objective OSC-2.1, P4 and P5; Objective OSC-4.4, P1, P3 and A1).

Thus, implementation of the proposed General Plan would not conflict with any adopted conservation plan and no significant impact would occur.

4. Land Use Compatibility

Recognizing the importance of reducing conflicts between land uses, the proposed General Plan includes many policies to minimize conflict and encour-

age an orderly land use pattern. The proposed General Plan includes two objectives with supporting policies and actions which state that the city should have a clearly defined urban form structure, as well as require that the City comprehensively plans for new development within the SOI (Objectives LU 1.1 and 1.2).

In addition, the following are examples of some of the policies and actions that are included in the proposed General Plan to minimize conflict between land uses:

- ◆ Objective LU-6.1, P1. New industrial or mining uses shall be designed to not adversely impact adjacent uses, particularly residential neighborhoods, with respect to, but not limited to, noise, dust and vibration, water quality, air quality, agricultural resources and biological resources.
- ◆ Objective LU-6.1, P2. All proposed development shall comply with existing applicable County and State waste management plans and standards.
- ◆ Objective LU-6.1, P3. Use of berms, landscaped buffer zones, soundwalls, and other similar measures between quarrying operations and noise-sensitive adjacent uses is encouraged to ensure consistency with standards established in City's Noise Element of the General Plan.
- ◆ Objective LU-6.2, P1. Uses that are compatible with the noise, air quality and traffic impacts associated with freeways, such as auto-oriented commercial and industrial uses, should be located near and along freeway corridors whenever possible.
- ◆ Objective LU-6.2, P2. Adequate environmental protection and mitigation shall be provided for uses that are less compatible with development near and along freeway corridors.

Additional policy guidance to ensure land use compatibility is provided for areas identified as Special Areas of Consideration, which are shown in Figure 3-5, and for each of the 17 Urban Reserves.

Other sections of this DEIR identify additional policies that help reduce land use conflicts, such as between agricultural activities and adjacent urban uses (Agricultural section); between schools and hazardous waste generators (Hazardous Materials and Hazards section); and between mining activities and adjacent uses (Mineral Resources section). Another aspect of land use compatibility relates to the type, location and character of various land use development, which is addressed the Community Character Element of the proposed General Plan and discussed in Section 4.3 of this DEIR. Policies to address land use compatibility with the airport operations are discussed above.

In summary, implementation of policies and actions in the proposed General Plan and the LAFCo process would result in less-than-significant land use impacts related to conflicts with other lands, policies and regulations applicable in the Tracy area.

D. Impacts and Mitigation Measures

Since no significant impacts are identified, no mitigation measures are required.

4.2 POPULATION, EMPLOYMENT AND HOUSING

This section presents information on existing and projected population, employment and housing within the City of Tracy, and describes the effects of the proposed General Plan on these factors. Current demographic data is provided at the local, county and State levels.

A. Existing Setting

This section provides a general description of the current population, employment and housing situation in Tracy. It also includes a discussion of housing affordability, existing and projected housing needs and the jobs-to-housing balance.

1. Population and Demographics

Tracy is one of the most rapidly growing cities in California's Central Valley. Table 4.2-1 depicts population and household trends from 1990, 2000 and 2004.

Between 1990 and 2004, the population increased by 121 percent from 33,500 to 74,070¹ residents. Between 2000 and 2004, Tracy recorded the highest rate of population growth in San Joaquin County.² This growth has brought proportionally more families to Tracy, and increased percentages of home ownership and household size. SJCOG has projected the City will grow an additional 60 percent between 2000 and 2010, for a total of 87,500 residents.³ For comparison, the State is expected to grow by 14 percent during the same time period.⁴

¹ California Department of Finance estimate for January, 2004. U.S. Census, 1990.

² U.S. Census, 2000.

³ San Joaquin County Council of Governments, 2002.

⁴ U.S. Census, 1990 and 2000.

TABLE 4.2-1 **POPULATION AND HOUSEHOLD TRENDS IN TRACY**

	1990	2000	2004	% Change 1990-2004
Population	33,500	57,000	74,070	121%
Housing Units	12,174 (8% vacant)	18,087 (2.6% vacant)	23,005 (2.6% vacant)	89%
Average Household Size	3.0	3.21	3.27	9%
				% Change 1990-2000
Households	11,208	17,620	*	57%
Family Households	8,617	14,308	*	66%
Non-family households	2,591	3,312	*	28%
Tenure (Owner-occupied)	60%	72%	*	

Source: U.S. Census, 1990 and 2000; California Department of Finance estimate, January, 2004.

* 2004 numbers not available.

a. Race and Ethnicity

Tracy's surge in population growth has resulted in a more ethnically and racially diverse community. As shown in Table 4.2-2, from 1990 to 2000 the population distribution shifted, with the percentage of Caucasians dropping from 68 to 56 percent and the percentage of African Americans, Asian or Pacific Islanders and Hispanics each increasing by three to five percent.⁵ In general, this change paralleled trends in both the County and the State.

b. Age Distribution

Between 1990 and 2000, the percentage of change in age distributions was almost identical between Tracy and California, as seen in Table 4.2-3. One exception was the 5 to 17 year old category, which grew twice as much in

⁵ U.S. Census, 1990 and 2000.

percentage of the total in Tracy as within the State. In 2004, residents under the age of 14 represented 29 percent of the population and residents over 40 comprised 34 percent of the population.⁶ This growth aligns with the increase in percentage of family households. Although the number of 25 to 44 year olds increased by almost 60 percent, the category dropped slightly in its share of the total City population. This age category still represents a solid third of the population in both Tracy and within the State.

2. Employment

Growth in Tracy has included an increase in employment opportunities. As is common in cities of a similar size to Tracy, major local employers include the Tracy Unified School District and City government. During the 1990s, the economy diversified and expanded, aided in part by numerous companies that established distribution facilities in Tracy to take advantage of inexpensive land and proximity to three major freeways, such as a Safeway Grocery distribution warehouse that employs approximately 1,800 people.⁷ In 2004, Tracy's 4.8 percent unemployment rate was one of the lowest rates in San Joaquin County.⁸

As shown in Table 4.2-4, the percentage of Tracy residents employed in professional or managerial jobs increased by a substantial 170 percent between 1990 and 2000, while the number of people employed in farming and forestry dropped by 44 percent.⁹ Table 4.2-5 compares Tracy's occupational distribution to the County and the State and shows Tracy maintaining a higher percentage of professional or managerial jobs than the County, but less than the State. For the most part however, employment distributions in Tracy, the County and the State are fairly similar.

⁶ California Department of Finance estimate for January, 2004.

⁷City of Tracy Economic Development Department, http://www.ci.tracy.ca.us/departments/economic_development/major_employers/; accessed 9/13/05.

⁸ California Department of Finance, 2004.

⁹ U.S. Census, 1990 and 2000.

TABLE 4.2-2 **RACE AND ETHNICITY IN TRACY, SAN JOAQUIN COUNTY AND CALIFORNIA**

Race/Ethnicity	2000			% Change in Distribution 1990-2000		
	Tracy	County	CA	Tracy	County	CA
White	56%	47%	48%	-12%	-11%	-9%
African-American	5%	6%	7%	3%	1%	0%
Native American	1%	1%	1%	0%	0%	0%
Asian or Pacific Islander	9%	11%	11%	4%	0%	2%
Hispanic	29%	31%	33%	5%	7%	7%

Note: This information on race contains only the non-Hispanic population.

Source: U.S. Census, 1990 and 2000.

TABLE 4.2-3 **AGE DISTRIBUTION IN TRACY AS COMPARED TO CALIFORNIA**

	1990			2000		
	Tracy		CA	Tracy		CA
Age Group	#	%	%	#	%	%
<5 years	3,497	10%	8%	5,360	9%	7%
5-17	7,006	21%	18%	14,239	25%	20%
18-24	3,069	9%	11%	4,248	7%	10%
25-44	12,621	38%	35%	19,947	35%	32%
45-64	4,656	14%	17%	9,498	17%	21%
65+	2,709	8%	11%	3,637	6%	11%

Source: U.S. Census, 1990 and 2000.

TABLE 4.2-4 **OCCUPATIONS OF TRACY RESIDENTS**

Occupation (Job Location Unknown)	1990		2000		% Change 1990-2000
Managerial/Professional	2,896	18%	7,825	31%	170%
Sales, Technical, Administrative	5,300	33%	7,579	30%	43%
Service Occupations	2,084	13%	3,085	12%	48%
Production, Craft & Repair	2,554	16%	4,012	16%	57%
Operators/Fabricators/Laborers	2,644	17%	2,782	11%	5%
Farming, Forestry and Fishery	373	2%	209	1%	-44%
Total Employed Residents	15,851	--	25,492	--	61%

Source: U.S. Census, 1990 and 2000.

Since 2000, the labor force in Tracy has grown 20 percent to 32,523 people in 2003.¹⁰ The number of jobs located in Tracy increased 89 percent between 1990 and 2000 to 20,972 jobs, as compared to San Joaquin County as a whole that recorded a 15 percent increase in number of jobs.¹¹ Employment in Tracy continues to grow and in 2003 there were 29,758 jobs in the City.¹²

As is discussed in Chapter 3 of this document, the city expects substantial job growth during the planning horizon of the General Plan. The number of new jobs is estimated at 25,000 with 11,000 new industrial jobs, 8,000 new commercial jobs and 6,000 new office jobs.

3. Jobs/Housing Balance

Despite the recent employment growth in Tracy, the jobs-housing balance falls short of the recommended target goal of 1.5 jobs per housing unit

¹⁰ California Employment Department 2004. U.S. Census, 2000.

¹¹ U.S. Census, 1990 and 2000.

¹² U.S. Census, 1990 and 2000. Claritas 2003.

TABLE 4.2-5 **OCCUPATIONAL COMPARISONS BETWEEN TRACY,
SAN JOAQUIN COUNTY AND CALIFORNIA IN 2000**

Occupation	Tracy		County CA	
	# of people	% of total	# of people	% of total
Management and Professional	7,825	31%	27%	36%
Service	3,085	12%	15%	15%
Sales and Office	7,579	30%	27%	27%
Farming, Fishing and Forestry	209	1%	4%	1%
Construction, Extraction & Maintenance	2,782	11%	10%	8%
Production, Transportation & Material Moving	4,012	16%	17%	13%

Source: 2000 U.S. Census.

established by the California Department of Housing and Community Development (HUD). Based on the 2003 number of housing units (21,628)¹³ and the number of local jobs (29,758),¹⁴ the 2003 jobs-housing balance in Tracy was 1.37.

Although the job-housing ratio is relatively close to balanced, commuting patterns in Tracy point toward a jobs-housing match that is less than ideal. It is estimated that over 70 percent of Tracy's employed residents commute outside of the City to work, as compared to only 17 percent of workers statewide, and the numbers of employees commuting into Tracy from neighbor-

¹³ California Department of Finance estimate for January, 2004.

¹⁴ *State of the City*, Presentation by Andrew Malik, City of Tracy Economic Development Director, 2004.

ing counties has also increased.¹⁵ According to the US Census, the percentage of Tracy residents commuting over 45 minutes to reach their workplace increased by 155 percent. Table 4.2-6 outlines employment numbers by workplace location and average commuting times for Tracy residents.

Overall, this indicates a mismatch between the skill levels of Tracy residents and the skill levels of Tracy jobs. As a result, the area experiences adverse environmental and economic problems, such as high levels of traffic congestion and related air pollution.

4. Housing Units

The Department of Finance estimated that in January 2004 there were 23,005 housing units in Tracy; 97.5 percent are occupied and 81 percent are single-family detached homes.¹⁶ There was a surge in residential building starting in 1977, which between 1980 and January 2004 added approximately 15,922 additional units for an increase in housing units of 225 percent. Housing tenure has also increased over the decade from 60 to 72 percent in 2000, paralleled by an increase in housing size. Currently, 70 percent of housing units contain more than three bedrooms.

5. Growth Management Ordinance

As described in detail in Section 4.1, the City of Tracy adopted a residential Growth Management Ordinance (GMO) in 1987 that has been amended several times since, including an amendment in 2001 by the voter-initiated Measure A, which was passed by the voters in November 2000. Between the years 2000 and 2025, the number of residential units allowed under the City's Growth Management Ordinance is 15,000 units (600 per year times 25 years). The GMO includes exceptions for affordable housing.^{17,18} The General Plan

¹⁵ U.S. Census, 2000.

¹⁶ California Department of Finance estimate for January, 2004.

¹⁷ One Residential Growth Allotment (RGA) equals the public services and facilities required by one detached single-family dwelling unit. RGAs are required for building permits, in appropriate amounts according to the proposed development.

¹⁸ *City of Tracy Residential Growth Management Plan*, 2005, p.5.

TABLE 4.2-6 **EMPLOYMENT BY COMMUTING PATTERNS (1990 – 2000)**

Workplace Location of Tracy Residents	1990		2000	
In Tracy	5,693	37%	7,174	29%
Outside of Tracy	9,802	63%	17,800	71%
In San Joaquin County	7,783	50%	10,362	41%
Outside of San Joaquin County	7,674	50%	14,522	58%
Average Commute Time of Tracy Residents to Work				
0 to 14 minutes	5,258	34%	6,160	25%
15 to 29 minutes	2,754	18%	3,284	13%
30 to 44 minutes	2,959	19%	4,039	16%
Over 45 minutes	4,181	27%	10,682	43%
Worked At Home	343	2%	809	3%

Source: U.S. Census, 1990 and 2000.

Draft Housing Element has a target of 1,200 affordable units during this same time period, bringing the total number of units to 16,200, resulting in an additional 52,000 people (using a multiplier of 3.21 persons per household), or a projected population of 109,000 in the year 2025.

B. Standards of Significance

The proposed General Plan would cause a significant impact related to population, employment and housing if it would:

- ♦ Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

- ◆ Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- ◆ Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

C. Impact Discussion

Implementation of the General Plan will result in an increase of dwelling units and population within the Planning Area. The General Plan provides a policy framework to control and direct growth as it occurs.

1. Future Population and Housing Growth

The development projections for the General Plan, through 2025, are based on land use designations, available acres and the existing building allotment regulations in Tracy. The Growth Management Ordinance (GMO) helps reduce the potential adverse impacts to Tracy from future development by setting controls on development. In accordance with the GMO, Tracy would be limited to allocating a total of 100 RGAs until approximately 2012 (however, there would be exceptions for affordable housing).¹⁹ Including these projects, a maximum of 15,000 new residential market-rate units are projected to be approved by 2025, 2,000 of which are for priority projects. In addition, it is assumed that 1,200 units of affordable housing will be built inside and outside the City limits, in areas that allow medium- and high-density residential development for a maximum of up to 16,200 dwelling units by 2025. However, the actual rate of development that may occur pursuant to the proposed General Plan would also depend on market conditions and other factors, such as availability of infrastructure or environmental constraints.

Implementation of this General Plan and the GMO is projected to result in a Tracy population of approximately 109,000 people in the year 2025. This number is based on an estimate of the number of residential units allowed per

¹⁹ *City of Tracy Draft Housing Element 2003-2008*. October 6, 2003.

year multiplied by the number of years multiplied by the number of people per residential unit (units x years x people per unit), and adding that to the population of Tracy in 2000, which was approximately 57,000 people, according to the U.S. Census.

Despite the limitations of the GMO, the extent of growth anticipated to occur may result in a potentially significant impact associated with substantial growth. However, the General Plan includes several policies to address this and reduce impacts to a less-than-significant level. For example, the General Plan states that new development in the SOI should be planned for in a comprehensive manner, and contain a balanced distribution of land uses between residential, employment-generating and public facilities (Objective LU-1.2, P1 through P3). The General Plan establishes that guidelines for residential growth shall be a component of the GMO as a separate objective, with supporting policies to direct RGA allotments to the goals of the Plan, including the provision of infill, senior, low-income and higher density housing (Objective LU-1.4, P1 through P5).

In addition, the projected amount of population and housing growth under the proposed General Plan is much less than the San Joaquin County of Governments (SJCOC) projections, which state that Tracy's population is expected to grow 94% between 2005 and 2025.²⁰ Therefore, the projected population growth associated with implementation of the proposed General Plan would not result in the inducement of unexpected population growth. Thus, no significant impact would occur.

2. Housing and Population Displacement

Implementation of the General Plan would not displace housing or populations. The majority of growth proposed in the General Plan would occur on vacant and agricultural land, which has few existing housing units. Some growth is encouraged in existing neighborhoods and infill areas, however, the

²⁰http://www.sjcog.org/sections/departments/planning/research/projections?table_id=140§ion_id=36&historic=0. Accessed on 6/30/05.

proposed General Plan includes policies that encourage the preservation and enhancement of the character of existing neighborhoods and specifically states that new development should not physically divide established neighborhoods (Objective CC-6.3, P1 and P4). Moreover, the Economic Development Element includes goals, objectives, policies and actions to ensure that Tracy has a competitive workforce and is able to respond quickly to changing economic conditions, as a way to improve the match between Tracy residents' workforce needs and the jobs available in Tracy (Goals ED-7 and ED-8). As a result of these policies, no significant impacts to the displacement of populations or housing would occur.

D. Impacts and Mitigation Measures

Since no significant impacts were identified, no mitigation measures are required.

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4.3 VISUAL QUALITY

This section summarizes information on the visual and aesthetic resources of Tracy and provides an evaluation of the effects the proposed General Plan would have on these resources. These resources include natural and man-made landscape features that are seen (viewshed) from numerous locations (viewpoints) and are pleasing to viewers. The value of a visual resource increases according to the ease by which numerous people can enjoy it. Impacts and changes involving light and glare, such as additional nighttime lighting, are also discussed in this section.

A. Existing Setting

The following describes the existing visual resources within Tracy and current local and State regulations aimed at the protection of these resources.

1. Regulatory Framework

For the most part, the aesthetic quality of Tracy is controlled by the City. However, because much of the local visual amenities are derived from the surrounding natural landscape, certain State and local regulations are also applicable to this visual resource analysis. There are no federal regulations pertaining to aesthetics in the area.

a. California Scenic Highways Program

State scenic highways are designated by the Department of Transportation (DOT) to promote the protection and enhancement of the beauty, amenities and quality of life in California. In order to acquire an “officially designated scenic highway” label, the State and Caltrans require local jurisdictions to adopt a scenic corridor protection program to protect and enhance the adjacent scenic resources. In the Tracy area, San Joaquin County is the responsible local agency. Guidelines for this program are listed on the DOT web site, but are not specifically required. The guidelines instead suggest jurisdictions adopt regulations and language that prohibit inappropriate land uses such as junkyards or gravel pits, and visual detractors, such as billboards. The DOT monitors scenic routes at least once every five years, and if adjacent develop-

ment has occurred that detracts from the scenic value, the Scenic Highway designation may be revoked for portions or all of the roadway.¹

b. San Joaquin County General Plan

San Joaquin County is responsible for enforcing the protection of its State-designated scenic routes within its borders. The County's 1978 Scenic Highway Element contained policies to this effect, but as this Element is no longer a part of the State General Plan requirements, it has not been updated. In regards to scenic routes, the current County General Plan includes only a recommendation that additional electrical or radio towers be prohibited along scenic routes.²

The existing San Joaquin County General Plan does not include specific policies aimed at the protection of other visual resources. The adoption of a Hillside Ordinance was proposed in the San Joaquin County General Plan programming matrix, but one has not been adopted at this time. Certain landscape and screening requirements are required by the County's Landscaping, Fencing and Screening Manual as part of the project review process, including a 10-foot landscape buffer along scenic highways, but specific mitigation measures for visual impacts of new development are not included. This manual is discussed in greater detail below.

c. San Joaquin County Development Title: Landscaping, Fencing and Screening Manual

The San Joaquin County Development Title contains specific requirements of new project proposals on unincorporated County land, including those for landscaping, fencing and screening that are detailed in a separate manual. These guidelines and regulations provide some protection for existing visual resources, associated with plantings, street trees and the impacts of urban de-

¹ <http://www.dot.ca.gov/hq/LandArch/scenic/shpg2.htm#d>; accessed on 7/19/05.

² Conversation with Adam Brucker, San Joaquin County Public Works Department, August 18, 2004.

velopment on the visual landscape. Part of these screening requirements also help mitigate impacts to neighboring properties from additional light and glare associated with new development. Detailed landscaping and screening requirements are provided for four categories of building: residential, commercial, industrial and parking areas. For each category, the Manual outlines requirements for the number and type of street trees required and approved for all new development, as well as protection mechanisms for existing native and older trees.³

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

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), discussed in detail in Sections 4.6 and 4.7 of this report, also serves as protection for scenic resources associated with open space and agricultural lands. For example, in addition to the protection of sensitive species and habitats, conservation easements adopted to preserve land in open space or agricultural use in perpetuity, as required by the SJMSCP, also result in the protection of scenic views.

e. Tracy Municipal Code

As street trees are an important visual amenity in Tracy, the City's Municipal Code contains standards for their planting and removal, as well as guidelines for understanding city versus private responsibilities for tree maintenance. The standards address issues of trees on private property and those on public easements through private property, especially for resident-requested removals and replacement requirements.

The City of Tracy Standard Plan #154 establishes minimum requirements for light illumination, but does not have regulations limiting glare. Rather, the city addresses light and glare issues on a case-by-case basis during project ap-

³ San Joaquin County Landscaping, Screening and Fencing Manual. http://www.sjgov.org/commdev/cgi-bin/cdyn.exe/handouts-planning_landscaping?grp=handouts-planning&obj=landscaping, accessed 7/5/05.

proval and typically adds requirements as a condition of project approval to shield and protect against light splashing from one development to adjacent properties.⁴

2. Existing Visual Character and Resources

The aesthetic character of Tracy and its surrounding area is comprised of both natural and manmade amenities.

a. City Visual Identity

Tracy's visual urban form can be divided into several distinct segments:

- ◆ **Tracy's Downtown** has a compact, grid street system and serves as the historical heart of the City. Tracy's identity is enhanced by numerous historical buildings, walkable main streets with a diverse mix of uses and a small town urban fabric.
- ◆ **Traditional residential neighborhoods** were built around the time of World War II and surround the Downtown. The homes are a variety of styles, including bungalows and ranch-style, and are generally built on a grid pattern with tree lined streets.
- ◆ **Contemporary residential subdivisions** are spread along arterials to the south and west of the Downtown. Older contemporary neighborhoods have modest ranch-style homes that are integrated with the traditional residential neighborhoods. Newer residential subdivisions have larger homes, which are built on wider curvilinear streets and cul-de-sacs.
- ◆ **Retail and commercial areas** outside the Downtown are characterized by strip commercial development along major arterial roadways, with the West Valley Mall on the north side of the City. These areas are generally automobile-oriented, and are physically separated from nearby residential areas with walls, curbing and separated parking lots.

⁴ Personal communication with DES Planning Division, July 18, 2005.

- ◆ **Industrial areas** on the northeast and south sides of the city provide a strong economic base for Tracy. These areas have relatively low intensity warehouse, distribution and manufacturing facilities on large parcels.
- ◆ **Parks and landscaping within the City limits.** In various sizes and composition, these areas provide variance from urban buildings and development.
- ◆ **Agricultural lands** surround the City and provide a source of identity and heritage for the City's residents. Some of these lands are targeted for future residential, commercial and industrial development.

b. Planning Area Scenic Resources

Most of Tracy's scenic vistas and corridors are associated with the open space and agricultural resources of the surrounding Sphere of Influence (SOI) and Planning Area, and are a valued local asset for the community. The surrounding farming and grazing lands, and grassy hillsides of the Diablo coastal range, serve to situate the City in its local environment and landscape, and provide a reminder of its agricultural heritage.

The scenic resources that are located outside the City limits and even beyond the Planning Area boundary, especially in the viewshed of the scenic routes, are generally controlled by the development guidelines in the San Joaquin County Development Title. Scenic resources in the Planning Area include:

- ◆ **Views of the Diablo Range.** Rising from the Southwest portion of the Tracy Planning Area, this range extends from near sea level to 1,652 feet and provides a visual barrier between the Central Valley and the San Francisco Bay Area. Generally, the eastern slopes visible from Tracy have not been developed and contain sporadic tree groupings.
- ◆ **Natural landscapes surrounding the Paradise Cut, Old River and Tom Paine Sloughs.** Located on the North side of the Tracy Planning Area, these landscapes provide streamside vegetation that provide visual contrasts as they run through the relatively flat agricultural lands.

- ◆ **Expansive Agricultural Lands.** The surrounding SOI and Planning Area contain agricultural lands that are used for row crops and grazing.
- ◆ **Electricity-generating Windfarms.** Located on the ridgetops, West of the City and close to the Altamont Pass, the windfarms are visible from Tracy on clear days.

c. **Entry Corridors and Scenic Routes**

Roadways leading to and through Tracy are aesthetically important since they expose both travelers and residents to the visual character of the City and the surrounding area as they travel through the area, or commute back and forth to work beyond the City limits.

i. *Entry Corridors and Gateways*

Entrances to the city from major roadways are called “entry corridors” or “gateways.” They are important for providing both visitors and residents with their initial impression of Tracy and a transition from a rural to urban environment. Interstate 580 (I-580) is a major entry corridor to the Central Valley from the Bay Area. It routes over the Altamont Pass, through rolling hills covered with windmills and offers the first views of Tracy’s urban area, surrounded by expansive agricultural lands. Drivers heading west on Interstate 205 (I-205) are provided with views of the surrounding lands and coastal range beyond Tracy to the southwest. There are also numerous gateways into the city from Interstate roadways. These gateways include exits from I-205 on MacArthur Drive, Tracy Boulevard, Grant Line Road and Eleventh Street, and exits from I-580 at Lammers Road and Corral Hollow Road.

ii. *Scenic Routes*

There are two Officially Dedicated California Scenic Highway segments in the Tracy Planning Area and cover a total of 16 miles. The first designated scenic highway is the portion of I-580 between I-205 and I-5, which offers views of the Coast Range to the west and the Central Valley’s urban and agricultural lands to the east. Part of this scenic highway passes through the existing City limits where the Tracy Hills project is proposed. The second scenic highway is the portion of I-5 that starts at I-205 and continues south to Stanis-

laus County, which allows for views of the surrounding agricultural lands and the Delta-Mendota Canal and California Aqueduct.⁵ As stated in the proposed General Plan, no development is expected along I-5 during the planning horizon of this General Plan.

In addition to State-designated scenic highways, the Scenic Highway Element of the 1978 San Joaquin County General Plan designated the seven-mile portion of Corral Hollow Road that runs southwest from I-580 to the County line as a scenic road.⁶ A small portion of this scenic corridor is in the SOI.

d. Streetscapes and Landscaping

Vibrant streetscapes are important components of a successful city. If properly designed and maintained, streetscapes may provide a visual amenity. High quality streetscapes offer residents with pleasant shopping and walking districts, as well as landscaped corridors throughout the City. In addition to aesthetic value, street trees also provide shade and cooling in residential and commercial areas during Tracy's hot summers.

One example of Tracy's approach towards improving its streetscapes is its Downtown Streetscape Project on 10th Street from Central to E Streets, which is currently being implemented. The project involves planting street trees and improving paving materials in an effort to revitalize Tracy's Downtown and promote further redevelopment.

e. Light and Glare

Nighttime lighting is more intense within the Tracy City limits as compared to the mainly undeveloped agricultural lands in the SOI and Planning Area. Major light sources include:

- ◆ Household and street lighting

⁵ <http://www.dot.ca.gov/hq/LandArch/scenic/shpg2.htm#d>; accessed on 7/19/05.

⁶ *City of Tracy Urban Management Plan/General Plan Draft Environmental Impact Report*. 1993, p.92.

- ◆ West Valley Mall and I-205 Corridor Specific Plan developments
- ◆ Patterson Pass Business Park
- ◆ Motor vehicles on local streets and surrounding highways

Current occurrences of glare are mainly a result of the sun or street lighting reflecting off of large expanses of concrete or other light-colored surfaces, such as parking lots, wide streets and warehouse rooftops. Glass and other reflective surfaces can also be a source of glare.

B. Standards of Significance

The Tracy General Plan would have a significant impact to visual and design factors if it would:

- ◆ Have a substantial adverse effect on a scenic vista.
- ◆ Substantially or demonstrably result in a negative aesthetic alternation to the existing character or the area. A substantial alteration is characterized by a negative “sense of loss” of character or unique resources.
- ◆ Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway.
- ◆ Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

C. Impact Discussion

Implementation of the proposed General Plan will result in additional urban development within existing agriculture and open space landscapes, which could result in changes to visual and scenic resources in the area. New building could also result in an increase in light and glare impacts on surrounding uses. The proposed General Plan therefore contains policies to enhance Tracy’s “hometown feel” and provide high-quality development.

1. Visual Identity and Scenic Resources

The following subsections address the main aesthetic qualities of Tracy and the Planning Area, and the potential impacts on these resources from the implementation of the proposed General Plan. Included are references to goals, objectives, policies and actions contained in the Plan that would help mitigate negative impacts to the visual identity and scenic resources of the area as development occurs. Instances when implementation of the proposed General Plan could result in a positive visual impact on the community are also noted.

a. City Visual Identity

Tracy's scenic character is associated with the surrounding agricultural landscapes and distant hillsides, and the community's "hometown feel." Development permitted under the proposed General Plan could change the character of Tracy through conversions of open space and agriculture lands to urban uses, or the infill of vacant parcels within the urbanized area. Policies in the proposed General Plan are intended to achieve a balance between maintaining the area's character and visual amenities, and accommodating growth (Objective CC-1.2).

In order that new development does not detract from the physical quality of Tracy, the proposed General Plan includes a Community Character Element that specifies urban design principles in accordance with the City's vision. This Element includes goals, objectives, policies and actions to maintain and enhance the City of Tracy's unique character. Objective CC-1.1 states that the City would preserve and enhance its unique character and "hometown feel" through high-quality urban design. Further stated, new development should incorporate human-scaled design, pedestrian-orientation, interconnectivity of street layout, siting buildings to hold corners, entryways, focal points and landmarks (Objective CC-1.1, P2). Objective CC-1.2, P1 commits the City to only approve new development projects that meet the design principles set forth in the Element and in detailed design guidelines approved by the City Council.

Tracy's visual character is also dependent on views to and from the City. The proposed General Plan therefore works to minimize the visual impacts of urban development for people traveling to or through Tracy. In general, the proposed General Plan seeks to enhance its identity by creating a soft transition between urban and non-urban uses around the edge of the city; implementation policies and techniques are discussed in greater detail in Section 4.7 (Goal CC-4). Objective CC-1.4, P3 aims to protect scenic views by discouraging the use of soundwalls along highway corridors, which can also help protect the scenic routes in and around Tracy. Soundwalls are also discouraged within the city, on both residential and commercial development, since street-facing buildings add rather than detract from the area's visual character (Objective CC-1.4, P1 and P2). Utilities are also recommended to be undergrounded, which will reduce visual "clutter" associated with above-ground power lines (Objective CC-1.5, P1). The proposed General Plan also includes specific policies in regard to the I-205 Regional Commercial Area, which is visible from the highway. Goal CC-7 establishes that high quality architecture, site planning and landscaping should be desired in the I-205 Regional Commercial Area.

Finally, overall visual identity may be preserved through the development of an open space program (OSC-4.4, A1) and the implementation of the San Joaquin Multi-Species Habitat Conservation and Open Space Plan (OSC-4.4, P2). Preservation of undeveloped land in and around the city will help to preserve overall visual identity.

Despite these policies, the General Plan is proposing a significant increase in the number of new homes (and thus residential population) and new jobs. As is stated in the project description, the new population as a result of the General Plan is expected to result in an increase of approximately 34,930 new residents and 25,000 new jobs. Accommodating this growth will convert a significant amount of undeveloped land to urban uses thereby altering the overall visual and aesthetic resources in the City.

As a result, the amount of growth will create a significant impact to Tracy's visual identity and scenic resources.

b. Scenic Vistas and Views

New development could also impact current scenic views of the area from the surrounding highways. The most defined scenic vistas and views are to the surrounding natural hillsides on the western edge of the city, which are mostly void of development, as well as views of agricultural land from highways and other roadways.

The proposed General Plan includes some development on the hillsides within the City limits as part of the proposed Tracy Hills Specific Plan. In addition to residential development, the project also includes over 3,500 acres of permanent open space for habitat conservation and managed grazing. This open space area is located along portions of the hillside visible from the freeways.

In terms of views of agricultural land, the SJMSCP provides for some mitigation against adverse impacts to visual quality by requiring mandatory levels of open space and agriculture preservation in response to development. Policies in the General Plan are also geared towards the preservation of these resources in the Tracy Planning area, in part to maintain the City's heritage and scenic assets gained from its agricultural heritage. This would be achieved in part by encouraging feathered edges of development and the creation of landscaped and natural buffers between Tracy and neighboring communities (Objective CC-4.1) and through the implementation of an open space plan (Objective OSC-4.4, A1). More detailed information about the preservation of open space and agricultural land is provided in Section 4.7 of this report. In spite of existing policies and regulations to preserve agricultural and open space lands, development in hillside areas in Tracy Hills could result in a potentially significant impact to scenic views.

c. Entry Corridors and Gateways

Entryways are an important visual resource for anyone traveling to and from Tracy. The proposed General Plan contains objectives and policies intended to support the development of these visual amenities in Tracy. In general, Objective CC-1.3 supports the use of art and entryways as a way to enhance the unique quality of the City. Objective CC-1.3, P1 states that entryways should be designed for the access points into the city, and incorporate landscaping, trees, and/or architectural elements, to enhance a sense of arrival to the city. Specifically, 11th Street should be designed as the entry corridor for the Downtown, as part of its revitalization efforts (Objective CC-8.3, P2). Finally, the proposed General Plan directs the City to implement the entry monument recommendations of the City's Civic Art Plan (Objective CC-8.3, A1). As a result, the proposed General Plan would positively affect corridors and gateways.

d. Streetscapes and Landscaping

The proposed General Plan recognizes the importance of streetscape design and the role of landscaping and street trees in preserving and enhancing the visual quality of the City. Various policies contained in the Plan apply to City-wide issues, residential and commercial design. At the neighborhood level, Goal CC-5 encourages neighborhoods that have recognizable identities and structures. Neighborhoods, as well as commercial areas, should also be walkable (Objective CC-5.2) and designed to enhance Tracy's "hometown feel." These goals are achieved in part through thoughtful streetscapes layouts and landscaping that includes street trees. Objective CC-5.2, P9 requires street trees to be planted on all residential streets, in the Downtown (Objective CC-8.1, P5) and in the I-205 Regional Commercial Area (Objective CC-7.1, P8). Overall, they should be planted in an amount substantial enough to eventually provide a tree canopy over sidewalks and residential streets and minor collectors. Objective CC-8.1, P5 also guides development in the Downtown to use landscaping to improve the pedestrian environment and create screens from surface parking lots.

In addition to landscaping requirements, streetscapes are guided by various urban design policies contained in the proposed General Plan. Overall, whether in residential, commercial or employment areas, or in the Downtown, the Plan emphasizes pedestrian-friendly, walkable environments that utilize high-quality urban design. The combination of these policies is intended to prioritize the continuation of Tracy's hometown feel throughout phases of new development and redevelopment during the lifetime of the General Plan (Objective CC-1.1, P1). Objective CC-1.1, P2 specifically states that all new development and redevelopment shall adhere to the basic principles of high-quality urban design, architecture and landscape architecture including, but not limited to, human-scaled design, pedestrian-orientation, interconnectivity of street layout, holding corners, gateways, nodes and landmarks.

As a result of the above policies, implementation of the General Plan would enhance the visual character of streetscapes throughout Tracy.

2. Scenic Roadways

Implementation of the proposed General Plan would result in development along one of the State-designated scenic route segments in the Tracy Planning Area – the portion of I-580 between I-205 and I-5. As stated in the General Plan, no new development is expected on the portion of I-5 south of I-205 during the planning horizon of the General Plan. In addition, limited new residential, office and commercial development is expected on the County-designated scenic route west of the intersection of Corral Hollow Road and I-580 in the Tracy Hills Specific Plan area.

The new development proposed as part of this General Plan that is located along scenic routes is not expected to include any land uses that would detract from visual quality, such as junk yards or gravel pits. The majority of new development visible from the roadway is expected to be single family homes with some industrial and commercial development. All new development is expected to conform to the design guidance presented in the Community Character Element. In addition, the land abutting I-205 is identified as a hard

edge in Figure 3-3 of the Community Character Element. According to a policy in Objective CC-4.1, hard edges shall include a narrow landscaped buffer to enhance the visual quality of the development, especially for those traveling along the highway. Additionally, the land use designation map (Figure 2-2) identifies 3,550 acres of open space in the Tracy Hills Specific Plan area. A portion of this land will be visible from the State-designated I-205 scenic route.

As a result of these policies, the impact of proposed development will be mitigated to a less-than-significant level.

3. Light and Glare

New development allowed under the proposed General Plan would increase the number of light sources and amount of glare within Tracy. The proposed General Plan does not include policies to address the potential for these impacts. However, the City does address light and glare issues on a project-level basis through conditions of project approval. As a result of the amount of new development and the lack of a light and glare regulation, there is a potentially significant impact in terms of increased sources of light and glare in the city.

D. Impacts and Mitigation Measures

Potentially significant impacts were identified in regards to overall visual identity and light and glare.

Impact V-1: As discussed on pages 4.3-10 through 4.3-11, in addition to policies in the SJMSCP and the City's Agricultural Mitigation Fee Ordinance, the proposed General Plan contains policies to preserve open space and agricultural lands and community character. Despite such policies to enhance "hometown feel" and preserve open space, development permitted under the proposed General Plan will result in a significant impact to the existing visual identity and character of the City due to the amount of growth allowed.

This is a significant and unavoidable impact. No additional mitigation is available.

Impact V-2: Despite policies and regulations to protect open space and agricultural areas under the proposed General Plan, some scenic views and vistas, namely hillsides within the City limits in the Tracy Hills Specific Plan area would not remain in their natural state.

Mitigation Measure V-2: As part of the update to the Tracy Hills Specific Plan, the Plan shall provide guidelines to ensure the safe and sensitive treatment of hillsides, including the consideration of establishing a hillside ordinance that defines standards for mass grading, ridgeline protection, erosion control, viewshed analysis among other considerations.

Impact V-3: Development permitted under the proposed General Plan could increase levels of light and glare to a level significant enough to result in adverse impacts to the visual quality of Tracy.

Mitigation Measure V-3: The City should include a policy under Objective CC-1.1 to require that lighting on private and public property should be designed to provide safe and adequate lighting while minimizing light spillage to adjacent properties.

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4.4 TRAFFIC AND CIRCULATION

This section presents information on existing traffic and circulation conditions in the City of Tracy and describes potential environmental impacts the proposed General Plan would have on the circulation system, as well as the standards of significance by which they are evaluated.

A. Existing Setting

This section presents a brief description of the circulation system in Tracy.

1. Regulatory Setting

The following provides an overview of some of the regional and local existing plans that address transportation concerns in the Tracy area.

a. 2004 Regional Transportation Plan

The San Joaquin Council of Governments (SJCOG) produced the 2004 Regional Transportation Plan (RTP). The RTP is a roadmap to guide the regions transportation development for a 20-year period. The RTP is updated every three years to reflect changes, such as changes in funding availability and growth patterns. The Plan offers a multi-model strategy to improve congestion and provide a range of transportation choices. Since the RTP needs to take into consideration the availability of funding, projects are prioritized. Tier 1 projects are those anticipated to be financed and completed. Tier 1A and Tier 2 projects create a list of projects that show the shortfall of transportation needs in the area, but for which funding is not identified.

b. San Joaquin County Congestion Management Plan

SJCOG is the designated Congestion Management Agency for San Joaquin County. Proposition 111 was a voter approved addition to an existing statewide gasoline tax. In order to receive funds from this tax, each county was required to designate a Congestion Management Agency and develop a Congestion Management Program (CMP). Subsequent legislation removed this requirement, allowing counties to discontinue the CMP by resolution of the majority of jurisdictions within the county. San Joaquin County has not

elected to do so, and SJCOG remains the Congestion Management Agency for San Joaquin County. Federal planning regulations also require a congestion management process to receive some types of federal transportation funding. SJCOG also fulfills that requirement.

c. San Joaquin County General Plan

The San Joaquin County General Plan includes a range of objectives and policies that address the provision of adequate roadway, transit and bicycle systems. This policy direction applies to areas outside the incorporated Tracy City limits.

d. San Joaquin County Airport Master Plan

The Tracy Municipal Airport is subject to the 1993 *San Joaquin County Airport Master Plan*. This plan identifies future improvements for the airport to meet future aviation needs. The plan also identifies compatible land uses for the various safety zones around the airport necessary for maintaining safe airport operations.

e. Tracy Roadway Master Plan

In 1994, Tracy adopted a Roadway Master Plan and Conceptual Design Standards for the Master Plan. The Roadway Master Plan is the implementation tool to detail the specific improvements necessary to support the general circulation and land use plan identified in the General Plan.

f. Tracy Truck Route Ordinance

Tracy has a specific City ordinance relating to truck routes. This ordinance defines weight restrictions, specifies the ability of trucks to enter areas not designated as truck routes, and defines the truck routes within the city.

The weight restrictions that apply to trucks are specified in Section 3.08.300 of the Tracy Municipal Code. This section of the code states that trucks larger than three tons must stay on designated truck routes. Passenger buses under the jurisdiction of the Public Utilities Commission are exempt from this restriction.

Section 3.08.300 also provides that trucks are allowed to temporarily deviate from the designated truck routes for purposes of local deliveries and pick-ups. Otherwise, trucks are supposed to remain on the designated routes specified in Section 3.08.310 of the Tracy Municipal Code.

g. Tracy Parking Requirements

The Tracy Municipal Code includes regulations for off-street parking (Section 10.08.3440 through 3590). These regulations identify minimum parking requirements for different land uses, as well as parking design, required landscaping and parking space size, which is established in the City of Tracy Standard Plan #154.

2. Roadway System

There are three major freeways serving the City, Interstate 205 (I-205), Interstate 580 (I-580) and Interstate 5 (I-5). Local roadways are classified in the current General Plan as freeways, expressways, boulevards, rural highways, major and minor arterials, collectors and local streets and roads.

The primary roadway network includes the following roadways:

- ◆ **Interstate 205 (I-205)** extends from I-580 to I-5 and extends east west through the northern portion of the City of Tracy. Interchanges are provided at West Eleventh Street, Grant Line Road, Tracy Boulevard, and MacArthur Drive. West of Eleventh Street, I-205 has six lanes. The remaining sections of I-205 are four lanes. The posted speed limit on I-205 is 70 miles per hour.
- ◆ **Interstate 580 (I-580)** extends from the San Francisco Bay Area, through the Altamont Pass, and connects to I-5 south of Tracy. This facility has four lanes in the segments adjacent to the City of Tracy with a posted speed limit of 70 miles per hour.
- ◆ **Interstate 5 (I-5)** is a major roadway that extends north-south throughout the state of California. In San Joaquin County, I-5 connects Stockton to Tracy with the cities of Stockton, Lathrop and Manteca. Those sec-

tions adjacent to the City of Tracy have four travel lanes with a posted speed limit of 70 miles per hour.

- ◆ **Grant Line Road** is a parallel road to I-205 that extends through the northern areas of Tracy. The road width varies from two lanes to six lanes with a majority of the roadway having four travel lanes and a raised median. The six-lane section extends from I-205 to Corral Hollow Road. The road is predominantly four-lanes between Corral Hollow Road and MacArthur Drive. Several sections have medians and bike lanes. In other segments, such as those found between Holly Drive and Lincoln Boulevard, the raised median is replaced with a striped two-way left turn lane. In the Tracy Roadway Master Plan, Grant Line Road is designated a major arterial west of Chrisman Road and an expressway from Chrisman Road to I-205. Speed limits along Grant Line Road range from 30 to 55 miles per hour.
- ◆ **Eleventh Street**, which also parallels I-205, is one of the major east-west roadways in the City of Tracy. The roadway width varies from four to six lanes with most segments containing a median and bicycle lanes. The posted speed limit varies from 30 miles per hour in the urban areas of the City to 55 miles per hour east of Chrisman Road. The Roadway Master Plan designates this roadway as a major arterial from Corral Hollow Road to MacArthur Drive, and the segments west of Corral Hollow and east of MacArthur Drive are classified as an expressway.
- ◆ **Schulte Road** is an east-west roadway south of Eleventh Street. This roadway varies between two lanes and four lanes with bicycle lanes and sidewalks on certain sections. The roadway is four lanes west of MacArthur Drive and two lanes east of MacArthur Drive. The section that extends from Central to Corral Hollow Road has on-street bicycle lanes. The posted speed limit varies between 35 miles per hour in the urbanized areas of Tracy to 55 miles per hour west of Lammers Road. The planned segment connecting Corral Hollow with Lammers Road has not yet been built. Schulte Road is classified as a major arterial in the Roadway Master Plan.

- ◆ **Valpico Road**, which lies to the south of Schulte Road, extends from Chrisman Road to Lammers Road. The majority of the roadway has four lanes with some two-lane segments at the eastern and western boundary of the city. When the road has four travel lanes, there is a median present. The posted speed limit varies from 35 to 45 miles per hour. The Roadway Master Plan classifies Valpico as a major arterial.
- ◆ **Linne Road** is the southernmost major road in the City of Tracy and extends from Lammers Road to east of I-5. The road has two lanes throughout the study with a speed limit that varies from 35 to 45 miles per hour. The posted speed limit for a majority of the roadway within the city limits is 45 miles per hour. Linne Road west of MacArthur Drive is classified as a future expressway in the Roadway Master Plan.
- ◆ **Lammers Road** is a major north-south roadway that serves as the western boundary of the existing developed area of the City of Tracy. There are two travel lanes on the existing sections of Lammers Road. There is no median on these two lane segments. There is an on-street bicycle lane on the eastern side of the roadway in the segment north of Eleventh Street. The posted speed limit within the city is 45 to 50 miles per hour. Lammers Road is classified as a future expressway in the adopted Roadway Master Plan.
- ◆ **Corral Hollow Road** serves as one of the major north-south roadways in the City of Tracy. This roadway extends from the San Joaquin/Alameda County border south of I-580 to north of I-205. South of Grant Line Road, this roadway has four lanes with a posted speed limit varying between 35 and 40 miles per hour. In the segment from Schulte Road to Grant Line Road, there is a raised median on the roadway. North of Grant Line Road, the roadway has only two lanes with no median. There are no bike lanes on Corral Hollow Road. Corral Hollow Road is classified as a major arterial in the Roadway Master Plan.
- ◆ **Tracy Boulevard**, which runs north-south, is east of Corral Hollow Road and extends from I-580 in the southern portion of the City past I-205 to State Route 4 in the north. There are four travel lanes in the segments of the roadway within the city limits. Median treatments include

raised medians and two way left turn lanes. The posted speed limit varies from 30 miles per hour (south of Grant Line Road) to 45 miles per hour (south of Valpico Road). Like Corral Hollow Road, Tracy Boulevard is also classified as a major arterial in the Roadway Master Plan.

- ◆ **MacArthur Drive** runs north-south one mile to the east of Tracy Boulevard. The southern section of the roadway has two lanes, but the segment between Eleventh Street and I-205 has four travel lanes. Several portions of the four-lane section have a raised median and in-street bicycle lanes. The posted speed limit on MacArthur Road varies from 35 to 55 miles per hour. MacArthur is classified as a major arterial in the adopted Roadway Master Plan.
- ◆ **Chrisman Road** is a two-lane road on the eastern side of the City of Tracy. The posted speed limit varies from 35 to 45 miles per hour. Presently a rural road, Chrisman is classified as a future expressway in the adopted Roadway Master Plan.

3. Freeway Interchanges

There are nine freeway interchanges adjacent to the City of Tracy and the proposed SOI. Five of these interchanges are found on I-205. The remaining interchanges are found on I-580 and I-5. The interchange locations are listed below:

- ◆ I-205/Mountain House Parkway
- ◆ I-205/Eleventh Street
- ◆ I-205/Naglee Road/Grant Line Road
- ◆ I-205/Tracy Boulevard
- ◆ I-205/MacArthur Drive
- ◆ I-580/Mountain House Parkway
- ◆ I-580/Corral Hollow Road
- ◆ I-5/Eleventh Street
- ◆ I-5/Kasson Road

The I-205/Eleventh Street and I-5/Eleventh Street are high-speed uncontrolled interchanges while I-205/Naglee Road/Grant Line Road, I-205/Tracy

Boulevard, and I-205/MacArthur Drive are signalized interchanges. The remaining four interchanges, I-205/Mountain House Parkway, I-580/Mountain House Parkway, I-580/Corral Hollow Road, and I-5/Kasson Road, handle low volumes of traffic and are considered low capacity rural interchanges.

Currently the I-205/MacArthur Drive and the I-580/Corral Hollow Road interchanges have planned improvements to handle traffic volumes due to projected growth in the Tracy area. A preliminary study for the I-205/MacArthur was conducted and recommended the addition of a west-bound loop on-ramp, and realigned westbound off-ramp, and diagonal west-bound on-ramp. A new interchange configuration for I-580/Corral Hollow Road has not been identified at this time.

There are also three new planned interchanges: I-205/Lammers Road, I-580/Lammers Road, and I-205/Chrisman Road. The I-205/Lammers Road interchange is currently undergoing a Caltrans project development process, including design studies to define lane configuration and alignment. The draft Caltrans Project Study Report calls for the interchange to be located about 1,500 feet to the west of the I-205/Byron Road underpass, and may result in the elimination of the existing I-205 west Eleventh Street interchange. The I-580/Lammers Road and I-205/Chrisman Road interchanges are not under detailed study at this time.

4. Major Intersections

There are 43 major intersections within the Tracy Planning Area. Major intersections are those that occur along the existing or future arterials roadways. The locations of these intersections are shown on Figure 4.4-1. Figures 4.4-2A and 4.4-2B provide the configuration of each intersection including the number of turn lanes, through lanes, and the traffic control for each approach.

Of the 43 major intersections, 26 currently operate under signal control. Some of these traffic signals are operated by Caltrans while others are under the jurisdiction of the City of Tracy. The remaining 17 major intersections

operate under stop sign control. A major of these unsignalized intersections are found along Schulte Road, Valpico Road and Linne Road. These stop sign controlled intersections include side-street stop sign controlled (major street operates freely) or all-way stop sign controlled intersections (all approaches must stop for stop signs). A list of these intersections is provided in Table 4.4-1.

5. Level of Service Criteria

The concept of “Level of Service” (LOS) is used to characterize how well the roadway network operates. These evaluations are based on empirical data collected and reported in the 2000 Highway Capacity Manual, which is maintained by the Transportation Research Board. LOS is a standard measure of the quality of traffic flow and uses letter grades from A (best) to F (worst) and is determined by assessing the magnitude of traffic flow on a roadway and the ability of that facility to handle the traffic flow. The following goes into more detail about LOS for different types of roadways.

The current City standards are a LOS C for existing and future streets within the City Limit. A LOS D on streets and intersections is allowed within one-quarter mile of any freeway, to prevent city streets from becoming attractive detours for inter-regional travel. However, for the purposes of this EIR, the new LOS thresholds included in the proposed General Plan, as described later, are used.

i. Freeways

The freeway LOS analysis is based on a volume to capacity ratio (V/C ratio) analysis using an assumed value of 2,200 vehicles per lane. LOS is assigned to each freeway segment based on the V/C ratios given Table 4.4-2.

While the City of Tracy does not set LOS standards for freeways, the San Joaquin County Congestion Management Program (CMP) has general standards for roadways such as freeways. The San Joaquin CMP considers LOS E or F to be unacceptable conditions, except on certain roadway links. Exceptions include I-205, where the San Joaquin County CMP has set LOS E (east

FIGURE 4.4-1

EXISTING MAJOR INTERSECTIONS AND TRAFFIC CONTROLS

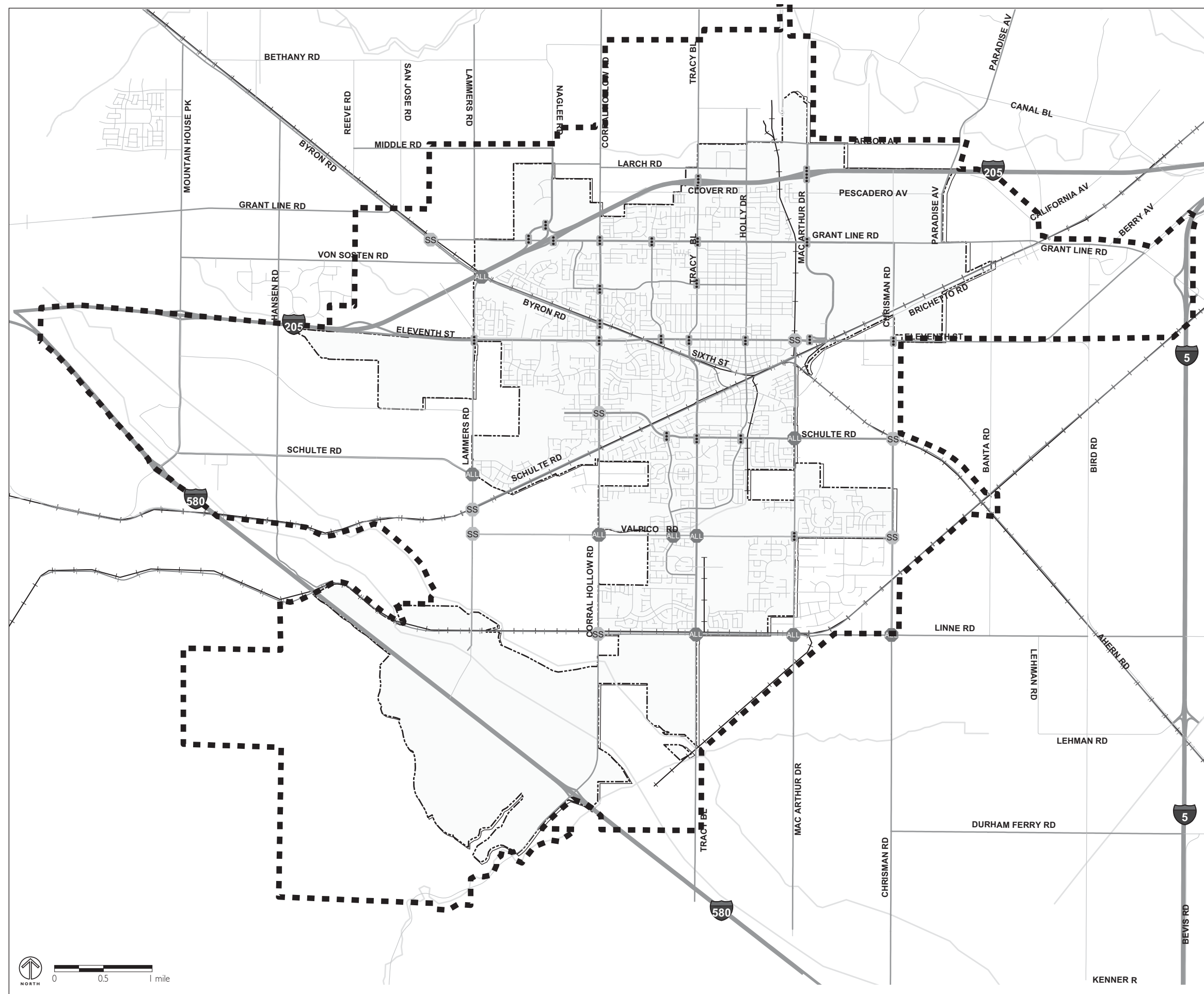


Figure 4.4-1 Existing Major Intersections and Traffic Controls – color 11x17
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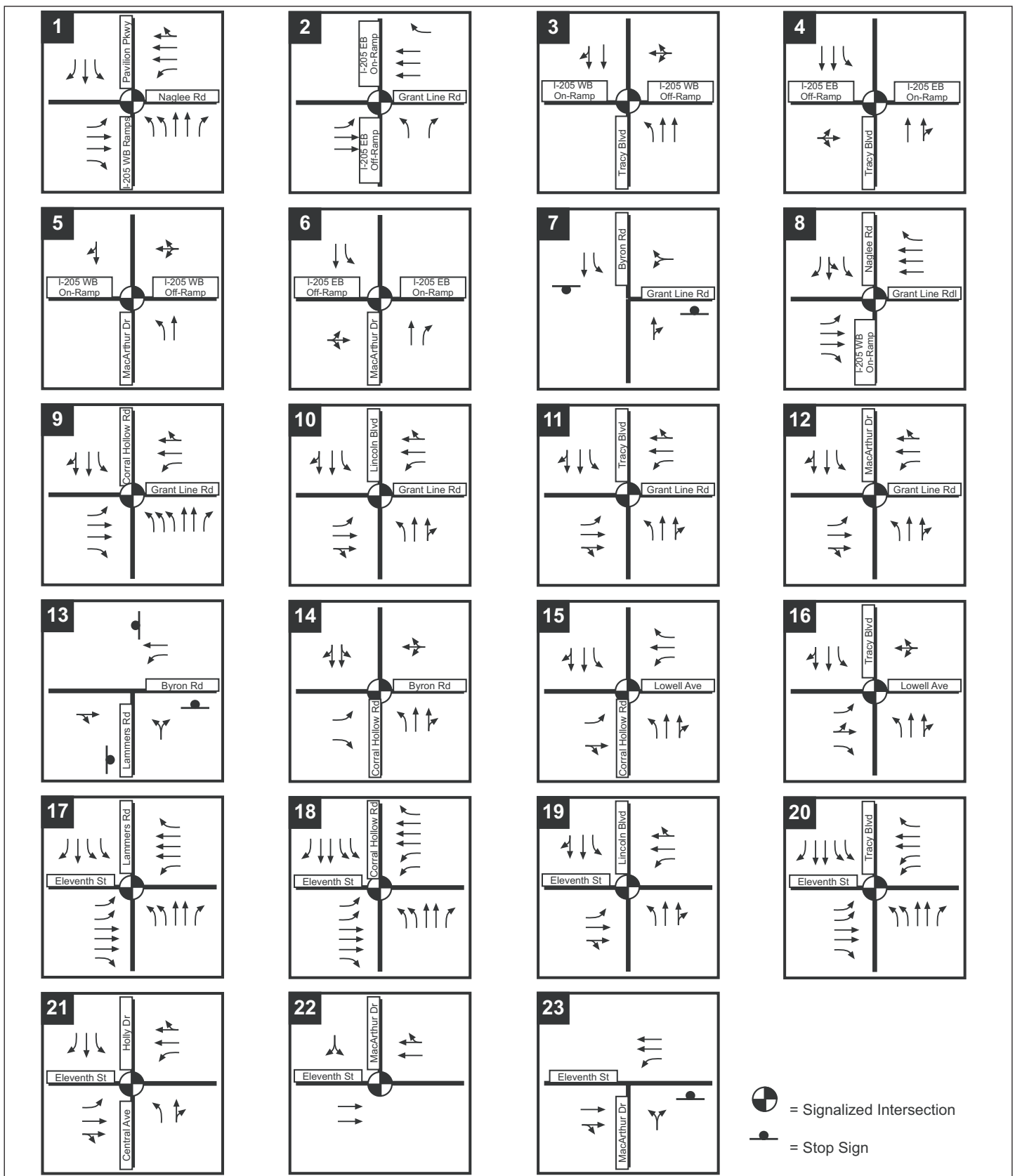


FIGURE 4.4-2A
EXISTING LANE CONFIGURATION

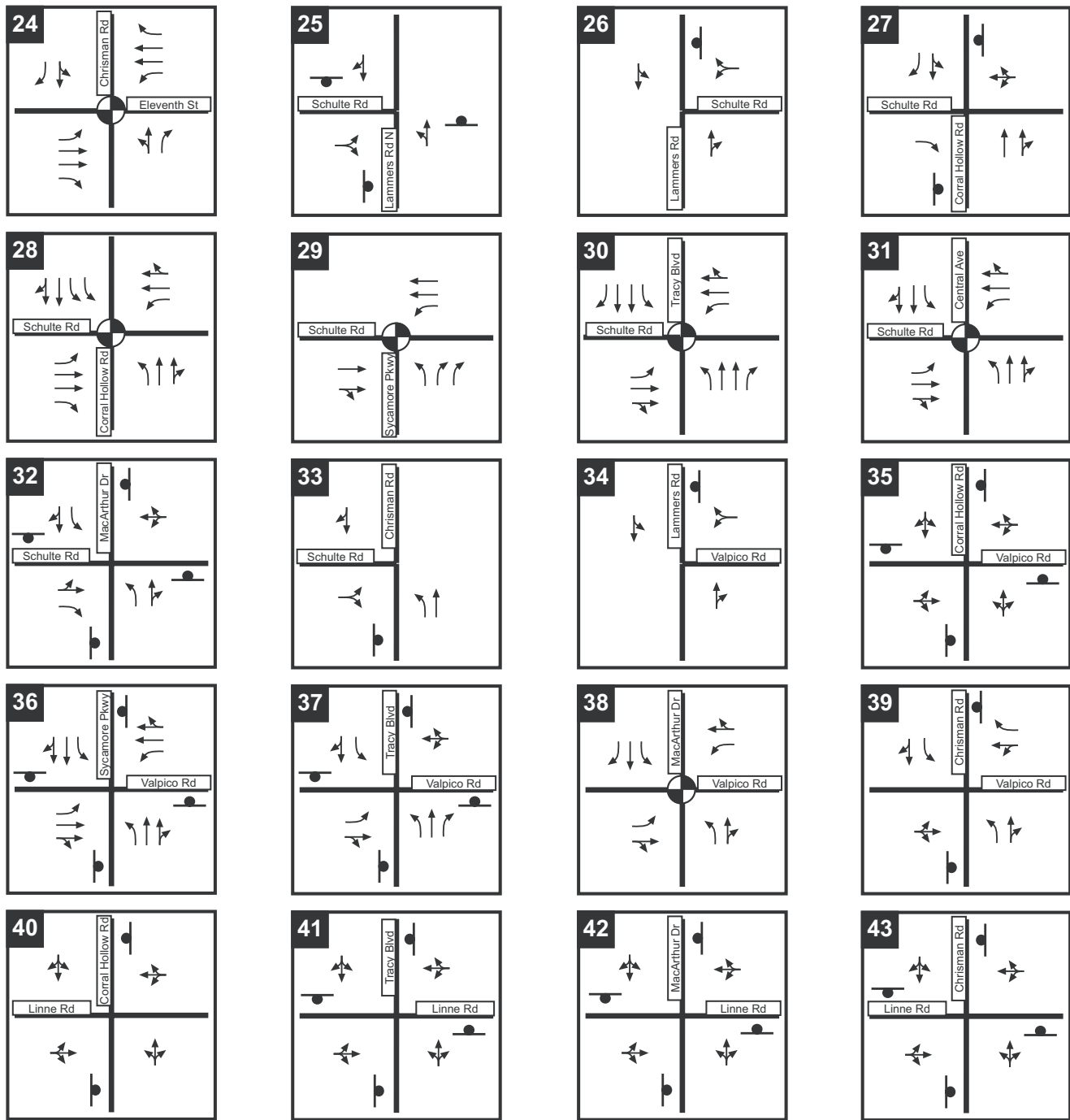


FIGURE 4.4-2B

EXISTING LANE CONFIGURATION

CITY OF TRACY

GENERAL PLAN DRAFT EIR

TABLE 4.4-1 **MAJOR INTERSECTIONS**

Reference Number	Intersection	Control Type (as of 2003)
1	I-205 WB Ramps/Naglee Road	Signal
2	I-205 EB Ramps/Grant Line Road	Signal
3	I-205 WB Ramps/Tracy Boulevard	Signal
4	I-205 EB Ramps/Tracy Boulevard	Signal
5	I-205 WB Ramps/MacArthur Drive	Signal
6	I-205 EB Ramps/MacArthur Drive	Signal
7	Grant Line Road/Byron Road	SSS
8	Grant Line Road/Naglee Road	Signal
9	Grant Line Road/Corral Hollow Road	Signal
10	Grant Line Road/Lincoln Boulevard	Signal
11	Grant Line Road/Tracy Boulevard	Signal
12	Grant Line Road/MacArthur Drive	Signal
13	Byron Road/Lammers Road	AWS
14	Byron Road/Corral Hollow Road	Signal
15	Lowell Avenue/Corral Hollow Road	Signal
16	Lowell Avenue/Tracy Boulevard	Signal
17	Eleventh Street/Lammers Road	Signal
18	Eleventh Street/Corral Hollow Road	Signal
19	Eleventh Street/Lincoln Boulevard	Signal
20	Eleventh Street/Tracy Boulevard	Signal
21	Eleventh Street/Central Avenue	Signal

TABLE 4.4-1 (CONT'D) **MAJOR INTERSECTIONS**

22	Eleventh Street/MacArthur Drive (N)	Signal
23	Eleventh Street/MacArthur Drive (S)	SSS
24	Eleventh Street/Chrisman Road	Signal
25	Schulte Road/Lammers Road North	AWS
26	Schulte Road/Lammers Road South	SSS
27	Schulte Road/Corral Road South	SSS
28	Schulte Road/Corral Road North	Signal
29	Schulte Road/Sycamore Parkway	Signal
30	Schulte Road/Tracy Boulevard	Signal
31	Schulte Road/Central Avenue	Signal
32	Schulte Road/MacArthur Drive	AWS
33	Schulte Road/Chrisman Road	SSS
34	Valpico Road/Lammers Road	SSS
35	Valpico Road/Corral Hollow Road	AWS
36	Valpico Road/Sycamore Parkway	AWS
37	Valpico Road/Tracy Boulevard	AWS
38	Valpico Road/MacArthur Drive	Signal
39	Valpico Road/Chrisman Road	SSS
40	Linne Road/Corral Hollow Road	SSS
41	Linne Road/Tracy Boulevard	AWS
42	Linne Road/MacArthur Drive	AWS
43	Linne Road/Chrisman Road	AWS

Note: AWS=all way stop; SSS=side street stop; EB=east bound; WB=west bound.
Source: Fehr & Peers, December 2003.

TABLE 4.4-2 **LEVEL OF SERVICE CRITERIA FOR FREEWAYS**

Level of Service	Volume to Capacity Ratio
A	0 to 0.24
B	> 0.24 to 0.40
C	> 0.40 to 0.58
D	> 0.58 to 0.78
E	> 0.78 to 1.00
F	> 1.00

Source: Adapted from page 23.-3 in 2000 Highway Capacity Manual.

of MacArthur Drive) and LOS F (west of MacArthur Drive) as acceptable levels of service.

ii. Roadways

Roadway impacts within Tracy were assessed using roadway segment capacities derived from the 2000 Highway Capacity Manual, as documented in the LOS standards published by the Florida Department of Transportation.¹ Table 4.4-3 provides an overview of LOS standards for two and four lane roads.

iii. Intersections

Like other roadway facilities, intersections are evaluated using a LOS system. For this EIR and for preparation of the General Plan, this evaluation is based on methodologies provided in the 2000 Highway Capacity Manual. The 2000 Highway Capacity Manual utilizes a methodology that assesses the average

¹ The Florida Department of Transportation has done extensive research into roadway capacities, which no other state has undertaken. As a result, Florida's conclusions are used throughout the country.

TABLE 4.4-3 **ROADWAY SEGMENT CAPACITIES (COUNTY ROADWAYS)**

# of Lanes	LOS Thresholds ¹				
	LOS A	LOS B	LOS C	LOS D	LOS E
Two	**2	**2	480	760	810
Four	**2	**2	1,120	1,620	1,720

¹ LOS Thresholds developed by Florida Department of Transportation Systems Planning Office based on data provided by the Highway Capacity Manual (2000) and other sources. These LOS thresholds are intended for use in general planning applications and are not intended to replace detailed operational analysis.

² LOS thresholds cannot be reached due to the typical design and operation of these roadway types.

control delay at intersections. The LOS ranges for signalized intersections is provided below in Table 4.4-4.

Unsignalized intersections are analyzed using a similar methodology, but delay is calculated only for movements that are controlled by the stop sign. Therefore the delay at side-street stop controlled intersections reflects only the delay accruing to vehicles that are stopping at the stop sign, while through traffic on the main street flows uninterrupted. The LOS ranges for the unsignalized intersections are shown in Table 4.4-5.

6. Existing Traffic Conditions

The following provides a summary of the existing traffic conditions on the major roadways described above.

a. Freeway Volumes

The most recent daily counts available for the freeway facilities in and around the City of Tracy are shown on Table 4.4-6. As shown in this table, I-205 carries approximately 90,000 vehicles per day in these segments directly adjacent to the City. Segments to the west of the city carry between 110,000 and 119,000 vehicles per day. The volumes on I-5 vary between 21,500 (south of

TABLE 4.4-4 **SIGNALIZED INTERSECTION LOS CRITERIA**

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

Note: V/C=volume/capacity

Source: *Highway Capacity Manual*, Transportation Research Board, 2000.

TABLE 4.4-5 **UNSIGNALIZED INTERSECTION LOS CRITERIA**

Level of Service	Description	Average Control Per Vehicle (Seconds)
A	Little or no delays	< 10.0
B	Short traffic delays	> 10.0 to 15.0
C	Average traffic delays	> 15.0 to 25.0
D	Long traffic delays	> 25.0 to 35.0
E	Very long traffic delays	> 35.0 to 50.0
F	Extreme traffic delays with intersection capacity exceeded	> 50.0

Source: *Highway Capacity Manual*, Transportation Research Board, 2000.

Eleventh Street) and 143,000 north of the I-5/I-205 junction. The volumes on I-580 after it diverges from I-205 are approximately 40,000 vehicles per day. A review of historical records indicates that freeway volumes on I-205 have steadily increased from 1980 to 2002. Converted into an annual rate, this growth is 16 percent per year with over 300 percent growth from 1980 to 2002. This growth can be attributed to regional growth that has occurred in San Joaquin County and also growth in Tracy. Over the same period, the population of Tracy increased 18,000 to 65,800, over 200 percent increase, with the population of San Joaquin County nearly doubling over this same period with an increase from 347,000 to 595,000.

b. Freeway LOS Results

Based on the LOS criteria, Fehr & Peers evaluated the existing PM Peak Hour operation of the freeway facilities in the Tracy area, which are summarized in Table 4.4-7. The LOS for eastbound segments is F on both the six lane and four lane segments of I-205. This condition is consistent with field observations that noted significant congestion on I-205 during the afternoon period. Operations in the off-peak direction are generally LOS C or better.

TABLE 4.4-6 **2002 FREEWAY VOLUMES**

Freeway	Segment	Daily Volume
I-205	I-205/I-580 Diverge to Mountain House Pkwy	110,000
I-205	Mountain House Pkwy/Eleventh St.	119,000
I-205	Eleventh Street/Grant Line Rd.	91,000
I-205	Grant Line Rd./Tracy Blvd.	92,000
I-205	Tracy Blvd./MacArthur Drive	92,000
I-205	MacArthur Drive/I-5	92,000
I-580	Livermore Area (Vasco Road to SR 84)	174,000
I-580	Altamont Pass	143,000
I-580	Altamont Pass to I-205/I-580 Diverge	143,000
I-580	I-205/I-580 Diverge to Mountain House Parkway	40,500
I-580	Mountain House Parkway/Lammers Road	41,000
I-580	Corral Hollow Road/MacArthur Drive	38,000
I-5	North of Jct. I-205	143,000

Source: CalTrans' 2002 Freeway ADT

TABLE 4.4- 7 **FREEWAY SEGMENTS: EXISTING PM PEAK-HOUR PEAK-DIRECTION VOLUMES AND LOS**

Freeway	Segment	Direction	Existing Number of Lanes	Existing Volume	Existing LOS
I-205	I-205/I-580 Diverge to Mountain House Parkway	EB	3	6,300	F
		WB	3	2,200	B
I-205	Mountain House Parkway / Eleventh Street	EB	3	6,300	F
		WB	3	2,500	B
I-205	Eleventh Street / Grant Line Road	EB	2	4,800	F
		WB	2	2,200	C
I-205	Grant Line Road / Tracy Boulevard	EB	2	4,900	F
		WB	2	2,400	C
I-205	Tracy Blvd / MacArthur Drive	EB	2	5,000	F
		WB	2	2,300	C
I-205	MacArthur Drive / Junction of I-205 / I-5	EB	2	5,200	F
		WB	2	2,400	C
I-580	Livermore Area (Vasco Road to SR 84)	EB	4	10,100	F
I-580	Altamont Pass	EB	4	8,000	E
I-580	Altamont Pass to I-205/I-580 Diverge	EB	4	8,000	E
I-580	I-205/I-580 Diverge to Mountain House Parkway	EB	2	1,900	B
I-580	Mountain House Parkway / Lammers Road	EB	2	2,300	B
I-580	Corral Hollow Road / MacArthur Drive	EB	2	2,300	B
I-5	205 Interchange - North	EB	4	6,000	C

Notes:

1. Future LOS calculations assume a per-lane capacity of 2,200 per hour on freeway facilities
2. I-5, I-205 & I-580 Peak Hour data from Caltrans (2003)
3. Peak hour Traffic counts on Altamont Pass Road, Patterson Pass Road, and Tesla Road estimated from daily counts.

Source : Fehr & Peers, 2004.

This directionality is reflective of the high number of workers who travel from San Joaquin County to the Bay Area for work and other purposes. While not shown in the table, as a result of the morning commute, there would be similar congestion occurring during the AM Peak hours in the opposite direction. Based on these results, it can be concluded that I-205 is currently operating at a deficient level in the eastbound direction during the afternoon period. In addition, I-580 through the Altamont Pass and Livermore is also already operating at LOS E and F in the afternoon for eastbound lanes.

c. Roadway Volume and Operation

Some of the highest volume roadways, according to traffic counts, were Grant Line Road, Corral Hollow Road, Tracy Boulevard and Eleventh Street. Each of these roadways had segments that carried at least 1,000 vehicles directionally during the evening peak hour. The three intersections with the highest volumes (sum of all approaches) include:

- ◆ Eleventh Street / Corral Hollow Road
- ◆ Grant Line Road / Tracy Boulevard
- ◆ Eleventh Street / Tracy Boulevard

Based on the results of these intersection counts, peak hour directional roadway volumes and daily traffic counts were estimated. These counts are shown on Figures 4.4-3 and 4.4-4.

At this time, many of the roadways within Tracy operate at an acceptable LOS (LOS C or better). Traffic volumes and congestion are heaviest in the existing urbanized areas of the City, including Eleventh Street, Corral Hollow Road, and Tracy Boulevard. Congestion and resulting delay is heaviest at the major intersections, such as Eleventh Street/Corral Hollow Road. In other, less-developed areas of the city, such as portions of Lammers Boulevard, Valpico Road, and Linne Road, the traffic volumes and resulting congestion are less than in the developed areas of the City. There is some congestion along these roadways, which usually results from the use of stop signs as traffic control devices.

d. Intersection Volumes and Operation

Turning movement volumes for the 43 major intersections in the City of Tracy are shown on Figure 4.4-5A and 4.4-5B. The majority of these counts were taken in October 2003 with a few counts collected previously in 2002. Morning peak hour counts, defined as the single highest one-hour period between 7:00 AM to 9:00 AM, were taken at all intersections with ramps connecting to I-205. Counts for the evening peak period (single highest hour from 4:00 PM to 6:00 PM) were conducted at all 43 intersections.

Table 4.4-8 provides the level of service results for the study intersections. As shown in the table, a majority of the signalized and unsignalized intersections operate at the LOS C or better. At several unsignalized intersections, traffic attempting to enter the main street from the stop-controlled side-street operates at worse than LOS C.

These unsignalized intersections include:

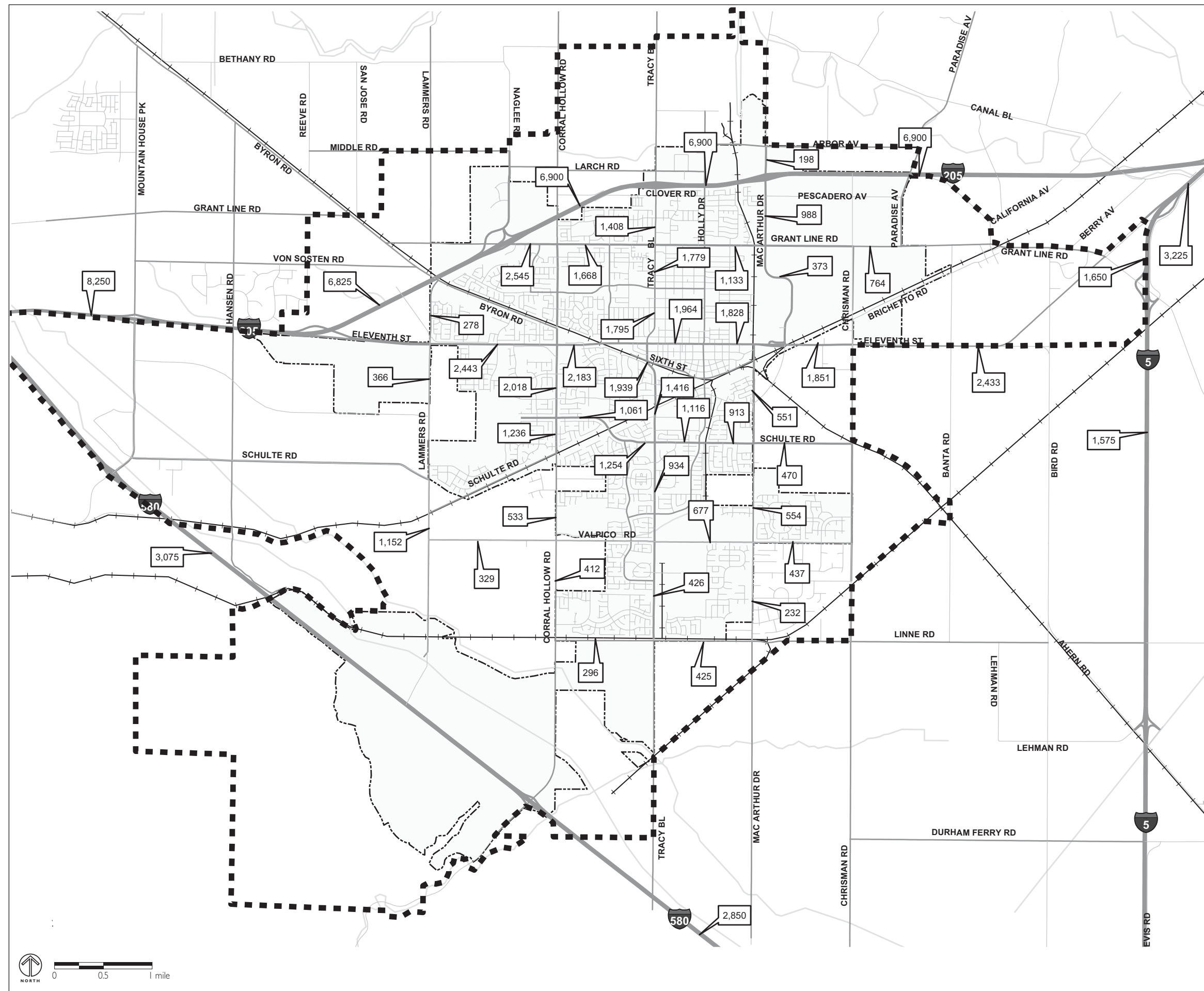
- ◆ Grant Line Road/Byron Road
- ◆ Eleventh Street/MacArthur Drive (south)
- ◆ Schulte Road/Lammers Road (south)
- ◆ Schulte Road/Chrisman Road




There are also a number of intersections that approach but do not exceed the LOS C threshold of 35 seconds of delay. These intersections have average delays that range from 30 to 35 seconds. These intersections include:

- ◆ Grant Line Road/Corral Hollow Road
- ◆ Grant Line Road/Tracy Boulevard
- ◆ Lowell Avenue/Corral Hollow Road
- ◆ Eleventh Street/Corral Hollow Road

FIGURE 4.4-3

ROADWAY SEGMENTS EXISTING PM PEAK HOUR TWO-WAY TRAFFIC VOLUMES



-  **PM Bi-directional Volumes**
-  **City Limits**
-  **Proposed Sphere of Influence**

Source: Fehr & Peers, 2005

Figure 4.4-3 Roadway Segments Existing PM Peak Hour Two-Way Traffic
Volumes 11x17
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ROADWAY SEGMENTS EXISTING DAILY TRAFFIC VOLUMES



Figure 4.4-4 Roadway Segments Existing Daily Traffic Volumes 11x17
[Back](#)

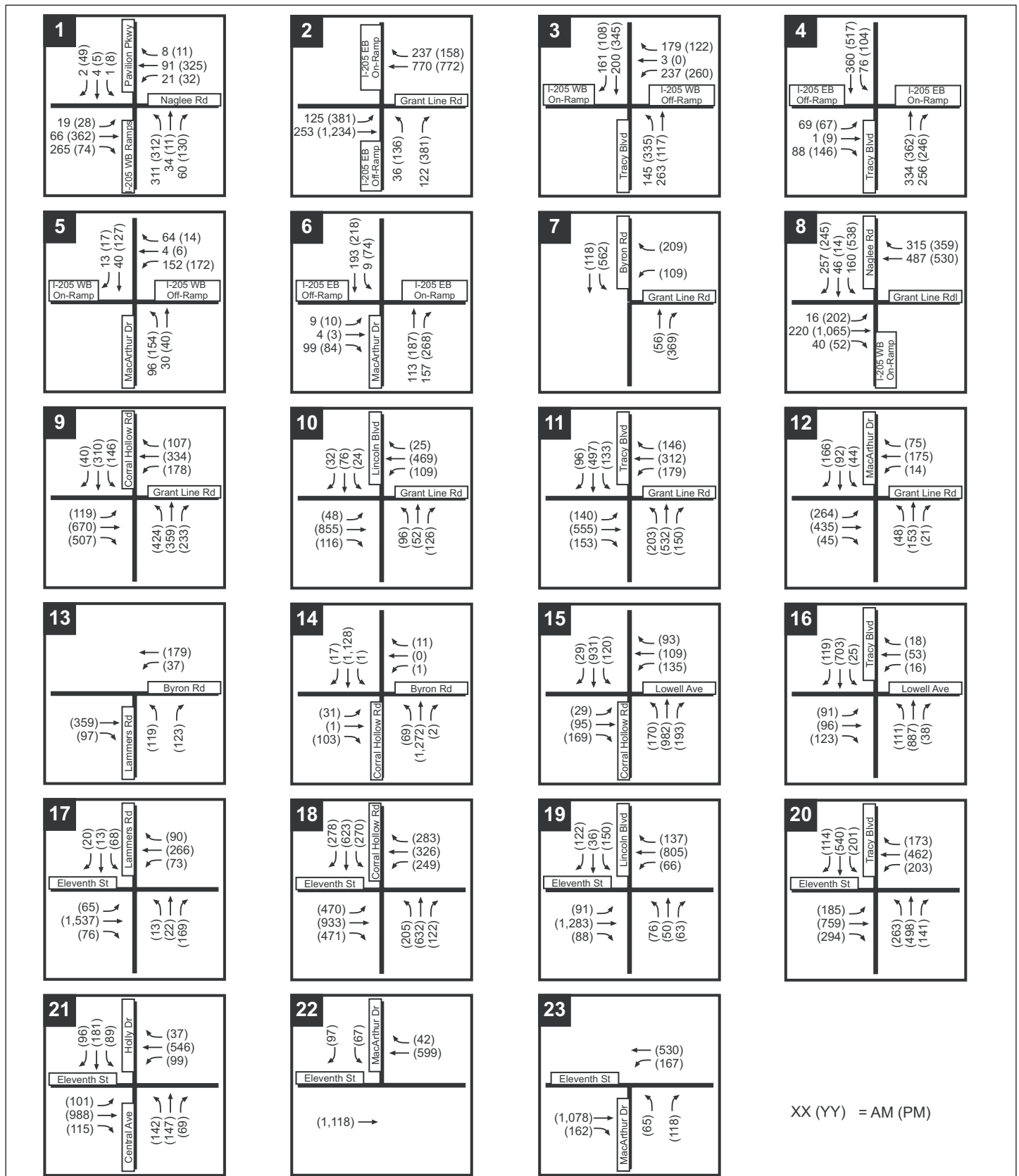
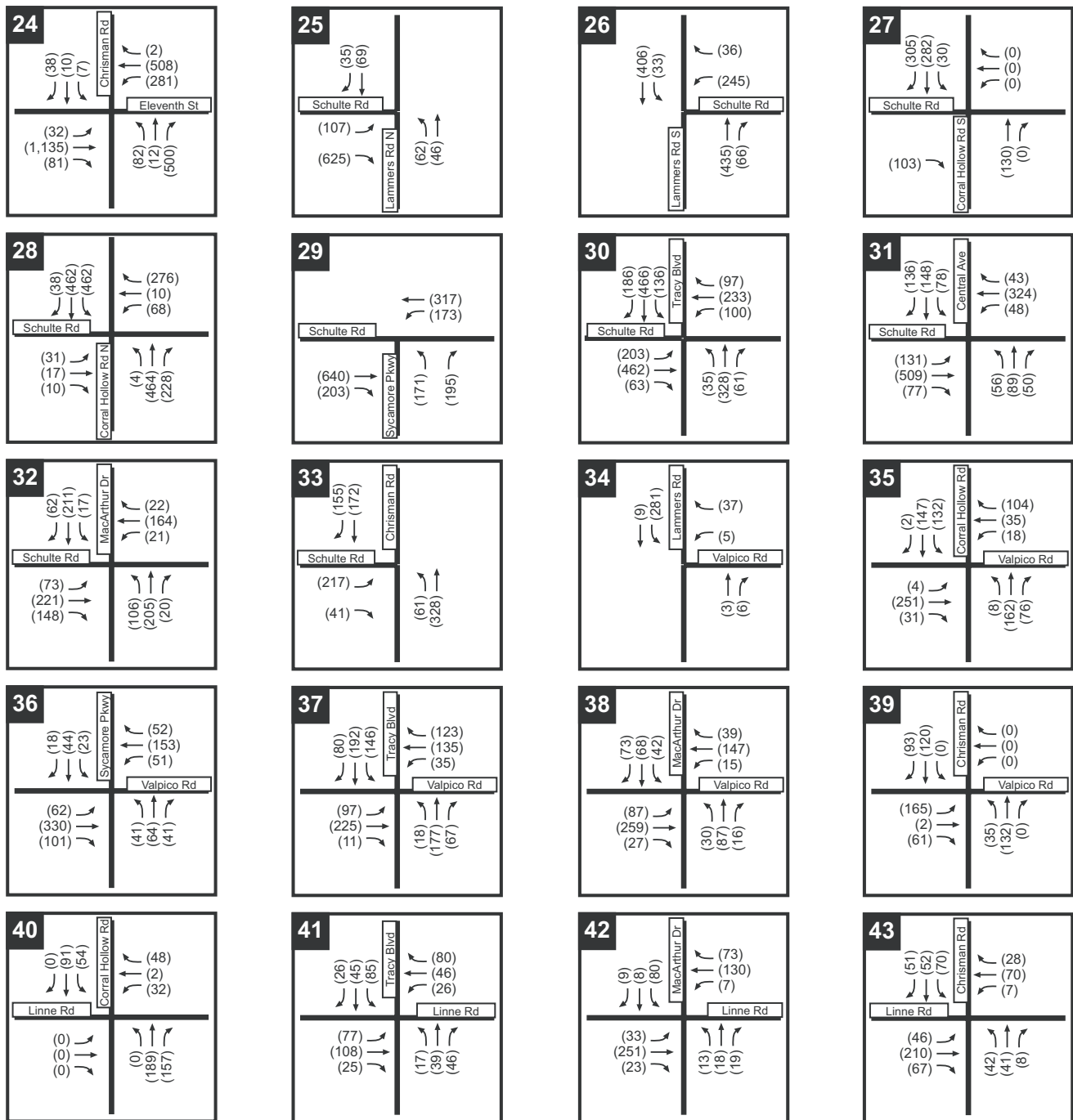


FIGURE 4.4-5A
EXISTING PEAK HOUR TRAFFIC VOLUMES



XX (YY) = AM (PM)

FIGURE 4.4-5B
EXISTING PEAK HOUR TRAFFIC VOLUMES

TABLE 4.4-8 **EXISTING INTERSECTION LEVEL OF SERVICE (LOS)**

Intersection	Signal	Peak Hour	Delay ¹	LOS
I-205 WB Ramps/Naglee Road	Signal	AM, PM	13, 14	B, B
I-205 EB Ramps/Grant Line Road	Signal	AM, PM	11, 20	B, C
I-205 WB Ramps/Tracy Boulevard	Signal	AM, PM	14, 23	B, C
I-205 EB Ramps/Tracy Boulevard	Signal	AM, PM	8, 10	A, A
I-205 WB Ramps/Mac Arthur Drive	Signal	AM, PM	8, 8	A, A
I-205 EB Ramps/Mac Arthur Drive	Signal	AM, PM	6, 5	A, A
Grant Line Road/ Byron Road	SSS	PM	58 (SB)	F
Grant Line Road/ Naglee Road	Signal	AM, PM	8, 12	A, B
Grant Line Road/ Corral Hollow Road	Signal	PM	34	C
Grant Line Road/ Lincoln Boulevard	Signal	PM	19	B
Grant Line Road/ Tracy Boulevard	Signal	PM	35	C
Grant Line Road/ MacArthur Drive	Signal	PM	20	B
Byron Road/ Lammers Road	AWS	PM	13	A
Byron Road/ Corral Hollow Road	Signal	PM	7	A
Lowell Avenue/ Corral Hollow Road	Signal	PM	31	C
Lowell Avenue/ Tracy Boulevard	Signal	PM	26	C
Eleventh Street/ Lammers Road	Signal	PM	21	C

TABLE 4.4-8 (CONT'D) **EXISTING INTERSECTION LEVEL OF SERVICE (LOS)**

Intersection	Signal	Peak Hour	Delay¹	LOS
Eleventh Street/ Corral Hollow Road	Signal	PM	33	C
Eleventh Street/ Lincoln Boulevard	Signal	PM	22	C
Eleventh Street/ Tracy Boulevard	Signal	PM	29	C
Eleventh Street/ Central Avenue	Signal	PM	26	C
Eleventh Street/ MacArthur Drive (North)	Signal	PM	6	A
Eleventh Street/ MacArthur Drive (South)	SSS	PM	262 (NB)	F
Eleventh Street/ Chrisman Road	Signal	PM	17	B
Schulte Road/ Lammers Road North	AWS	PM	20	B
Schulte Road/ Lammers Road South	SSS	PM	69 (WB)	F
Schulte Road/ Corral Road South	SSS	PM	11 (EB)	B
Schulte Road/ Corral Road North	Signal	PM	20	C
Schulte Road/ Sycamore Parkway	Signal	PM	14	B
Schulte Road/ Tracy Boulevard	Signal	PM	21	C
Schulte Road/ Central Avenue	Signal	PM	17	B
Schulte Road/ MacArthur Drive	AWS	PM	15	B
Schulte Road/ Chrisman Road	SSS	PM	25 (EB)	D

TABLE 4.4-8 (CONT'D) **EXISTING INTERSECTION LEVEL OF SERVICE (LOS)**

Intersection	Signal	Peak Hour	Delay ¹	LOS
Valpico Road/ Lammers Road	SSS	PM	9 (WB)	A
Valpico Road/ Corral Hollow Road	AWS	PM	12	A
Valpico Road/ Sycamore Parkway	AWS	PM	11	B
Valpico Road/ Tracy Boulevard	AWS	PM	16	C
Valpico Road/ MacArthur Drive	Signal	PM	22	C
Valpico Road/ Chrisman Road	SSS	PM	12 (EB)	B
Linne Road/ Corral Hollow Road	SSS	PM	11 (WB)	B
Linne Road/ Tracy Boulevard	AWS	PM	9	A
Linne Road/ MacArthur Drive	AWS	PM	10	A
Linne Road/ Chrisman Road	AWS	PM	10	A

Deficient intersections indicated in bold.

Notes:

1-AWS = All way stop, SSS = side street stop.

2-For signalized intersections and all-way stop, delay is average control delay for all vehicles based on criteria in the *2000 Highway Capacity Manual*. For side-street stop- controlled intersections, delay for worst movement calculated using the *2000 Highway Capacity Manual* methodology.

Source: Fehr & Peers, December 2003

7. Bicycle System

The bicycle system in Tracy includes a variety of bicycle facilities. These facilities range from dedicated off-street bicycle routes to on-street facilities designated by signage only.

Bicycle facilities are classified according to a typology established by Caltrans as documented in “Chapter 1000: Bikeway Planning and Design” of the

Highway Design Manual (5th Edition, California Department of Transportation, January 2001). The Caltrans standards provide for three distinct types of bikeway facilities, as generally described below:

- ◆ Class I Bikeway (Bike Path) provides a completely separate right-of-way and is designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized.
- ◆ Class II Bikeway (Bike Lane) provides a restricted right-of-way and is designated for the use of bicycles with a striped lane on a street or highway. Vehicle parking and vehicle/pedestrian cross-flow are permitted.
- ◆ Class III Bikeway (Bike Route) provides for a right-of-way designated by signs or pavement markings for shared use with pedestrians or motor vehicles.

There are some existing Class I bikeway facilities in the city. The longest continuous Class I Bike Path extends from West Eleventh Street to south of Valpico Road. This facility is found to the east of Corral Hollow Road. A second Class I facility runs parallel to North MacArthur Drive and extends from East Eleventh Street to I-205.

Class II facilities are generally located in the western portion of Tracy. These facilities are found along roadways such as Corral Hollow Road and Tracy Boulevard. In addition, there are Class II facilities on Grant Line Road and West Eleventh Street to the west of Tracy Boulevard.

The Class III Bike Route network is most prevalent in the Tracy area. Portions of roadways such as Hickory Avenue, Holly Drive, and Schulte Road include these facilities.

The network of Class I, II, and III facilities are shown on Figure 4.4-6. As shown on the figure, there are extensive bicycle facilities within the city. However, there are significant gaps in the bicycle network. For example, Tracy Boulevard has segments with Class II and Class III designations with other segments containing no bicycle facilities. Because of these gaps, it is not

FIGURE 4.4-6

EXISTING BICYCLE FACILITIES

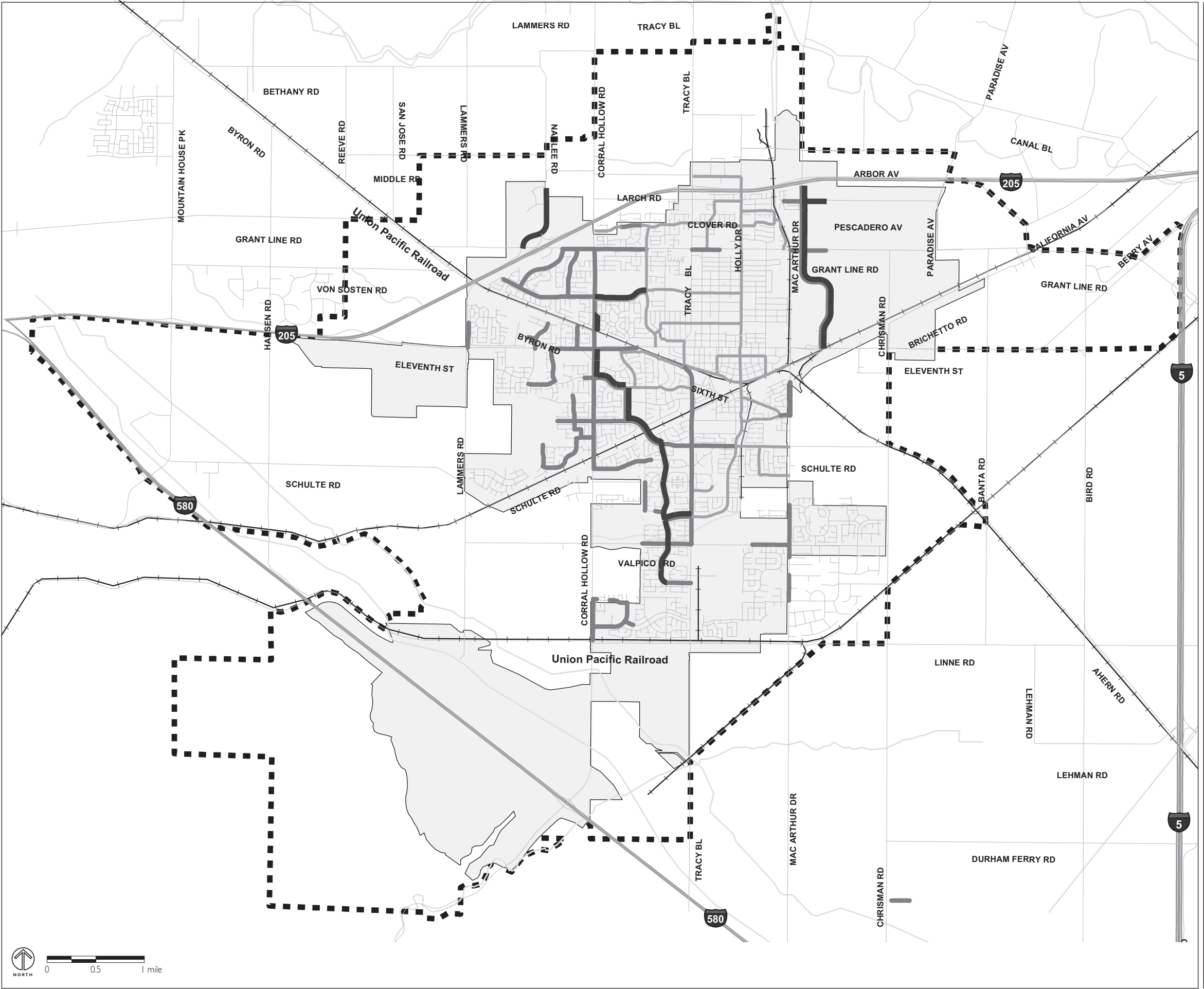


Figure 4.4-6 Existing Bicycle Facilities 11x17
[Back](#)

possible to traverse the city traveling north to south or east to west using the designated bicycle network.

8. Public Transit System

The public transit system serving Tracy includes both a bus and rail passenger component. The bus and rail system provide local and regional connectivity to residents of Tracy.

a. Passenger Bus System

The passenger bus system operating within Tracy includes the following services:

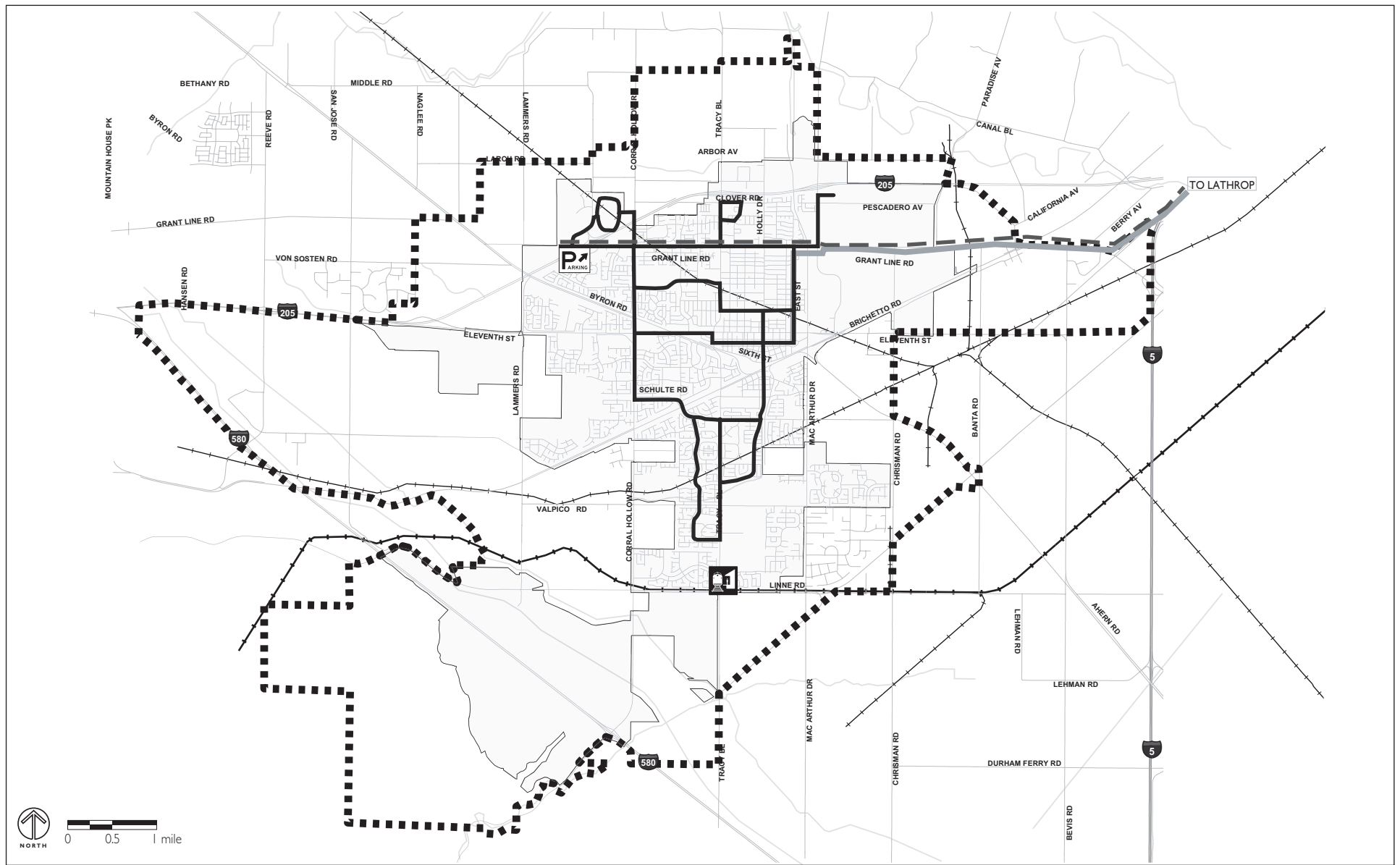
- ◆ Local fixed-route bus service operated by the City of Tracy (Tracer)
- ◆ Regional intercity fixed-route bus service operated by the San Joaquin Regional Transit District (SJRTD)
- ◆ Flexible fixed-route service operated by SJRTD
- ◆ Commuter express bus service operated by SJRTD

Fixed-route services are those that adhere to a strict route and timetable with scheduled stop locations. Flexible-route service is demand responsive system whereby a driver may deviate from the route to pick-up and drop-off passengers. Some transit agencies, such as SJRTD, also operate flexible fixed-route service whereby a driver may temporarily deviate from the designated route for elderly and disable passengers.

i. Local Fixed-Route Bus Service

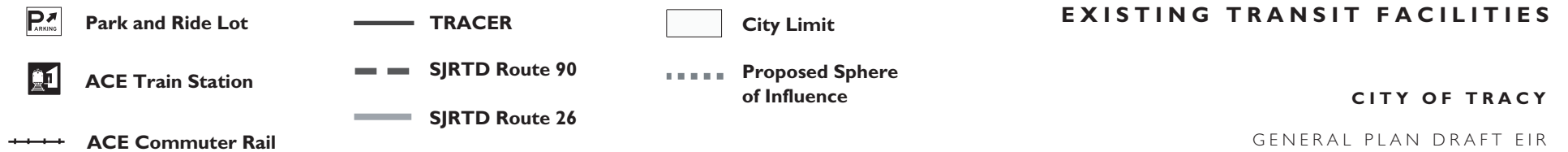
The City of Tracy operates a fixed-route bus system within the City. This service is called Tracer. As of September 2005, the Tracer offers four different routes operating within the existing City limits. The endpoints for the route include City Hall and the West Valley Mall. The streets covered for the Tracer service are shown on Figure 4.4-7.

The Tracer is available Monday through Friday from approximately 7:00 AM to 7:00 PM. The service operates Saturday from 9:00 AM to 5:00 PM. Tracer does not operate Sundays or on certain holidays.



Source: Fehr & Peers, 2005

FIGURE 4.4-7



ii. Regional Intercity Fixed-Route Bus Service

The SJRTD operates one fixed-route bus line (Route 26) that connects Tracy to Stockton and Lathrop along I-5 with future connections to Manteca and Ripon. Route 26 connects with Tracy's Tracer local bus service in downtown Tracy and to future Manteca Transit buses in downtown Manteca and at Wal-Mart. Within the City, Route 26 extends along East Street and Grant Line Road. This route operates Monday through Friday from 5:40 a.m. to 10:25 p.m. Route 26 does not operate on weekends. The route for Route 26 is shown on Figure 4.4-7.

iii. SJRTD Flexible Fixed-Route Service

SJRTD also operates Route 90, which is a flexible fixed-route line. Within the City of Tracy, this route extends along Grant Line Road. Route 90 operates on 1 hour, 45 minute headways in the evenings with 2 hour headways on weekends and holidays. Figure 4.4-7 displays the route for Route 90.

iv. SJRTD Commuter Bus Service

The SJRTD operates a number of commuter bus lines which connect cities in San Joaquin County with major employment locations in the San Francisco Bay Area including Pleasanton, Dublin, Livermore, Mountain View, Palo Alto, and Sunnyvale. These various routes pick-up and drop-off passengers at the Tracy Park-And-Ride facility (indicated on Figure 4.4-7). The pick-up times vary from 4:00 a.m. to 6:00 a.m. with drop-offs ranging from 4:00 p.m. to 6:00 p.m.

v. Bus System Ridership

Table 4.4-9 provides a comparison of the yearly bus service and ridership provided by Tracer as compared to San Joaquin County as a whole, including Tracer. This table provides a comparison of the levels of bus service as measured by annual revenue hours of operation (total hours of operation for all vehicles), total revenue vehicle miles (total mileage for all vehicles), and total number of vehicles in the system. As shown in this table, the total yearly

riders for the Tracer system is 65,118 as compared to nearly a total of 4 million riders using transit in San Joaquin County over the 2000-2001 period.

b. Passenger Rail System

Altamonte Commuter Express (ACE) is a passenger rail service connecting Stockton to San Jose. The ACE station for Tracy is located on Tracy Boulevard at Linne Road. There are currently three ACE trains per day which arrive in Tracy between 4:00 a.m. and 7:00 a.m. These trains then return to Tracy between 5:00 p.m. and 7:00 p.m. Figure 4.4-7 indicates the location of the ACE line as well as the ACE station on Tracy Boulevard.

The latest available daily ridership estimate for ACE service is provided by the 2001 ACE Ridership Survey. This survey indicates that the total daily ridership (boardings and alightings combined) for the ACE system is 2,842 with 19 percent (544) of those riders originating at the Tracy ACE station.

The estimated total annual ridership for ACE is 744,000 per the APTA 2001 Commuter Rail Transit Report. The estimated annual ridership from the Tracy ACE station would therefore be approximately 140,000 based on the results of the daily ridership survey.

9. Freight System

Given its relative location to the San Francisco Bay Area and other areas of San Joaquin County, Tracy is ideally positioned to facilitate the movement of regional freight. The city functions both as a conduit for freight traffic and also as an origin point, particularly for regional truck traffic. For example, Safeway recently relocated its major Bay Area distribution center to Tracy. The goods or freight movement system in the City of Tracy consists of both an extensive rail system and designated truck routes.

TABLE 4.4-9 **BUS TRANSIT RIDERSHIP**

	City of Tracy	San Joaquin County
Total Passengers - Annual	65,118	3,992,281
Vehicle Revenue Hours - Annual		
Weekdays	11,959	162,672
Saturday	-	8,657
Sunday	-	9,734
Total	11,959	181,063
Total Revenue Vehicle Miles	140,800	3,642,301
Vehicles in Operation		
Weekdays - Midday	7	54
Weekdays - Peak	5	86
Saturday	-	20
Sunday	-	20

Source: *State of California Transit Operators and Non-Transit Claimants Annual Report, Fiscal Year 2000-01.*

a. Freight Rail System

There are three major rail lines that enter Tracy from the east, two of which merge, and subsequently exit to the west. There are several minor spur lines along the main lines. One of these spur lines is found south of Linne Road that is used for industrial shipping. The second extends north from Eleventh Street to I-205 and is mainly used by the sugar plant. The existing rail lines are shown on Figure 4.4-8.

These lines are currently owned by Union Pacific Corporation, which operates freight rail service through its Union Pacific Railroad (UPRR) subsidiary. UPRR is the largest railroad in North America with service in over 23 states. The freight lines through Tracy provide connectivity from the West Coast, including major ports such as Oakland, to all other areas of operation.

The main line runs through south Tracy along Linne Road. This line is used as both an industrial (10 freights per day) and commuter (via ACE train service) rail. As mentioned above, the ACE station is also located on this line at the corner of Tracy Boulevard and Linne Road. The remaining lines that tie together in the center of Tracy are known as the “bowtie.” The northwesterly main alignment travels along Byron Road is used minimally and ties into Martinez. The line to the northeast is used for local freight and ties into Stockton. To the southeast UPRR leases the line to California Northern Railroad. The line to the southwest, whose tracks stop at the county line, is no longer in service and is used only for storage.

Given the prevalence of railroad lines, there are a significant number of existing at-grade roadway/railroad crossings. There are currently 23 at-grade crossings. These crossings are distributed throughout the City with two crossings each on Corral Hollow Road, Tracy Boulevard and MacArthur Drive.

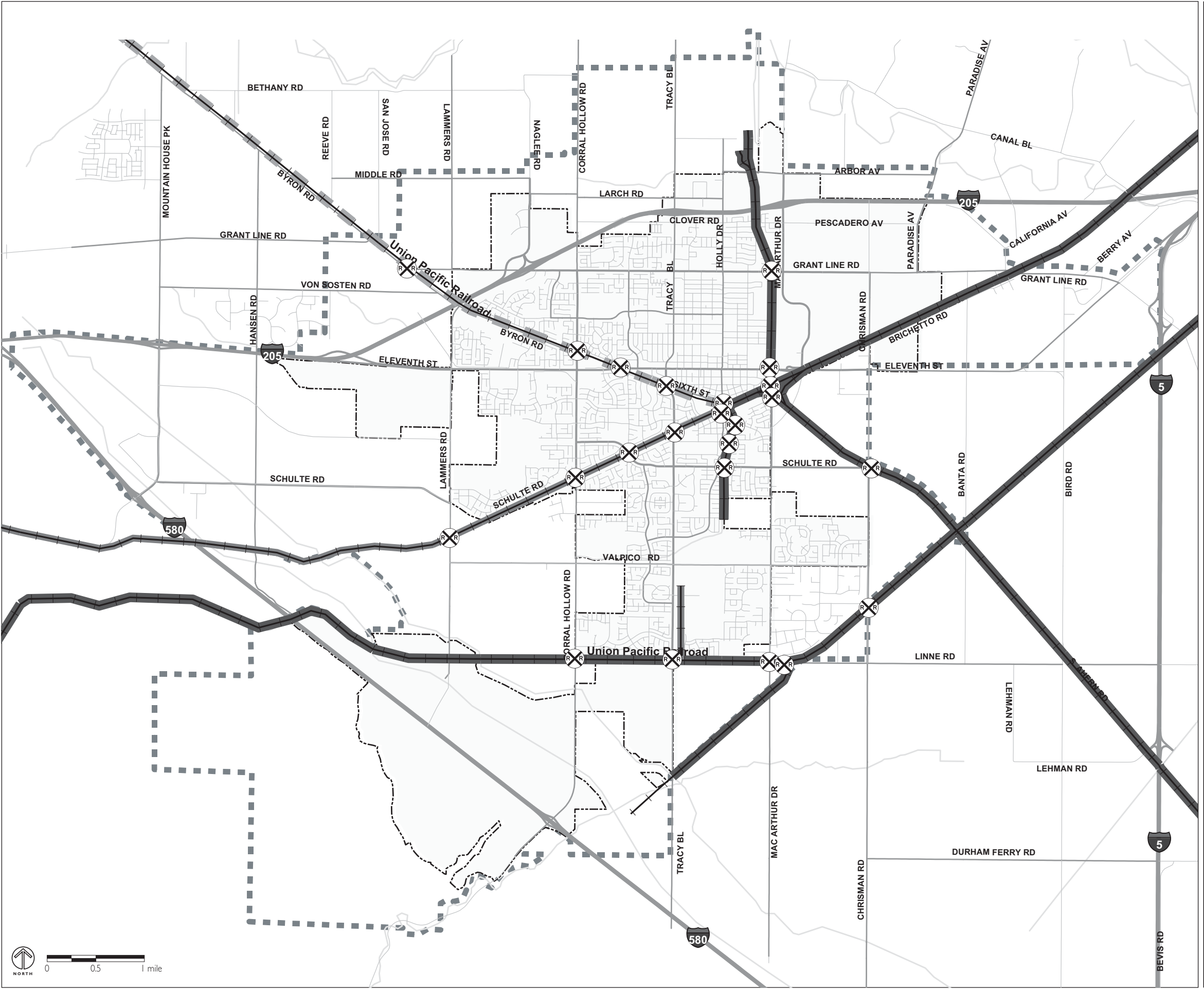
b. Truck Routes

As mentioned before, the City has adopted a truck route ordinance. Figure 4.4-9 provides a map of the designated truck routes within Tracy. These routes include both permanent and temporary truck routes. The designated truck routes in the city include:

- ◆ Arbor Avenue (MacArthur Drive to Holly Drive)
- ◆ Byron Road (west City limits to Lammers Road)
- ◆ Corral Hollow Road (Larch Road to Grant Line Road and Linne Road to I-580)
- ◆ Chrisman Road (north of Valpico portion that is within the City limits)

FIGURE 4.4-8

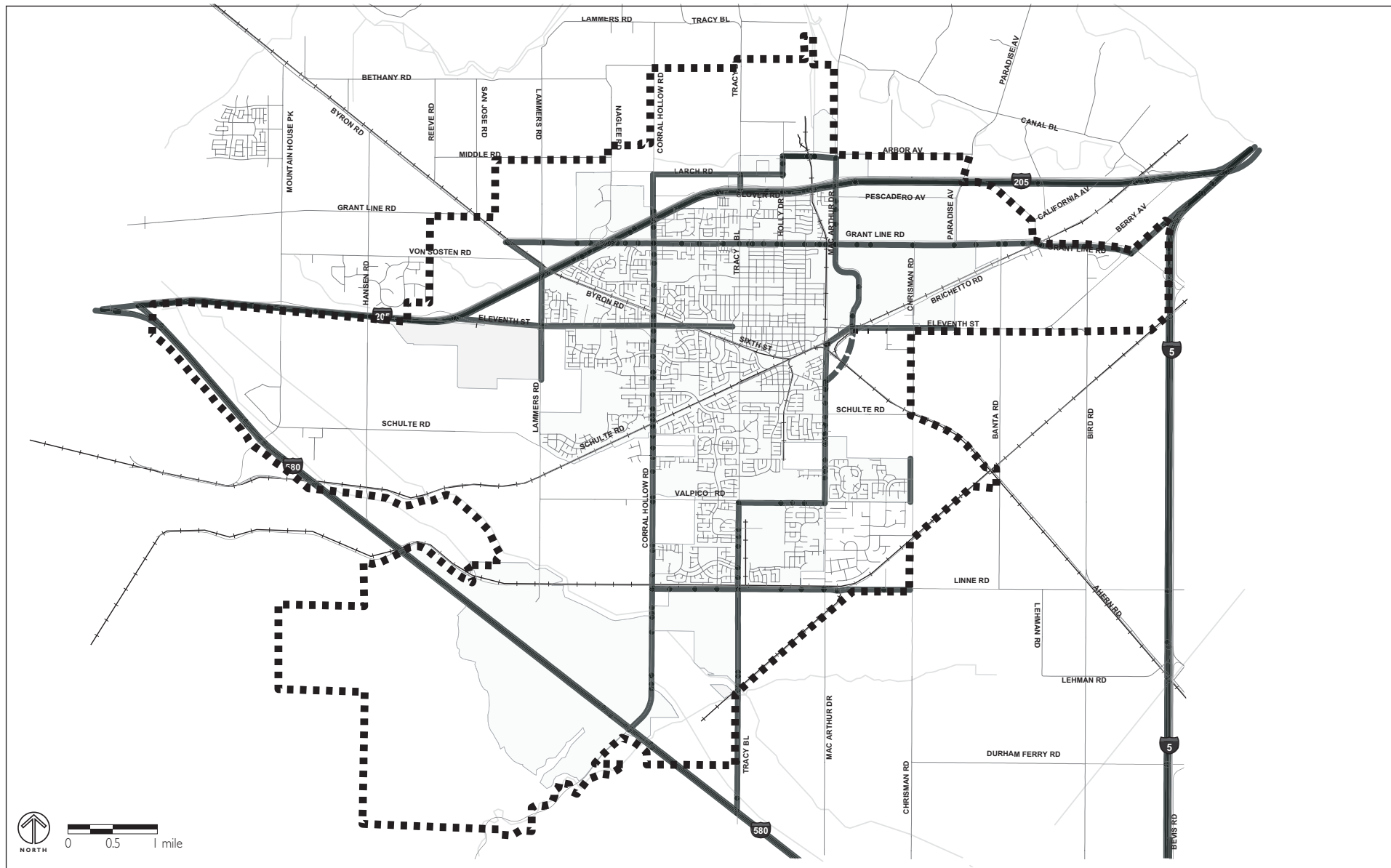
RAIL LINES AND
AT-GRADE CROSSINGS



- At-Grade Crossing
- Daily Use Rail Line
- Sporadic Use Rail Line
- Storage Use Rail Line
- City Limit
- Proposed Sphere of Influence

Source: Fehr & Peers, 2005.

Figure 4.4-8 Rail Lines and At-Grade Crossings 11x17
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Source: Fehr & Peers, 2004 and City of Tracy Municipal Code, Section 3.08.310

FIGURE 4.4-9

- Truck Route (Permanent)**
- Truck Route (Temporary)**
- City Limit**
- Proposed Sphere of Influence**

EXISTING TRUCK ROUTES

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- ◆ Eleventh Street (west City limits to Tracy Boulevard and MacArthur Drive to east City limits; north leg of MacArthur Drive to south leg of MacArthur Drive)
- ◆ Sixth Street (MacArthur Drive to Central Avenue)
- ◆ Grant Line Road (west City limits to Corral Hollow Road and MacArthur Drive to east City limits)
- ◆ Holly Drive (Arbor Avenue to Larch Road)
- ◆ Lammers Road (Byron Road to 0.5 miles south of Eleventh Street)
- ◆ Larch Road (Holly Drive to Corral Hollow Road)
- ◆ Linne Road (east city limits to west city limits)
- ◆ MacArthur Drive (Arbor Avenue to Valpico Road)
- ◆ Tracy Boulevard (Larch Road to I-205 and Valpico Road to south City limits)
- ◆ Valpico Road (Tracy Boulevard to MacArthur Drive)²
- ◆ Tracy Boulevard (south of Valpico Road)
- ◆ Linne Road

In addition to locally designated truck routes, I-205, I-580 and I-5 are designated truck routes by the State of California and are shown on Figure 4.4-9 as designated truck routes.

10. Airport

The Tracy Municipal Airport is a general aviation airport owned by the City and managed by the Parks and Community Services Department. The airport is located to the west of Tracy Boulevard and north of I-580.

B. Standards of Significance

The City of Tracy General Plan would create a significant traffic and circulation impact if it would:

- ◆ Cause an increase in traffic which is substantial in relation to the existing

² Tracy Municipal Code, Section 3.08.310 Designated truck routes.

traffic load and capacity of the street system.

- ◆ Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency or the city for designated roads or highways.
- ◆ Substantially increase hazards due to a design feature or incompatible uses.
- ◆ Result in inadequate emergency access.
- ◆ Result in inadequate parking capacity.
- ◆ Conflict with adopted policies, plans or programs supporting alternative transportation.
- ◆ Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

C. Impact Discussion

The following provides an analysis of the potential impacts the proposed General Plan may have on the circulation system in Tracy. Automobile, public transit, bicycle, pedestrian, as well as air traffic is analyzed in regards to operation and safety issues.

1. Automobile Traffic Impacts

To assess the potential impact of the proposed General Plan on automobile traffic in and around Tracy, Fehr & Peers completed a traffic study for the proposed General Plan. The following provides an overview of the assumptions used for the traffic model, a description of the threshold of significance applied and a discussion how future traffic increases would affect the local and regional roadway system.

a. Modeling Assumptions

The future traffic forecasts for Tracy used in the following analysis were developed using a version of the official SJCOG regional travel demand model

adapted for use in the development of the proposed General Plan and this EIR.

The SJCOG released an updated version of their travel demand model in 2001. The model data sets included a 1999 Base Year model and a 2025 Future Year model. These models are regional models and take into consideration San Joaquin County, the San Francisco Bay Area (Alameda, Contra Costa, Marin, Santa Clara, San Francisco, San Mateo, Sonoma, Solano and Napa counties), portions of Stanislaus County, and portions of the Sacramento Metropolitan area. Each model year (1999 and 2025) included roadway networks and land use data. The SJCOG model has detailed information regarding land use and roadway networks in San Joaquin County, while the data outside the county is more aggregated.

The 2025 Future Year SJCOG travel demand model reflects regionally accepted land use projections for each of the jurisdictions in San Joaquin County, as defined by SJCOG. The 2025 Future Year roadway network also reflects the programmed and approved roadways, as defined by the adopted RTP.

This SJCOG model, which reflects adopted land use projections and roadway networks, was modified to show more detail within the Tracy area for both the Base Year (2002-2003 existing condition) and the proposed General Plan analysis year, which was defined to be 2025. These modifications included adding additional detail to the traffic analysis zones, refining the land use within the City and SOI based on detailed employment and population data, and verifying the roadway network for the City.

This refinement process also includes validating the Base Year model in the Tracy area, which ensured that the model accurately reflected travel patterns in Tracy. This validation involved systematic comparison of recently collected traffic counts to the model results along screen lines and individual roadway segments.

Following the completion of the model validation process, Fehr & Peers developed a future year model for 2025 that reflected the anticipated land use in Tracy and SOI for the proposed General Plan. This 2025 model also included planned roadway improvements within the Tracy area as well as added land use and roadway network detail. No adjustments were made to the SJCOG land use data or roadway networks outside of Tracy and the SOI to preserve conformity with the adopted RTP transportation system and demographic forecasts.

The 2025 traffic impacts for the proposed General Plan were assessed through the use of the travel demand model, which provides directional roadway segment traffic forecasts and several LOS analysis techniques. The LOS thresholds described in the Existing Conditions section above were used to determine what LOS freeways, roadways and intersections operated at with the proposed General Plan.

The traffic study area included all of the roadways within Tracy and the SOI and freeways and regional roadways that are likely to be impacted by traffic associated with growth in the Tracy area. These regional freeways include I-205, I-580, and I-5. Segments of I-580 analyzed by the study include a segment in Livermore, the Altamont Pass, and several segments adjacent to the city. The regional roadway analysis included adjacent county roadways including Altamont Pass Road, Patterson Pass Road, Tesla Road, Byron Highway and Mountain House Parkway.

b. Level of Service Thresholds

For the analysis of the proposed General Plan, the LOS thresholds identified in the proposed General Plan were used. P1 under General Plan Objective C-1.2 states that to the greatest extent feasible, the City shall strive for LOS C on all streets and intersections, except as follows:

- ◆ LOS D shall be allowed on streets and at intersections within one-quarter (1/4) mile of any freeway. This lower standard is intended to discourage inter-regional traffic from using Tracy streets.

- ◆ LOS E shall be allowed in the Downtown Urban Center and Bowtie areas of Tracy.

P2 under the same Objective CIR-1.2 indicates that the City may allow individual locations to fall below the City's LOS standards in instances where the construction of physical improvements would be infeasible, prohibitively expensive, significantly impact adjacent properties, or the environment, or have a significant adverse effect on the character of the community.

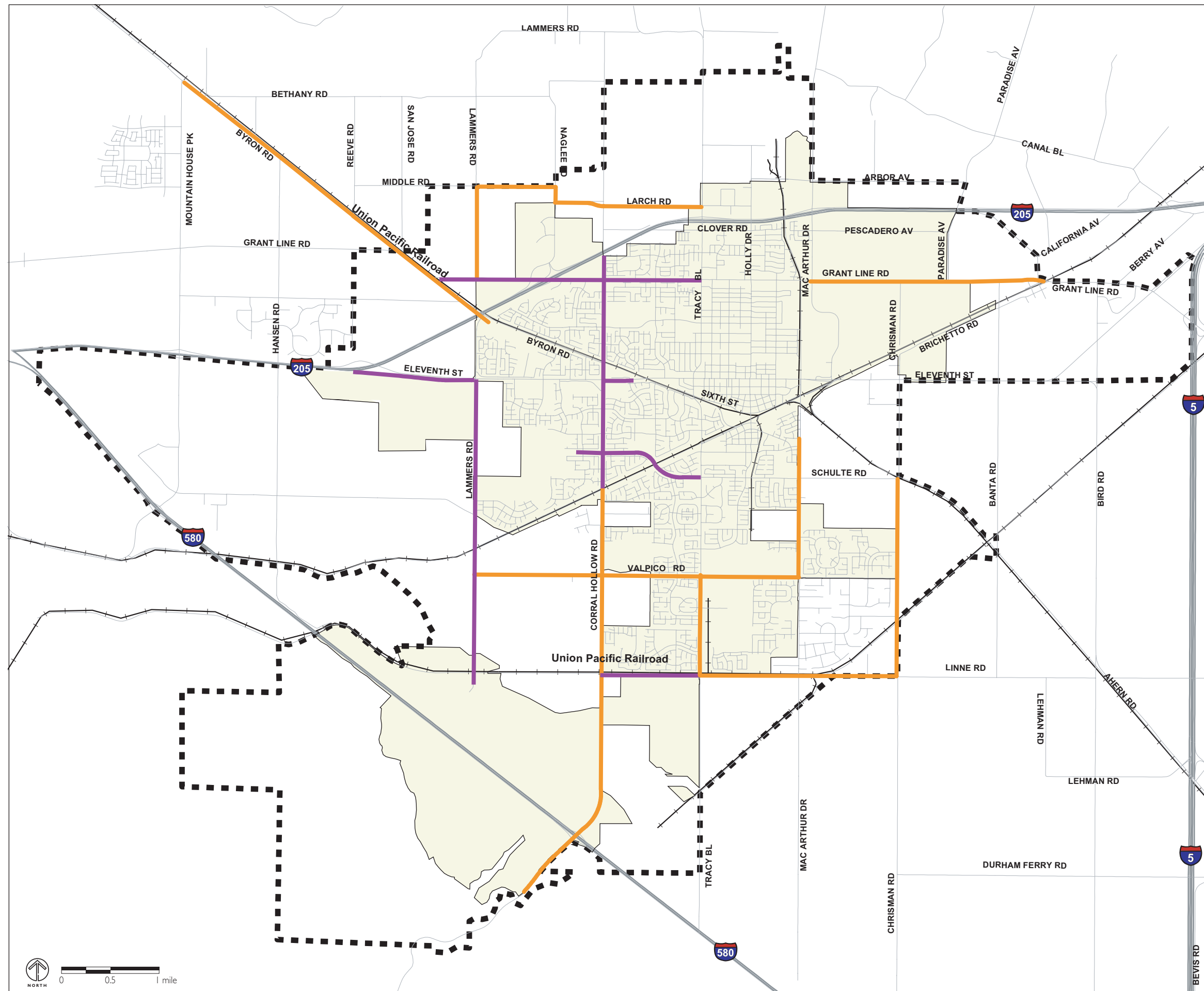
c. Roadway Improvements and Extensions

The proposed General Plan includes a significantly expanded local roadway network, as depicted on Figure 5-1 of the proposed General Plan. The roadway network identified in the proposed General Plan was designed to support the ultimate buildout of the land use plan. However, due to the GMO and market conditions, not all of the Plan area would develop by 2025. As a result, the entire roadway network would not be required to be constructed in the next 20 years.

As part of the analysis for the proposed General Plan and EIR, the improvements that would be needed by 2025 have been identified. These include reclassification of portions of several streets from minor arterial to major arterial status, as listed in Table 4.4-10. Table 4.4-11 indicates roads that will need to be widened to serve the development in 2025. Caltrans' planned widening of I-205 to six lanes is also indicated. These widenings are shown on Figure 4.4-10. A substantial number of new roads will be required to serve traffic generated by the proposed General Plan; these are shown on Figure 4.4-11. Other improvements, such as signalization of approximately 30 intersections will also be required to support the proposed General Plan. In addition, the upgrading of Eleventh Street/Lammers Road to an urban interchange would be needed.

While the existing Roadway Master Plan contains many of these improvements, policies and actions under Objective CIR-1.1, A1 support updating the

FIGURE 4.4-10
PROPOSED ROADWAY WIDENINGS



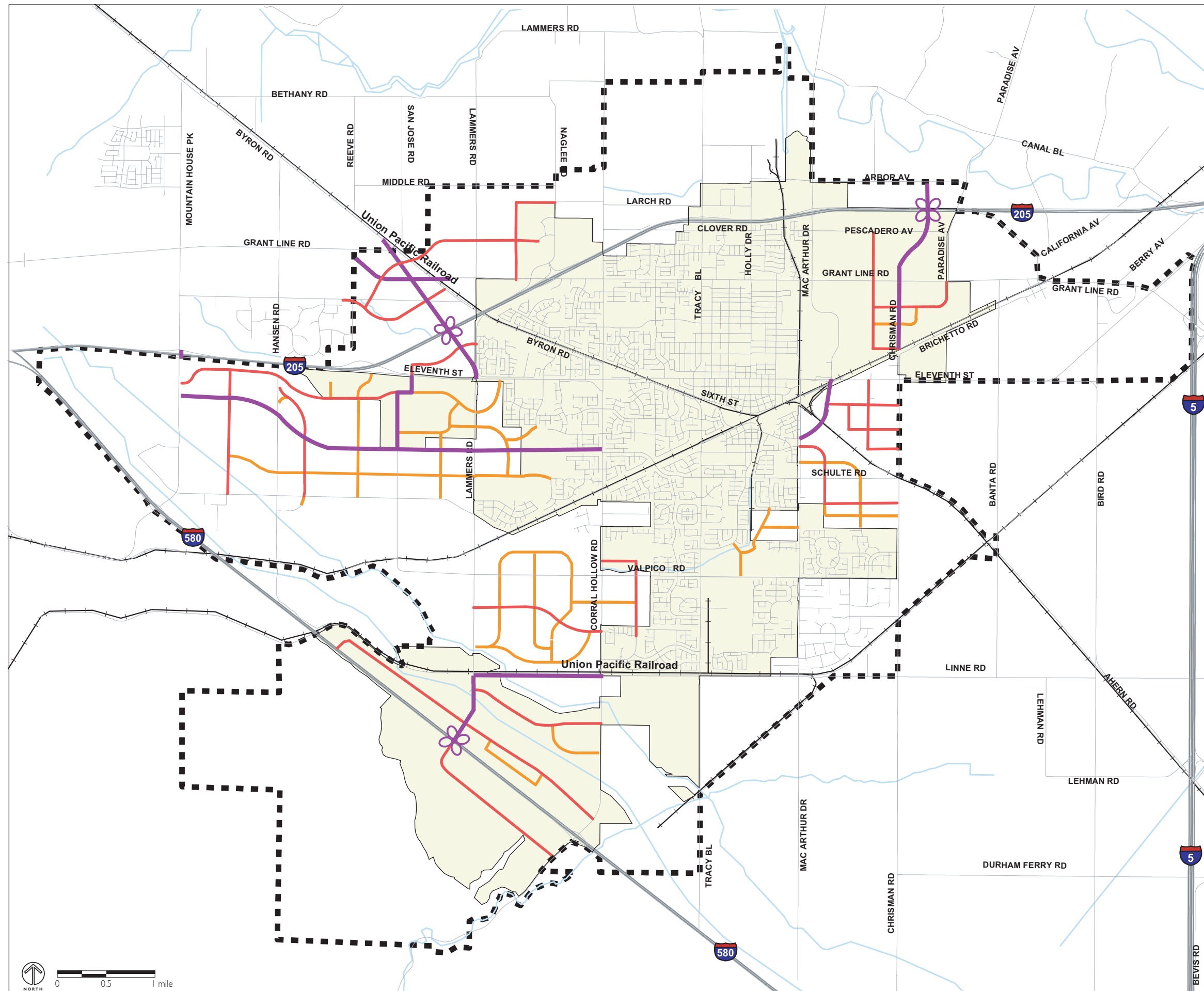
Data Source: Fehr & Peers, 2005.

Notes:

1. Conceptual layout only
2. Revisions/additions to minor arterials and other collectors will occur during development review

Figure 4.10 proposed widenings 11x17 color
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FIGURE 4.4-11
PROPOSED NEW ROADWAYS



- Major Arterial / Expressway / Boulevard
- Minor Arterial / Major Collector
- Other Collector
- City Limits
- Sphere of Influence

Data Source: Fehr & Peers, 2005.

Notes:

1. Conceptual layout only
2. Revisions/additions to minor arterials and other collectors will occur during development review

Figure 4.4-11 New Roadways 11x17 color
back

TABLE 4.4-10 **NEEDED ROADWAY CLASSIFICATION UPGRADES**

Roadway	Between	Existing Classification	Future Classification
Corral Hollow Rd	New Road So. of I580 and I-580 east-bound ramp	County Road	Minor Arterial/ Major Collector
Eleventh St	McArthur Dr and Chrisman Rd	Minor Arterial/ Major Collector	Major Arterial/ Expressway/ Boulevard
Linne Rd	Corral Hollow Rd and Tracy Blvd	Minor Arterial/ Major Collector	Major Arterial/ Expressway/ Boulevard
Lammers Rd	So. of Valpico	Minor Arterial/ Major Collector	Major Arterial/ Expressway/ Boulevard
Larch Rd	Nagless Rd and Corral Hollow Rd	Collector	Minor Arterial/ Major Collector

Roadway Master Plan upon adoption of the General Plan to ensure that these improvements are included.

d. Future Traffic Levels

Development in Tracy and the SOI under the proposed General Plan would cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system by 2025. Table 4.4-12 provides an example of how traffic will increase as a result of the proposed General Plan by comparing trip generation for the Base Year and 2025. Trip productions refer to trip origins which are calculated by travel demand models, mostly generated by residential units. These productions are then matched with attractions, which are trip destinations, usually found at commercial and employment locations.

As indicated in Table 4.4-12, total vehicular trip generation would more than double by the year 2025. This increase in vehicular trips is attributable to the projected growth in employment within the City of Tracy, which is expected

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TABLE 4.4-11 **NEEDED ROAD WIDENINGS**

Roadway	Between	Existing Lanes	Future Lanes
Byron	Patterson Pass and Grantline Road	2	4
Corral Hollow Rd	S of I-580 and Schulte Rd	2	4
	Schulte Rd and Kavanagh	4	6
Eleventh St	Corral Hollow Rd and Alden Glen	4	6
	W. of I-205 Ramps and Lammers Rd	4	6
Grant Line Rd	Byron Rd and Lammers Rd	2	6
	Lammers Rd and Tracy Blvd	4	6
	McArthur Dr and Brichetto Rd	2	4
I-205	Eleventh St and I-5	4	6
Lammers Rd	Linne Rd and Eleventh St	2	6
	Grant Line Rd and Middle	2	4
Larch Rd	Naglee Rd and Tracy Boulevard	2	4
Linne Rd	Corral Hollow Rd and Tracy Blvd	2	4
	Tracy Blvd and Chrisman Rd	2	4
McArthur Dr	Valpico Rd and No. of Schulte Rd	2	4
Middle	Lammers Rd and Naglee Rd	2	4
Schulte Rd	W. of Corral Hollow Rd and Tracy Blvd	4	6
Tracy Blvd	Linne Rd and Valpico Rd	2	4
Valpico Rd	Lammers Rd and McArthur Dr	2	4

TABLE 4.4-12 **DAILY TRIP GENERATION RELATED TO TRACY LAND USE**

Model Scenario	Trip Productions	Trip Attractions
Base (2003)	534,900	483,700
Proposed General Plan (2025)	1,056,100	1,303,000

Source: Fehr & Peers, 2004.

to nearly double by 2025. Nearly 60 percent of the projected employee growth would occur in the area of retail and office use. These uses generate more trips than industrial and warehousing uses. A second factor contributing to the growth in trips is the growth in residential trips, although the percentage growth in households and population is less than employment. Concurrent with this increase in overall trips, there would also be an increase in the amount of all peak hour trips that are internalized within the City of Tracy. Under the proposed General Plan, 83 percent of the peak hour trips will be internalized.

As a result, while the number of vehicle trips generating in Tracy and its SOI would increase with the proposed General Plan, the Plan's land uses work to retain an increase percentage of those trips within the community. This works to reduce the impact to regional roadways.

i. Local Roadway Impacts

With the development resulting from the proposed General Plan, traffic volumes would grow throughout the City and the levels of congestion would increase as well. In the existing urbanized areas of the City, this congestion would be moderated by selected improvements, such as the construction of Schulte Road as a parallel route to Eleventh Street and a proposed urban interchange at Eleventh Street and Lammers Boulevard. The impact of this increased congestion on the major intersections along these roadways is discussed below.

Roadways in other areas of the City are projected to operate at acceptable levels, with the roadway improvements discussed above. For instance, Lammers Boulevard would have to be widened from 2-lanes to 4 and 6-lanes in sections to accommodate growth from developments such as Tracy Hills, Tracy Gateway, and other projects. Linne Road, Valpico Road, and MacArthur Drive are a few of the roadways which would have to be widened to provide an acceptable level of service with the development of the City under the proposed General Plan. As a result, there would be a less than significant impact on local roadways.

ii. Tracy Intersection Impacts

Assuming the planned network improvements outlined above and in Figure 4.4-10, and Tables 4.4-10 and 4.4-11, the traffic forecast for the proposed General Plan indicates that the City's LOS standards will be maintained except at the Eleventh Street/Corral Hollow Road and Eleventh Street/Lammers Road intersections.

In the case of Eleventh Street/Corral Hollow Road, there is a constrained right-of-way which may not allow for adequate at-grade physical improvements to improve the LOS to D or better. An urban interchange could provide additional capacity at this location. Construction of such an interchange would negatively impact the adjacent properties and would be inconsistent with the Community Character Element of the General Plan. As an alternative, P2 under Objective CIR-1.3 allows individual locations to fall below the City's LOS standards in instances where the construction of physical improvements would be infeasible or would conflict with the character of the community. Since this intersection is constrained to the point of not allowing for adequate at-grade improvements, the resulting LOS would not result in a significant impact.

iii. Regional Roadway Impacts

The proposed General Plan, in conjunction with other cumulative, development in the region and neighboring regions, would cause 2025 traffic levels to exceed LOS standards established by the County Congestion Management

Agency for regional highways, as shown in Table 4.4-13, which would be considered a significant impact. As noted in the Existing Setting section above, the San Joaquin County CMP has set LOS E (east of MacArthur Drive) and LOS F (west of Tracy Boulevard) as acceptable levels of service on I-205, while LOS D or better is the standard on other highways in the Tracy vicinity. Table 4.4-14 also outlines the percentage of existing and future traffic on these regional roadways that can be attributed to the City of Tracy.

Based on the information documented in Table 4.4-13, many of the regional roadway segments proximate to Tracy would operate at a deficient level. These regional roadways include I-5, I-205 and I-580. Several county roadways to the west of Tracy, such as Altamont Pass Road and Tesla Road, would also operate at a deficient level (LOS E or worse).

A review of transportation plans such as the SJCOG RTP indicates that there are several proposed improvements that could improve the operation of the regional roadway system. However, these improvements are not funded and cannot be anticipated to be constructed prior to 2025. For example, the Tier IA project list in the SJCOG RTP outlines a widening of I-205 adjacent to the City of Tracy from six lanes to eight lanes. The Tier II project list in this same document identifies the need to widen this same section of I-205 from eight to ten lanes. Since these projects are not included in the Tier I list (programmed and funded projects based on available revenue sources), their completion prior to 2025 cannot be assumed. Other unfunded improvements have been identified for I-580 along the southwestern boundary of Tracy. The widening of I-205 from the existing four to six lanes adjacent to the City of Tracy has been identified as a Tier I improvement in the latest SJCOG RTP.

The proposed General Plan does include some policies to help minimize the Plan's impact on regional traffic congestion. For example, the proposed General Plan is designed to help internalize trips by improving the existing jobs/housing imbalance, which currently results in a significant number of residents traveling outside of the City for employment. To improve the

TABLE 4.4-13 **PEAK HOUR, PEAK-DIRECTION VOLUMES AND LOS**

Freeway	Segment	Direction	Existing Number of Lanes	Future Number of Lanes	Existing Volume, LOS	Preferred Alt. Volume, LOS Percentage change from Existing
I-205	I-205/I-580 Diverge to Mountain House Parkway	EB	3	3	6,300, F	7,700, F +22%
		WB	3	3	2,200, B	4,800, D +108%
I-205	Mountain House Parkway / Eleventh Street	EB	3	3	6,300, F	9,200, F +46%
		WB	3	3	2,500, B	5,400, E +116%
I-205	Eleventh Street / Grant Line Road	EB	2	3	4,800, F	8,900, F +85%
		WB	2	3	2,200, C	5,600, E +154%
I-205	Grant Line Road / Tracy Boulevard	EB	2	3	4,900, F	9,600 F, +95%
		WB	2	3	2,400, C	5,200, E +116%
I-205	Tracy Blvd / MacArthur Drive	EB	2	3	5,000, F	11,200, F +124%
		WB	2	3	2,300, C	5,700, E +148%
I-205	MacArthur Drive / Junction of I-205 / I-5	EB	2	3	5,200, F	11,000, F +115%
		WB	2	3	2,400, C	5,100, D +113%
I-580	Livermore Area (Vasco Road to SR 84)	EB	4	4	10,100, F	14,600, F +45%
I-580	Altamont Pass	EB	4	4	8,000, E	13,500, F +69%
I-580	Altamont Pass to I-205 / I-580 Diverge	EB	4	4	8,000, E	13,500, F +69%
I-580	I-205/I-580 Diverge to Mountain House Parkway	EB	2	3	1,900, B	3,700, C +94%
I-580	Mountain House Parkway / Lammers Road	EB	2	3	2,300, B	4,700, D +104%

TABLE 4.4-13 (CONT'D) **PEAK HOUR, PEAK-DIRECTION VOLUMES AND LOS**

Freeway	Segment	Direction	Existing Number of Lanes	Future Number of Lanes	Existing Volume, LOS	Preferred Alt. Volume, LOS Percentage change from Existing
I-580	Corral Hollow Road / MacArthur Drive	EB	2	2	2,300, B	4,100, D +93%
I-5	205 Interchange - North	EB	4	5	6,000, C	14,200, F +137%
Altamont Pass Road	East of Alameda/San Joaquin County Border	EB	1	1	250, A	1,600, F +540%
Patterson Pass Road	East of Alameda/San Joaquin County Border	EB	1	1	200, A	1,300, F +550%
Tesla Road	East of Alameda/San Joaquin County Border	EB	1	1	200, A	1,000, F +400%
Byron Road	West of Grant Line Road	EB	1	2	350, A	600, C +71%
		WB	1	2	300, A	500, C, +67%

Notes:

1. Future LOS calculations assume a per-lane capacity of 2,200 per hour on freeway facilities. LOS for other roadways determined using peak hour LOS information provided by Florida Department of Transportation (FDOT) directional LOS tables. Capacity based on definition of roadways as other major city/county roadways.
2. I-5, I-205, and I-580 Peak Hour data from Caltrans (2003)
3. Traffic counts on Altamont Pass Road, Patterson Pass Road, and Tesla Road estimated from daily counts.

Source : Fehr & Peers, 2004.

TABLE 4.4-14 **TRACY CONTRIBUTION TO TOTAL VOLUME**

Freeway	Segment	Direction	Existing Volume, LOS	Future Volume, LOS	Existing Tracy Percentage	Future Tracy Percentage
I-205	I-205/I-580 Diverge to Mountain House Parkway	EB	6,300, F	7,700, F	34%	19%
		WB	2,200, B	4,800, D	41%	42%
I-205	Mountain House Parkway / Elev- enth Street	EB	6,300, F	9,200, F	38%	32%
		WB	2,500, B	5,400, E	48%	49%
I-205	Eleventh Street / Grant Line Road	EB	4,800, F	8,900, F	27%	30%
		WB	2,200, C	5,600, E	39%	50%
I-205	Grant Line Road / Tracy Boulevard	EB	4,900, F	9,600 F	22%	34%
		WB	2,400, C	5,200, E	38%	46%
I-205	Tracy Blvd / Mac- Arthur Drive	EB	5,000, F	11,200, F	25%	43%
		WB	2,300, C	5,700, E	40%	49%
I-205	MacArthur Drive / Junction of I-205 / I-5	EB	5,200, F	11,000, F	19%	42%
		WB	2,400, C	5,100, D	32%	44%
I-580	Livermore Area (Vasco Road to SR 84)	EB	10,100, F	14,600, F	30%	23%
I-580	Altamont Pass	EB	8,000, E	13,500, F	31%	23%
I-580	Altamont Pass to I- 205/I-580 Diverge	EB	8,000, E	13,500, F	31%	23%
I-580	I-205/I-580 Diverge to Mountain House Parkway	EB	1,900, B	3,700, C	23%	29%
I-580	Mountain House Parkway / Lammers Road	EB	2,300, B	4,700, D	19%	29%
I-580	Corral Hollow Road / MacArthur Drive	EB	2,300, B	4,100, D	12%	29%
I-5	205 Interchange - North	EB	6,000, C	14,200, F	31%	55%

TABLE 4.4-14 (CONT'D) **TRACY CONTRIBUTION TO TOTAL VOLUME**

Freeway	Segment	Direction	Existing Volume, LOS	Future Volume, LOS	Existing Tracy Percentage	Future Tracy Percentage
Altamont Pass Road	East of Alameda / San Joaquin County Border	EB	250, A	1,600, F	N/A	26%
Patterson Pass Road	East of Alameda / San Joaquin County Border	EB	200, A	1,300, F	N/A	48%
Tesla Road	East of Alameda / San Joaquin County Border	EB	200, A	1,000, F	N/A	16%
Byron Road	West of Grant Line Road	EB	350, A	600, C	68%	53%
		WB	300, A	500, C	83%	87%

Notes:

1. 2025 Scenario assumes widening of I-205 from 2 to 3 lanes in each direction
2. Existing contribution on Altamont Pass Road, Patterson Pass Road, and Tesla Road cannot be estimated based on limited available data

Source : Fehr & Peers, 2004.

jobs/housing balance, the proposed General Plan works to increase the number of employees in Tracy over the next 20 years. The number of employees in the City is projected to increase by approximately 25,000 jobs, based on market trends of absorption rates for various land use types. Concurrently, the number of residents within Tracy is expected to increase by less than 50 percent, mainly due to limitations imposed on residential growth by the GMO. Employment will be provided by projects such as Tracy Gateway, Tracy Hills, along Grantline and Corral Hollow Roads, and additional development in the North East Industrial area. The additional employment would improve the jobs/housing balance and internalize more trips within the City rather than forcing commuters on the regional freeways. As a result, additional Altamont travel generated by Tracy between 2003 and 2025 will be less than Tracy's total trip generation growth.

However, the additional employment growth is not sufficient to fully internalize all new trips associated with the proposed General Plan. For example, new trips from Tracy are responsible for approximately 20 percent of the projected growth in eastbound traffic on I-580 west of Tracy. While there will be additional trips from Tracy traveling through the Altamont, Tracy's role in Altamont Pass traffic will decline over the next twenty years. As a percentage of total traffic, Tracy's contribution traffic on I-580 through the Altamont will decline from about 30 percent in 2003 to about 23 percent in 2025.

Another feature of the proposed General Plan that helps reduce the impact to regional roadways is the promotion of alternative transportation modes, which help to reduce the number of people driving alone to and from work and other destinations. The General Plan goals, objectives, policies and actions that promote this are discussed further later in this section. While the use of alternative modes of transportation would help reduce congestion, it is unlikely that enough people would switch from driving individual cars to make a significant difference in traffic levels.

A strategy that is already included in the City's Roadway Master Plan that would help reduce regional freeway impacts, is the construction of a parallel or reliever route along I-205. The current Roadway Master Plan identifies such a route along the northern boundary of the City. Analysis completed for the update of the proposed General Plan indicates that such an improved east-west roadway north of I-205 would divert approximately 1,000 peak hour, peak direction vehicle trips from I-205 in the section between Tracy Boulevard and MacArthur Drive. This figure is equal to $\frac{1}{3}$ of the traffic that the proposed General Plan growth would add to this freeway segment. This parallel route could also be connected to Golden Valley Parkway, which is a major arterial benefiting the Cities of Lathrop and Manteca, thereby improving regional roadway connectivity.

However, while this parallel route would reduce peak hour traffic on I-205 by 10 percent, improve regional connectivity, and offset about $\frac{1}{3}$ of Tracy's 2025 impacts on I-205, it would not fully mitigate traffic impacts on I-205. The sections of I-205 adjacent to the City of Tracy are projected to operate at LOS F and the projected reduction in volume would not improve the level of service to acceptable levels.

Finally, another approach would be to contribute to a regional or sub-regional fee program to facilitate the construction of regional freeway facilities and transit facilities by leveraging money contributed by development projects in Tracy towards costly roadway improvements that are beyond the means of any one project or municipality to pay for entirely. There has been some agreement to participate in regional or interregional fee programs by several major development projects in Tracy. The Tracy Gateway project has agreed to contribute to the regional traffic impact fee program. The Tracy Hills project has agreed to contribute to an interregional fee program that supports freeways, major street improvements and transit.

SJCOG embarked upon a nexus study to be used in an updated regional traffic impact fee. This newer regional fee program was intended to replace the West Lathrop Specific Plan fee, which has not gained regional support, and it

was hoped that all of the cities in San Joaquin County would accept this new fee and contribute to it. However, this newer fee study has not been completed and also cannot be expected to mitigate any traffic impacts attributed to the City of Tracy upon the regional roadway network.

Therefore there is currently no regional fee program that has countywide participation sufficient to fully fund the needed improvements to mitigate the impacts of Tracy and regional traffic on the regional freeway system. However, Tracy could continue to require its major development projects to participate in the existing and future regional and sub-regional fair share funding programs adopted over time. The General Plan policies contain text which supports participation in regional and sub-regional fee programs. One such policy is P4 (under Objective CIR-1.1) which states that the City should continue to pursue regional, countywide, and state funding to fund roadway projects, which may include a regional or countywide impact fee. P6 under this same objective also encourages cooperation between the City, Caltrans, and SJCOG in study, planning, and funding regional improvements.

As a result, while the proposed General Plan incorporates a range of features that work to help reduce the potential impact of future growth in Tracy to regional roadways, none of these approaches would reduce the potential impact to a less-than-significant level, so a significant and unavoidable impact to the following regional roadways would occur:

- ◆ I-205
- ◆ I-580
- ◆ I-5
- ◆ Altamont Pass Road
- ◆ Patterson Pass Road
- ◆ Tesla Road

2. Safety Impacts

Tracy, through its roadway design standards, can directly influence the level of safety on public roadways. The proposed General Plan Policy 1 under Objective CIR-1.6 states that the City should design streets that enhance

safety for all modes of travel. Since this policy indicates that the City would use safety as a prime criterion, the proposed General Plan does not substantially increase hazards due to a design feature and a significant impact does not occur.

The consideration of safety also extends to bicycles and pedestrians, which are addressed in the proposed General Plan. A review of the policy statements in the proposed General Plan indicates that several of the goals and policies relate to safety for pedestrians and bicyclists.

For example, Objective CIR-1.6 states that traffic safety will be maximized for automobile, transit, bicycle users and pedestrians. Additionally, Goal CIR-3 addresses safe and convenient bicycle and pedestrian travel. This goal details several policy statement designed to further bicycle and pedestrian safety. For example, P1 and P2 state that to the extent possible, the City shall separate vehicular traffic from bicycle and pedestrian traffic on higher-speed and higher-volume roadways, as well as separate bicycle and pedestrian users on high usage bicycle and pedestrian paths.

Based on the goals, objectives and policies included in the proposed General Plan, the proposed General Plan encourages the consideration of bicycle and pedestrian safety and would not create unsafe conditions for these modes. Therefore, a significant impact does not occur.

3. Emergency Vehicle Access Impacts

The adequacy of emergency vehicle access can be judged based on two criteria. First, the major roadways of the City should be able to convey vehicles at a reasonable level of congestion, which will allow emergency vehicles to travel throughout the city. Second, the roadway network should provide a sufficient level of connectivity to allow emergency vehicles to access the destination through the most direct route.

The proposed General Plan contains several policies relating to the level of congestion on major roadways and intersections. For example, P1 under Ob-

jective CIR-1.3 sets the roadway and intersection LOS standards at LOS C for most intersections, which will ensure that vehicles are able to travel through most areas of the City with minimal delay, including emergency vehicles. While the LOS policy designates a small portion of the downtown area to operate at LOS E, as well as areas around the freeway and where limited by existing constraints, it is unlikely that such as designation will dramatically increase the travel time for emergency vehicles throughout the City since the proposed General Plan also includes policies to ensure multiple access points, as discussed below.

The proposed General Plan also includes policies relating to roadway connectivity. P1 under Objective CIR-1.2 states that the City shall ensure that street and highway system results in a high level of connectivity, especially between residences and common local destinations. By encouraging roadway connectivity, the proposed General Plan would ensure that emergency vehicles would have multiple routes available to them, which would minimize response time.

Since the proposed General Plan includes policies that seek to maintain a high level of service (minimizing congestion) while encouraging connectivity, the proposed General Plan would not result in inadequate emergency vehicle access and a significant impact would not occur.

4. Parking Capacity

As mentioned earlier in this section, the City has adopted on and off-street parking standards in its Municipal Code. The revised General Plan does not alter the City's current parking regulations through any goals, objectives, policies, and actions. As a result, development will be required to comply with existing regulations and provide adequate on-site parking prior to approval. Therefore, implementation of the proposed General Plan would not result in inadequate parking capacity.

5. Relation to Adopted Regional Policies, Plans and Programs Supporting Alternative Transportation

As mentioned before, there are several regional planning documents that address public transit in San Joaquin County. Both the SJCOG RTP and the San Joaquin County General Plan include a number of goals and policies related to alternative transportation and both encourage the use of transit as an alternative mode throughout the region. For example, Objective III of the RTP is to provide for a transit system serving county residents that is safe, efficient and cost effective. A significant impact would occur if the proposed General Plan lacks goals and policies related to alternative transportation modes or has policy statements that directly contradict policy statements provided by the RTP or the San Joaquin County General Plan in regards to regional alternative modes of transportation.

Objective 1 under the Transit section of the County General Plan is to provide a public mass transit system that satisfies the demonstrated needs in San Joaquin County for safe, efficient, convenient, economical, and reliable transit service. The first policy under this objective states that the county would promote public mass transit as an alternative to the automobile. The Bicycle section indicates that a primary objective is to provide a countywide system of bicycle facilities for safe and convenient transportation and recreation.

The proposed General Plan includes a range of policy direction in regards to alternative transportation modes, which do not conflict with Countywide policy statements. The proposed General Plan has goals, objectives, policies and action relating to bicyclists, pedestrians and public transit. For example, Objective CIR-3.1 and its subordinate policies and actions work towards achieving a comprehensive and safe system of citywide bikeways and pedestrian facilities. In addition, Objective CIR-4.1 goal is to promote public transit as an alternative to the automobile. Supporting this objectives are several policies and actions that work to promote transit use through cooperation with other service providers, funding, and project design.

Since the proposed General Plan includes policy statements supportive of alternative transportation modes, which are consistent with policy statements in other regional adopted planning documents, it can be concluded that that the proposed General Plan does not conflict with adopted regional policies and plans regarding alternative transportation.

6. Impacts to Air Traffic Patterns

The proposed General Plan was designed to comply with the land use plan for the Tracy Municipal Airport. For example, Objective LU-6.3 ensures that development near the Tracy Municipal Airport is compatible with airport uses and conforms with safety requirements. Since the proposed General Plan would not allow incompatible development to occur around the airport, implementation of the proposed General Plan would not alter current plans related to operations of the Tracy Municipal Airport nor air traffic in general, and no significant impact would occur.

D. Impacts and Mitigation Measures

Impact CIR-1: The proposed General Plan incorporates a range of features to help reduce the potential impact of future growth on regional roadways. However, traffic levels along regional roadways listed below will increase, creating a significant and unavoidable impact.

- ◆ I-205
- ◆ I-580
- ◆ I-5
- ◆ Altamont Pass Road
- ◆ Patterson Pass Road
- ◆ Tesla Road

4.5 CULTURAL RESOURCES

This section summarizes information on the cultural resources in Tracy and provides an evaluation of the potential effects of the proposed General Plan on these sensitive resources.

A. Existing Setting

The following text provides a general description of the existing cultural resources within Tracy, including the regulatory framework and historic overview of the area.

1. Regulatory Framework

There are several federal, State and local laws and regulations applicable to historical and architecturally significant resources, as well as paleontological and archaeological resources in Tracy. The key regulations are discussed briefly below.

a. National Historic Preservation Act (1966)¹

The National Historic Preservation Act, adopted in 1966 and most recently amended in 2000, is the most influential federal law addressing historic preservation. In addition, Congress has enacted numerous other statutes that affect historic properties. One of the most important provisions of the Act is the establishment of the National Register of Historic Places (NRHP), the official designation of historical resources. Districts, sites, buildings, structures and objects are eligible for listing in the Register. Nominations are listed if they are significant in American history, architecture, archeology, engineering and culture. The NRHP is administered by the National Park Service (NPS). To be eligible for the NRHP, a property must be significant under criterion A (history), B (persons) or C (design/construction); possess integrity; and ordinarily be 50 years of age or more.

¹ National Park Service web site. National Historic Preservation Act of 1966, as Amended through 2000. <http://www.cr.nps.gov/hps/laws/NHPA.pdf>, accessed 7/6/05.

Listing in the NRHP does not guarantee specific protection or assistance for a property, but it does ensure its recognition in the planning for federal or federally-assisted projects (see Section 106), eligibility for federal tax benefits and qualification for federal historic preservation assistance. The NRHP is influential beyond its statutory role because it achieves uniform standards of documentation and evaluation. Additionally, project effects on properties listed in the NRHP must be evaluated under CEQA.

b. California Register of Historic Resources²

The California Register of Historical Resources (CRHP) establishes a list of properties that are to be protected from substantial adverse change (Public Resources Code Section 5024.1). An historical resource may be listed in the CRHP if it meets any of the following criteria:

- ◆ It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- ◆ It is associated with the lives of persons important in California's past.
- ◆ It embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic value.
- ◆ It has yielded or is likely to yield information important in prehistory or history.

The CRHP includes properties that are listed or have been formally determined to be eligible for listing in the NRHP, State Historical Landmarks and eligible Points of Historical Interest. Historical Landmarks are sites, buildings, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Other resources require nomination for inclusion in the CRHP. These may include resources contributing to the significance of a local historic district, individual historical resources,

² California State Office of Historic Preservation web site, accessed 2005. <http://ohp.parks.ca.gov>.

historical resources identified in historic resource surveys conducted in accordance with State Historic Preservation Office (SHPO) procedures, historic resources or districts designated under a local ordinance consistent with Commission procedures, and local landmarks or historic properties designated under local ordinance.³

c. Health and Safety Code

Public Resource Code Sections 7052, 7050.5 and the California Native American Historical, Cultural and Sacred Sites Act of the California Public Resource Code Section 5097.0 provide protection for Native American historical, cultural and sacred sites discovered on non-federal public and private lands. Sections 7052 states that the disturbance of Native American cemeteries is a felony. Sections 7050.5 and 5097.0 require that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can be notified and determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the California Native American Heritage Commission (NAHC).⁴ The NAHC then notifies those persons mostly likely to be descended from the Native American remains. Section 5097.9 stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods⁵:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical

³ CEQA and Historical Resources: CEQA Technical Advise Series, Background on Historical Resources Preservation, accessed 2005.
http://ceres.ca.gov/topic/env_law/ceqa/more/tas/page2.html

⁴ California Native American Heritage Commission, State Preservation Laws web page, accessed 2005. <http://ceres.ca.gov/nahc/statepres.html>

⁵ Arrowheads.com web site, Update of Compilation of State Repatriation, Reburial and Grave protection Laws (July 1997), accessed 2005.
<http://www.arrowheads.com/burials.htm#CALIFORNIA>

feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

As used in this section, “public lands” means lands owned by, or under the jurisdiction of, the State, or any city, county, district, authority or public corporation, or any agency thereof. Consequently, the City of Tracy is required to comply with these codes for its activities.⁶

d. Senate Bill 18

Implementation of Senate Bill 18 (SB 18), which went into effect January 1, 2005, established new requirements for local governments (city and county) to consult with Native American tribes to aid in the protection of traditional tribal cultural places through local land use planning.⁷ The intent of SB18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early stage of planning, for the purpose of protecting, or mitigating impacts to cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use designations are made by a local government.

However, the consultation requirements of SB 18 only apply to general plan or specific plan processes proposed on or after March 1, 2005. Since the update to the existing Tracy General Plan began in 2002, the requirements of SB 18 do not apply.⁸

⁶ Caltrans web site, Standard Environmental Reference, CH 8: Paleontological Resources, Public Resources Code Section 5097, accessed July 6, 2005.
<http://www.dot.ca.gov/ser/vol1/sec3/physical/Ch08Paleo/chap08paleo.htm#statelaws>

⁷ SB 18 amends Government Sections (GC) 65040.2, 65092 65351, and 65560, and adds GC sections 65352.3, 65352.4, and 65562.5.

⁸ “Initiation” of applicable planning processes is defined as actions by a legislative body, which are taken in a duly noticed in a public meeting, including, but not limited to the “appropriation of funds, adoption of a work program, engaging in the services of a consultant, or directing the planning staff to begin research on the activ-

e. City of Tracy Resolutions

The City of Tracy Resolution 3232, which was signed in 1978, designated fifty structures and sites to be historical landmarks in Tracy. The resolution followed a survey of architecturally and historically significant resources in the city. Resolution 2001-076 added two more buildings to the list of designated properties. The Tracy Historic Landmarks designation encourages public recognition and protection of resources of architectural, cultural or historical significance for local planning purposes. However, since there is no preservation ordinance or other protective or restrictive regulation, a Landmarks designation does not equate with permanent protection for a structure from demolition or alternation. Title Nine of the Tracy Municipal Ordinance addresses Building Regulations and includes guidelines for buildings listed on the NRHP. Changes, conversions and renovations are not to be pursued that would risk removal of the historic designation.⁹

2. Historical Overview

The area of California's Central Valley that is now considered the Tracy Planning Area has a varied and interesting history.

a. Prehistory/Enthography

The northern San Joaquin Valley is one of the least known ethnographic areas of California. Although little record of their culture has survived, it is known that Native Americans occupied northern portions of San Joaquin County for over 10,000 years.¹⁰ Prior to European-American contact, the Tracy area was inhabited by the Northern Valley Yokuts, part of a larger population that occupied much of the San Joaquin Valley, whose range extended from the Calaveras River to the southern extent of the San Joaquin River.¹¹

ity." *State of California Tribal Consultation Guidelines*, Governor's Office of Planning and Research, April 15, 2005, p.12.

⁹ City of Tracy Municipal Code, Title 9: Building Regulations.

¹⁰ City of Tracy, *Tracy Hills Specific Plan*, Appendix C, June 1998, p.C-1.

¹¹ City of Tracy, *Northeast Industrial Concept Development Plan Draft Environmental Impact Report*, 1996, p.4.35.

Two northern Yokut tribelets lived near what is now Tracy: the Chulamni (or Cholbumne) to the north, and the Hoyumne to the southeast.¹² The Yokuts lived in permanent villages on high ground near watercourses and subsisted on fishing, hunting, catching fowl and intensive collecting.¹³ The Chulamni tribelet built their villages near Tracy along the banks of the Old River and San Joaquin River, and along creeks in the Diablo Range. The largest Chulamni village site near Tracy, Pescadero, was named by the Spanish during one of their first expeditions there in 1810 and 1811.¹⁴ Unfortunately, little else is known about Yokut culture.

Spanish colonial expeditions and mission recruitment beginning around 1770 lead to the rapid decline of Indian populations in the Valley. Permanent Hispanic populations along the coast brought disease to Indian populations against which they had no resistance. The result was widespread epidemics that killed about 75 percent of the Valley people before the end of 1846. American settlement around 1848 destroyed what remained of Valley Indian cultures and people. Yokuts were driven from their homes along watercourses with the discovery of gold in the Sierra foothills. The expansion of Valley agriculture shortly thereafter forced the remaining Yokuts to leave for the mountains. There are no known surviving Yokut Indians.¹⁵

b. History

Permanent settlement in what is now the Tracy City limits began after construction of the Central Pacific Railroad through the Altamont Pass in 1869. Southern Pacific laid a second rail line to the north in 1878, connecting San Joaquin County with Martinez. In 1887, a third line was extended south

¹² City of Tracy, *Presidio Planned Unit Development Draft Environmental Impact Report*, March 1, 1999, p.4.9-2.

¹³ EIP Associates, *Draft Environmental Impact Report for the Tracy Gateway Project*, City of Tracy, April 2002, p.4.10-2.

¹⁴ City of Tracy, *Presidio Planned Unit Development Draft Environmental Impact Report*, March 1, 1999, p.4.9-2.

¹⁵ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan*, July 19, 1993, pp.139-140.

from the junction of these two railways, connecting the Bay Area with Los Angeles. In 1882, Southern Pacific established the “Town of Tracy” around the junction of the three rail lines. The town was named after Lathrop J. Tracy, an Ohio railroad man and grain merchant. The Town’s strategic location led to early prosperity as a commercial and service center. Tracy was incorporated in 1910.¹⁶

Tracy has continued to grow, particularly over the past 50 years. This growth has been influenced by three main factors:

- ◆ The establishment of the Tracy Defense Depot during World War II, which created thousands of jobs and brought new residents to the area.
- ◆ The location of major agricultural industries in Tracy after the war.
- ◆ High home values in the Bay Area¹⁷ and the resulting increase in demand for lower cost housing in Tracy.
- ◆ Tracy’s strategic proximity to several major interstates and relatively inexpensive land values encouraged the development of large shipping and distribution facilities.

3. Existing Cultural Resources

Cultural resources in the Tracy Planning Area consist of historical buildings and landmarks, and archaeological and paleontological resources.

a. Archaeological and Paleontological Resources

In general, little archaeological or paleontological work has been completed in San Joaquin County. Cultural resources in the Tracy Planning Area outside of City limits are generally prehistoric in nature and include remnants of native human populations that existed before European settlement. Large por-

¹⁶ EIP Associates, *Draft Environmental Impact Report for the Tracy Gateway Project*, City of Tracy, April 2002, p.4.10-1.

¹⁷ City of Tracy, *Draft Environmental Impact Report for the Tracy Gateway Project*, April 2002, pp.4.10-1 -4.10-2.

tions of the Tracy Planning Area have not been surveyed for prehistoric artifacts.

i. Archaeological

Very few prehistoric archaeological sites have been recorded in the vicinity of Tracy.¹⁸ The Central California Information Center lists 32 cultural resource sites within the Tracy Planning Area. Nineteen of these resources are historic sites, 13 exhibit prehistoric features and one site exhibits both historic and prehistoric features. The noted prehistoric resources include four Native American burial sites that were recorded in the Tracy area in 1939 when land leveling exposed skeletal material and artifacts. These sites indicate that additional prehistoric sites may exist within the Tracy Planning Area.¹⁹ Exact locations of known archaeological sites cannot be published in public documents.

The 1993 *Urban Management Plan Draft EIR* reported nine archaeological investigations that had occurred in the Tracy Planning Area at that time. Additional archaeological investigations in the Tracy Planning Area were conducted by Foothill Archaeological Services for the West Tracy Planned Unit Development area in 1994, and by Archeo-Tec, Inc. for a parcel east of Corral Hollow Road in 1999.²⁰

ii. Paleontological

There are several rock formations in the Tracy Planning Area that could be indicators of potential paleontological resources. These include the Neroly Formation, Moreno Shale deposits, and Panoche Formations. According to a records search of the University of California Museum of Paleontology Collections Date, eighty fossils have been found and recorded within San Joaquin

¹⁸ City of Tracy, *Northeast Industrial Concept Development Plan Draft Environmental Impact Report*, 1996, p.4.36.

¹⁹ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan*, July 19, 1993, p.140.

²⁰ City of Tracy, *Presidio Planned Unit Development Draft Environmental Impact Report*, March 1, 1999, p.4.9-3.

County. Over half of them are dated to the tertiary period, with quaternary being the second most frequent period. These are the first and second periods of the Cenozoic Era respectively, during which modern flora, apes, large mammals and eventually humans developed. The majority of fossils found within the Tracy Planning Area have been vertebrate in nature. Additionally, one paleobotany fossil and one microfossil have been found. Sites are mainly located south of I-205, along the I-580 corridor and the Delta-Mendota Canal; some clustering is found in the southwest portion of the Tracy Planning Area, in the slopes of the Diablo Range foothills.²¹

b. Historic Landmarks

In 1976, the Tracy City Council contracted with the State Office of Historic Preservation to conduct an historic resources survey of Tracy. The survey was completed and published on October 21, 1977, and considered buildings constructed between 1878 and 1941. A more recent survey of historic resources in Tracy has not been conducted. Thus, the “identifiers” used represent identifying characteristics at the time the survey was conducted. As shown in Table 4.5-1, fifty structures and sites were found to be both architecturally and historically significant to Tracy. They were nominated by the Ad Hoc Committee for Historic Preservation for designation by the City Council as Tracy Historic Landmarks (16 were designated as “exceptional” and 34 “excellent”). The designations were formally recognized in 1978 in the City of Tracy Resolution 3232.²² Two additional properties were added to the local list of historic buildings in 2001: the Lammersville Schoolhouse and 902 Central Avenue.²³ Table 4.5-2 details Tracy’s six historic sites that are

²¹ University of California Paleontology Museum Collections Data. 2004. http://elib.cs.berkeley.edu/cgi/ucmp_query?table=ucmp_loc&where-state_prov=California&where-county=San+Joaquin+County&orderby=county

²² Ad Hoc Committee for Historic Preservation. Summary Report August 1978.

²³ City of Tracy Resolution 2001-076, adopted February 20, 2001.

TABLE 4.5-1 **TRACY-DESIGNATED HISTORIC LANDMARKS**

Address	Construction Date	Identifier (name, occupant or style)
601 & 621 Central Avenue	1899-1900	Guadalajara Club
622 Central Avenue	1912	Clark Building
628 Central Avenue	1920-21	La Frontera
719 Central Avenue	1923, remodeled 1947	Grand Theater
724-738 Central Avenue	Ca. 1919	Wacksmuth Block
801 Central Avenue	Ca. 1920	Bank of Tracy
819 Central Avenue	Ca. 1920	Black's Cleaners
835 Central Avenue	1917	Tracy Fire Department
902 Central Avenue ¹	n/a	Former Opera House site
924 Central Avenue	1929	Pacific Telephone
16 Chester Drive	1921	Church
-- East 6 th Street	1912	Wm. Schmidt Building
25 East 6 th Street	1912	Commercial
27 East 6 th Street	1911-12	El Portal Café
35 East 6 th Street	1898	100F Building
87 East 6 th Street	Ca. 1895-1900	Shingled Cottage
2127 (west of 137)	Ca. 1911-19	Brick bungalow
540 East 6 th Street	1910	J.W. Copeland Yards
47 West 6 th Street	1910-11	West Side Bank of Tracy
600 West 6 th Street	1911-12	Water tank
25 West 7 th Street	Ca. 1900	VFW Building
Row: 69, 73, 79 West 7 th St.	Ca. 1898	Eastlake cottages
215 West 7 th Street	Ca. 1895	Late Victorian cottage

TABLE 4.5-1 (CONTINUED) **TRACY-DESIGNATED HISTORIC LANDMARKS**

Address	Construction Date	Identifier (name, occupant or style)
150 East 7 th Street	Ca. 1915	Rock garden bungalow
Row: 21, 25, 29 East 8 th St.	Ca. 1890-95	Eastlake cottages
53 East 8 th Street	Ca. 1898	Stick-Eastlake
18 West 8 th Street	1912	The Marguerite
48 East 9 th Street	Ca. 1911	Bungalow
77-79 West 9 th Street	Ca. 1892	Stick-Eastlake
340 West 9 th Street	Ca. 1880-86	Pentacostal Church
East 10 th Street (opposite City Hall)	Ca. 1915	Water tower
3 East 11 th Street	Ca. 1914	Central Auto Parts
315 East 11 th Street	Ca. 1917	Tracy Adult School
24 West 11 th Street	Ca. 1926-27	Tracy Inn
201 West 11 th Street	Ca. 1925-27	Glenn's Furniture
1141 Adam Street	1937	Tracy Recreation Center
880 Beechnut	Ca. 1911-18	Tracy Station
165 Berverdor	Ca. 1931	Period Revival
37 East Highland Avenue	Ca. 1931	Period Revival
102 East Highland Avenue	Ca. 1932	Period Revival
168 East Highland Avenue	Ca. 1935	Period Revival
5 West Highland Avenue	1933	Hotchkiss Mortuary
647 West Street	1904	Late Victorian cottage
757 "A" Street	Ca. 1909	Shingle Style
Lammersville School ¹	1876	--

¹ Added by resolution in 2001.

Source: *Tracy Tomorrow and Beyond Final Report to City Council*, Appendix A June 6, 2001.
Report prepared by Charles Hall Page and Associates, October 21, 1977.

TABLE 4.5-2 **TRACY PLANNING AREA RESOURCES ON THE NATIONAL REGISTER OF HISTORIC PLACES**

Resource	Location	Year Listed	Area(s) of Significance
West Side Bank	47 W. 6 th Street	1978	Architecture
Old Tracy Jail*	25 W. Seventh Street	1979	Commerce/Trade, Government, Social
Bank of Tracy	801 Central Avenue	1980	Commerce, Architecture
Tracy Inn	24 W. Eleventh Street	1980	Community Planning and Development, Architecture
The John Ohm House	31524 S. Kasson Road	1982	Exploration/Settlement, Architecture, Agriculture
Bank of Italy	628 Central Avenue	1985	Commerce, Architecture, Agriculture

*Also referred to as the Tracy City Hall and Jail.

Source: National Register of Historic Places Database, searched April 10, 2003.

listed on the NHRP²⁴ and also recognized by the California State Office of Historic Preservation's listing of California Historical Landmarks. However, there are no State Points of Historical Interest in the Tracy Planning Area.²⁵ Locations of Tracy's historic resources are shown in Figure 4.5-1.

B. Standards of Significance

The City of Tracy General Plan would have a significant impact with regard to cultural resources if it would:

- ◆ Cause a substantial adverse change in the significance of a historical resource.

²⁴ City of Tracy, *Draft Environmental Impact Report for the Tracy Gateway Project*, April 2002, p.4.10-2.

²⁵ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan*, July 19, 1993, p.142.

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Figure 4.5-1 : Cultural/Historic Resources (11X17) black and white

- ◆ Cause a substantial adverse change in the significance of an archaeological resource.
- ◆ Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- ◆ Disturb any human remains, including those interred outside of formal cemeteries.

C. Impact Discussion

The following section discusses the potential changes that could occur due to implementation of the proposed General Plan, as well as an analysis of whether these changes would result in significant environmental impacts.

1. Historic Resources

Historic sites in Tracy are identified in Table 4.5-1. Although much of the new development permitted under the proposed General Plan would occur on land without existing structures, the City's commitment to infill development could result in the redevelopment of areas containing historic resources. Alteration, disturbance or demolition of historic buildings and landmarks might result in a potentially significant impact on historical resources in Tracy. To protect these resources, the City currently relies on the Tracy Municipal Code, which specifies that renovations and construction must not impede the continued listing of structures currently listed on the National Register of Historic Structures. The proposed General Plan contains additional policies to provide more comprehensive protection for historic resources in the area.

Overall, the City of Tracy is committed to preserving and enhancing the historic resources in the Tracy area as possible (Goal CC-3). This goal contains a series of policies directed at preserving and protecting Tracy's historic resources, especially identified historic buildings and landmarks (Objective CC-3.1, P1 through P3). Objective CC-3.1, Policy P1 encourages the preservation

and enhancement and conservation of historic and older neighborhoods, such as Lincoln Park. Incompatible development adjacent or in close proximity can also detract from historic resources. Objective CC-3.1, Policy P2 states that identified cultural and historical landmarks and buildings shall be preserved. Objective CC-3.1, Policy 3 states that new development, redevelopment, alterations and remodeling projects should be sensitive to the surrounding historical context. Finally, to ensure that as-of-yet identified historic resources are preserved, Objective CC-3.1, Action 1 directs the City to update, expand and maintain inventories of the City's historic resources, using criteria and methods that are consistent with State and federal guidelines. This is especially important in Tracy's historic downtown, where its numerous historical buildings enhance Tracy's identity.

The combination of these policies and guiding mechanisms, in part by implementation of the proposed General Plan, would reduce potential impacts to historical resources to a less-than-significant level.

2. Archaeological and Paleontological Resources

The Tracy Planning Area likely contains undiscovered archaeological and paleontological sites, including human remains, especially in undeveloped areas. Implementation of the General Plan could result in the development of these areas, which may include grading, ground removal and other disturbances. These actions could result in a potentially significant impact to paleontological and archaeological resources. The proposed General Plan currently references these under the general category of cultural resources and states the objective to identify and preserve cultural and historic resources (Objective CC-3.1). But, the Plan does not specifically state that archaeological and paleontological resources are considered in this category and should thus be similarly protected, nor include specific policies regarding these resources. Therefore, this EIR outlines mitigation measures to reduce the potentially significant impact to archaeological and paleontological resources to a less-than-significant level.

D. Impacts and Mitigation Measures

Potentially significant impacts were identified in regards to archaeological and paleontological resources.

Impact CUL-1: Undiscovered archaeological and paleontological sites in the Planning Area, including human burial sites that could be impacted from development activities involving soil removal or disturbance.

Mitigation Measure CUL-1a: The City shall include a policy under Objective CC-3.1 (Policy 4) to require, as part of the development review process, a standard condition of approval that if any resources are found during construction, all operations within the project area shall halt until an assessment can be made by appropriate professionals regarding the presence of archaeological and paleontological resources and the potential for adverse impacts on these resources.

Mitigation Measure CUL-1b: The City shall include a policy under Objective CC-3.1 (Policy 5) to require that any archaeological or paleontological resources on private property be either preserved on their sites or adequately documented and conserved as a condition of removal. The policy shall further require that if any resources are found unexpectedly during development, then construction must cease immediately until accurate study and conservation measures are implemented.

Mitigation Measure CUL-1c: The City shall include a policy under Objective CC-3.1 (Policy 6) requiring that if Native American artifacts are discovered on a site, the City shall consult representatives of the Native American community to ensure the respectful treatment of Native American sacred places.

Implementation of these mitigation measures during final stages of the proposed General Plan would reduce potentially significant impacts to cultural resources to a less-than-significant level.

4.6 BIOLOGICAL RESOURCES

This section summarizes information on biological resources in the Tracy Planning Area, including the types of vegetation, habitat, wildlife and special-status species, and provides an evaluation of the effects of the proposed General Plan on these sensitive resources.

A. *Existing Setting*

The Tracy Planning Area supports a diversity of biological resources. The generally mild climate and rural location, as well as the presence of several waterways create an ideal setting for many types of habitats. These habitats provide food, protection and movement corridors for many species.

1. **Regulatory Framework**

The following describes the State and federal regulations that provide for protection and management of sensitive biological resources throughout the United States and in California.

a. **Federal Laws**

The treatment of biological resources are regulated at the federal level, in part, by the Endangered Species Act, the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and the Clean Water Act. The relevant details of each are discussed below.

i. *Endangered Species Act*¹

The U.S. Fish and Wildlife Service (USFWS) is responsible for implementation of the federal Endangered Species Act (ESA) (16 U.S.C. §1531 et seq.). The Act protects fish and wildlife species, and their habitats, that are listed as threatened or endangered. “Endangered” species, subspecies or distinct population segments are those that are in danger of extinction through all or a sig-

¹ U.S. Fish and Wildlife Service. *ESA Basics: 30 Years of Protecting Endangered Species*. http://www.fws.gov/endangered/pubs/esa_basics.pdf, accessed 7/7/05.

nificant portion of their range. “Threatened” species, subspecies or distinct population segments are likely to become endangered in the near future.

Section 9 of the ESA prohibits the “take” of any fish or wildlife species listed as endangered under the ESA. “Take” of threatened species is also prohibited unless otherwise authorized by federal regulations. “Take,” as defined by the ESA, means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct.” Harm is defined as “any act that kills or injures the species, including significant habitat modification.” Section 9 of the ESA also prohibits removing, digging up, cutting, maliciously damaging or destroying federally-listed plants on sites under federal jurisdiction.

ii. Migratory Bird Treaty Act²

The USFWS is also responsible for implementing the Migratory Bird Treaty Act (MBTA) (16 U.S.C. §703-712 et seq.). The MBTA implements a series of treaties between the United States, Mexico and Canada that provide for the international protection of migratory birds. The law contains no requirement to prove intent to violate any of its provisions. Wording in the MBTA makes it clear that most actions that result in “taking” or possession (permanent or temporary) of a protected species can be a violation of the Act. The word “take” is defined as meaning “pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture or collect.” The provisions of the MBTA are nearly absolute; “except as permitted by regulations” is the only exception. Examples of permitted actions that do not violate the law are the possession of a hunting license to pursue specific game birds, legitimate research activities, display in zoological gardens, bird-banding and similar activities.

² U.S. Fish and Wildlife Service web site. Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service: Migratory Bird Treaty Act of 1918. <http://laws.fws.gov/lawsdigest/migtrea.html>, accessed 7/ 8/05.

*iii. Bald and Golden Eagle Protection Act*³

The Bald and Golden Eagle Protection Act (16 U.S.C. §668 et seq.) makes it unlawful to import, export, take, sell, purchase or barter any bald eagle or golden eagle, their parts, products, nests or eggs. “Take” includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting or disturbing. Exceptions may be granted by the USFWS for scientific or exhibition use, or for traditional and cultural use by Native Americans. However, no permits may be issued for import, export or commercial activities involving eagles.

*iv. Clean Water Act*⁴

The Clean Water Act is administered by the Environmental Protection Agency (EPA) and the US Army Corps of Engineers (Corps). The Corps is responsible for regulating the discharge of fill material into waters of the United States. Waters of the United States include lakes, rivers, streams and their tributaries, as well as wetlands. Wetlands are defined for regulatory purposes as areas “inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

The discharge of dredged or fill material into waters of the United States is subject to permitting under Section 404 (Discharges of Dredge or Fill Material). Section 401 (Certification) specifies additional requirements for permit review, particularly at the state level. Project proponents must obtain a permit from the Corps for all discharges of dredged or fill material into waters of the United States, including wetlands, before proceeding with a proposed action. Corps permits must be certified by the State Water Resources Con-

³ <http://www.fws.gov/permits/mbpermits/regulations/BGEPA.PDF>, accessed 7/ 8/05.

⁴ U.S. Environmental Protection Agency web site. Laws and Regulations: Clean Water Act. <http://www.epa.gov/r5water/cwa.htm>, accessed 7/ 8/05.

trol Board in order to be valid. Thus certification from the Board should be requested at the same time and application is filed with the Corps.

Certification from the California Regional Water Quality Control Board is also required when a proposed activity may result in discharge into navigable waters, pursuant to Section 401 of the Clean Water Act and EPA 404(b)(1) Guidelines.

b. State Laws and Regulations

The most relevant State laws regulating biological resources are the California Endangered Species Act, the California Native Plant Protection Act and the California Fish & Game Code, each of which is described below.

i. *California Endangered Species Act*⁵

The California Department of Fish and Game (CDFG) administers the California Endangered Species Act (CESA), which protects wildlife and plants listed as threatened and endangered by the California Fish and Game Commission. Like the federal ESA, the CESA provides additional protection to threatened and endangered species in California.⁶ CESA requires State agencies to conserve threatened and endangered species (Section 2055), and thus restricts all persons from taking listed species except under certain circumstances. The CESA defines take as any action or attempt to “hunt, pursue, catch, capture, or kill.” CDFG may authorize “take” under Section 2081 agreements, except for designated “fully protected species.” The requirements for an application for an incidental take permit under CESA are described in Section 2081 of the California Fish and Game Code and in final adopted regulations for implementing Sections 2080 and 2081.

⁵ California Department of Fish and Game, Habitat Conservation Planning Branch web site. *Environmental Review and Species Take Permits*, accessed 7/ 8/05. http://www.dfg.ca.gov/hcpb/ceqacesa/cesa/incidental/cesa_policy_law.shtml

⁶ The State Endangered Species Act does not supersede the federal Endangered Species Act.

ii. California Fish and Game Code

Under the California Fish and Game Code, the CDFG provides protection from “take” for a variety of species. Species that are designated “fully protected”⁷ are protected against direct impacts. Section 5050 lists protected amphibians and reptiles. Eggs and nests of all birds are protected under Section 3503, nesting birds (including raptors and passerines) under Sections 3503.5 and 3513, birds of prey under Section 3503.5, and fully protected birds under Section 3511. All birds that occur naturally in California and are not resident game birds, migratory game birds or fully protected birds are considered non-game birds and are protected under Section 3800. Mammals are protected under Section 4700.

The CDFG also protects streams, water bodies and riparian corridors through the Streambed Alteration Agreement process under Section 1601 to 1606 of the California Fish and Game Code. Jurisdictional authority of the CDFG over wetland areas is also established under Sections 1601 to 1606. The Fish and Game Code stipulates that it is “unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake” without notifying the Department, incorporating necessary mitigation and obtaining a Streambed Alteration Agreement. CDFG’s jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

*iii. California Native Plant Protection Act*⁸

The California Native Plant Protection Act of 1977 prohibits importation of rare and endangered plants into California, “take” of rare and endangered plants, and sale of rare and endangered plants. CESA defers to the California Native Plant Protection Act, which ensures that state-listed plant species are

⁷ Most fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations.

⁸ California Department of Fish and Game, Habitat Conservation Planning Branch. *California’s Plants and Animals: Native Plant Conservation*, http://www.dfg.ca.gov/hcpb/species/t_e_spp/nat_plnt_consv.shtml, accessed 7/ 8/05.

protected when state agencies are involved in projects subject to CEQA. In this case, plants listed as rare under the California Native Plant Protection Act are not protected under CESA but rather under CEQA.

The following kinds of activities are exempt from the California Native Plant Protection Act:

- ◆ Agricultural operations
- ◆ Fire control measures
- ◆ Timber harvest operations
- ◆ Mining assessment work
- ◆ Removal of plants by private landowners on private land for construction of canals, ditches, buildings, roads or other rights-of-way
- ◆ Removal of plants for performance of a public service by a public agency or a publicly- or privately-owned public utility

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

The San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) was conceived in 1993 and formally adopted by the County in 2001. Cities throughout San Joaquin County have since become signatories, including Tracy on November 6, 2001.⁹ The goals and principles of the SJMSCP include the following:

- ◆ Provide a county-wide strategy for balancing the need to conserve open space and the need to convert open space to non-open space uses, while protecting the region's agricultural economy.
- ◆ Preserve landowner property rights.
- ◆ Provide for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under the ESA or the CESA.

⁹ Shaar, Tarren. City of Tracy Development and Engineering Services Department, Associate Planner. Personal communication with Lisa Fisher, DC&E, 6/21/05.

- ◆ Provide and maintain multiple-use open spaces which contribute to the quality of life of the residents of San Joaquin County
- ◆ Accommodate a growing population while minimizing costs to project proponents and society at large.¹⁰

The SJMSCP is administered by a Joint Powers Authority consisting of members of the San Joaquin County Council of Governments (SJCOG), the California Department of Fish and Game (CDFG), and the US Fish and Wildlife Service. Development project applicants are given the option of participating in the SJMSCP as a way to streamline compliance with required local, State and federal laws regarding biological resources, and typically avoid having to approach each agency independently. According to the SJMSCP, adoption and implementation by local planning jurisdictions provides adequate compensation and mitigation for impacts to plants, fish and wildlife. SJMSCP-permitted activities within the boundaries of San Joaquin County fulfill conservation and open space obligations and policies of local general plans, resolution, ordinances and other regulations as they pertain to plants, fish and wildlife. Adoption and implementation of the SJMSCP also secures compliance pursuant to the state and federal laws such as CEQA, the National Environmental Policy Act (NEPA), the Planning and Zoning Law, the State Subdivision Map Act, the Porter-Cologne Act and the Cortese-Knox Act in regards to species covered under the SJMSCP.¹¹

The 50-year plan addresses impacts to 97 special-status plant, fish and wildlife species found in 52 vegetative communities that occur in scattered localities throughout San Joaquin County. The SJMSCP compensates for conversions of open space for the following activities: urban development, mining, expansion of existing urban boundaries, non-agricultural activities occurring outside of urban boundaries, levee maintenance undertaken by the San Joaquin Area

¹⁰ *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan*, November 2000, p.1-1.

¹¹ *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan*, November 2000, p.1-13.

Flood Control Agency, transportation projects, school expansions, non-federal flood control projects, new parks and trails, maintenance of existing facilities for non-federal irrigation district projects, utility installation, maintenance activities, managing preserves and similar public agency projects.¹²

Occasionally, on-site biological resources are discovered during the CEQA process that are not covered by the SJMSCP. In these cases, applicants must also work with CDFG to determine the additional mitigation measures necessary. Applicants that choose not to participate in the SJMSCP must still prove compliance with all required regulations, such as the federal and State Endangered Species Acts, through other means, before gaining development project approval.

Since Tracy became a signatory to the SJMSCP at the end of 2001, all applicants for projects within the City have chosen to participate in the Plan, rather than pursue compliance independently. Applicants pay mitigation fees on a per-acre basis, as established by the Joint Powers Authority according to the measures needed to mitigate impacts to the various habitat and biological resources. Different types of land require different levels of mitigation; i.e., one category requires that one acre of a similar land type be preserved for each acre developed, while another type requires that two acres be preserved for each acre developed. The entire County is mapped according to these categories so that land owners, project proponents and project reviewers are easily aware of the applicable SJMSCP fees for the proposed development.

The appropriate fees are collected by the City and remitted to SJCOG for administration. SJCOG uses the funds to preserve open space land of comparable types throughout the County, often coordinating with other private or public land trusts to purchase conservation easements or buy land outright for preservation. Development occurring on land that has been classified under the SJMSCP as “no-pay” would not be required to pay a fee. This cate-

¹² *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan*, November 2000, p.1-1.

gory usually refers to already urbanized land and infill development areas. Although the fees are automatically adjusted on an annual basis, based on the construction cost index, they often cannot keep pace with the rapidly rising land prices in the Central Valley. Therefore, SJCOG is currently in the process of updating the mitigation fee schedule to more accurately match the market value of the various land types.

2. Biological Resources in the Tracy Planning Area

The Tracy Planning Area currently supports both native and non-native plant communities, wildlife and habitats; and, numerous sensitive species of each.

a. Vegetation and Natural Habitat Setting

Historically, the Planning Area was dominated by perennial native grasslands, broad riparian zones and freshwater marsh wetlands. During the 1800s, settlers drained wetland and riparian areas and converted the land for agriculture. Grasslands were similarly eliminated from the region as a result of concentrated grazing and agricultural conversion.¹³ Wetlands have been generally mapped as part of the National Wetland Inventory of the USFWS.¹⁴

The Tracy Planning Area currently contains a range of vegetation and habitat types including urban, agricultural, riparian woodlands, seasonal wetlands, farmed wetlands and non-native grasslands. These vegetation areas and habitats, which are described below, host a wide range of wildlife and plant species that reflect the diversity in San Joaquin County and the Central Valley. Each was considered in the analysis of biological impacts and the general locations are shown in Figure 4.6-1.

- ◆ **Farmed Wetlands.** Wetland areas that are currently in agricultural uses are defined as farmed wetlands. This type of area occurs in the northern portion of the Tracy Planning Area.

¹³ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan*, July 19, 1993, p.101.

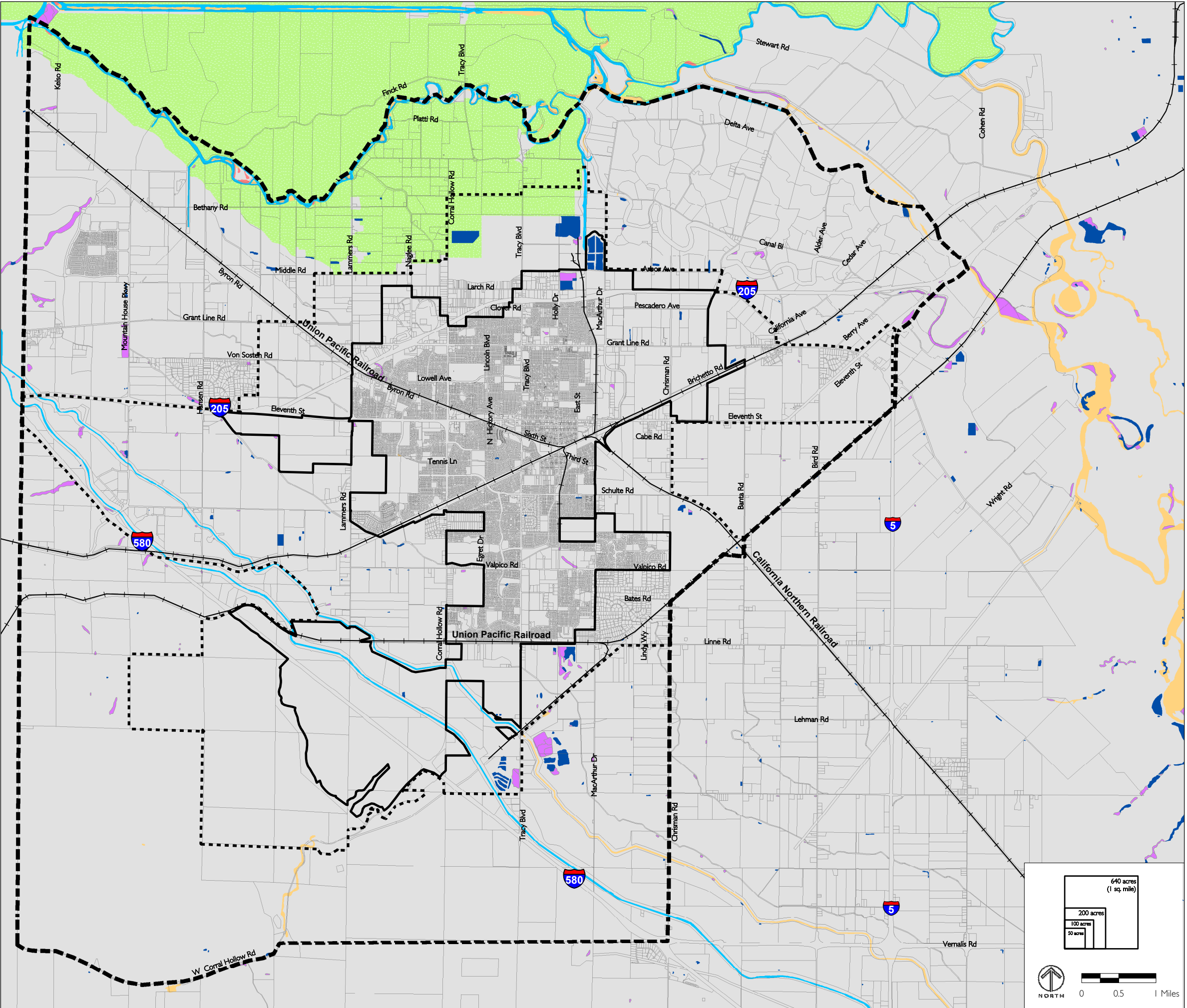
¹⁴ U.S. Fish and Wildlife Service, National Wetlands Inventory digital database, 1998.

- ◆ **Lakes, Ponds and Open Water.** Includes both natural and human-made water bodies such as that associated with working landscapes, municipal water facilities and canals, creeks and rivers.
- ◆ **Seasonal Wetlands.** There are numerous seasonal wetlands throughout the Tracy Planning Area, which typically fill with water during the wet winter months and then drain enough to become ideal plant habitats throughout the spring and summer.
- ◆ **Tidal Salt Ponds and Brackish Marsh.** Brackish marshes are areas affected by irregular tidal flooding with generally poor drainage and standing water. In the northern portion of the Tracy Planning Area there are minimal occurrences along some of the larger river channels.
- ◆ **Riparian Woodlands.** The Great Valley Riparian Woodland communities lie in the northern portion of the Planning Area, along the Old River and Tom Paine Slough riparian zones, and in the southern portion of the Planning Area along the Corral Hollow system, which flows northeast.
- ◆ **Agricultural.** Much of the Planning Area outside the Tracy City limits is used for agricultural production. This area includes land that is currently in agricultural use and lands that have been used for agricultural uses in the past but remain un-urbanized.
- ◆ **Urban.** Much of the land in the City limits and parts of the SOI is built-up and therefore considered Urban.
- ◆ **Non-Native Grasslands.** The majority of non-native grasslands in the Tracy Planning Area occur in its southern portion, and are often associated with grazing activities.

b. Special-Status Species

There are numerous “special-status” or “sensitive” plant and animal species known to be located in the Tracy Planning Area, which include any plants and animals legally protected under State and federal Endangered Species Acts or other regulations, as well as those considered sufficiently rare by the scientific community. Specifically, “special-status” or “sensitive” species include the following categories:

FIGURE 4.6-1



BIOLOGICAL RESOURCE AREAS

- Resource Areas:**
- Farmed wetlands
 - Lakes and Ponds
 - Open Water
 - Seasonal Wetlands
 - Tidal Salt/Brackish Marsh
 - Riparian woodland
 - Upland (includes agriculture, urban, and non-native grasslands)
- City Limit**
- Proposed Sphere of Influence**
- Planning Area**

Data Source: U.S. Fish and Wildlife Service, National Wetlands Inventory digital database, 1998.

Backside of Figure 4.6-1 : Biological Resource Areas (11 X 17) color

- ◆ Plants and animals listed or proposed for listing as threatened or endangered under the federal Endangered Species Act.
- ◆ Plants and animals that are candidates for possible future listing as threatened or endangered under the federal Endangered Species Act.
- ◆ Plants listed under the California Native Plant Protection Act.
- ◆ Plants and animals that meet the definition of rare or endangered under CEQA, including those plants considered by the California Native Plant Society (CNPS) to be “rare, threatened, or endangered in California.”¹⁵
- ◆ Animal species of special concern to the California Department of Fish and Game.
- ◆ Animals fully protected in California, as defined in the California Fish and Game Code, Sections 3511 [birds], 4700 [mammals] and 5050 [amphibians and reptiles].¹⁶

A 2004 search of the CDFG’s California Natural Diversity Database (CNDDB) for the Tracy Planning Area and the surrounding 1-mile radius identified six special-status mammals, 24 special-status birds, six special-status reptiles and amphibians, two special-status invertebrates, and 12 special-status plant species potentially occurring. These include, among others, the San Joaquin kit fox, Swainson’s hawk, San Joaquin pocket mouse and the giant garter snake. The results of the CNDDB search identify the special-status species with a higher potential for occurrence in the study area, but others may also occur. Table 4.6-1 lists the sensitive species that have been identified within the Tracy Planning Area and its 1-mile buffer at this time, and indicates which ones are covered under the SJMSCP.

¹⁵ CNPS Lists 1B and 2 in Skinner, M.W. and B.M. Pavlik, *Inventory of Rare and Endangered Vascular Plants in California*. 1994.

¹⁶ California Fish and Game Code, Sections 3511 [birds], 4700 [mammals], and 5050 [amphibians and reptiles].

TABLE 4.6-1 **SENSITIVE BIOLOGICAL RESOURCES EXISTING IN THE TRACY PLANNING AREA**

Common Name	Type	Official Status	Covered under the SJMSCP
Big Tarplant	Plant	CNPS List 1B	
Burrowing Owl	Bird	State Species of Special Concern	Yes
California Horned Lark	Bird	Federal Species of Concern and State Species of Special Concern	Yes
California Red-legged Frog	Amphibian	Federally listed as Threatened	Yes
California Tiger Salamander	Amphibian	Federal listed as Threatened; effective 8-31-04	Yes
Caper-fruited Tropicodarpum	Plant	Federal Species of Concern	Yes
Coast (California) Horned Lizard	Reptile	State Species of Concern	
Delta Button-celery	Plant	State listed as Endangered	Yes
Diamond-petaled California Poppy	Plant	Federal Species of Concern	Yes
Large-flowered Fiddleneck	Plant	State and federally listed as Endangered	Yes
Lemmon's Jewelflower	Plant	CNPS List 1B	
Mason's Lilaeopsis	Plant	State listed as Rare and CNPS List 1B	Yes
Riparian (San Joaquin Valley) Woodrat	Mammal	Federally listed as Endangered	Yes
Rose-mallow	Plant	Federal Species of Concern	
Round-leaved Filaree	Plant	CNPS List 2	
San Joaquin Kit Fox	Mammal	Federally listed as Endangered and State listed as Threatened	Yes
San Joaquin Pocket Mouse	Mammal	CNDDB Special Animal	Yes
San Joaquin Whipsnake	Reptile	Federal Species of Concern and State Species of Special Concern	Yes

TABLE 4.6-1 (CONTINUED) **SENSITIVE BIOLOGICAL RESOURCES EXISTING
IN THE TRACY PLANNING AREA**

Showy Madia	Plant	CNPS List 1B	Yes
Silvery Legless Lizard	Reptile	State Species of Special Concern	
Swainson's Hawk	Bird	State listed as Threatened	Yes
Western Mastiff Bat	Mammal	Federal Species of Concern and State Species of Special Concern	Yes
Western Pond Turtle	Reptile	Federal Species of Concern and State Species of Special Concern	Yes
Western Spadefoot	Amphibian	Federal Species of Concern and State Species of Special Concern	Yes
Great Valley Valley Oak Riparian Forest	Habitat Area		
Northern Claypan Vernal Pool	Habitat Area		

Note: CNPS List 1B = California Native Plant Society List 1B, which includes plants that are rare, threatened or endangered in California and elsewhere.

CNPS List 2 = California Native Plant Society List 2, which includes plants that are rare, threatened or endangered in California, but more common elsewhere.

Source: California Department of Fish and Game, *California Natural Diversity Database*, July 2004; California Native Plant Society website www.cnps.org; *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan*, November 2000.

B. Standards of Significance

The City of Tracy General Plan would result in a significant impact on biological resources if it would:

- ◆ Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

- ◆ Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service.
- ◆ Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.
- ◆ Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- ◆ Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- ◆ Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

C. Impact Discussion

The proposed General Plan provides a framework for growth in the City limits and SOI, and includes provisions for the conservation of natural resources, including the protection of sensitive biological resources. Development allowed under the proposed General Plan does have the potential to significantly impact biological resources, as discussed below, but these potential impacts would be addressed through General Plan goals, objectives and policies.

1. Sensitive Species and Habitat

Depending on its location and intensity, future urban development in the Tracy City limits and SOI allowed by the proposed General Plan could result in adverse impacts either directly or indirectly to sensitive species identified in

the area. Biological resources can be compromised if their natural habitats, including riparian areas, other sensitive natural communities and wildlife nursery sites, are disturbed or eliminated by the introduction of urban uses and humans. In this regard, significant impacts to wildlife corridors that interfere or in any way impede the movement of native plants, migratory fish or wildlife species are also considered in this discussion.

The previously-mentioned federal and State programs and regulations for the protection of biological resources become the responsibility of individual municipalities as new development or substantial redevelopment occurs. Individual project proposals in Tracy are required to meet all federal, State and regional regulations for habitat and species protection (Objective OSC-1.1, P1). Depending on the project, subsequent CEQA review may also be required, to further analyze potential impacts to these resources on a case-by-case basis.

As a guiding statement for Tracy's future development and as an indication of the City's commitment to protect sensitive species and their habitats within the City, Goal OSC-1 of the proposed General Plan states the general intention to protect rare, endangered and threatened plant and animal species. Objective OSC-1.1, P2 of the proposed General Plan specifically outlines the City's intent to continue its participation, along with SJCOG and other local municipalities, to implement and enforce the SJMSCP. Thereby, the City would continue to facilitate adoption and compliance with the Plan by project applicants, and the collection of appropriate mitigation fees to compensate for any loss of sensitive species habitat from new development. To further support regional efforts for open space preservation, the proposed General Plan also outlines policies aimed at protecting and preserving undeveloped portions of the Planning Area, beyond the SOI as open space (Objective OSC-4.4). Policies P1 through P3 under this objective speak to the City's intention of forming partnerships with neighboring communities, and the County as a whole, for the creation of open space buffers between developing areas and the use of the SJMSCP as a legislative handle in this effort. Action 1 further directs the City of Tracy to prepare a comprehensive plan for areas

outside of the City that, among other things, identifies important areas for non-urban, open space uses, analyzes appropriate preservation methods, develops funding mechanisms and identifies administrative processes. Open space lands, whether for agricultural production, recreation or wilderness, and especially those preserved in perpetuity, are an important component in protecting biological resources.

The General Plan also includes policies to mitigate impacts to biological resources on project sites as development occurs. Objective OSC-1.1, P3 outlines a design requirement that new development should incorporate native vegetation into landscape plans and discourage the use of invasive, non-native plant species. Specifics include the requirement that new golf courses be designed to minimize water, energy and chemical (e.g. pesticides and fertilizer) usage, preserve wildlife habitat, and incorporate native plants and drought-resistant turf (Objective OSC-4.1, P6). Finally, Objective OSC-3.2, P3 aims to mitigate impacts to biological resources as a result of mining activities.

As discussed above, the implementation of the SJMSCP for development projects provides adequate mitigation to reduce impacts to biological resources to a level acceptable to meet State and federal requirements. Project proponents that choose not to participate in the SJMSCP, as it is a voluntary plan, would still be required to comply with existing local, State and federal regulations, as described in the Existing Setting section, which require similar mitigation to reduce impacts to sensitive species and habitats to a less-than-significant level. However, Urban Reserve 6, commonly known as Cordes Ranch, falls outside of Tracy's SJMSCP compensation maps. Therefore, this EIR outlines mitigation measures to reduce the potentially significant impact to sensitive species, associated habitats, wildlife movement and reproductive areas to a less-than-significant level.

2. Wetlands

Implementation of the proposed General Plan may result in development of lands containing federally-protected wetlands, which could result in significant impacts to wetland resources. The SJMSCP includes a category for wet-

land mitigation, based in part on a Clean Water Act regional general permit garnered by SJCOG from the Corps. As previously mentioned, not all sensitive species, especially in conjunction with wetland habitats, are covered by the SJMSCP. Regardless, State and federal requirements for wetlands mitigation as outlined in the Clean Water Act must be met prior to project approval. Any development project proposed in a wetland area would undergo CEQA review for biological resources, and review by CDFG, in order to determine if additional mitigation measures are required. For example, a detailed wetland delineation and verification by the Corps would be required to determine the extent of jurisdictional wetlands on sites where modifications are proposed and to provide the basis for mitigation. Therefore, significant adverse impacts to wetlands would not occur due to development permitted under the proposed General Plan.

3. Local Policies, Ordinances and Habitat Conservation Plans

As mentioned above in the Sensitive Species and Habitat discussion, the proposed General Plan includes policies to protect biological resources. If adopted, this Plan would supersede the existing City of Tracy Urban Management Plan, not conflict with it. The proposed General Plan includes a policy (Objective OSC-1.1, P2) stating that the City would continue to participate with the SJCOG and other agencies to implement and enforce the SJMSCP, which is considered an adopted Habitat Conservation Plan for the entire San Joaquin County. In this, the City would continue to require project applicants to comply with the SJMSCP, and other State and federal regulations in the protection of biological resources, and development permitted under the proposed General Plan would not adversely impact the purpose and function of the SJMSCP. As the City of Tracy has not adopted a tree ordinance or other related ordinance, there would be no conflict with implementation of the proposed General Plan. In summary, as the proposed General Plan would not conflict with any local policies, ordinances or Habitat Conservation Plans protecting biological resources, this impact would be less-than-significant.

D. Impacts and Mitigation Measures

Potentially significant impacts were identified in regards to biological resources.

Impact BIO-1: Sensitive species, associated habitats, wildlife movement and reproductive areas could be impacted by development in Urban Reserve 6, commonly known as Cordes Ranch, which falls outside of Tracy's SJMSCP compensation maps.

Mitigation Measure BIO-1: The City shall require property owners of Cordes Ranch to amend the SJMSCP such that the area is included in the SJMSCP or shall ensure that adequate site-specific mitigation is undertaken to a level acceptable to meet State and federal requirements.

4.7 AGRICULTURAL RESOURCES

This section summarizes information on agricultural resources in and around the City of Tracy, and provides an evaluation of the effects of the proposed General Plan on these resources.

A. Existing Setting

The following provides an overview of the current local and State regulations that work to protect agricultural resources in the Tracy area. In addition, information about the existing agricultural resources and importance of agriculture to the City and the larger region is included.

1. Regulatory Framework

There are several State, County and City regulations and planning documents that address and provide protection for agricultural resources.

a. Williamson Act Contracts

Williamson Act contracts provide tax benefits to property owners in exchange for preserving their land for agricultural use in 10-year increments. These development restrictions are considered agricultural easements, which lower the market value of the land and result in an associated property tax reduction. To offset the impacts to property tax revenues, the contracts also provide financial assistance to municipalities who have Williamson Act contracts within their jurisdiction. To further protect agricultural land, Farmland Security Zones¹, or “Super Williamson Act contracts,” involve the adoption of a 20-year development restriction. All contracts are renewable on a voluntary basis and can also be cancelled upon payment of a fee and compliance with additional legal requirements.

¹ The Farmland Securities Zone (FSZ) program is a State intermediate-term agricultural land conservation program, established in 1998. The FSZ program offers current Williamson Act Contract holders the option of extending conservation beyond the Act’s 10-year commitment. This program gives landowners an additional 35 percent reduction in property taxes below Williamson Act assessments.

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

Certain parcels of agricultural lands, including perennial and annual crops, are classified as Agricultural Habitat Lands by the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), which Tracy adopted in 2001. The SJMSCP is discussed in detail in Section 4.6. The classification of Agricultural Habitat Lands requires that one acre of a similar land type be preserved, acquired, enhanced and managed in perpetuity somewhere in San Joaquin County as compensation for every acre developed for urban uses. Some agricultural and range lands are instead classified as Natural Lands, which increases the required ratio to 3 acres for every 1 acre converted from open space. To comply with the SJMSCP, project applicants may purchase the determined amount and type of land independently, as long as they handle all necessary enhancements and management in perpetuity. More commonly, applicants pay appropriate per-acre fees to the local jurisdiction instead.²

c. San Joaquin County General Plan Land Use and Zoning Designations

San Joaquin County, as with the rest of California's Central Valley, is concerned with the rapid increase in urban development that threatens the viability of its agricultural economy and community character. Much of Tracy's 114-square mile Planning Area is under the jurisdiction of San Joaquin County, and is designated by the County General Plan as General Agriculture and Limited Agriculture. Lands designated as Limited Agriculture typically include wetlands or steep slopes that are difficult to cultivate but may be used for grazing or habitat conservation. Policies and actions exist in the County General Plan to direct development away from agricultural lands, towards existing urban centers and infill areas. Agricultural zoning is used in these areas to limit residential densities, or 'feather' densities of development

² *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan* and City of Tracy Development and Engineering Services Department, Planning Division. Personal communication with DC&E staff, June 21, 2005.

from urban to agricultural uses.³ The General Plan also includes recommendations for the adoption of an Exclusive Agriculture Zone, the pursuit of Community Separators and the initiation of a model Farmland Conservation Ordinance.⁴

d. City of Tracy Current General Plan and Zoning Ordinance

Cities and counties sometimes leverage general plans and zoning ordinances to pursue open space preservation and the conservation of agricultural land. Lands within an SOI can be designated as “agriculture,” “resource conservation” or a similar designation. The 1993 Tracy General Plan included a land use designation for Agriculture, which is defined as land that is intended to remain in agriculture use for the life of the 1993 Plan, and typically refers to parcels of 40 acres or more. The 1993 General Plan designated zero acres of land within the City limits as Agriculture, and 181 acres within the existing SOI. Agriculture uses include: field crops, tree crops, nurseries, greenhouses, agricultural related residences and structures, oil and gas exploration, livestock ranges, animal husbandry, public parks and recreation areas, farm employee residences, agricultural offices, truck farming and roadside stands. The 1993 General Plan also outlined several goals and policies to articulate the value of agricultural lands to the City. These policies were evaluated during the General Plan update process and have been edited as appropriate for inclusion in the proposed General Plan, which will supersede the 1993 Plan upon its adoption. The City’s current Zoning Ordinance includes an Agricultural Zone (A), to designate agricultural uses, including row crops and grazing. The Zoning Ordinance will be amended as necessary to remain consistent with the updated General Plan.

e. City of Tracy Right-to-Farm Ordinance

Similar to many other cities and counties in agricultural areas, Tracy has an adopted Right-to-Farm Ordinance. It can be found within the Planning and Zoning Title of its Municipal Code; any violations are handled in a civil

³ *San Joaquin County General Plan, 2000.*

⁴ *San Joaquin County General Plan 2010 Review, 2000, p.30.*

manner. The Ordinance establishes policies that preserve and protect existing agricultural operations. Although agriculture is acknowledged as a local priority, operations frequently become the subjects of nuisance complaints when nonagricultural land uses are developed near or adjacent to agricultural areas, often due to the lack of public information about such operations. The Ordinance helps clarify the circumstances under which an agricultural operation may be considered a nuisance by informing residents that farming activities are allowed and cannot be stopped by encroaching residential development; premature conversions of existing agricultural resources are reduced as a result. In Tracy, once a commercial agricultural use within the City limits has been in operation for three years, according to the Ordinance, it may not be deemed a nuisance as a result of a future land use conflict due to the development of urban uses on adjacent parcels. Improper or unlawful agricultural production activities are not protected by this Ordinance in any way.⁵

f. City of Tracy Agricultural Mitigation Fee Ordinance

On June 7, 2005, the City Council adopted Chapter 13.28 Agricultural Mitigation Fee to its Municipal Code. The impetus is a combination of a 2004 settlement agreement with Delta Keeper, the Sierra Club and the South San Joaquin Irrigation District (SSJID) where the Cities of Lathrop, Manteca and Tracy all agreed to implement this fee program to mitigate for the loss of farmland as development occurs, especially for projects using water from the SSJID. The Ordinance is also in response to policies in the General Plan to preserve productive farmland, including the development of a program to secure permanent agriculture on lands designated for agriculture in the city and/or county general plan.⁶ Finally, loss of agricultural land has a cumula-

⁵ City of Tracy Municipal Code, Title 10, Chapter 24, Articles 1 and 2. <http://www.ordlink.com/codes/tracy/index.htm>, accessed in May, 2005.

⁶ Tracy Municipal Code, 13.28.020 Purpose, Findings and Declaration of Intent (5), May 17, 2005.

tively negative impact on air quality, traffic, noise, public services demands, and aesthetics.⁷

The fee is intended to mitigate the common CEQA determination of significant, unavoidable impacts to the loss of farmland as a result of proposed development, often approved by cities under statements of overriding concern. The fees will be collected and administered by the City before the issuance of building permits, and used for acquiring farmland, farmland conservation easements or farmland deed restrictions from willing sellers. Although these interests in real property are entirely voluntary, they become an enforceable right to protect farmland in perpetuity. The agricultural mitigation fee schedule, once adopted by the City Council will annually be automatically adjusted by an amount reflective of the current Engineering Construction Cost Index.⁸

2. Existing Agricultural Resources

San Joaquin County's combination of fertile soils, long growing season and successful irrigation network has made the County a major regional and national agricultural area. San Joaquin County ranked sixth in the State in gross value of agricultural production in 2000 and has been consistently ranked among the top ten counties in the nation since 1992.⁹ Historically, the Tracy Planning Area was dominated by perennial native grasslands, broad riparian zones and fresh-water marsh wetlands. During the 1800s, settlers drained wetland and riparian areas and converted the land for agriculture.

Agriculture is a major activity within the undeveloped portions of the Tracy Planning Area. This area includes land that is currently in agricultural use,

⁷ Tracy Municipal Code, 13.28.020 Purpose, Findings and Declaration of Intent (9), May 17, 2005.

⁸ Established each year by the Engineering News Record.

⁹ http://www.farmland.org/california/north_san_joaquin.htm, accessed 6/25/05.

TABLE 4.7-1 **DEFINITIONS OF FARMLAND QUALITY TERMS**

Name	Description
Prime Farmland	Land which has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Prime Farmland must have been used for the production of irrigated crops within the last three years
Farmland of Statewide Importance	Land other than Prime Farmland which has a good combination of physical and chemical characteristics for the production of crops. It must have been used for the production of irrigated crops within the last three years.
Unique Farmland	Land which does not meet the criteria for Prime Farmland or Farmland of Statewide Importance that is currently used for the production of specific high economic value crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. Examples of such crops may include oranges, olives, avocados, rice, grapes, and cut flowers.
Farmland of Local Importance	Land other than Prime Farmland, Farmland of Statewide Importance, or Unique Farmland that is either currently producing crops or that has the capability of production. This land may be important to the local economy due to its productivity.

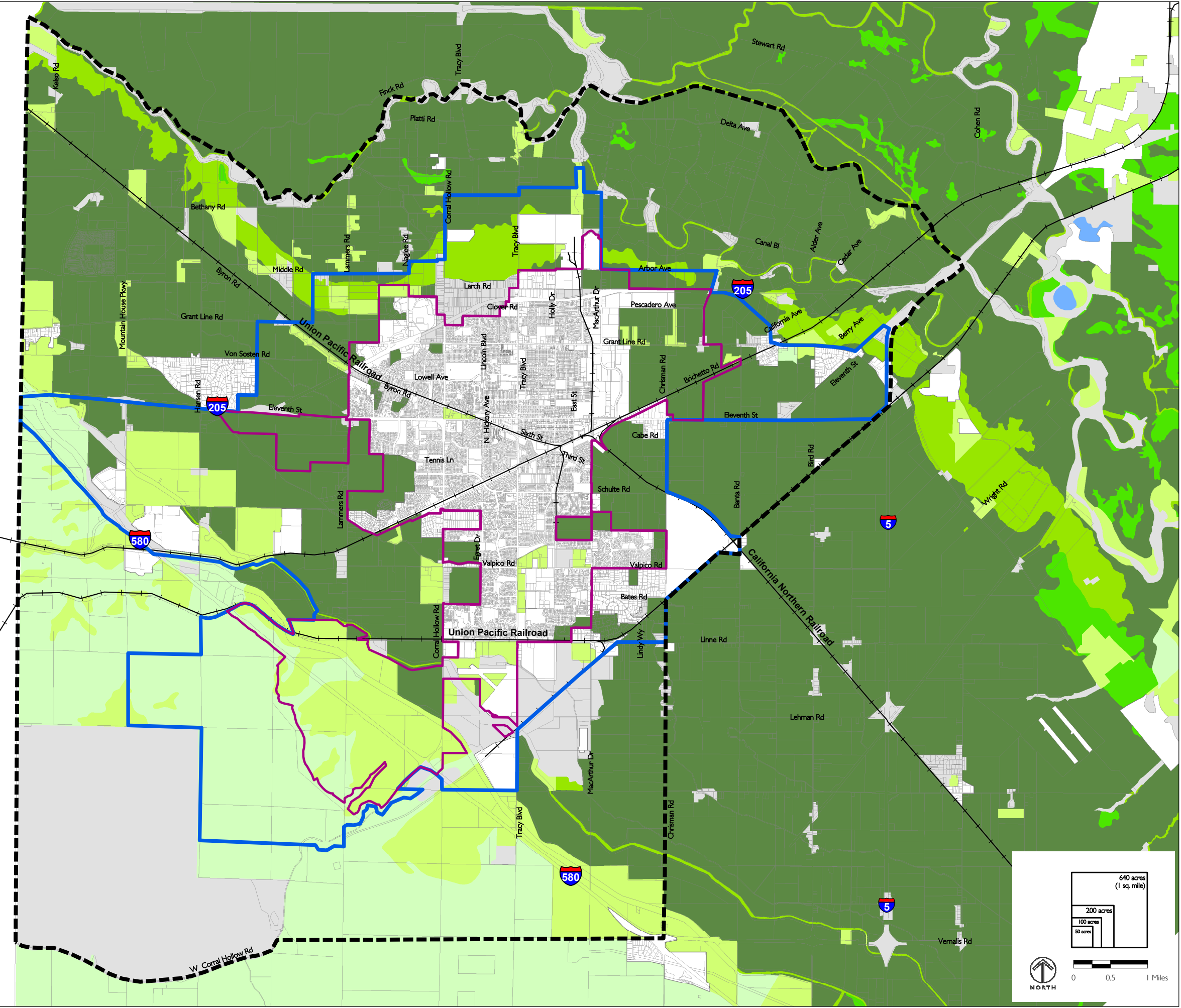
Source: California Department of Conservation, 2001.

lands that have been used for agricultural uses in the past but remain undeveloped and grazing land.

The California Department of Conservation's (CDC) Important Farmland Inventory System classifies land into one of eight mapping categories based on soil and climatic conditions. The definitions of the CDC's farmland quality terms are explained in Table 4.7-1. As is shown in Figure 4.7-1 and Table 4.7-2, there are 31,592 total acres of land identified as either Prime Farmland,

FIGURE 4.7-1

IMPORTANT FARMLAND WITHIN THE TRACY PLANNING AREA



- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Farmland of Local Importance
- Grazing Land
- Urban and Built-Up
- Water
- Other
- City Limit
- Proposed Sphere of Influence
- Planning Area

Data Source: State of California, Department of Conservation, Division Of Land Resource Protection, Farmland Mapping and Monitoring Program, 2002.

backside: Figure 4.7-1: Important Farmland (11 X 17, color BACK)

TABLE 4.7-2 **FARMLAND IN THE TRACY PLANNING AREA (IN ACRES)**

Type	City Limits	Sphere of Influence	Planning Area*	Total
Farmland Type				
Prime Farmland	2,577	7,815	18,824	29,216
Farmland of Statewide Importance	0	0	84	84
Unique Farmland	4	852	1,436	2,292
Farmland of Local Importance	2,309	1,961	3,919	8,189
Total	4,890	10,628	24,263	39,781
Williamson Act Lands				
Prime	0	690	8,935	9,625
Non-Prime	0	3,177	4,573	7,750
Prime Non-Renewal	950	15	235	1,200
Non-Prime Non-Renewal	410	191	104	705
Prime Farmland Security Zone	0	0	210	210
Non-Prime Farmland Security Zone	0	0	0	0
Total	1,360	4,073	14,057	19,490

Note:

*Planning Area acreages refer to area within Tracy Planning Area that is outside of the SOI.

Source: State of California, Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, Important Farmland Type (2002) and Williamson Act Land (2004).

Farmland of Statewide Importance and Unique Farmland in the entire Tracy Planning Area. Of this amount, 2,581 acres are located in the City limits, 8,667 acres are in the SOI outside of the City limits and 20,344 acres are located in the Tracy Planning Area outside of the SOI. In addition, there are 8,189 acres of land identified as Farmland of Local Importance in the Tracy Planning Area. Conversion to urban uses of a majority of these areas within the City limits has been addressed through previous CEQA and entitlement efforts where development is now occurring. Farmland classification locations are not definitive indicators of agricultural production, especially on land within the City limits. According to the California Department of Conservation, as of January 2003, 55 percent of agricultural land within the entire Tracy Planning Area holds Williamson Act or Farmland Security Zone contracts, as explained in the Regulatory Framework section. Details are given in Table 4.7-2 and locations are shown in Figure 4.7-2. Almost 10 percent of these contracts are in non-renewal status.

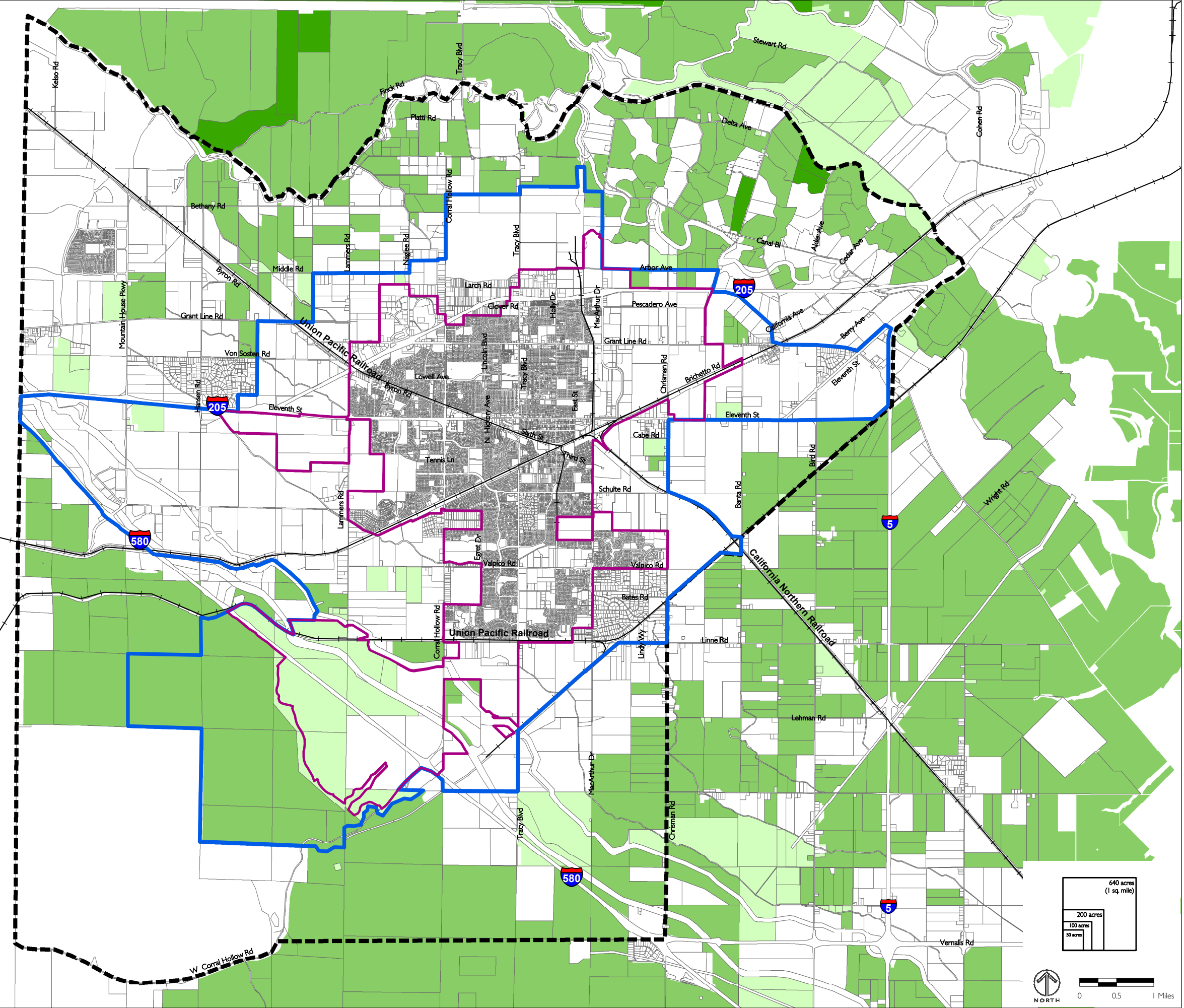
B. Standards of Significance

The proposed Tracy General Plan would have a significant impact on agricultural resources if it would:

- ◆ Convert Prime Farmland, Farmland of Statewide Importance or Unique Farmland (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- ◆ Conflict with existing zoning or agricultural use, or a Williamson Act contract.
- ◆ Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.

FIGURE 4.7-2

**WILLIAMSON ACT LANDS
IN THE TRACY PLANNING AREA**



- Farmland Security Zone
- Williamson Act (active contract)
- Williamson Act (in non-renewal)
- City Limit
- Proposed Sphere of Influence
- Planning Area

Data Source: California Department of Conservation,
Division of Land Resource Protection, 2003.
Note that Williamson Act lands are those in non-renewal or
active contracts as of January 1, 2003.

backside: Figure 4.7-2: Williamson Act Lands (11 x 17, color BACK)

C. Impact Discussion

The proposed General Plan was designed to guide future growth in a way that would encourage the preservation of agricultural lands not targeted for urban uses, while also discouraging premature conversion to urban uses. However, impacts to farmland would still occur as a result of implementation of the proposed General Plan.

1. Conversion of Farmland

Farmland faces various degrees of development pressure depending on its proximity to Tracy's already urbanized areas. The proposed General Plan allows for the development of urban uses on land within the City limits, even if it is classified by the California Department of Conservation as Prime Farmland, Farmland of Statewide Importance and Unique Farmland. Although these areas are already designated for urban uses in the 1993 General Plan, the proposed General Plan would nevertheless result in the eventual conversion of farmland to urban uses. Furthermore, the proposed General Plan extends the SOI from its current boundary, which would further impact the conversion of farmland to urban uses.

As discussed in Section 4.6 and in the Regulatory Framework portion of this section, the City currently uses several regulatory tools for the protection of agricultural resources, including its participation in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan. The City's recently-adopted Agricultural Mitigation Fee Ordinance will also be used to collect in-lieu fees for impacts from development on agricultural land. These funds will eventually be utilized for the purchase of conservation easements on agricultural lands.

The proposed General Plan includes policies that continue the City's support and implementation of these regulations (Objective OSC-1.1, P2 and OSC-2.1, P3). Objective OSC-2.1 outlines the City's intent to support San Joaquin County's efforts to preserve existing agricultural lands in the Tracy Planning Area and outside of the SOI. Objective OSC-2.1, P4 states that the City shall

encourage the continued agricultural use of land within the Tracy Planning Area and outside the SOI that is currently being farmed. The City will also work cooperatively with non-profit organizations, such as land trusts, to preserve agricultural land in the Tracy Planning Area (Objective OSC-2.1, P5).

The proposed General Plan also contains policies geared toward the development of an open space program for the City, which would be partially comprised of agricultural lands. For example, the City would seek to prevent the development of undeveloped lands in the Tracy Planning Area beyond the SOI (Objective OSC-4.4), especially on such lands between Tracy and its adjacent communities (Objective OSC-4.4, P1). Objective OSC-4.4, P3 also states that the City would be assertive in forming partnerships with San Joaquin County in the pursuit of open space preservation. Objective OSC-4.4, A1 outlines nine specific actions for the City to take in its efforts of establishing a comprehensive open space program and plan. One of these directives includes the partnering with non-profit organizations, such as the Central Valley Farmland Trust, to identify and purchase land and easements within the Tracy Planning Area.

Although these mitigation programs and supportive policies would somewhat reduce conversions of farmland and are important for curbing impacts to agricultural resources on a larger scale, the permanent loss of farmland that would occur as a result of the amount of growth expected in the General Plan would result in a significant and unavoidable impact to agricultural resources.

2. Conflict with Existing Zoning or Williamson Act Contracts

Much of the undeveloped land in the Tracy SOI and Planning Area is designated in the San Joaquin County General Plan as Agriculture and zoned for agricultural uses by the County. The proposed General Plan designates most of the land within the Tracy SOI for future urban uses, which could result in a potentially-significant impact due to a zoning conflict. However, the City cannot approve any urban development on land within the SOI until it is annexed into the City limits, at which point the City-proposed land use designations and associated zoning would apply. Therefore, at the point that

development is permitted, the zoning conflict would be mitigated. Until annexation occurs, the City shall support agricultural activities in the SOI. Objective OSC-2.1, P2 in the proposed General Plan states that the City shall support San Joaquin County policies and zoning actions that maintain agricultural lands in viable farming units. Therefore, there would be a less-than-significant impact in regards to zoning conflicts.

Development permitted under the proposed General Plan would direct urban uses to lands currently held in active Williamson Act contracts, both in the City limits and the SOI. Therefore, a potentially-significant impact as a result of a conflict with Williamson Act contracts could occur. However, all of the 1,360 acres of Williamson Act land currently within the City limits have filed for non-renewal prior to this General Plan update. In general, Williamson Act contracts are strictly voluntary, and the proposed General Plan does not obligate any land owner within the City limits or SOI to file for non-renewal or early cancellation of Williamson Act contracts, although land owners may be encouraged to do so in anticipation of urban growth.

The proposed General Plan contains policies to mitigate conflicts with Williamson Act contracts on land in the entire Tracy Planning Area. Objective OSC-2.1, P3 states that the City should endeavor to support the preservation of Williamson Act lands and Farmland Security Zone lands within the entire Tracy Planning Area (including lands within the City limits and SOI), and encourage the continued agricultural use of land within the Planning Area outside of the SOI that is currently being farmed (Objective OSC-2.1, P4). As described above, all Williamson Act contracts are renewable on a voluntary basis and can also be cancelled upon payment of a fee and compliance with additional legal requirements. Therefore, implementation of the proposed General Plan would not result in conflicts with existing Williamson Act contracts within the Tracy Planning Area and the impact would be less-than-significant.

3. Pressure for Additional Conversion of Agricultural Land

New urban development can make farming more difficult or costly due to conflicts between urban and agricultural activities. For example, residents may complain about noise, dust, odors and low-flying aircraft that are often unavoidable, and increase restrictions on agriculture processes that lower productivity. Urban uses may also increase run-off and air pollution from additional impervious surfaces and automobile traffic. In addition, urban activities may also negatively affect nearby agricultural uses with increased vandalism and the introduction of domestic animals that may disturb certain agricultural activities. In addition, urban uses may drive up the potential value of properties, thereby increasing property taxes for surrounding farmland not protected by Williamson Act contracts. One or a combination of these conflicts could limit agricultural activities or encourage farmers to take their land out of agricultural production, resulting in adverse impacts to agricultural resources in the Tracy area.

As mentioned above, numerous programs and policies exist at the City and County level to support the continuation of working farmland and agricultural land. One of the most important of these is the City's Right-to-Farm Ordinance. The Ordinance is intended to educate the public as to the realities of living in a rural community surrounded by agricultural production activities and provides that these realities do not constitute nuisances that the City would support eradicating.

The proposed General Plan contains several policies to help minimize conflicts between agricultural and urban uses. Objective OSC-2.2, P2 states that land uses allowed near agricultural operations should be limited to those not negatively impacted by dust, noise and odors. In further support, Objective OSC-2.2, P3 directs the City to review, maintain and update its Right-to-Farm Ordinance.

Policies are also contained in the proposed General Plan concerning the feathering of urban uses into agricultural uses, both city-wide and for individual project sites. For most of the City, a "soft edge" approach would be pur-

sued to create appropriate transitions between the two uses and mitigate conflicts (Goal CC-4). A “soft edge” is defined as a gradual or smooth transition between urban and rural uses (Objective CC-4.1, P2). Objective CC-4.1, P3 provides three techniques for the implementing the soft edge, including buffer zones, cluster development and density feathering. The incorporation of site-specific buffers between agricultural uses and urban development also helps reduce these conflicts and are required of new projects. As further specified in Objective OSC-2.2, P1, these buffers, which can be created with roads, setbacks and other physical boundaries, shall be located on the development site and shall not become the maintenance responsibility of the City. To be effective, they are to be of sufficient size to protect the agriculture operations from the impacts of incompatible development and be established based on the proposed land use, site conditions and anticipated agricultural practices.

As a result of these County and City policies to support the continuation of working farmland and agricultural land, and to reduce to the extent feasible the potential impacts resulting from the development of urban uses adjacent to agricultural uses, the impact of urban development under the proposed General Plan would be mitigated to a less-than-significant level.

D. Impacts and Mitigation Measures

While policies and other regulations would reduce impacts to agricultural resources to the extent feasible, several additional impacts would occur in regard to loss of farmland to urban development permitted under the proposed General Plan.

Impact AG-1: As discussed on pages 4.7-10 through 4.7-15, the proposed General Plan contains policies to preserve agricultural lands, in addition to policies in the SJMSCP and the City’s Agricultural Mitigation Fee Ordinance. Despite these policies and regulations, development permitted under the proposed General Plan would result in the conversion of Prime Farmland, Unique Farmland and Farmland of Statewide Importance to urban uses.

This is a significant and unavoidable impact. No additional mitigation is available.

Impact AG-2: The proposed General Plan contains several policies to mitigate impacts to agricultural resources due to the conversion of additional farmland to urban uses. However, implementation of the proposed General Plan would result in additional and incompatible urban development adjacent to agricultural uses.

This is a significant and unavoidable impact. No additional mitigation is available.

4.8 MINERAL RESOURCES

This section summarizes information on mineral resources in the Tracy Planning Area and includes an evaluation of the potential effects of the proposed General Plan on these resources.

A. Existing Setting

The following provides a general description of the regulatory setting and existing mineral resources in and around Tracy.

1. Regulatory Framework

The California Department of Conservation and related entities regulate and monitor mineral resources throughout the State.

a. California Geological Survey

The Division of Mines and Geology is officially referred to as the California Geological Survey (CGS) and functions within the State Department of Conservation. The CGS is charged with providing information and advice to the public and lead agencies to “...protect life and property from natural hazards and to promote a better understanding of California’s diverse geologic environment.” Besides addressing geologic and seismic safety issues (e.g., enacting the Seismic Hazards Mapping Act), the CGS is also responsible for monitoring the State’s non-fuel mineral resources and enacting the Surface Mining and Reclamation Act (SMARA). In this, the Survey leads and advises efforts to mitigate environmental impacts associated with surface mining and to remediate abandoned mines of all types. The CGS also maintains a library of Statewide Mineral Resource References, which includes Mineral Land Classification Reports for most counties, and information about mineral production and consumption relevant to California.¹

¹ Department of Conservation, California Geological Survey website, <http://www.consrv.ca.gov/CGS/CGSWeb-Archive-Site/Homepages/index-02-03-05.htm>, accessed 7/1/05.

TABLE 4.8-1 MINERAL RESOURCES ZONES AND SCIENTIFIC ZONES

Zone	Description
MRZ-1	Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence.
MRZ-2	Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.
MRZ-3	Areas containing mineral deposits the significance of which cannot be evaluated from available data.
MRZ-4	Areas where available information is inadequate for assignment to any other MRZ zone.
SZ	Areas containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance shall be classified in this zone.

Source: California Department of Conservation Division of Mines and Geology.

b. The State Mining and Geology Board

Operating within the Department of Conservation, the State Mining and Geology Board (SMGB) is comprised of nine Governor-appointed and Senate-approved members that each serve a four-year term. The SMGB serves as a regulatory, policy and appeals body to represent the State (and the public's) interest in the development, utilization and conservation of mineral resources; reclamation of mined lands; development of geologic and seismic hazard information; and to provide a forum for public redress.² This includes the Board's Mineral Resource Zones (MRZ) classifications, which identify and map sand and gravel resources into specific categories, as listed in Table 4.8-1. The MRZ classifications are the first in a two-step process established under SMARA to identify regionally-important mineral resources. In contrast to "classification", which does not take into account land use, the second step of "designation" is intended to identify those mineral deposits that are of prime importance to the future needs of the study region and that are available from a land use perspective. The SMGB has also adopted the State policy for the

² State Mining and Geology Board website, accessed 7/1/05.
<http://www.consrv.ca.gov/SMGB/aboutUs.htm>

reclamation of mined lands and the conservation of mineral resources, as required by SMARA.

2. Existing Mineral Resources

In general, the recognition of aggregate resources by the CGS is limited to those classified as permitted uses, meaning that mining and production activities are approved and sanctioned by a local lead agency. Aggregate resources existing in close proximity to urban and urbanizing areas are often classified as non-permitted uses, as mining activities in these areas typically conflict with surrounding land uses. Therefore, these non-permitted aggregate areas are not considered or listed by the CGS in its assessments of available mineral resources in the State.³

The main mineral resources found in San Joaquin County, and the Tracy Planning Area, are sand and gravel (aggregate), which are primarily used for construction materials like asphalt and concrete. According to the CGS evaluation of the quality and quantity of these resources, the most marketable aggregate materials in San Joaquin County are found in three main areas:

- ◆ In the Corral Hollow alluvial fan deposits south of Tracy
- ◆ Along the channel and floodplain deposits of the Mokelumne River
- ◆ Along the San Joaquin River near Lathrop⁴

The CGS has also designated these deposits in the Tracy Planning Area as regionally significant. Local aggregate resources are important for minimizing construction costs, especially in a rapidly growing area such as Tracy;⁵ the price per ton of aggregate material doubles when transported 25 to 35 miles. Increased recycling of aggregate materials also helps extend the supply of local materials. The 50-year aggregate demand in San Joaquin County is estimated

³ California Department of Conservation, Aggregate Availability in California Map: Fifty-Year Aggregate Demand Compared to Permitted Aggregate Resources, 2002.

⁴ *Northeast Industrial Concept Development Plan DEIR*, 1996, p.4.17.

⁵ The average Californian consumes 7 tons of aggregate per year.

at more than 200 to 500 million tons, which would utilize 25 percent of the available supply. In 1999, the CGS recorded 5 to 10 million tons of aggregate production in the Tracy area. For comparison, nearby Modesto County has enough aggregate resources to fulfill approximately 12 percent of their similar 50-year demand, and its supply is estimated to be completely depleted by 2011. Tracy will therefore continue to contribute valuable aggregate resources to other cities throughout the region.

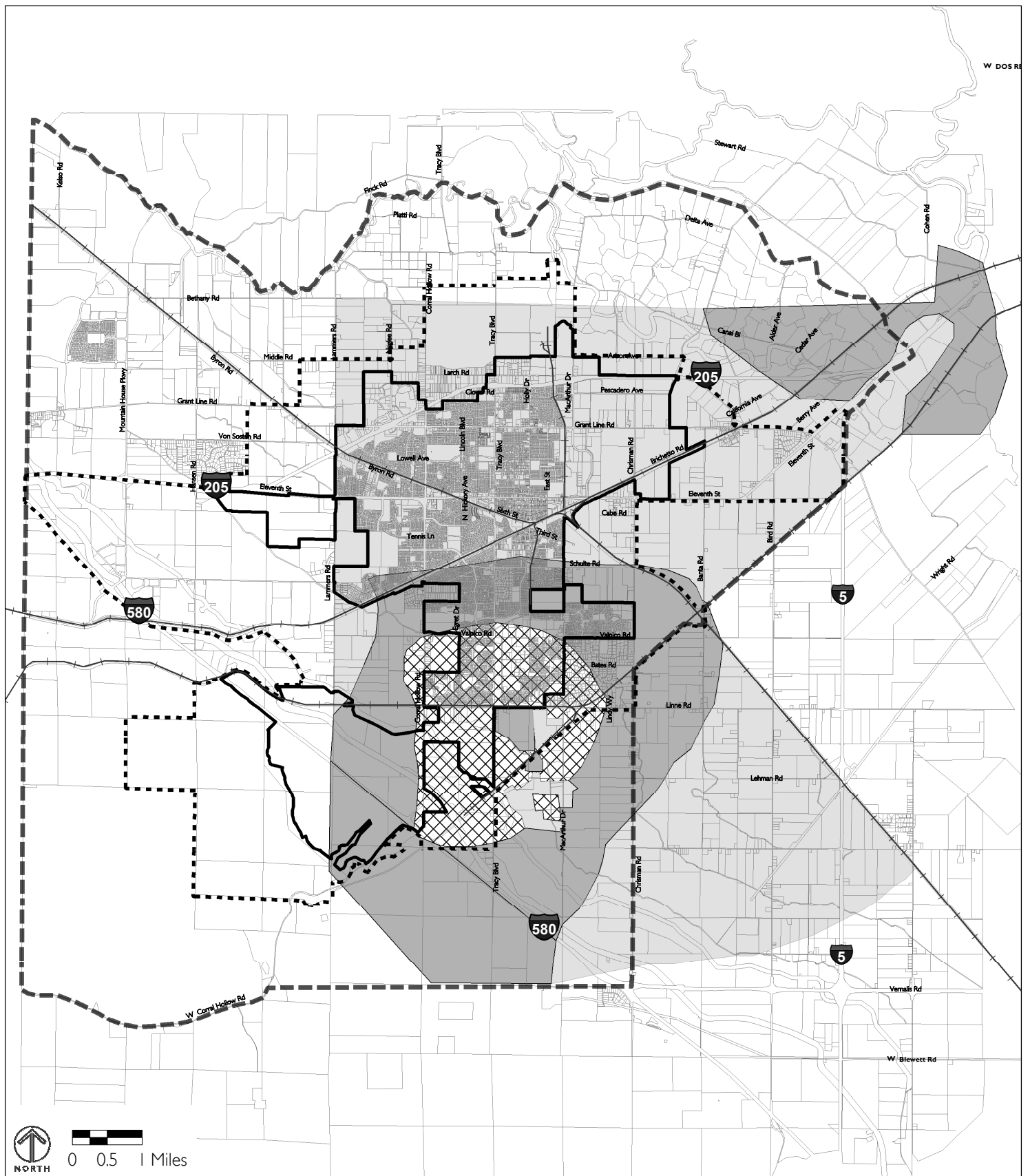
Mineral resource zones in and around the City of Tracy, as classified by the SMGB, are shown in Figure 4.8-1. As shown in Figure 4.8-1, the SMGB has classified some areas in the southern portion of the Tracy Planning Area as MRZ-2 and MRZ-3. Of these areas, the State Division of Mines and Geology designates specific mineral resources within Tracy where mining is not restricted by other land uses such as urban development or resource conservation. The City of Tracy has an agreement with the State Division of Mines and Geology that the area north of Linne Road would allow for urban development, while area south of Linne Road would be protected for aggregate mining. Presently, there are five aggregate extraction sites operating within the Tracy Planning Area.⁶

B. Standards of Significance

The Tracy General Plan would have a significant impact to mineral resources if it would:

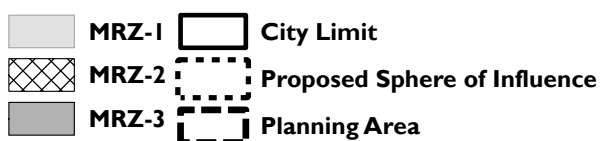
- ◆ Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- ◆ Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

⁶ California Department of Conservation Division of Mines and Geology. *Mineral Land Classification of Portland Cement Concrete Aggregate in the Stockton-Lodi Production-Consumption Region, Special Report 160*. 1988.



Source: California Department of Conservation, Division of Mines and Geology, SR 160, Mineral Land Classification: Portland Cement Concrete Aggregate in the Stockton-Lodi Production-Consumption Region [San Joaquin County, California], 1988.

FIGURE 4.8-1



MINERAL RESOURCE ZONES

CITY OF TRACY
 GENERAL PLAN DRAFT EIR

C. Impact Discussion

The City of Tracy recognizes the economic importance of maintaining and enhancing viable mineral resources in the area, including regionally-important aggregate materials such as sand and gravel. Under the State Mining and Reclamation Act (SMARA), local jurisdictions must identify reserves and take necessary steps to preserve aggregate resources for future use. Development of urban uses permitted under the proposed General Plan could occur on or near land with important mineral resources. This could result in significant impacts to the loss of mineral resources, and the loss of availability of locally-important mineral resource recovery sites. The General Plan therefore provides a framework for balancing the protection and production of mineral resources while also reducing the negative environmental and land use impacts of mining and resource extraction activities on the surrounding community, as stated in Goal OSC-3.

In order to protect aggregate land and mitigate conflicts between mining activities and urban uses, the proposed General Plan designates lands with production quality mineral reserves as Aggregate in the southern portion of Tracy. Of the area classified by the State Division of Mines and Geology as having potentially significant mineral deposits, the City has designated the bulk of this area as Aggregate in the proposed General Plan. This includes permitted mining uses on ten acres within the City limits and on 1,030 acres in the SOI. Some additional areas identified as having potentially significant aggregate deposits are designated as Industrial in the proposed General Plan. As noted above, the City and the State have agreed to protect identified areas south of Linne Road for aggregate uses and allow for urban development north of Linne Road (much of which has already occurred). There is a small area south of the California Aqueduct, along Corral Hollow Road in the Tracy Hills area that is designated as Commercial or Office in the proposed General Plan.

To reduce potential land use conflicts, especially those which could impact mineral resources or recovery sites, Objective LU-6.1 directs the City to minimize the impacts of aggregate mining on adjacent uses. In addition, Objective LU-6.1, P1 states that new industrial and mining uses shall be designed to minimize potential impacts to noise, water quality, air quality, agricultural and biological resources, and residential neighborhoods. Objective OSC-3.2 and its accompanying three policies outline specific methods for mitigating environmental impacts or potential nuisances associated with existing or future mining operations. Details listed under Objective OSC-3.2, P3 provide physical site design methods for reducing conflicts. Finally, the General Plan directs the City to review all development proposals, taking into account potentially available mineral resources on the property or within the vicinity of the project site (Objective OSC-3.1, P1).

In conclusion, although the extraction of mineral resources and related activities can result in adverse environmental impacts and nuisances to adjacent sensitive land uses, the City of Tracy also recognizes the economic benefit of these aggregate resources to the City's development, as well as their importance at the regional and State level. The policies in the proposed General Plan would minimize potential land use conflicts between aggregate resource activities and other uses, and in general ensure that new development would not impact the future availability of mineral resources or mineral resource recovery sites. Therefore, this impact would be less-than-significant.

D. Impacts and Mitigation Measures

Since no significant impacts were identified in regards to mineral resources, no mitigation measures are required.

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4.9 COMMUNITY SERVICES

This section presents information on existing community services in the City of Tracy and its Sphere of Influence (SOI), including police, fire, schools, solid waste, and parks and recreation, and describes the effects of the proposed General Plan in relation to the provision of these services. It is organized according to type of community service, with each service analyzed individually according to CEQA Guidelines.

A. Police

The text below describes current conditions and potential impacts of the proposed General Plan with regard to police services in Tracy.

1. Existing Setting

Police protection services in the City of Tracy are provided by the Tracy Police Department. The Department operates out of its headquarters at 1000 Civic Center Drive and is expected to remain at this location in the future. Currently there are no satellite offices or plans to construct any. The location of the police station is shown in Figure 4.9-1.

The Tracy Police Department has 79 sworn officers budgeted in 2005/6, including one chief, two captains, four lieutenants, 11 sergeants and 61 patrol officers. The 2004 ratio of police per thousand residents was just under one officer per 1,000 population. The Department also has 43 non-sworn positions, which include both full- and part-time administrators, communications dispatchers, community services personnel, animal control, crime scene technicians and a records superintendent. The existing level of police service is considered by the Police Department to be adequate.

The Department divides calls for service into three categories:

- ◆ Priority 1 calls are defined as life threatening situations.
- ◆ Priority 2 calls are not life threatening, but require immediate response.
- ◆ Priority 3 calls cover all other calls received by the police.

The average response time for Priority 1 calls within the City limits is approximately seven to nine minutes. Response time for Priority 2 and 3 calls is, on average, between 20 and 30 minutes.

The Tracy Police Department defines offences for statistical purposes using the Uniform Crime Reporting Code of California. Crimes are classified as Part 1 or Part 2 offences, depending on their severity. In 2003, 2,722 Part 1 offences were reported, which include homicide, rape, burglary and larceny. Larceny, which consists of car break-ins, auto accessory theft and shoplifting, is the most common crime in Tracy, accounting for over 65 percent of offences in 2002. The second most common crime in Tracy is auto theft, which accounted for 16 percent of crimes in 2003. Between 2002 and 2003, Part 1 offences in Tracy increased by about seven percent.

Police service within the Planning Area outside of Tracy's City limits is provided by the San Joaquin County Sheriff's Department, which is located in French Camp, about five miles south of Stockton. Police Patrol Service is provided 24 hours a day by 124 uniformed deputies as of 2004. The County is divided into eight geographical areas or "beats." These beats are staffed around the clock and provide emergency response capability to citizens in the unincorporated area.¹

The Tracy Police Department provides mutual aid to the San Joaquin County Sheriff's office, and vice versa, when a situation exceeds the capabilities of either department. Mutual aid is coordinated through the San Joaquin County Sheriff.²

¹ <http://www.co.san-joaquin.ca.us/sheriff/patrol/patrol.htm>, accessed 7/21/05

² http://www.ci.tracy.ca.us/departments/city_manager/human_resources/class_specs/fire_chief/, accessed 7/21/05.

2. Standards of Significance

The proposed General Plan would have a significant impact related to police services if it would:

- ◆ Result in a need for new or physically altered police service facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police services.

3. Impact Discussion

Implementation of the proposed General Plan would allow for an additional 34,930 Tracy residents by 2025,³ which would increase the need for police services. The City will continue to provide law enforcement for property within the City limits, which will eventually adjust to include lands annexed from the SOI in preparation for development. To continue to provide the current level of police service, approximately 35 additional sworn officers would eventually need to be added to the Tracy Police Department. This is based on the current staffing level of approximately one sworn officer per 1,000 residents, which is a level deemed appropriate for the city by the Police Department. The City would also continue to provide mutual aid with the San Joaquin County Sheriff's Department when a situation exceeds the capabilities of either department (Objective PF-2.1, P4).

Overall, the City's adopted Growth Management Ordinance (described in detail in Section 4.1: Land Use) is intended to achieve a steady and orderly growth rate that allows for the adequate provision of services and community facilities. To support this goal as it relates to law enforcement, the proposed General Plan also outlines policies to ensure the provision of adequate police services needed to provide a safe environment in Tracy (Goal PF-2, Objective PF-2.1). Objective PF-2.1, P1 specifically states that the City would maintain

³ As noted in Chapter 3, Tracy's population is projected to be 109,000 people in 2025. Increase in population is calculated by subtracting population of Tracy in 2004 from 109,000.

adequate police staffing, performance levels and facilities to serve Tracy's existing population as well as any future growth.

The proposed General Plan also contains policies that were designed to provide police services in an efficient manner and ensure project designs help to reduce the need for policing. The Land Use Element of the proposed General Plan outlines two objectives to foster the efficient match of public facilities to development. Objective LU-1.3 would ensure that public facilities are accessible and distributed evenly and efficiently throughout the City, and that residential development is directed in a way to maximize the use of existing public services and infrastructure (Objective LU-1.4). In addition, the City would continually strive for improved performance and efficiency of the Tracy Police Department (Objective PF-2.1, P3), and would review all project proposals for potential law enforcement hazards and encourage the use of physical site planning for crime prevention. Four specific action items are also included under Objective PF-2.3 to maintain and improve law enforcement services to keep up with Tracy's changing population and help reduce crime in general. The combination of these policies would help minimize the demand for police services.

Since some level of staffing increases would be needed over the life time of the proposed General Plan, there may be a need for new or expanded police facilities in the City. The proposed General Plan does not specifically identify where potential expansions or new police facilities would occur since it would depend on the ultimate location of new development. However, police substations would be required in conjunction with new development as needed to meet the City's response time standards (Objective PF-2.3, P3). The proposed General Plan includes policies to offset these potential capital costs by requiring new development to pay its fair share of these expenses through an assessed public facilities impact fee (Objective PF-2.1, P2).

Since the proposed General Plan is general in nature and the exact location and timing of future growth is yet to be determined, it is unknown at this time to what extent existing police facilities would be expanded, or if new

substations or police stations would be required. Public facilities would be allowed under the Public Facilities, Urban Center, Urban Reserve and all Residential land use designations of the proposed General Plan, so their locations could occur in any of these areas. The specific environmental impact of constructing police facilities to support the growth permitted under the proposed General Plan cannot be determined at this first-tier level of analysis. Policies from the proposed General Plan that are identified in other sections of this EIR would also apply to any potential impacts associated with the construction and operation of police service facilities. As specific police facility projects are identified, additional second-tier environmental analysis would be completed pursuant to CEQA.

4. Impacts and Mitigation Measures

Since no impacts were identified, no mitigation measures are required. Policies and mitigation measures from the General Plan and that are identified in other sections of this EIR would apply to any unforeseen impacts associated with the construction and operation of police facilities.

B. Fire Protection and Emergency Medical Services

The following describes current conditions and potential impacts of the proposed General Plan with regard to fire protection and emergency medical services in the Tracy area.

1. Existing Setting

The Tracy Fire Department provides fire protection and first-responder emergency medical services to the City of Tracy and over 200 square miles in the southern part of San Joaquin County.⁴ Emergency medical transport is sup-

⁴ <http://www.ci.tracy.ca.us/index.php?cat2ID=75>, accessed on 7/21/05.

plied by two private ambulance companies in the Tracy area, American Medical Response and Hughson Ambulance.⁵

The Tracy Fire Department operates out of the temporary administration building located at 432 East 11th Street. The City plans to renovate the historic fire station at 835 Central Avenue and the Fire Department Administration, Fire Prevention and Private Ambulance Paramedic Services may move to this facility to better serve the Downtown area. Three fire stations are located within the Tracy City limits and another three are located outside of the City limits, as shown in Figure 4.9-1.⁶ Table 4.9-1 shows the name, location, equipment and services housed at each of these stations. There is a new fire station one block east of Corral Hollow Road at 11th Street and Alden Glen Drive, which replaces the station formerly located at 835 North Central Avenue.⁷

As of December 2004, the Fire Department had seven frontline engines, two reserve engines, one truck fire engine, a water tender and a ladder truck. There were also 65 line personnel in the Department spread out over three shifts, and a reserve force of 30.⁸ The City had 1,950 fire hydrants with the ability to deliver between 1,055 and 1,500 gallons of water per minute (gpm) as of 2003.⁹ The Fire Department received a total of 5,092 calls between July 2003 and June 2004, an average of 14 calls per day. Emergency medical service calls were the most common. The average response time out of a station was 5.42 minutes. Fire Chief Estes considers fire protection and emergency

⁵ Personal communication with Terrell Estes, former Fire Chief, Tracy Fire Department; Carol Zandona, Executive Assistant, Tracy Fire Department December 4, 2003.

⁶ <http://www.ci.tracy.ca.us/index.php?redirect=yes&docID=88>, accessed on 7/21/05.

⁷ <http://www.ci.tracy.ca.us/index.php?cat2ID=75>, accessed on 7/21/05.

⁸ <http://www.ci.tracy.ca.us/index.php?cat2ID=75>, accessed on 7/21/05.

⁹ Personal communication from Wayne Bogart, via Paulita Dishman, City of Tracy Fire Prevention, August 28, 2003.

TABLE 4.9-I TRACY FIRE STATIONS, EQUIPMENT AND SERVICES

Station	Location	Equipment/Services
Within City Limits		
91	835 North Central Avenue*	<ul style="list-style-type: none"> - 1998 Pierce, 105 ft. aerial ladder truck, 2000 gpm pump and 500-gallon tank (Truck 91) - 1999 Pierce, 1500 gpm Type 1 Pumper and a 750-gallon tank (Engine 91) - 2000 Ford 350 4X4 squad (Patrol 91)
96	301 West Grantline Road	<ul style="list-style-type: none"> - 2000 Pierce, 1500 gpm Type 1 Pumper and a 750-gallon pump (Engine 96) - 1985 Van Pelt, 1500 gpm Type 1 Pumper and a 750-gallon tank (Reserve) (Engine 95)
97	595 West Central Avenue	<ul style="list-style-type: none"> - 2003 Pierce, 1500 gpm Type 1 Pumper and a 750-gallon tank (Engine 97)
Outside City Limits		
92	22484 South 7th Street (Banta)	<ul style="list-style-type: none"> - 1995 Hi-Tech, 1250 gpm Type 1 Pumper and a 750-gallon tank (Engine 92) - 1974 Mack Water Tender truck, 3,000-gallon tank - 1980 Grumman Utility Van
93	1551 Durham Ferry Road (New Jerusalem)	<ul style="list-style-type: none"> - 1995 ALF Hi-Tech, 1500 gpm Type 1 Pumper and a 750-gallon tank (Engine 93)
94	16502 West Schulte Road (Patterson)	<ul style="list-style-type: none"> - 2000 Pierce, 1000 gpm Type 1 Pumper and a 500-gallon tank (Engine 94) - 2003 Pierce 1500 gpm Type 1 Pumper and a 750-gallon tank (Engine 98) - 1935 Ford F-350 Utility (Support 9)

* To be replaced by the new 11th Street Station.

Source: City of Tracy Fire Department Station and Apparatus Guide, updated 4/23/05

medical services in Tracy and the surrounding areas to be good and reports no concerns about the level of service provided.¹⁰

The Fire Department has mutual aid agreements with the State of California, San Joaquin County agencies, Alameda County, Stanislaus County and Contra Costa County.¹¹ Specifically, the Tracy Fire Department runs automatic aid with the following area departments:

- ◆ Manteca Fire Department
- ◆ Manteca-Lathrop Fire Department
- ◆ California Department of Forestry
- ◆ Alameda County Fire Department
- ◆ Stanislaus County Fire Department
- ◆ Tracy Defense Depot
- ◆ Livermore Lab Fire Department

2. Standards of Significance

The proposed General Plan would have a significant impact related to fire protection and emergency medical services if it would:

- ◆ Result in a need for new or physically altered fire protection and emergency medical facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection and EMS.

3. Impact Discussion

As new development occurs pursuant to the proposed General Plan, there would be increased demand for fire and emergency medical protection to ensure adequate levels of service. Additional staff, equipment and facilities

¹⁰ Personal communication with Terrell Estes, former Fire Chief, Tracy Fire Department; Carol Zandona, Executive Assistant, Tracy Fire Department December 4, 2003.

¹¹ Personal communication with Terrell Estes, former Fire Chief, Tracy Fire Department; Carol Zandona, Executive Assistant, Tracy Fire Department December 4, 2003.

would also be required to maintain or exceed the current response time of 5.42 minutes as Tracy's population grows by 34,930 persons. The actual location of new and expanded facilities would depend on where growth occurs within the City limits and SOI, which is not known at this time. Under the proposed General Plan, fire and emergency response facilities would be allowed under Public Facilities, Urban Center, Urban Reserve and all Residential land use designations.

Recognizing the potential need for increases in fire protection and emergency medical services, the proposed General Plan includes policies to ensure that adequate related facilities are funded and provided to meet future growth (Objective PF-1.1, P1). Similar to the provision of police services discussed above, Objective PF-1.1 states that the City would strive to continuously improve the performance and efficiency of fire protection and emergency medical services. In this regard, the City would coordinate land use planning, project development and site design to reduce fire hazards. Fire hazards shall be identified and mitigated during the project review and approval process (Objective PF-1.2, P1), and new developments shall satisfy fire flow and hydrant requirements and other design requirements as established by the City (Objective PF-1.2, P5).

The proposed General Plan also outlines land use policies to take full advantage of the use of existing public services and minimize the need for additional ones. As discussed above in regards to police services, Objective LU-1.3 would ensure that public facilities are accessible and distributed evenly and efficiently throughout the City, and that residential development is directed in a way to maximize the use of existing public services and infrastructure (Objective LU-1.4). As new facilities are needed, the City shall plan fire station locations to maintain or enhance current response levels, including fire sub-stations that are required in conjunction with new development (Objective PF-1.2, P3 and P4). Furthermore, the proposed General Plan would support the City's adopted Growth Management Ordinance (described in detail in Section 4.1: Land Use), which is intended to achieve a steady and orderly

growth rate that allows for the adequate provision of services and community facilities.

The specific environmental impact of constructing new fire and emergency medical response facilities to support the growth allowed under the proposed General Plan cannot be determined at this first-tier level of analysis. Potentially significant impacts that may result from the development and operation of these facilities are addressed by various plans, policies and mitigation measures identified in other sections of this EIR. As specific fire and emergency response facility expansion projects are identified, additional project-specific, second-tier environmental analysis would be completed pursuant to CEQA.

4. Impacts and Mitigation Measures

Since no impacts were identified as a result of the proposed General Plan, no mitigation measures are required. Policies and mitigation measures from the General Plan and that are identified in other sections of this EIR would apply to any unforeseen impacts associated with the construction and operation of fire protection and emergency medical response facilities.

C. Schools

The following describes the current conditions regarding schools in Tracy, and the potential physical impacts associated with the provision of expanded school services in accordance with growth anticipated under the proposed General Plan.

1. Existing Setting

Tracy and its Planning Area are served by the following school districts:

- ◆ Tracy Unified School District (TUSD)
- ◆ Jefferson Elementary School District (JESD)
- ◆ Lammersville Elementary School District (LESF)
- ◆ Banta Elementary School District (BESD)
- ◆ New Jerusalem School District (NJSF)

In addition, there are several private schools that serve Tracy and its Planning Area. Figure 4.9-2 shows the boundaries of each school district and school locations, including the TUSD, which is the primary District serving Tracy.

a. Tracy Unified School District

As of 2004, TUSD operates two high schools, three middle schools, twelve elementary schools, four continuation school programs and one charter school. All of the elementary schools in the TUSD are K-5 schools except for three K-8 schools, two of which are magnet schools.¹² Children attending schools in the Banta Elementary, Lammersville, New Jerusalem and Jefferson School Districts attend TUSD high schools starting in grade nine.¹³ The TUSD also operates an adult education program and a special education adult resource program at the Tracy Adult School on Corral Hollow Road. Alternative education programs are implemented through the Willow Community Day School, Discovery Charter School, Independent Study Program and the Student, Teens, Education & Parenting Students (S.T.E.P.S) Program.¹⁴ The enrollment breakdown by school and capacity, including alternative education students, is shown in Table 4.9-2. Five-year enrollment projections are shown in Table 4.9-3. Many of the schools are operating near or above capacity and the TUSD is currently using portable classrooms in these locations to accommodate the students. The portable classroom space is not included in the capacity numbers listed in Table 4.9-2.

The K-12 TUSD enrollment as of October 2004 was 16,978 plus an additional 33 students at the Willow Community Day School. The TUSD has projected enrollments through the 2008-09 school year, when there is anticipated to be 19,507 students in grades K through 12.¹⁵

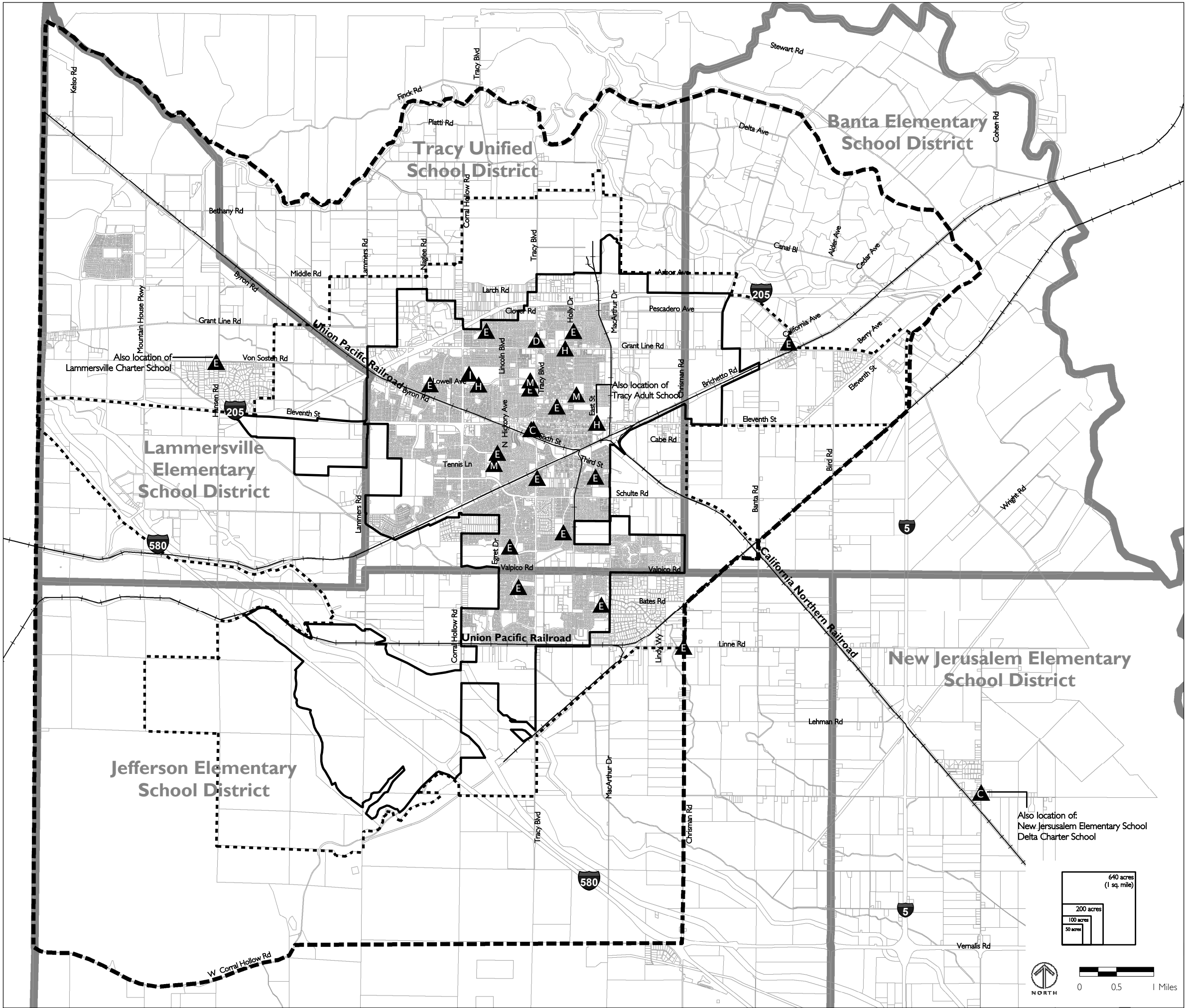
¹² <http://www.tracy.k12.ca.us/>, accessed on 7/21/05.

¹³ Personal communication with Dolores Ohm, TUSD, September 4, 2003.

¹⁴ TUSD, *Directory of Schools*. The S.T.E.P.S program is a program for high school students who have children.

¹⁵ Personal communication with Dolores Ohm, TUSD, August 19, 2004.

FIGURE 4.9-2



**SCHOOL LOCATIONS IN
THE TRACY PLANNING AREA**

- School District Boundary
- Elementary School
- Middle School
- High School
- Adult School
- Charter School
- Day School
- Inst. for Global Commerce & Govt.
- City Limit
- Proposed Sphere of Influence
- Planning Area

Backside: Figure 4.9-2: School Locations (11 X 17)

TABLE 4.9-2 **ENROLLMENT AND CAPACITY IN THE TRACY UNIFIED SCHOOL DISTRICT**

School	2003-2004 Enrollment	2004-2005 Enrollment	Capacity ¹	Difference
High School				
Duncan Russell High School (10-12) ²	123	103	189	+ 86
Tracy High School (9-12) ³	2,220	2,436	2,100	- 336
Merrill F. West High School (9-12) ⁴	2,897	3,215	2,247	- 968
Middle School				
<i>Willow Community Day School</i> ⁵ (6-8)	35	33	<i>n/a</i>	<i>n/a</i>
H. Alfred Clover Middle School (6-8)	567	573	593	+ 20
Earl E. Williams Middle School (6-8)	1,299	1,398	1,092	- 306
Monte Vista Middle School (6-8)	968	976	956	- 20
Elementary School				
Louis A. Bohn Elementary School (K-5)	585	590	622	+ 32
Central Elementary School (K-5)	515	541	574	+ 33
Delta Island Elementary School (K-8)	161	166	264	+ 98
TLC Charter Schools ⁶ (K-12)	300	427	256	- 171
Art Freiler Magnet Elementary School (K-8)	1,012	1,022	782	- 240
Wanda Hirsch Elementary School (K-5)	886	855	768	- 87
Melville S. Jacobson Elementary School (K-5)	936	959	765	- 194
McKinley Elementary School (K-5)	576	575	540	- 35
North Elementary School (K-5)	502	509	526	+ 17
Gladys Poet Christian Magnet School (K-8)	698	701	720	+ 19
South Elementary School (3-5)	1,106	1,061	1,236	+ 175
West Park Elementary School (K-2) ⁷				
Villalovoz Elementary School (K-5)	731	871	734	- 137
Total	16,082	16,978	14,964	- 2014

Note: Schools shown in italics are excluded from the total enrollment calculations since capacity figures were not available.

¹ High school capacity figures are for 2000-01 (Source: TUSD, High School Capacity (State Loading) 2000-01 Analysis); Middle school capacity figures are for 2003-04 (Source: TUSD, Middle School Capacity Analysis 2003-04); Elementary capacity figures are for 2003-04. The capacities have not changed as of June 2005; schools over capacity use portable classrooms to accommodate additional students, but this space is not included in the capacities reported here.

² Duncan Russell High School is a continuation high school (for at-risk students) located on its own site.

³ Includes the Excell Continuation High School Program; 26 students as of October 2004.

⁴ Includes the Success Continuation High School Program (15 students as of October 2004) and The Institute for Global Commerce and Government students (~ 99 students), which is a special four-year program within Merrill West High School designed to help students explore their interests in commerce, economics, transportation, accounting, marketing, finance, law, politics, government and more.

⁵ This school is for at-risk students, and currently housed in leased space; its 2003-2005 enrollments are not counted in total enrollment; no capacity figures are available.

⁶ Includes the Primary Charter School (K-5), 60 students in 2004; Discovery Charter School (6-8), 301 students in 2004; and the Millennium Charter School (9-12), 66 students in 2004.

⁷ South/West Park Elementary Schools are two separate K-5 campuses that back up to one another. South campus is at Mt. Diablo and Tracy Blvd. and West Park campus is on Mt. Oso and Tracy Blvd.

Source: TUSD, 2003/2004 CBEDS Summary, October 16, 2003. Personal conversation with Dolores Ohm, TUSD, June 15, 2005.

TABLE 4.9-3 **TUSD 5-YEAR ENROLLMENT PROJECTIONS**

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
K-12	15,698	16,493	16,576	17,801	18,556	19,507
Tracy Adult School	3,602*	3,700*	3,700*	3,700*	3,700*	3,700*
Total	19,300	20,193	20,276	21,501	22,256	23,207

Note: K-12 figures are best estimates from December 2003.

* The Tracy Adult School enrollment numbers include high school diploma students; the school does not calculate projections.

Sources: Personal communication with Dolores Ohm, TUSD, August 19, 2004 and Nancy Borges, Tracy Adult School, August 23, 2004.

TABLE 4.9-4 **STUDENT GENERATION RATES USED BY TUSD**

	Single-Family Residential*	Multi-Family Residential	Mobile Home Residential
K-5 School	0.449	0.1862	0.1782
6-8 School	0.233	0.0747	0.0684
9-12 School	0.270	0.0432	0.0655

Source: Personal communication with Dolores Ohm, TUSD, September 4, 2003 and January 12, 2004. Numbers confirmed August 19, 2004.

*Updated as of June 16, 2005; personal communication with Dolores Ohm, TUSD.

For the 2004 to 2005 school year, the unduplicated enrollment¹⁶ for the Tracy Adult School was 2,924, down from 3,592 for the previous year. This number includes high school diploma students, vocational training, English as a Second Language (ESL), independent study and more. The Adult School does not calculate enrollment projections, but instead bases planning on previous en-

¹⁶ Some students enroll in multiple adult education programs concurrently.

rollment numbers and then adds additional classes if needed.¹⁷ Total enrollment in TUSD is projected to be 23,207 students by the 2008-2009 school year.

In order to plan for future enrollments based on housing and population growth, many school districts calculate generation factors, often based on different housing types. The student generation rates per household used by the TUSD are presented in Table 4.9-4. TUSD is planning to open a new K-8 school, George Kelly, by 2005. Additionally, two new high schools are planned for the future, River Islands and Mountain House High Schools. To help offset the impacts to a school district, in costs of facility upgrades and expansions to handle growing populations, cities often collect mitigation fees from developers according to the amount and type of building that occurs.¹⁸ As of June 2005, the TUSD collected \$2.24 per square foot from residential development and \$0.36 per square foot from commercial development, to compensate for growth impacts.¹⁹ This amount typically increases every two years.²⁰

b. Jefferson Elementary School District

The JESD is a rural district, providing education for students in southern Tracy and south of Tracy. The JESD includes four school sites:

- ◆ Monticello School (K-4)
- ◆ Jefferson School (5-8)
- ◆ Hawkins School (K-7)
- ◆ Anthony C. Traina School (Phase I, K-3 [open]; Phase II, K-8 [future])²¹

As of August 19, 2004, JESD enrollment increased to 2,000 for the 2004-05 school year from 1,866 at the end of the 2003-04 year. The enrollment and

¹⁷ Personal communication with Nancy Borges, Tracy Adult School, County Office of Education. August 23, 2004.

¹⁸ State law limits the amount that new development can be required to pay to mitigate impacts on schools.

¹⁹ Personal communication with Dolores Ohm, TUSD, August 19, 2004 with a follow-up on June 15, 2005.

²⁰ Personal communication with Dolores Ohm, TUSD, September 4, 2003.

²¹ <http://www.sjcoe.net>, accessed 7/21/05.

TABLE 4.9-5 **JESD ENROLLMENT AND CAPACITY**

School	2003-04 Enrollment	August, 2004 Enrollment	Capacity	Difference
Monticello School (K-4)	583	450	520	+70
Jefferson School (5-8)	583	450	583	+133
Hawkins School (K-8)	700	800	800	0
Anthony C. Traina School (Phase 1 = K-3)*	n/a	300	300	0
Total	1,866	2,000	2,203	+203

Source: Personal communication with Grace Merritt, JESD, April 19, 2004 and August 24, 2004.

* Completion of Phase 2 of the Anthony C. Traina School will increase its capacity to 800 students, thus increasing the total JESD capacity to approximately 2,700 students.

capacity figures for each JESD school are shown in Table 4.9-5. With the completion of Phase 1 of the new Anthony C. Traina School, the total current capacity of schools in the JESD is approximately 2,200 students; thus, the District currently has capacity for an additional 203 students. Upon the completion of Phase II, the Anthony C. Traina School capacity will increase by 500, bringing the JESD total capacity up to 2,700 students.

The student generation rate for single-family households in the JESD is 0.75 students per household. There are no multi-family units in the District so there is no student generation rate for multi-family households.²² As of 2004, JESD collected \$2.88 per square foot from new single-family residential development to compensate for growth impacts, with the exception of the Glenbriar and Edgewood projects. The JESD collects \$1.68 per square foot for single-family homes in Glenbriar and a flat rate per single family unit of

²² Personal communication with Grace Merritt, JESD, August 26, 2004.

\$8,182.24 in Edgewood. Residents in Glenbriar also pay a separate Community Facility Development Fee that also gives money to the school district. For commercial development, the JESD collects \$0.27 per square foot.²³

c. Lammersville Elementary School District

The LESD is located in San Joaquin County, northwest of Tracy. The District consists of Lammersville Elementary School (K-8), Lammersville Charter School (K-8 home schooling) and the Wicklund Elementary School (K-8), located on Legacy Drive, which opened in August 2004 to serve the Mountain House community.²⁴ The enrollment and capacity figures for LESD are provided in Table 4.9-6. As the home schooling facilitated by the Charter School occurs off-site, it does not post a capacity number. Some students previously attending Lammersville Elementary were moved to Wicklund Elementary for the August 24, 2004 opening.²⁵ Additional schools are anticipated to accommodate future growth in the Mountain House community, which lies within the boundaries of the LESD. Up to twelve neighborhoods are planned for the Mountain House community and each is expected to include a school. With growth in the Mountain House community, the LESD will eventually become a K-12 school district.²⁶ Developer impact fees for the LESD are \$1.45 per square foot for residential development and \$0.23 per square foot for commercial development. The LESD does not currently have a standard student generation rate.²⁷

²³ Personal communication with Grace Merritt, JESD, April 19, 2004.

²⁴ <http://www.edserv.sjcoe.net/lesd/administration.htm>, accessed 7/21/05.

²⁵ Alex Gronke, "Lammersville school is short on students", *Recordnet.com*, July 28, 2003.

²⁶ Personal communication with Lillian Muela, Administrative Assistant, Lammersville Elementary School District, August 19, 2004.

²⁷ Personal communication with Lillian Muela, Administrative Assistant, Lammersville Elementary School District, September 24, 2003 and confirmed August 19, 2004.

TABLE 4.9-6 **LESD ENROLLMENT AND CAPACITY**

School	2003-04 Enrollment	2004-05 Enrollment	Capacity	Difference
Lammersville Elementary School (K-8)	346*	320	350	+ 30
Lammersville Charter School (K-8)	14	14	n/a	n/a
Wicklund Elementary School (K-8)	n/a	310	850	+ 540
Totals	360	644	1,200	+ 570

* Number includes 90 students slotted for the Wicklund School.

Source: Personal communication with Lillian Muela, Administrative Assistant, LESD, August 19, 2004.

d. Banta Elementary School District

The BESD has one K-8 school, the Banta Elementary School, which is located on South El Rancho Road, east of Tracy. The student population of Banta Elementary for the 2003-04 school year was 268 and the 2004-05 enrollment is 295, with a maximum capacity of approximately 300. The BESD worked with a demographer to develop a student generation rate for the District. Based on the wide variety of housing unit types, such as multi-family, large single-family and golf course retirement housing, an appropriate sliding scale was developed starting at .25 students per housing unit. Developer impact fees are \$1.62 for residential development and \$0.26 for commercial development.²⁸

A planned development called River Islands of Lathrop is expected to bring as many as 8,500 homes to the school district and at least 6,000 additional K-8

²⁸ Personal communication with Bill Draa, Superintendent, BESD, September 3, 2003 and August 19, 2004.

students.²⁹ New K-5 and grade 6-8 schools are planned on 31 acres in Lathrop to accommodate some of this influx and are expected to open in late 2006 or early 2007. Additionally, the BESD has a mitigation agreement that calls for the eventual construction of six K-5, two 6-8 and one high school to accommodate future students.³⁰

e. New Jerusalem School District

The NJSD operates three schools. As is shown in Table 4.9-7, Fall 2004 enrollment was 605 students, including the charter schools. The District does not currently have a generation rate for projecting future students. Developer fees for the NJSD are determined by the TUSD, since it is a feeder school for the TUSD.

The New Jerusalem Elementary School (K-8), is a public school located on South Koster Road, southeast of Tracy. Students who attend the New Jerusalem Elementary School move on to TUSD high schools when they reach grade 9.³¹ The NJSD also operates the New Jerusalem Charter School, which is a K-8 school with offices stationed at the elementary school site. The charter school serves students from several neighboring counties³² and is a support institution for home instruction. Although the New Jerusalem Charter School had no students when it opened in 1999, enrollment for fall 2004 reached 150 students. Because the education occurs off-site, home charter schools do not typically have capacity numbers.³³

²⁹ <http://www.bantaesd.org/>, accessed on 7/21/05.

³⁰ Personal communication with Bill Draa, Superintendent, BESD, September 3, 2003. Confirmed August 19, 2004.

³¹ Personal communication with Lisa McHugh, New Jerusalem Elementary School, September 18, 2003.

³² The New Jerusalem Charter School serves students from Sacramento, Amador, Calaveras, Stanislaus, Alameda, and Contra Costa counties.

³³ <http://www.njcharter.com/>, accessed 7/21/05.

TABLE 4.9-7 **NJSD ENROLLMENT AND CAPACITY**

School	2003-04 Enrollment	2004-05 Enrollment	Capacity	Difference
New Jerusalem Elementary School (K-8) (public)	227	225	290	+65
New Jerusalem Charter School (K-8)	148	150	n/a	n/a
Delta Charter High School (9-12)	228	230	n/a	n/a
Total	603	605	n/a	n/a

Sources: Personal communication with Lisa McHugh, New Jerusalem Elementary School, September 18, 2003; and with Sherie Rego, Charter Schools Business Manager, October 21, 2003. Confirmed August 19, 2004.

The Delta Charter High School, which is located adjacent to the New Jerusalem Charter and Elementary Schools, is an independent-study charter school open to students grades 9 through 12. It opened in 2001 with 18 students and grew to 230 students in 2004.³⁴ Students attending the charter high school are often students who previously attended the New Jerusalem Charter School (K-8). However, not all charter elementary school children attend Delta Charter; many of them end up attending public or private high schools closer to home in their own counties.³⁵

f. Private Schools

Private schools in Tracy, not covered in the afore-mentioned school districts, include the following:

- ◆ Bella Vista Christian Academy (K-2)
- ◆ Montessori School of Tracy (2 yrs – 3rd grade)

³⁴ <http://www.deltahigh.com/>, accessed 7/21/05.

³⁵ Personal communication with Sherie Rego, Charter Schools Business Manager, October 21, 2003. Confirmed August 19, 2004.

- ◆ Saint Bernards (K-8)
- ◆ Tracy Seventh-Day Adventist School (K-8)
- ◆ West Valley Christian Academy (K-7)³⁶

2. Standards of Significance

The City of Tracy General Plan would have a significant impact related to schools if it would:

- ◆ Result in a need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for school services.

3. Impact Discussion

Implementation of the proposed General Plan would increase demand for school facilities. Additional staff, equipment and facilities would also be required to maintain or exceed the current school service standards. As discussed in greater detail in the Project Description, the proposed General Plan would result in approximately 10,341 additional housing units, 6,455 of which would be single-family (62 percent) and 3,886 that would be multi-family units (38 percent). According to the development projected through the 20-year planning horizon of the proposed General Plan, 58 percent of this growth would occur within the TUSD, with the remainder within the JESD. Given these same growth projections, the Lammersville, Banta and New Jerusalem districts are not expected to see significant growth under the proposed General Plan.

Based on the TUSD student generation rates, which are differentiated by grade level and housing type, the TUSD is anticipated to add 1,889 K through 5 students, 912 6 through 8 students and 1,954 9 through 12 (includes 982 students living in the JESD) through 2025. According to the JESD student generation rate, it would add approximately 2,298 K-8 students during the same time period. Therefore, the total number of new students estimated over the

³⁶ <http://www.pbill.com/schools.html>, accessed 7/21/05.

life of the General Plan is 7,053; a detailed breakdown by grade and district is shown in Table 4.9-8.

For the most part, TUSD schools are operating near to or over capacity, with portable classrooms being used at many schools. The JESD currently has 203 seats remaining between the Monticello and Jefferson schools, with 500 more to be added upon completion of Phase 2 of the K-8 Anthony C. Traina School. Based on the new student population projected during the timeline of the proposed General Plan, it can be assumed that new school facilities would need to be constructed within both districts. The actual location of new and expanded facilities would depend on where growth occurs in the City limits and SOI; schools would probably be located in residential areas, in proximity to the student populations they serve. Under the land use designations proposed in the General Plan, school facilities would be allowed in Public Facilities, Urban Center, Urban Reserve and all Residential areas.

The proposed General Plan includes policies and actions to provide sufficient educational facilities to meet the demands of existing and new development (Goal PF-3) and assist the school districts serving the City to develop new facilities (Objective PF-3.1). In this regard, the City would provide school districts with the opportunity to review proposed residential developments and make recommendations for needed facilities based on a number of factors (Objective PF-3.1, P2). In order to ensure that school expansions or new facilities are funded by developers to the extent allowed by law, the City would collect land dedications or in-lieu school impact fees from project applicants in accordance with limits established by State law. Funding of school facilities has been impacted by the passing of SB 50, which limits the impact fees and site dedication that school districts can require of developers to off-set the impact of new development on the school system. In general, school projects would occur on land reserved in cooperation with the associated school district (Objective PF-3.3, P1).

TABLE 4.9-8 **STUDENT ENROLLMENT PROJECTIONS AS A RESULT OF
THE PROPOSED GENERAL PLAN, THROUGH 2025**

Number of Additional Students According to Housing Type, between 2005 and 2025 (Current Generation Rates in Parentheses)			
	Single-Family Residential	Multi-Family Residential ¹	Total Students by Grade
TUSD			
K-5 School	1,349 (0.449)	540 (0.1822)	1,889
6-8 School	700 (0.233)	212 (0.07155)	912
9-12 School	1,743 ² (0.270)	211 ³ (0.05435)	1,954
Total New TUSD Students	3,792²	963³	4,775
JESD			
K-8 Schools	1,656 (0.75)	642 (0.75)	2,298
Total New Students in Tracy	5,448	1,605	7,053

¹ Includes mobile home residential generation rate.

² Includes 932 high school students living in the JESD, in single-family housing units.

³ Includes 50 high school students living in the JESD, in multi-family housing units; the JESD does not have a separate generation rate for multi-family housing.

Note: Calculations are based on TUSD and JESD generation rates and General Plan growth projections. Between 2005 and 2025, 10,341 total new housing units are expected to be developed; 6,455 would be single-family residential.

The specific environmental impact of constructing new schools and related facilities to support the proposed General Plan growth cannot be determined at this first-tier level of analysis. However, development and operation of school facilities, both public and private, may result in potentially significant impacts that are addressed by various plans, policies and mitigation measures identified in other sections of this EIR. As specific school expansion or im-

provement projects are identified, additional project specific, second-tier environmental analysis would be completed.

4. Impacts and Mitigation Measures

Since no significant impacts related to schools were identified as a result of the proposed General Plan, no mitigation measures are required. Policies and mitigation measures from the General Plan and that are identified in other sections of this EIR would apply to any unforeseen impacts associated with the construction and operation of schools or school facilities.

D. Solid Waste

This section describes current conditions and potential impacts of the proposed General Plan with regard to solid waste collection and disposal services in Tracy. Household hazardous waste collection facilities and services are also discussed in this section.

1. Existing Setting

This section describes the existing solid waste and recycling services available to City of Tracy residents and businesses. These services are under the supervision of the Parks and Community Services Department.

a. Regulatory Framework

This section outlines various State and local goals, regulations and policies that impact solid waste management in Tracy.

i. California's Integrated Waste Management Act of 1989

California's Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling and composting. To help achieve this, the Act requires that each City and County prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of

ongoing landfill capacity.³⁷

With regard to household hazardous wastes, AB 939 established requirements for cities and counties to develop and implement plans for the safe management of these wastes. To help achieve this, AB 939 requires that each city and county prepare and submit a Household Hazardous Waste Element.

ii. City of Tracy Source Reduction and Recycling Element

The City adopted its Source Reduction and Recycling Element in 1994 to meet the requirements of AB 939. The Element includes proposed waste reduction programs and selected program strategies for each of the following topics: source reduction, recycling, composting, special wastes and public education. Implementation and monitoring plans for each selected program are also included. As required by law, the Element includes existing conditions information at the time of adoption and the results of a waste characterization study. The Element was guided by two major goals:

- ◆ Meeting the 25 percent and 50 percent waste reduction objectives set forth in the Integrated Waste Management Act.
- ◆ Promoting and developing regional approaches wherever possible in planning and carrying out the selected programs.³⁸

In 1994, the City also joined with the County and the other cities in San Joaquin County and adopted a regional Household Hazardous Waste Element in 1994 to meet the requirements of AB 939. The Element includes proposed household hazardous waste programs that include periodic collection events, limited drop-off facilities for recycling, permanent collection facilities and public education and information programs. The HHWE was approved by the California Integrated Waste Management Board (CIWMB) on April 25, 1995.

³⁷ <http://www.ciwmb.ca.gov/landfills/needfor/default.htm>

³⁸ City of Tracy Public Works Department, *Source Reduction and Recycling Element*, December 20, 1994, p.7.

b. Existing Solid Waste Setting

Tracy Disposal Service, a private company, has an exclusive franchise agreement with the City of Tracy for solid waste collection and disposal and recycling collection. Solid waste is taken to the 40-acre Tracy Material Recovery Facility (MRF) and Transfer Station on South MacArthur Drive before being sent to the Foothill Sanitary landfill, 48 miles northeast of Tracy, off of Shelton Road east of Linden, California. As of 2004, the MRF, which is operated by Tracy Material Recovery and Solid Waste Transfer, Inc.,³⁹ had a daily intake capacity of 1,000 tons⁴⁰, averaging 354 tons per day. Of this amount, 304 tons per day came from Tracy.⁴¹ The total amount of municipal solid waste generated by the City of Tracy in 2004 was 176,741 tons, of which approximately 27 percent was residential garbage.

The 800-acre Foothill landfill is owned by San Joaquin County⁴² and has been accepting the majority of Tracy's solid waste since May 1, 1995.⁴³ Tracy's waste was previously sent to the Corral Hollow landfill, which closed in April of 1995.⁴⁴ In 2001, Foothill landfill accommodated 67,704 tons (95 percent) of Tracy's solid waste, averaging 186 tons per day. Tracy's residential solid waste generation rate for 2004 was 4.28 pounds per person per day,

³⁹ Personal communication with Bill Benner, Tracy Parks and Community Services Department, May 7, 2003.

⁴⁰ City of Tracy, *Tracy Gateway Project Draft Environmental Impact Report*, April 2002, page 4.8-17.

⁴¹ Personal communication with Bill Benner, Tracy Parks and Community Services Department, August 26, 2003.

⁴² San Joaquin County contracts out the operation of the landfill to a private company.

⁴³ Personal communication with Bill Benner, Tracy Parks and Community Services Department, May 7, 2003.

⁴⁴ Personal communication with Bill Benner, Tracy Parks and Community Services Department, January 13, 2004.

which does not include self-hauled waste. Currently, the average American produces 4.6 pounds of solid waste per day.⁴⁵

Although the Foothill landfill receives an average of 810 tons per day, it is permitted to receive up to 1,500 tons per day. In 2002, the site received a total of approximately 291,885 tons of municipal solid waste from the surrounding region.⁴⁶ Approximately 28 percent of this amount came from the Tracy area.⁴⁷ The landfill has a permitted capacity of 51 million tons, which based on its current remaining capacity of 47.5 million tons, is expected to be reached by the year 2054. As Foothill landfill has capacity until 2054, there are no plans at this time to expand the facility or build a new landfill.

c. Recycling

The City of Tracy, through its franchise agreement with Tracy Disposal Service, also provides recycling services to city residents and businesses. Residential recycling is collected through 90-gallon “curbside toters” where all recyclable materials can be co-mingled, which is also known as single-stream recycling. Acceptable materials include glass containers, all plastics, tin and aluminum cans, plastic milk cartons, newsprint, boxboard, corrugated cardboard, bond paper and magazines. Residents may also recycle some materials at buy-back centers. Special recycling programs include an electronics waste program; a tire recycling program that collects about 60 tons of tires per year; and a twice-yearly residential clean-up program for large items and debris, which includes non-recyclables and vouchers for one-time free trips to the Tracy MRF. There are also opportunities to recycle construction and demolition waste.⁴⁸

⁴⁵ <http://www.epa.gov/epaoswer/osw/facts.htm>, accessed 7/21/05.

⁴⁶ <http://www.co.san-joaquin.ca.us/solidwaste/Foothill.htm>, accessed 7/21/05.

⁴⁷ Personal communication with Bill Benner, Tracy Parks and Community Services Department, August 26, 2003.

⁴⁸ Personal communication with Bill Benner, Tracy Parks and Community Services Department, August 26, 2003.

The City's stated diversion goal corresponds to the State's regulation of diverting 50 percent of all solid waste from landfills by January 1, 2000 through source reduction, recycling and composting. On January 18, 2005, the CIWMB approved a comprehensive waste generation study for 2001 prepared by the City and submitted to the CIWMB. The City's diversion rate of 63 percent was approved by the CIWMB in 2001. The City achieved this diversion level through residential curbside collection of recyclables and yard waste, commercial collection of recyclables from businesses, recycling from a number of industries in the City, the operation of the materials recovery and composting facility by the Tracy Materials and Recovery and Transfer Inc., inert materials processing, and chipping and diverting wood for use as a biomass fuel.

d. Composting

Composting in Tracy is carried out through a bi-weekly leaf and yard waste collection program and delivery of the material to the composting facility. Grass-cycling at City parks, when grass is cut and left as mulch, is also practiced. Backyard or apartment composting may occur on an individual household basis, but there are no City backyard or apartment composting, or composting education programs, in Tracy.⁴⁹ Total residential curbside composting in 2004 was estimated to be 9,627 tons, with an estimated additional 2,509 tons composted through grass-cycling.

e. Household Hazardous Waste

In the past, the City of Tracy has held hazardous materials collection events at which materials such as batteries, used motor oil and paint were collected for recycling free of charge. In August 2003, a permanent household hazardous waste facility opened at the Stockton airport, which accepts hazardous materials from residents Thursdays through Saturdays from 9:00 a.m. until

⁴⁹ Personal communication with Bill Benner, Tracy Parks and Community Services Department, August 26, 2003.

3:00 p.m.⁵⁰ The City used to have annual collection events in Tracy, but now that residents are able to use the County facility on a regular basis, this has been discontinued. Other hazardous wastes are discussed in detail in Section 4.13 of this report.

2. Standards of Significance

The proposed General Plan would have a significant impact related to solid waste disposal if it would *not*:

- ◆ Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- ◆ Comply with federal, State, and local statutes and regulations related to solid waste.

3. Impact Discussion

Growth permitted under the proposed General Plan would result in additional solid waste in Tracy. Based on the 2001 per capita generation rate for residential solid waste, the additional 34,930 residents anticipated through 2025 would generate an extra 27,284 tons of garbage per year, or approximately 75 tons per day. The total population projected under the proposed General Plan, 109,000 persons, would generate 233 tons of solid waste per day, for a total of 85,140 tons per year. Tracy's compliance with AB 939 would divert an average of 50 percent or more of this waste away from the landfill to recycling and composting. Based on 2001 data, residential garbage comprised approximately 27 percent of the solid waste deposited from Tracy at the landfill. Taking all of this into consideration, the total residential solid waste generated by 2025 would use 8 to 16 percent of the Foothill landfill's daily permitted amount. Additional commercial and industrial wastes would total approximately 125 tons per day, with variable diversion rates resulting in the use of between 4 to 8 percent of the landfill capacity. Therefore, as the total of 358 tons per day disposed into the Foothill landfill from Tracy by

⁵⁰ <http://www.sjgov.org/solidwaste/Hazardous%20Waste%201.htm>, accessed 7/21/05.

2025, as anticipated under the proposed General Plan, would use approximately 12 to 24 percent of the landfill's permitted daily capacity, implementation of the General Plan would not compromise the landfill's current assessed lifetime through 2054.

The proposed General Plan includes actions to ensure adequate solid waste collection and disposal in the city (Objective PF-5.2). They include the continuation of weekly curbside trash collection service, continued operation of the Tracy Material Recovery Facility and Transfer Station, and a partnership with San Joaquin County to ensure that there is adequate landfill space to meet projected growth (Objective PF-5.2, A1-3 respectively).

To meet State requirements and ensure the lifespan of the landfill, the proposed General Plan includes policies to encourage recycling and resource conservation to minimize the amount of disposable solid waste generated by residents and businesses in Tracy (Objective PF-5). Objective PF-5, P1 states that the City would strive to meet or exceed the State's goal of diverting 50 percent of all solid waste from landfills. The proposed General Plan encourages local businesses to expand their recycling efforts and to reduce packaging of products manufactured in the city (Objective PF-5, P3). In general, the City would encourage all construction projects in Tracy to salvage and reuse construction and demolition materials and debris as possible (Objective PF-5, P4), and residential, industrial, commercial and retail buildings to be designed or improved to accommodate an increase in the amount and type of recycled materials (Objective PF-5, P6).

The proposed General Plan also includes a number of policies in regards to the City's own operations and facilities. Objective PF-5, P4 directs public buildings to be designed or improved with on-site storage facilities for recycled materials, and Objective PF-5, P5 encourages the use of post-consumer recycled paper and other recycled materials in all City operations. The proposed General Plan also outlines six actions for facilitating recycling and composting efforts within the city, including for example, the bi-weekly, city-wide collection program to compost leaf and yard waste (Objective PF-5.1,

A1), residential single-stream curbside recycling (Objective PF-5.1, A3), and develop and maintain a recycling and diversion plan (Objective PF-5.1, A3). The combination of these policies and actions outlined in the proposed General Plan would ensure that the City complies with applicable regulations related to the disposal and reduction of solid waste, and in general reduces the amount of solid waste it disposes into Foothill landfill. Therefore, implementation of the proposed General Plan would not result in significant impacts in regard to solid waste, from the exceedence of its landfill capacity or from non-compliance with applicable regulations.

4. Impacts and Mitigation Measures

Since no significant impacts related to solid waste were identified, no mitigation measures are required.

E. Parks and Recreational Resources

This section describes current conditions and potential impacts of the proposed General Plan with regard to park and recreational resources in Tracy.

1. Existing Setting

This section describes the existing parks and recreation facilities available to City of Tracy residents and applicable regulations.

a. Regulatory Framework

Various local and State plans and legislative guidelines affect current and future parks and recreational facilities in Tracy.

i. Quimby Act

As part of approval of a final tract or parcel map, the California Quimby Act allows a city to require dedication of land, the payment of in-lieu fees or a combination of both to be used for the provision of parks and recreational purposes. Cities can require land or in-lieu fees for a minimum of 3 acres per 1,000 residents, with the possibility of increasing the requirement to a maxi-

mum of 5 acres per 1,000 residents if the City already provides more than three acres per 1,000 residents. Tracy's current park dedication ordinance requires a dedication of 4 acres per 1,000 people for all new development projects.

ii. *Parks Master Plan*

In August 2002, the City of Tracy adopted and released its Parks Master Plan, which identifies existing park facilities, analyzes the demand for future parks, provides standards for new park facilities and identifies goals, policies and actions for the provision of park and recreation facilities and services. The Plan was originally intended to be used to implement the parks and recreation goals of the 1993 *Urban Management Plan* and now functions as a guide for the proposed General Plan. The *Parks Master Plan* divides Tracy into three facility planning areas divided by major arterials. The City expects to use these designations in future parks planning.⁵¹ The City Council, in Resolution 2002-45, adopted the standards, definitions and guidelines related to development, design and construction of city parks.

The *Parks Master Plan* made several conclusions about the existing parks and recreation setting in Tracy:⁵²

- ◆ Other cities in the region have more aquatic and recreation centers per capita.
- ◆ Relative to other cities in the region, Tracy has fewer recreation facilities.
- ◆ Park acreages and amenities are not evenly distributed across the city.
- ◆ Some amenities are limited to certain areas of Tracy, causing people to have to drive to other areas to participate in particular activities.
- ◆ Based on a cursory inspection, several parks are candidates for renovation or improvements.

⁵¹ City of Tracy, *Parks Master Plan*, August 2002, p.5-41.

⁵² City of Tracy, *Parks Master Plan*, August 2002, p.41.

iii. Parks and Streetscapes Standards Plan

In 1989, the City of Tracy adopted the Parks and Parkways Design Manual, which was revised in November 2002, and since renamed the Parks and Streetscapes Standards Plan.⁵³ The document provides construction and design details and specifications for park and parkway design and construction documents. The City's park dedication standard of 4 acres per 1,000 residents, which was established in the 1993 Urban Management Plan, was further defined in the plan by allocating 3 acres to either or both mini-parks and neighborhood parks, and 1 acre to community parks.⁵⁴

iv. Park Dedication Ordinance

Tracy's park dedication ordinance requires new development to dedicate 4 acres of parkland per 1,000 residents. This is intended to ensure that new development provides an adequate amount of park space to keep pace with demand.

b. Parks Facilities

Two City departments are responsible for the maintenance of parks and public areas: Public Works and Parks and Community Services Landscape Maintenance District. Operations include the care of open space, landscaping, trees, tennis courts, playgrounds, sports fields and picnic areas as well as government building grounds. The two departments share in the maintenance and operation of government buildings and grounds, including the Tracy Community Center, the Tracy Sports Complex and the Senior Center. Residents of Tracy are served by the following State, County and City parks and recreational amenities.

⁵³ Personal communication with Karen McNamara, Director, City of Tracy Parks and Community Services Department, January 30, 2004.

⁵⁴ City of Tracy, *Parks Master Plan*, August 2002, pp. 70-71.

i. State and Regional Parks

Several County parks are located near Tracy, including Mossdale Boat Ramp and Oak Grove Regional Park. State parks serving Tracy include Durham Ferry, Bethany Reservoirs and Caswell State Park.⁵⁵

ii. City Parks

Tracy's park system is three-tiered as follows. The Park Design Guidelines in the Parks Master Plan set the following standards for each park type:

- ♦ **Mini-Parks.** Small parks, typically 1 to 5 acres, which provide recreational activities for a specific neighborhood or subdivision.
- ♦ **Neighborhood Parks.** Generally, 5 to 15 acre sites that provide basic recreational activities for a specific neighborhood area.
- ♦ **Community Parks.** Large parks, generally 15 acres or more, which include an equal mix of passive and active recreation areas that serve the entire city or a substantial portion of the city.⁵⁶

Park and recreational facility locations are shown in Figure 4.9-3.

iii. Established Parks

As of August 2005, the City of Tracy had 65 parks, totaling approximately 232 acres, containing various recreational and aesthetic amenities. The park stock is comprised of 48 mini-parks, 13 neighborhood parks and four community parks.⁵⁷ The parks inventory is detailed in Table 4.9-9 and includes the types of equipment or amenities located at each park. Most parks include benches, picnic areas and an area for active recreation (e.g. basketball court, play structures). Of the 232 acres of established parkland area in Tracy, mini-parks total approximately 63 acres, neighborhood parks cover approximately

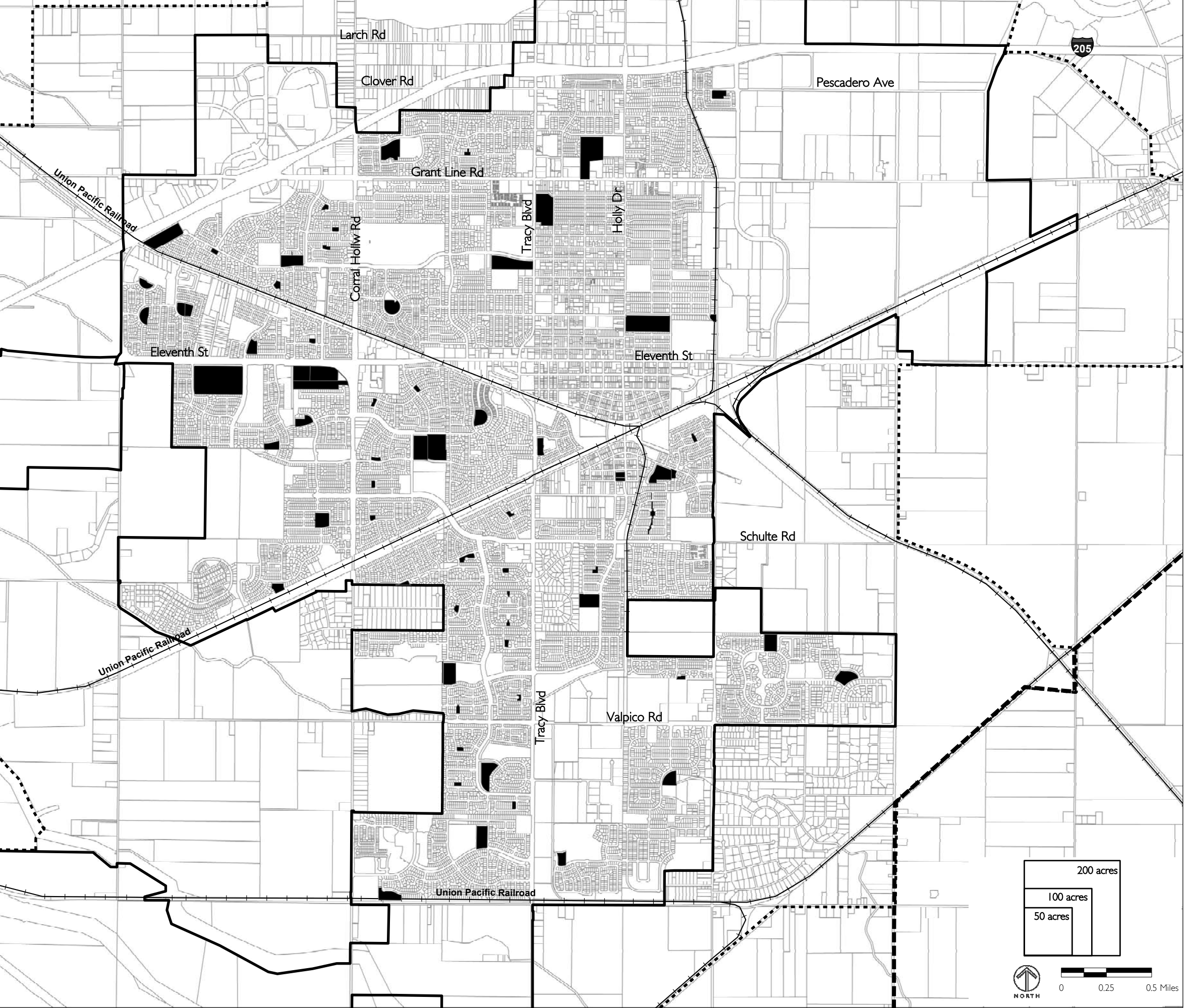
⁵⁵ City of Tracy, *Presidio Planned Unit Development Draft Environmental Impact Report*, March 1999, p.4.9-29, incorporated by reference in the Final EIR.

⁵⁶ City of Tracy, *Parks Master Plan*, August 2002, pages 77-85.

⁵⁷ City of Tracy, Development and Engineering Services, Aug. 2005.

FIGURE 4.9-3

PARKS AND RECREATION FACILITIES



- Existing Parks and Recreation Facilities
- City Limit
- Proposed Sphere of Influence
- Planning Area

Data Source: City of Tracy, Parks and Community Services Department, 2005.

Figure 4.9-3: Parks and Recreation facilities (Back)

TABLE 4.9-9 **ESTABLISHED PARKS IN TRACY (AS OF 2005)**

Name of Park	Acres	Amenities
MINI PARKS		
Abbott (Clyde) Park	0.5	small shaded picnic area, wrap around 5' wide walkway for bikes, trikes and skaters, drinking fountain, benches and trash receptacles, children's playground
Allen (Dr. Ralph) Park	0.8	half basketball court, child playground, picnic tables, small solid shade structure, swings, drinking fountain
Bailor Hennan Park	0.5	benches, picnic tables, shade structure, half basketball court, grills, fitness path, play areas, drinking fountain
Barboza Park	2.08	half basketball court, tennis courts, play structure, benches, picnic tables, grills, skate park element, shade structure, drinking fountain
Costa Park	0.5	half basketball court, benches, picnic tables, gazebo, play structure, drinking fountain
Chadeayne (J. Kingsley)	1.78	horseshoe pits, shade structure with security light, picnic structure, play lot, benches, drinking fountain
Daniel Busch Park	2.85	basketball court, grills, benches, shade structure, picnic tables, 2 play areas, drinking fountain
Don Cose	3.4	full court basketball, shaded picnic area over concrete, tot lot and children's playground, unshaded picnic area in lawn area, wrap around 8' wide walkway for bikes, trikes and skaters, drinking fountain, benches, trash receptacles
Dorothy Evans Park	0.5	half basketball court, shade structure, seatwalls, grills, gazebo, benches, picnic tables, play areas
Egan Family	0.51	small shaded picnic area with 2 shaded tables, children's playground, drinking fountain, benches, trash receptacles
Emhoff Park	0.5	half basketball court, benches, picnic tables, shade structure, drinking fountain
Erb (John) Park	1.3	full court basketball, children's playground, shaded picnic area and unshaded picnic tables, drinking fountain, benches, trash receptacles.
Fabian Park	1	full basketball court, benches, picnic tables, play structures, seatwall
Fine Park	0.58	open space-city well
Fitzpatrick Park	0.4	benches, picnic tables, shade structure, play structures, half basketball court, grills, drinking fountains
Glover Park	2.1	benches, picnic tables, play structures, half basketball court, seatwall, drinking fountain

TABLE 4.9-9 (CONT'D) **ESTABLISHED PARKS IN TRACY (AS OF 2005)**

Name of Park	Acres	Amenities
MINI PARKS (continued)		
Golden Spike Park	0.5	benches, drinking fountain, picnic tables, play structures, half basketball court
Harvest Park	0.5	benches, picnic tables, play structure, half basketball court, grills, drinking fountain
Huck Park	0.5	benches, picnic tables, play structure shade structure, grills, drinking fountain
Icardi Park	0.5	benches, picnic tables, play structures, shade structure, seatwalls
Jack Fisher Park	2	shade structure, benches, 4 picnic tables, drinking fountain, 2-12 age play area, half basketball court
Kellogg Park	4	large water feature/pond, mounds and boulders, children's and tot playground, tennis court, half basketball court, shaded picnic area, unshaded picnic tables
Kelly Park	0.5	benches, picnic tables, shade structure, play structure
Kimball Park	0.5	half basketball court, shade structure, benches, picnic tables, grills, play structure, drinking fountain
Kit Fox Park	0.5	grills, benches, picnic tables, seatwall, shade structure, play structure
Lowe's (William Kendall)	2	shade structure with picnic area, children's playground, drinking fountain, benches, trash receptacles
Marlow Bros. Park	2	full court basketball, sand volleyball court, group picnic area, large (24'x24') solid shade structure, tot playground with swings, child playground with swings
McCray Family	0.8	shade structure with 2 picnic tables, small children's playground (5-12), half basketball court, open and flat lawn area (no swings), drinking fountain, benches, trash receptacles
McDonald Park	1.71	restroom, basketball, shade structure, grills, handball court, benches, picnic table, play structure
Mt. Diablo Park	0.2	benches, picnic tables, play structure
Mt. Oso Park	0.33	benches, picnic area, wood structure
New Harmon Park	0.5	benches, picnic tables, shade structure, 2 play areas, half basketball court, drinking fountain
Patzner Park	0.5	benches, picnic table, play structure, seatwall, drinking fountain
Pombo Family Park	0.5	child playground, picnic tables, group picnic area, large shade structure
Richard Hastie Park	3.5	half basketball court, small solid shade structure, soccer-size lawn area, picnic tables

TABLE 4.9-9 (CONT'D) **ESTABLISHED PARKS IN TRACY (AS OF 2005)**

Name of Park	Acres	Amenities
MINI PARKS (continued)		
Rippin Park	0.5	benches, picnic tables, play structure, drinking fountain
Sister Cities Park	0.5	benches, picnic tables, shade structure, play structures, seatwall, drinking fountain
Slayter Park	0.5	benches, picnic tables, play structure, seat-wall/planters
Souza Family Park	1.5	half basketball court, skateboard park element, soccer-size lawn area, group picnic area with 4 tables
Sparks (Joan) Park	1.78	child playground with swings, 3 small solid shade structures, four square, hopscotch-marked pavement, sundial feature, open turf area
Stevens Park	0.25	benches, picnic table, play structures, half basketball court
Sullivan Park	0.5	benches, picnic tables, play structures, seatwalls, drinking fountain
Tiago Park	4.5	2 informal baseball fields, full basketball court, parking lot (off street) for 18 cars, shaded picnic area, tot and older children play structures with swings
Valley Oak Park	0.5	benches, picnic tables, play structure, drinking fountain, half basketball court
Verner Hanson Park	3.5	large covered area with 8'x8' platform benches, timber form play area with swings, picnic tables, drinking fountain, grills
Westside Pioneers Park	0.5	bench, picnic tables, shade structure, play structures, drinking fountain
William Adams Park	4.7	benches, picnic tables, drinking fountain, tennis court, tot playground, child playground, group picnic area, large shade structure, shuffleboard, grills
Yasui Park	3.09	benches, picnic tables, play structures, drinking fountain
NEIGHBORHOOD PARKS		
Alden Park	6.88	picnic tables, grill, play structures
Ceciliani Park	10	restroom, tennis courts, shade structure, grills, sand volleyball, parking lot, picnic tables, benches
Clyde Bland Park	8.5	half basketball court, benches, picnic tables, softball field, Lammersville School, restroom, drinking fountain, parking lot, shade structures, play structures
Dr. Powers Park	10.59	restroom, lighted tennis courts, shade structure, grills, swim center, group picnic area, parking lot, benches, historical train engine

TABLE 4.9-9 (CONT'D) **ESTABLISHED PARKS IN TRACY (AS OF 2005)**

Name of Park	Acres	Amenities
NEIGHBORHOOD PARKS (continued)		
El Pescadero Park	14.28	K-9 park, parking, play areas, skate park, drinking fountain
Galli Park	5	parking lot, bocci ball court, climbing wall, baseball/soccer field
Gretchen Tally Park	6.1	benches, picnic tables, seatwalls, shade structures, play structures, drinking fountain, roller hockey court, spray poles
Hoyt Park	5.52	benches, picnic tables, shade structures, restroom, tennis courts, grills, horseshoe pits, sand volleyball, parking lot, children's play area, flower garden, water mister
Kenner Park	6.02	tennis courts, restrooms, sand volleyball, shade structure, benches, picnic tables, full basketball court, drinking fountain, spray pole
Larsen Park	5.09	restroom, tennis courts, fitness station, benches, picnic tables, seatwall, drinking fountains, play structure
Thoming Park	5.31	benches, picnic tables, shade structures, play structures, restroom, gazebo, full basketball court, sand volleyball, tennis courts, fitness path
Veterans Park	7	tot lot play area, walking path; total park area will be 15 acres when completed (see Table 4.9-10 below)
Zanussi Park	5	picnic tables, benches, shade structure, play areas, restroom, gazebo, drinking fountain, grills
COMMUNITY PARKS		
Lincoln Park	14.31	restroom, softball, shade structures, play structures, grills, gazebo, parking lot, public library, benches, picnic tables, rose garden
Plasencia Fields	20.93	soccer fields, limited parking, city retention basin
Tracy Ball Park	11.46	Albano Field, hardball/softball, restrooms, parking lot, concession building, soccer (all lighted)
Tracy Sports Complex	27	4 lighted softball fields, 4 lighted soccer fields, community building, concession facility, playground, picnic area, parking
TOTAL PARK AREA	232	

Sources: City of Tracy Parks and Community Service, *Park and Facility Development Design and Historical Matrix*, January 30, 2004; City of Tracy, *Parks Master Plan*, August 2002; Personal communication July 13, 2004 with Parks and Community Services staff; City of Tracy Development and Engineering Services Department, August 24, 2005.

TABLE 4.9-10 FUNDED PARKS IN TRACY

Name of Park	Area (acres)	Construction Status	Key Amenities
Parks			
Tracy Press (Phase 2)	0.5	Phase 1 completed in 2000. Phase 2 Under con- struction	covered picnic area, table, tot swings, benches
Schwartz (Bill)	4.69	Site being rough-graded Under con- struction	shaded picnic area, wrap-around 8'-wide walkway for bikes, trikes and skaters, drinking fountain, benches, trash recep- tacles, roller hockey court with dasher boards and players benches, skate board arena, tot lot, children's playground
Thrasher (Dorlane)	1.2	Unknown	shade structure, picnic area, children's play area with swing, benches, drinking fountain
Veterans Park (Phase 2)	8	Unknown	lighted softball field, restrooms, tennis courts, basketball court, play areas, open space, veterans memorial

Source: City of Tracy Parks and Community Service, *Park and Facility Development Design and Historical Matrix*, January 30, 2004.

TABLE 4.9-11 **ESTABLISHED CITY RECREATIONAL AND COMMUNITY SERVICE FACILITIES IN TRACY**

Facility	Location	Area	Amenities
Tracy Commu- nity Center	Civic Center	8,500 square feet	main room, kitchen, 2 conference rooms, custodial and storage, stage, dance floor
Cora K-9 Dog Park	El Pescadero Park	0.5 acres	running area, drinking area, en- tryway area, benches, fountain, disposal bags
El Pescadero Skate Park	El Pescadero Park	13,000 square feet	bowl, halfpipe, spine ramp, bank, transition hip, roll in platform, slide, 2 platforms, pyramid, curbs, quarter bowl
Historical Lammersville School House	Clyde Bland Park	1,500 square feet	revitalization of historical school house and City Gateway marker
Lolly Hansen Senior Center	Civic Center	7,000 square feet	lounge, reception area, arts and craft room, multipurpose room, kitchen, storage
Joe Wilson Community Pool	Dr. Powers Park	n/a	L-shaped 25-yard pool with div- ing, pool office, restrooms
Teen Center	Bessie and 23 rd St.	n/a	main hall, office areas, stage area, ADA ramp, kitchen, restrooms, basement, storage
Tracy Historical Museum	Old City Post Office	n/a	new historical museum occupied by the Westside Pioneers Associa- tion and TAGS
Tracy Sports Complex Meet- ing Room	Tracy Sports Complex	900 square feet	meeting room

Source: City of Tracy Parks and Community Service, *Park and Facility Development Design and Historical Matrix*, January 30, 2004; Personal communication July 13, 2004 with Parks and Rec-
reation staff.

95 acres, and community parks total over 73 acres. Lincoln Park is considered the most used park in the City.⁵⁸

iv. Funded Parks

There are eight non-established or operating parks in Tracy that have secured funding, totaling approximately 29 acres. Non-established parks are parks that are in the design phase or under construction, but have not been formally dedicated to the City. These parks and facilities are listed in Table 4.9-10 and are at various stages of completion.

c. Recreational Facilities

The City of Tracy operates several established recreational facilities as shown in Table 4.9-11. As identified below, several of these facilities are located within the established parks listed in Table 4.9-9. City-operated recreational facilities (which are leased, not owned) include a gymnastics center and a multi-purpose activity center.

d. Recreational Corridors

The City also operates a number of recreational corridors that mainly consist of Class I bikeways. These facilities provide recreational and transportation amenities to city residents. Approximately 14 acres of such facilities exist in the City of Tracy. The City also has an approved conceptual master plan to construct a 150-acre youth sports facility on Schulte Road.

Private and not-for-profit organizations provide a variety of recreational opportunities for Tracy residents including dance classes, yoga, martial arts and fitness clubs. School facilities also serve recreational needs in Tracy. After school hours, Tracy residents often use school fields and play structures for recreational activities. Unfortunately, after hours vandalism has been a problem in outdoor school space.⁵⁹ As stated in the Parks Master Plan, the open

⁵⁸ Personal communication July 14, 2004 with Parks and Recreation staff.

⁵⁹ Personal communication at May 7, 2003, meeting with Parks and Recreation and School District staff.

space owned by the TUSD is of recreational value only to the extent that either the City maintains the property, or it is maintained jointly by the District and another party. Eight schools are located adjacent to or are connected to city parks, and the District and City have worked together in the past to share maintenance of these sites.⁶⁰

2. Standards of Significance

The City of Tracy General Plan would have a significant impact to parks and recreational resources if it would:

- ◆ Create a shortage of park and open space facilities for City residents.
- ◆ Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- ◆ Conflict with an established recreational land use in the area.
- ◆ Inhibit the ability to provide recreational opportunities in the future.
- ◆ Result in a need for new or physically altered parks or recreational facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable performance objectives for parks or recreational facilities.

3. Impact Discussion

New development under the proposed General Plan has the potential to increase the demand for parks and recreational facilities. Using the City's adopted requirement of 4 acres of parkland per 1,000 residents and the estimated population increase of 34,930 residents through 2025, there would be a need for 133 additional acres of parkland to serve development projected during the 20-year planning horizon of the proposed General Plan. Of this amount, approximately 9 acres would need to be in Community Parks, and the remainder would need to be in either Neighborhood Parks or Mini-Parks.

⁶⁰ City of Tracy, *Parks Master Plan*, August 2002, p. 44.

If these additional acres in parkland are not provided, there could be a significant impact associated with a shortage of park and open space facilities and the substantial deterioration of existing facilities from overuse, since new residents would be forced to use existing facilities. Therefore, the proposed General Plan includes policies and actions to ensure that the City's parkland goal is met and existing facilities are not negatively impacted by growth permitted under the Plan. The proposed General Plan designates 460 total acres of land for park uses, 260 in the City limits and another 200 in the SOI. Future park lands will also be identified during the project approval process for residential developments. These parks have not been identified nor are they included on the land use designation map.

The existing City policy requires that new residential projects provide 4 acres of parks per 1000 population. Implementation of this policy will ensure that there is no shortage of parks facilities for current and future residents. Additionally, the City shall consider increasing the parks standard of 4 acres per 1,000 population to 5 acres per 1,000 population (Objective OSC-4.2, P1). This policy would also require that new developments provide new park acreage or in-lieu fees at this ratio. Objective OSC-4.2, P2 and P3 provide guidelines for developers in this regard, mainly that land dedicated towards the parkland requirement must meet certain usability criteria and that golf courses and active detention basins would not count toward dedication requirements. Objective OSC-4.2, P4 through P6 provide design direction for ensuring that new parks are easily accessible and match the area's needs. Objective OSC-4.3 also contains four policies and one action related to the establishment of a regional parkways system that bolsters park and recreation opportunities for residents of Tracy. No changes are proposed in the General Plan that would inhibit the ability of the City to provide recreational facilities in the future, since parks are allowed and specific land is designated for parkland.

In addition, Objective OSC-4.1 states that the City would provide and maintain a diversity of parks and recreational facilities in Tracy, which are geographically distributed (Objective OSC-4.1, P2). This is further supported by

Objective LU-1.3, which states that the City shall ensure that parks are accessible and distributed evenly and efficiently throughout the city. Objective OSC-4.1, Policies 1 through 10 outline specific direction for the development of parks and recreation facilities in the City, including guidelines for the incorporation of natural features, environmentally-friendly specifications for golf courses, and definitions of the types of parks and associated service goals. Objective OSC-4.1, A1 directs the City to update its Parks Master Plan on a regular basis and expand partnership opportunities with the school districts for joint facilities (OSC-4.1, A2). Finally, OSC-4.1, A3 obliges the City to explore the development and funding of a large City park, possibly 60 to 100 acres in size, that includes both passive and active recreational amenities.

The specific environmental impact of constructing new individual park or recreation facilities cannot be determined at this first-tier level of analysis. Development and operation of park facilities may result in potentially significant impacts that are addressed by various plans, policies and mitigation measures identified in other sections of this EIR. As specific park and recreation facility expansion projects are identified, additional project-specific, second-tier environmental analysis will be completed.

Overall, as a result of the policies mentioned above, impacts resulting in the increased use of existing parks, such that substantial physical deterioration would occur or be accelerated, would be less-than-significant.

4. Impacts and Mitigation Measures

Since no significant impacts related to parks and recreational facilities were identified as a result of the proposed General Plan, no mitigation measures are required. Policies and mitigation measures from the General Plan and that are identified in other sections of this EIR would apply to any unforeseen impacts associated with the construction and operation of park or recreational facilities.

4.10 INFRASTRUCTURE

This section describes the existing water, wastewater, and stormwater infrastructure in the City of Tracy as well as energy. The chapter also discusses potential environmental impacts from the proposed General Plan and measures to mitigate those impacts are recommended as appropriate. It is organized according to type of infrastructure, with each type analyzed individually according to CEQA Guidelines.

A. Water Services

1. Existing Setting

This section includes a description of the City of Tracy water service area and discusses existing water services, supply and demand conditions, treatment and distribution infrastructure and storage facilities in the Tracy Planning Area.

a. Regulatory Framework

The following programs, policies and regulations direct the water service infrastructure in Tracy.

i. Federal and State Regulations

Following is a description of the federal and State regulations that affect water services in the City of Tracy.

- ◆ **SB 610 and SB 221.** California State Senate Bills 610 and 221, enacted in 2001, require local agencies to demonstrate sufficient water supply for jurisdictions and new developments. Specifically, SB 610 requires additional information to be included as part of an urban water management plan if groundwater is to be identified as a source of water available to the supplier; it requires a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 221 requires local agencies to provide written verification that sufficient water supply is available before approving new plans for development.

- ◆ **Groundwater Management Act.** 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 (GMPs). Tracy is participating in a GMP for the Tracy groundwater basin in conjunction with agencies that draw water from the aquifer within the DMC's northern service area, including Plain View Water District (PVWD), Banta-Carbona Irrigation District (BCID), Del Puerto Water District (DPWD), Panoche Water District (PWD), West Side Irrigation District (WSID), and San Joaquin County. This GMP will help assure that overdrafting of the aquifer, potentially leading to poor water quality or subsidence, does not occur. The City has adopted a Groundwater Management Policy to implement the GMP.
- ◆ **Safe Drinking Water Act.** The Safe Drinking Water Act (SDWA) authorizes the United States Environmental Protection Agency (EPA) to set national health-based standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally-occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water or required ways to treat water to remove contaminants for all water providers in the United States, except private wells serving fewer than 25 people. In California, the State Department of Health Service conducts most enforcement activities. If a water system does not meet standards, it is the water supplier's responsibility to notify its customers.
- ◆ **Urban Water Management Act.** The California Urban Water Management Planning Act of 1983 requires that each urban water supplier, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, shall prepare, update and adopt its urban water management plan at least once every five years on or before December 31, in years ending in five and zero.

ii. Local Regulations and Plans

Following is a description of the local regulations and plans that affect water services in the City of Tracy.

- ◆ **Urban Water Management Plan.** The City of Tracy prepared an Urban Water Management Plan in response to the Urban Water Management Planning Act of 1983, which is described above. The focus of the Plan is the conservation and efficient use of water in Tracy's service area, and the development and implementation of plans to assure reliable water service in the future. The Plan contains projections for future water use, discusses the reliability of Tracy's water supply, describes the City's water treatment system, and contains the water shortage contingency plan described below. In addition, the Plan contains best management practices for efficient water use.
- ◆ **Water Shortage Contingency Plan.** The City of Tracy developed a Water Shortage Contingency Plan in 1992, which contains five stages of actions to be undertaken in the event of an interruption of water supplies, such as could occur in a drought or emergency situation. The City Council determines the appropriate stage of action in the event of a crisis, after which the City Manager can authorize and implement applicable water conservation and rationing requirements. Chapter 5 of the Water Shortage Contingency Plan contains a Water Conservation and Rationing Plan wherein the five stages of action are described in detail.
- ◆ **Water Shortage Contingency Ordinance/Resolution.** Tracy's Water Management Ordinance incorporates the Water Conservation and Rationing Plan, a Water Emergency Plan, Variances and Appeals Ordinance. The ordinance provides the legal authority to implement the Water Shortage Contingency Plan.
- ◆ **Tracy Municipal Code, Chapter 10.12: Residential Growth Management Plan.** The Residential Growth Management Plan was adopted to regulate the timing and quantity of new residential units and to encourage diverse housing opportunities in the City of Tracy. The Plan enables the City to moderate residential growth so that ade-

quate public facilities can be provided, and so that new development projects will not diminish the City's level of service standards.

- ◆ **Recycled and Non-Potable Water Ordinance.** The City of Tracy enacted the Recycled and Non-Potable Water Ordinance in March 2002. The ordinance requires that planned new developments in Tracy install pipelines and dual distribution systems to supply non-potable water to green spaces for irrigation and to facilities for industrial cooling or processing. Recent plans for developments, including Tracy Hills and Tracy Gateway, have proposed to incorporate the use of recycled and/or non-potable water for irrigation of parks, golf courses, street landscaping and other landscaped areas to reduce the potable water demand.

b. Water Service Area

The City of Tracy provides water service to all of its approximately 74,070¹ residents and to approximately 400 residents of the Larch-Clover County Services District.² The City also provides water service to the unincorporated Patterson Business Park. Tracy has a total of 22,540 metered service connections.³

c. Existing Water Supply and Demand

The City of Tracy uses several water sources, including the US Bureau of Reclamation, the West Side and the Banta-Carbona Irrigation Districts, the South County Surface Water Supply Project and groundwater. For water supply planning purposes, it is necessary to identify the quantity of water that can be reliably obtained from each source. The quantity of water available from an individual water supply source will vary over a given period depending on numerous factors, such as hydrologic conditions like rainfall, regulatory limi-

¹ California Department of Finance estimate for January, 2004.

² Kennedy/Jenks Consultants, *Final Report Water Master Plan*, City of Tracy, June 1994, p. ES.1. Same number is cited in City of Tracy, *Urban Water Management Plan 2000*, revised March 2002, p. 2-5.

³ City of Tracy Public Works, *Water Inventory Report*, 8/2/05.

TABLE 4.10-1 **TRACY'S CURRENT WATER SUPPLY SOURCES**

Water Supply	Allocation/ Capacity	2004 Actual (Available)	2005 Projected (Available)
US Bureau of Reclamation	10,000 AF ¹	9,500 AF	10,000 AF (100% of allocation)
WSID/BCID Assignment to US Bureau Contract	7,500 AF	5,250 AF	6,375 AF (85% of allocation)
South County Surface Water Supply Project	10,000 AF	0	5,000 AF (50% of allocation)
Groundwater	9,000 AF	7,176 AF	5,000 AF
Total	36,500 AF	21,926 AF	26,375 AF

¹ Acre-Foot (AF): the volume of water used to cover one acre of land with one foot of water; 325,850 gallons. A single-family home uses approximately 0.5 AF per year.

Source: City of Tracy Public Works, *Water Inventory Report*, 8/2/05.

tations and contractual agreements with water contractors. Actual water supplies from 2004 and projected water supplies for 2005 are presented in Table 4.10-1.

i. Surface Water Supply

Approximately 60 percent of Tracy's water resources come from surface water flowing through a variety of regional rivers, creeks, and canals.⁴ Tracy's surface water comes primarily from a long-standing contract with the United States Bureau of Reclamation (USBR) for an annual allotment of 10,000 acre-feet (AF) of surface water.⁵ Once the City receives its assignment for the year, it can decide how to distribute the supply among different land uses within its geographic boundaries. The water assignment contract with USBR

⁴ City of Tracy Public Works, *Water Inventory Report*, 8/2/05.

⁵ Personal Communication with Nick Pinhey, Director, City of Tracy Public Works Department, 7/28/04.

is due to expire in 2014,⁶ though the City and USBR are in ongoing negotiations and contract renewal is expected in late 2005.⁷ In addition, the City has USBR contracts purchased from the West Side Irrigation District and the Banta-Carbona Irrigation District in the amount of up to 7,500 AF and an option for an additional 2,500 AF.

ii. Groundwater Supply

Tracy's groundwater supply is pumped from groundwater resources beneath the City, which consist of a 950-square mile portion of the larger San Joaquin Valley groundwater basin. A study completed in 2001 by Navigant Consulting determined an average annual operational groundwater yield of 9,000 AF.⁸ As shown in Table 4.10-1 above, annual available groundwater supply is 7,176 AF and 5,000 AF, respectively in 2004 and 2005 (projected). This groundwater supply is indirectly affected by annual rainfall, and a multiple-year drought could decrease groundwater supplies. Despite this, groundwater supplies have historically been available at a consistent level. The long-term objectives of the City are to utilize groundwater for emergency and peak demand needs and to utilize the aquifer for water storage to improve water quality and increase water system reliability for the City's water customers.⁹

iii. Water Demand

In 2004, the City's total water demand for both municipal and industrial uses was approximately 18,363 AF.¹⁰ For a service area population of approximately 74,070 in 2004, this represents an average consumption rate of approximately 221 gallons per capita per day, including industrial and commercial demands.

⁶ City of Tracy, *Urban Water Management Plan 2000*, Revised 2002. p. 2-12.

⁷ City of Tracy Public Works, *Water Inventory Report*, 8/2/05, p. 1.

⁸ City of Tracy *Urban Water Management Plan 2000*, Revised 2002. p. 2-13.

⁹ City of Tracy Public Works, August 2005.

¹⁰ City of Tracy Public Works, *Water Inventory Report*. 8/2/05, p. 6.

d. Future Water Supply

In addition to the City's two existing water sources, the City's Urban Water Management Plan identifies several future sources of water for the City of Tracy. These are summarized in Table 4.10-2 and are discussed below.

- ◆ **West Side Irrigation District and the Banta-Carbona Irrigation District.** The City has obtained a contract entitlement for up to 10,000 AFY from the West Side Irrigation District and the Banta-Carbona Irrigation District, of which 7,500 AFY is currently available, as noted above; the remaining 2,500 AFY is under option.¹¹
- ◆ **South County Surface Water Supply Project (SCSWSP).** The City is involved in a collaborative effort with the cities of Manteca, Escalon and Lathrop, and the South San Joaquin Irrigation District, in the development of the SCSWSP, a project to use water from the Stanislaus River.¹² Starting in August 2005, Tracy's future allocation from the project is up to 15 mgd of treatment capacity and a total annual allotment of 10,000 AF of water.¹³
- ◆ **Byron-Bethany Irrigation District.** Since part of the Tracy Hills Specific Plan area was annexed into the Byron-Bethany Irrigation District, up to 3,000 AFY of water is anticipated from the District to serve development in the Tracy Hills area.

e. Existing Water Transmission and Distribution System

The City of Tracy's existing water system facilities include a water treatment plant, pump stations, wells, water mains and storage reservoirs. These components are briefly described below.

i. Water Treatment Plant

The John Jones Water Treatment Plan (JJWTP) was completed in 1979 and

¹¹ City of Tracy Public Works, *Water Inventory Report*. 8/2/05, p.1.

¹² City of Tracy *Urban Water Management Plan 2000*, Revised 2002, p.1-3.

¹³ City of Tracy *Urban Water Management Plan 2000*, Revised 2002, pp.2-15.

TABLE 4.10-2 **RELIABILITY ASSOCIATED WITH CURRENT AND POTENTIAL WATER SOURCES**

Source	Estimated Maximum Supply (AFY)	Estimated Percent of Contractual Assignment Available			Contract Type
		Wet Year	Long- Term Average	Dry Year ^a	
<i>Existing Supply</i>					
US Bureau of Reclamation	10,000	100%	75%	50%	M&I ^{c, d}
South County Surface Water Supply Project	10,000	100%	98%	90%	N/A ^e
West Side Irrigation District	5,000	100%	58%	25%	Agricultural ^d
Banta-Carbona Irrigation District	5,000	100%	58%	25%	Agricultural ^d
<i>Projected Supply</i>					
Byron-Bethany Irrigation District	4,500	100%	98%	90%	N/A ^e
Annual Purchase on the Water Market	0	0%	5%	10%	Agricultural ^d
<i>Emergency/Peak Supply</i>					
Groundwater ^f	9,000	100%	100%	100%	N/A ^b

a. A 'Dry Year' represents a year in which water shortages are significantly below average. Percentages represent estimated percentage maximum reductions in such a year.

b. Local groundwater sources are not subject to CVP restrictions and have historically been reliably available to the City.

c. In a 'dry year', wholesalers will reduce water assignments on a graduated basis starting with Agricultural contract (AGR) and then if conditions merit reducing M&I assignments.

d. The US Bureau of Reclamation M&I Shortage policy provides guidance for water deliveries during times of water shortage. There are provisions to adjust for growth and extraordinary conservation measures.

e. These water sources are based on agreements and future agreements with other jurisdictions and water districts.

f. As described above, the City's long-term objectives are to utilize groundwater for emergency and peak demand needs to the extent feasible.

Source: Personal communication with City of Tracy, Department of Public Works, 9/6/05 and 9/15/05.

upgraded in 1989 to its current capacity of 15 million gallons per day (mgd).¹⁴ Located near the Tracy Municipal Airport, the plant processes water from the Delta Mendota Canal (DMC) and distributes it to the city.¹⁵ An expansion project is underway to increase treatment capacity to 30 mgd.

ii. Pump Stations

The City of Tracy operates four surface water intake pumps with the capacity to pump approximately 22 mgd of raw water from the DMC to the JJWTP. Raw water is pumped into a 3-million gallon equalization tank prior to treatment. Four additional pumps move water into the distribution infrastructure. Two of these pumps are located at the JJWTP. These are the Zone 1 Booster Station Pump Station with a capacity of 17 mgd and the Zone 2 Booster Pump Station with a capacity of 19 mgd. The third pump station, with a capacity of 6 mgd, is located at the Northeast Industrial Area Reservoir. The fourth pump station, located on Linne Road, is under construction and will have a capacity of 21 mgd.¹⁶

iii. Wells

The City of Tracy currently operates nine groundwater wells that pump from the groundwater aquifer, with a total capacity of 15 mgd.¹⁷ Five of the nine wells are located in the main portion of the City (designated as Zone 1). Water from these wells is pumped directly into the primary water main after chlorination and mixed with treated water from the JJWTP.¹⁸ In 2004, the wells produced 7,176 AF of water.¹⁹ The remaining four wells are located at the JJWTP and pump directly into the JJWTP clearwells, where the groundwater is blended with treated surface water after chlorination. Recently, the

¹⁴ *Ibid*, p. 2-7.

¹⁵ City of Tracy Public Works, *Water Inventory Report*. 1/20/04, p.1.

¹⁶ Personal communication with Gerry S. Nakano, Vice President-Pleasanton, West Yost Associates, 1/9/04.

¹⁷ City of Tracy *Urban Water Management Plan 2000*, Revised 2002, p. 2-12.

¹⁸ *Ibid*, p. 2-13.

¹⁹ City of Tracy Public Works, *Water Inventory Report*, 8/2/05, p.1.

City completed a groundwater study that estimated the operational yield from these wells to be approximately 9,000 AF annually.

iv. Water Mains and Pipelines

The City of Tracy water service is provided over an area with significant changes in elevation. Therefore, the City has established three pressure zones for its treated water distribution system.²⁰ The three zones have over 390 miles of water mains.²¹ The pipes vary in diameter from one to 36 inches. The age of the pipes also varies, dating from anywhere between 1911 and 2004. The northeastern and central portions of the City (Zones 1 and 2) have relatively old cast iron pipes ranging from 6 to 12 inches in diameter. These pipes are deteriorating and are being replaced as part of an on-going program.²²

v. Reservoirs

The City of Tracy has five storage reservoirs. Three of these are adjacent to the JJWTP, with a total storage capacity of approximately 6 million gallons (mg).²³ An additional reservoir is located at the Northeast Industrial reservoir with a capacity of 2.2 mg. The fifth storage reservoir, located on Linne Road, has a capacity of 7.2 mg.

f. Water Reuse and Conservation Measures

In compliance with the Urban Water Management Act, the UWMP identifies a series of water conservation programs or Best Management Practices that the City is either implementing or attempting to implement. These programs

²⁰ In addition, proposed development in the foothills would require two new pressure zones. City of Tracy, *Urban Water Management Plan 2000*, Revised 2002, p.2-9.

²¹ Kennedy/Jenks Consultants, *Final Report Water Master Plan*, City of Tracy, June 1994, p. ES.2-3.

²² *Ibid*, p. ES.3. Personal communication with Gerry Nakano, Vice President - Pleasanton, West Yost Associates, 1/9/04.

²³ *Ibid*, p. ES.2-3.

are summarized in Table 4.10-3. Detailed descriptions of each conservation measure are provided in the UWMP.

Water recycling is the reuse of treated wastewater for non-potable (non-drinking) purposes, including industrial uses and landscaping irrigation, such as in medians and on golf courses. In March 2002, the City enacted the Recycled and Non-Potable Water Ordinance that requires new planned developments to install pipelines and dual distribution systems to supply non-potable water to green spaces for irrigation and to facilities for industrial cooling or processing. Using recycled water can increase the availability of potable water supplies and help recharge groundwater supplies.

The City of Tracy has also developed a Water Exchange Program to convert several City parks and other large irrigated sites from the City's potable water system to a recycled/non-potable supply system. This will free up potable water for potable demand needs and allow recycled water to be used for non-potable needs. Several schools, parks, and other areas have been identified as potential candidates for conversion. Since many of these sites are located in the developed portions of Tracy, new recycled/non-potable infrastructure will be needed for the conversion.

The conversion is expected to occur in phases as funding becomes available and as CEQA review occurs. It will involve the installation of distribution mains in several of the City's main streets, including Tracy Boulevard, Lambers Road, Corral Hollow Road, MacArthur Road, Eleventh Street, Schulte Road, Valpico Road and Grant Line Road. Recycled water pump stations and storage reservoirs may also be required. Current City uses of recycled water consist of landscape irrigation at the WWTP.²⁴

²⁴ *City of Tracy Urban Water Management Plan 2000*, revised March 2002, p. 5-4 and 5-5.

TABLE 4.10-3 **WATER CONSERVATION MEASURES IN TRACY**

Conservation Measure	Status
Water survey program for single-family and multi-family customers	<ul style="list-style-type: none"> • In 2000, before the City had software to implement program, surveys were handed out to customers receiving retrofits. • Software is now in place to run survey program.
Plumbing retrofit and washing machine rebate program	<ul style="list-style-type: none"> • In 2000, the City distributed 1,000 low-flow showerheads to pre-1980s households. • Program to continue with the goal of retrofitting the showerheads of 8,000 homes and 1,700 apartment units. • Feasibility of a washing machine rebate program currently being analyzed.
Metering with commodity rates	<ul style="list-style-type: none"> • Capital improvement program is in place and work has begun to meter those parks and government buildings not presently metered.
Large landscape water audits and incentives	<ul style="list-style-type: none"> • The City does not have the software to implement this measure. • The City has an on-going program to acquire and implement software for a pilot program.
Landscape water conservation requirements	<ul style="list-style-type: none"> • A system of landscape water conservation requirements that come into effect during any water shortage is currently in place.
Public information	<ul style="list-style-type: none"> • City currently distributes information through bill inserts, brochures, community speakers, paid advertising, and annual special events. • City would like to expand public education program.
School education	<ul style="list-style-type: none"> • City provides education materials for several grade levels, including posters, videos and tours. • City sponsors water conservation contests and water awareness month activities. • City plans to continue working with school districts and private schools.

TABLE 4.10-3 (CONT'D) **WATER CONSERVATION MEASURES IN TRACY**

Conservation Measure	Status
Commercial and Industrial Water Conservation	<ul style="list-style-type: none"> Software that tracks commercial and industrial usage is in place.
Conservation pricing, water service and sewer service	<ul style="list-style-type: none"> The City does not have a specific program in place to do new commercial and industrial water use review.
Landscape water conservation for new and existing single family homes	<ul style="list-style-type: none"> The City restricts water uses during times of drought.
Water waste prohibition	<ul style="list-style-type: none"> The City established a water waste prohibition as part of the Tracy Municipal Code and of the Water Shortage Contingency Plan. The "Water Patrol" issues courtesy notices to inform customers in violation of the Water Management Ordinance. Citations are issued after two more courtesy notices and a letter, if the violating customer does not comply.
Water Resources Coordinator	<ul style="list-style-type: none"> The City has designated a full-time Water Resources Coordinator and one part-time staff person.
Financial incentives	<ul style="list-style-type: none"> Through its graduated rate structure, Tracy provides financial incentives to conserve water. The City has ten tiered billing rates, five for winter consumption and five for summer consumption. Winter consumption is charged at higher rates than summer consumptions. When water rationing is in effect, winter rates are used.
Ultra-low flush toilet replacement	<ul style="list-style-type: none"> The City has an ultra-low flush toilet replacement program, which it plans to continue.

Source: City of Tracy, *Urban Water Management Plan 2000*, revised March 2002, p. 7-1 through 7-10. Personal communication with Steve Bayley, Deputy Director of Public Works, City of Tracy, January 12, 2004.

Currently, a new facility, the Regional Water Recycling Facility (RWRF), is proposed in the Tracy Hills area. This sub-regional wastewater treatment facility will accommodate flows from the Westside area, including Tracy Hills, South Schulte, and the Moitoso and Saddlebrook properties.²⁵ The RWRF will produce recycled water suitable for unrestricted use (e.g. park and school yard irrigation).²⁶

g. Water Quality

Tracy's existing groundwater water supply is heavily mineralized and the surface water portion occasionally has taste and odor problems resulting from algae blooms in the Delta. To monitor these potential issues, the City of Tracy Utilities Division of Public Works has a regular program of water quality monitoring, system flushing and system inspection.

Tracy's drinking water sources were assessed in June 2001. The quality of the City's water sources is considered most vulnerable to the following:

- ◆ Airports (maintenance and fueling areas)
- ◆ Gas stations (historic and current)
- ◆ Mining activities (active and historic)
- ◆ Septic and waste landfill dumps (historic and current).²⁷

In 2004, the quality of the City's water supply complied with, or did better than, all State and federal drinking water requirements. Water from Tracy's wells requires no treatment; however, it is chlorinated to control any possible microbial growth in the distribution system.²⁸

²⁵ Nolte and Associates, Inc., *Tracy Hills Wastewater Master Plan*, January 1999, p.1.

²⁶ *Ibid.*

²⁷ *City of Tracy Consumer Confidence Report: 2004 Water Quality Report.*

²⁸ *Ibid.*

2. Standards of Significance

The City of Tracy's General Plan would have a significant impact to water service if it would:

- ◆ Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- ◆ Have insufficient water supplies available to serve the projected development.
- ◆ Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.

3. Impact Discussion

Proposed General Plan goals, objectives, policies and actions call for the provision of an adequate supply of water; the maintenance of water infrastructure; the coordination between land use planning and water facilities and service; and the promotion of water conservation measures. These goals, objectives, policies and actions, combined with the improvements in the City's *Urban Water Management Plan* and the *Water Master Plan*, are expected to meet Tracy's water needs and avoid impacts on water supply.

a. Storage and Distribution Facilities

The City of Tracy currently has the water storage capacity needed to meet the needs of operating storage, fire-reserves storage and emergency reserves for its existing water system. An analysis of future demand based on the population growth estimated in the proposed General Plan indicates that an additional 12 million gallons of storage will need to be distributed throughout the City. Additionally, the City will need to construct new distribution infrastructure, including pump stations associated with the storage reservoirs. The pump stations will need to be distributed throughout the city and should have a total pumping capacity of approximately 36 million gpd. Additionally, the City will also need to install approximately three to four new wells.

These facilities are foreseen in the City's 1994 *Water Master Plan* since future water demand was estimated based on much higher population growth projected by the 1993 General Plan. Moreover, the proposed General Plan identifies actions for the *Water Master Plan* to be updated upon adoption of the General Plan and on a regular basis thereafter (Objective PF-6.1, A1). The proposed General Plan also requires the City to implement the *Water Master Plan*, including providing adequate water infrastructure facilities needed to support current and future populations (Objective PF-6.2).

The proposed General Plan also contains policies that will minimize the potential environmental impacts of storage reservoirs and distribution facilities. One policy recommends that storage facilities should be buried or partially buried to allow for the joint use of the site with parks or recreational facilities (Objective PF-6.2, P2). Another policy recommends that storage facilities should be located at naturally high topographic locations to capitalize on gravity flow whenever possible, as opposed to requiring energy to transport water (Objective PF-6.4, P4). Without the implementation of the above policies, there would be an adverse impact with regard to water storage, supply and/or distribution, since a shortage of water storage would affect the availability of adequate water supply to meet the demand.

The need for new distribution infrastructure would be minimized by General Plan policies that direct a portion of the growth to developed areas of the city that already contain infrastructure. The policies and actions under Objective LU-1.4 direct the City to promote a pattern of residential growth that is efficient with respect to maximizing existing public services and infrastructure. For example, Objective LU-1.4, P1 and P2 in the Land Use Element directs the City to follow the guidelines set forth in the Growth Management Ordinance and to prioritize allowing new residential development that is concentrated near existing development, in order to maximize the use of existing infrastructure. Adherence to these policies would reduce the need for additional distribution infrastructure.

The specific environmental impact of constructing new water storage and distribution facilities in the City limits and Sphere of Influence cannot be determined at this first-tier level of analysis; however, development and operation of water storage facilities may result in potentially significant impacts that are addressed by various plans, policies and mitigation measures identified in other sections of this EIR. As specific water storage facility expansion projects are identified, additional project specific, second-tier environmental analysis will be completed.

For these reasons, development under the General Plan is not expected to create an adverse environmental impact from the expansion of additional water storage and distribution infrastructure.

b. Water Supply

Water use projections have been developed for the proposed General Plan on the basis of long-term average per capita water usage, population growth and non-residential growth. Based on this analysis, the City is expected to require an additional 9,028 AF of water to accommodate projected growth under the General Plan. This will bring the estimated total water demand to approximately 27,530 AF in the year 2025, the planning horizon for the General Plan.²⁹

New development has the potential to result in potentially significant impacts. However, numerous water sources have been identified by the City in the *Urban Water Management Plan*, some of which are expected to be available in the next several years. These sources are listed in Table 4.10-2 and include up to 5,000 AFY from each the West Side Irrigation District and the Banta-Carbona Irrigation District; up to 10,000 AFY from the South County Surface Water Supply Project; and up to 4,500 AFY from the Byron-Bethany

²⁹ Water demand in the year 2025 is calculated by adding projected future water demand during the planning horizon of the proposed General Plan and a baseline demand that includes estimated water demand in 2005, as noted in the City's *Water Inventory Report*, August 2, 2005.

Irrigation District. As noted above, groundwater supplies are also available, however, the City's long-term objectives are to only utilize groundwater for emergency and peak demand needs. Assuming the City renews its contract for 10,000 AF with the US Bureau of Reclamation, there will be sufficient water supply to meet the projected demand.

To ensure that there is enough water for future growth, the General Plan directs the City to acquire reliable, additional sources of water supplies to meet the city's future demand (Objective PF-6.1, P2) and to update the *Water Master Plan*, which identifies sources of water to meet future demand (Objective PF-6.1, A1). In addition, Objective PF-6.3, P5 directs the City to take into account whether sufficient, reliable water is available for the project when considering the approval of new development. Without the implementation of these policies, there would be an adverse impact with regard to water supply.

The City also has measures in place to reduce the water demand through water conservation and water recycling. Policies for the use of water conservation are identified in Objective PF-6.5, P1, P2, P3 and P4 which direct the use recycled water in city-owned facilities and for non-potable uses in general, and for new development projects to construct "purple pipe" for the distribution of recycled water. In the General Plan, the City would also be directed to implement the Best Management Practices in the *Urban Water Management Plan* (Objective PF-6.1, P1) and to update the *Water Master Plan* to include recycled water (Objective PF-6.4, A3). These policies are expected to reduce the overall water demand in the City.

c. Ground Water Depletion

As previously stated, studies have shown that the aquifer can support Tracy Utilizing 9,000 AF per year without negatively impacting the aquifer. The City's current use of groundwater is less than 9,000 AF.³⁰ During drought years when surface water sources are reduced, the City may have to depend

³⁰ City of Tracy, Urban Water Management Plan, revised 2002, p.4-2.

more heavily on groundwater sources. However, the City's existing Groundwater Management Policy prohibits groundwater extraction to exceed 9,000 AF.³¹ Additionally, it is part of the City's policy over the long-term to utilize groundwater for emergency and peak demand needs and to utilize the aquifer for water storage to improve water quality and increase water system reliability for the City's water customers.³² As a result of adopted City policies and General Plan policies, a less-than-significant impact to groundwater is anticipated as a result of the implementation of the General Plan.

The General Plan also contains policies to address groundwater use and conservation that will assist in avoiding impacts to groundwater sources. The City will use surface water supplies to the greatest extent feasible to reduce reliance on groundwater (Objective PF-6.1, P3) and to reserve groundwater supplies for emergency use, such as droughts or short-term shortages (Objective PF-6.4, P1). The use of recycled water as discussed above can also contribute to the recharge of groundwater supplies. These policies will ensure that groundwater supplies and recharge will not be negatively impacted.

4. Impacts and Mitigation Measures

Because the General Plan policies offset potential impacts, no significant water-related impacts have been identified and therefore no mitigation measures are required.

B. Wastewater

This section describes current conditions and potential impacts of the proposed General Plan with regard to wastewater in Tracy.

³¹ *Ibid.*

³² City of Tracy Public Works, August 2005.

1. Existing Setting

a. Regulatory Framework

The following programs, policies and regulations direct the wastewater infrastructure in Tracy.

i. *National Pollutant Discharge Elimination System Program*

The federal National Pollutant Discharge Elimination System (NPDES) program requires all dischargers receive a permit to release effluent into surface waters. Since the City of Tracy wastewater treatment plant releases effluent into the Old River, the City is subject to NPDES permitting requirements, as implemented by the Regional Water Quality Control Board (RWQCB).

ii. *City of Tracy Wastewater Master Plan*

In 1994, the City of Tracy prepared a *Wastewater Master Plan* following adoption of the 1993 *Urban Management Plan*. The Plan was part of the City's planning efforts to expand wastewater infrastructure to accommodate the growth planned for in the *Urban Management Plan (UMP)*. The Plan includes recommendations for two phases of improvements to meet the future wastewater collection, treatment and disposal needs of the growth projected in the UMP.

iii. *City of Tracy Wastewater Treatment Plant Facilities Plan*

In 2003, the City of Tracy prepared the *Wastewater Treatment Plant Facilities Plan* that outlines the features and costs of a project to expand and upgrade the existing Wastewater Treatment Plant (WWTP) to meet NPDES permit conditions. The WWTP includes an assessment of existing plant facilities and operations, an estimation of future wastewater flows, an analysis of anticipated waste discharge requirements for an expanded WWTP, a selection of recommended treatment processes, and construction phasing recommendations to provide the necessary capacity while minimizing capital expenditures.

b. Existing Wastewater Collection and Treatment System

The City of Tracy's wastewater collection system consists of gravity sewer lines, pump stations and the WWTP.³³ The City has a municipal wastewater system handling both domestic and industrial wastewater. Wastewater flows toward the northern part of the city where it is treated at the WWTP and then discharged into the Old River in the southern Sacramento-San Joaquin Delta.³⁴

The existing wastewater collection system consists of three major interceptor systems. The Eastside collection system conveys wastewater from areas in the southeastern and eastern parts of the city, including the Northeast Industrial Area. The Corral Hollow sewer system conveys wastewater, mainly from residential development, from the southwestern part of the city. The Hansen sewer system conveys wastewater from the western and northern parts of the City including the Patterson Pass Business Park and the West Valley Shopping Center. The downtown area conveys wastewater directly to the WWTP using sewer mains in Holly Drive. The majority of the capacity in the wastewater collection system is allocated to existing and currently approved projects such as Plan C development, infill projects, and the Northeast Industrial Area. Therefore, there is limited capacity in the existing conveyance system for future wastewater flows.

i. Wastewater Treatment Plant Permitting and Capacity

The WWTP is located at the northern end of the City limits north of Interstate 205 and between MacArthur Drive and Holly Road. The WWTP was constructed in 1930 and has undergone several major expansions, the last of which was completed during 1985-87.³⁵ The WWTP has a design capacity of 9.0 million gallons per day (mgd) and a corresponding NPDES permit that

³³ CH2MHILL, *Technical Memorandum: Tracy Gateway Wastewater Facilities*, February 11, 2003, p. 8.

³⁴ City of Tracy, *Urban Management Plan EIR*, July 19, 1993, p. 273.

³⁵ Pacific Municipal Consultants, *Tracy Wastewater Treatment Plant Expansion Final EIR*, September 2002, p. 2-1.

allows the City to discharge up to 9.0 mgd average dry weather flow (ADWF) of treated effluent to the Old River. The NPDES permit, which is administered by the RWQCB, prescribes the maximum allowable discharge rate, effluent quality, discharge prohibitions, receiving water limitations, pre-treatment program requirements, biosolids disposal requirements, and self-monitoring requirements.³⁶ An expansion is currently underway, which would increase capacity from 9.0 mgd to 10.8 mgd.³⁷

ii. Existing Wastewater Flows

In 2003, the average dry weather flows were 8.1 mgd and the wet weather flows were 8.6 mgd.³⁸ By comparing the average dry weather flow and wet weather flow to the capacity of the treatment plant and permit, the existing WWTP is not exceeding its capacity.³⁹

iii. Existing Treatment Operations

Wastewater is conveyed to Tracy's WWTP by industrial and domestic interceptors where it receives secondary-level treatment followed by disinfection. The WWTP has a system of bio-towers, coupled with an activated sludge process, which treats the high BOD waste that is present in raw wastewater. The city's major industrial wastewater producer, the Leprino Foods, conveys its wastewater through a separate force main to a pre-treatment pond that is operated by Leprino, but located on WWTP property.

After treatment, wastewater is disinfected and dechlorinated and then conveyed by a 3.5-mile 33-inch outfall pipeline to a submerged diffuser for discharge into the Old River. The outfall is designed to carry a peak flow of

³⁶ CH2MHILL, *City of Tracy Wastewater Treatment Plant Facilities Plan*, January 3, 2003, p. 2-5.

³⁷ Personal Communication with Steve Baley, Deputy Director, City of Tracy Public Works Department, 9/6/05.

³⁸ CH2MHILL, personal communication, 5/25/04.

³⁹ CH2MHILL, personal communication, 5/25/04.

about 22.0 mgd.⁴⁰ Dried biosolids are hauled off-site and used for land application.⁴¹

iv. Emergency Storage Pond

The WWTP includes an emergency storage pond that provides storage for treated wastewater that does not meet discharge standards and occasional excess from the aerated holding ponds. Wastewater in the emergency storage pond is brought back to the headworks for further treatment and a portion of the flow is normally lost to evaporation. All discharges from the pond are routed back to the biotowers for treatment.⁴²

v. Biosolids Handling

Waste solids, known as biosolids, from the wastewater treatment processes are collected and conveyed to the solids handling facilities so that the biosolids can be conditioned for disposal. The treatment process for biosolids includes thickening, digestion, and dewatering to remove organics and inactive pathogens and reduce the volume of biosolids to be disposed.⁴³ Off-site hauling and land application practice is expected to continue in the future.⁴⁴ The Wastewater Treatment Facilities Plan estimates that 2,700 dry tons of dewatered sludge will be produced each year.⁴⁵

vi. Wastewater Quality

Effluent discharges from the WWTP must comply with several concentration limits and receiving water limitations based upon water quality objectives contained in the Regional Water Quality Control Board's *Basin Plan*.⁴⁶ In the

⁴⁰ CH2MHILL, *City of Tracy Wastewater Treatment Plant Facilities Plan*, January 3, 2003, p. 2-13.

⁴¹ *Ibid*, p.ES-1.

⁴² *Ibid*, p.2-14.

⁴³ *Ibid*, p. 5-62.

⁴⁴ *Ibid*, p.5-67.

⁴⁵ *Ibid*.

⁴⁶ *Ibid*, p.ES-1.

event that effluent does not meet the permitted discharge standards, it can be diverted to the emergency storage ponds. The WWTP has reliably met effluent limitations.⁴⁷

In 2002, the City assessed the environmental impacts of increasing the discharge of treated effluent into the Old River. The assessment concluded that treatment beyond the current permitted levels of secondary treatment may be required to protect the water quality of the Old River at future effluent flows. Future treatment could include complete nitrification of the secondary effluent for ammonia removal, improved solids and turbidity removal, and improved disinfection.⁴⁸ The construction a new outfall pipeline and diffuser downstream of the existing diffuser is anticipated to maximize dilution in Old River under all river flow conditions.⁴⁹

c. Planned Wastewater Treatment Plant Expansion

The City is in the process of expanding the capacity of the existing WWTP from 9.0 mgd to 16.0 mgd in order to meet expected demand for approved projects. The Final EIR for the expanded WWTP was published in September 2002. The City submitted all required documentation to the Regional Water Quality Control Board in 2003 and the revised permit is expected in 2005. This permit will allow the City to expand the existing plant to 16.0 mgd and also provide tertiary treatment meeting Title 22 Requirements, which is the standard promulgated by the State of California for water recycling.

The proposed expansion will be completed in four phases. Phase 1 design was completed and construction started in 2004 with completion by Spring 2007. Phase 2 will be completed in 2010, Phase 3 in 2014 and Phase 3 in 2018.

⁴⁷ *Ibid*, p. 2-5.

⁴⁸ *Ibid*, p. ES-2.

⁴⁹ *Ibid*, p. 1-1.

2. Standards of Significance

The City of Tracy's General Plan would have a significant impact to wastewater service if it would:

- ◆ Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- ◆ Result in wastewater treatment that fails to meet the wastewater treatment requirements of the applicable Regional Water Quality Control Board.

3. Impact Discussion

The General Plan sets forth the City's goal to collect, transmit, treat and dispose of wastewater in ways that are safe, sanitary and environmentally acceptable (Goal PF-7). This goal is expected to be met through a combination of objectives, policies and actions in the General Plan and upgrades to the City's wastewater system, as described in detail below.

a. WWTP Expansion and Regional Water Quality Control Board Requirements

A major upgrade to the entire wastewater treatment system is currently underway to increase capacity and meet Regional Water Quality Board requirements. In order to meet discharge requirements, the WWTP will be upgraded to remove ammonia, improve disinfection and provide tertiary treatment. Since the upgrade is addressed in a separate EIR and is expected to comply with Regional Water Quality Board requirements and new treatment plants will meet State standards, no impact is expected.

b. Wastewater Treatment

The upgrade and expansion of the WWTP is designed to increase the capacity to 16.0 mgd and improve the level of treatment, however much of this capacity has already been allocated to existing and currently approved projects such as Plan C development, infill projects and the Northeast Industrial Area. Based on the amount of residential and non-residential growth projected in the General Plan, an additional 2.1 mgd of capacity would be needed by 2025.

Thus, there is a potential impact since the existing system is not designed to accommodate development projected in the General Plan.

To address deficiencies in wastewater service, the General Plan directs the City to prepare a comprehensive update to the Wastewater Master Plan. The General Plan specifically states that the update should identify the number of wastewater treatment plants, capacity and potential locations needed to serve future development (Objective PF-7.1, A1). The General Plan also calls on the City to maintain wastewater infrastructure in good working condition (Objective PF-7.1, P1) and to not extend wastewater infrastructure into new areas until existing infrastructure is brought to adequate standards.

The Land Use and Public Facilities and Services Elements also contain policies that mitigate the potential impact of a lack of wastewater treatment capacity by ensuring that new development would not occur in the absence of sufficient capacity in the wastewater treatment system and access to wastewater services (Objective PF-7.3, P3, P5 and P6 and Objective LU 1.4, P5). Without the implementation of these policies, there would be adverse impact with regard to wastewater collection and treatment.

Additional wastewater collection facilities would also be necessary to support new development. This impact would be minimized by targeting growth to existing areas thereby more efficiently using of existing infrastructure. For example, Objective LU-1.4, P1 and P2 directs the City to follow guidelines of its Growth Management Ordinance and to prioritize allocation of RGAs to new development that is near existing development to maximize the use of existing infrastructure. Objective LU-1.4, P4 directs the City to make RGAs available for infill development as a high priority. These policies would reduce the need for additional collection infrastructure.

The General Plan also includes policy language to reduce the impact of wastewater treatment on the environment. Policies direct the City to consider locating public facilities and wastewater reclamation sites with agricultural and open space preservation programs to the extent possible (Objective PF-

7.4, P2). The General Plan also calls for the use of recycled water, which could include tertiary treated wastewater, to be used for non-potable uses (Objective PF-6.5, P4) and to dispose of biosolids in a manner that minimizes impacts on the environment and public health (Objective PF-7.3, P3).

The specific environmental impact of constructing wastewater treatment facilities in the City limits and Sphere of Influence cannot be determined at this first-tier level of analysis; however, development and operation of wastewater treatment facilities may result in potentially significant impacts that are addressed by various plans, policies and mitigation measures identified in other sections of this DEIR. As specific wastewater treatment expansion projects are identified, additional project specific, second-tier environmental analysis will be completed.

4. Impacts and Mitigation Measures

Since no significant wastewater-related impacts have been identified, no mitigation measures are required.

C. Stormwater

This section describes current conditions and potential impacts of the proposed General Plan with regard to stormwater handling in Tracy.

1. Existing Setting

a. Regional Context

The Tracy Planning Area typically has lower rainfall than other areas in San Joaquin County. Lower rainfall is due to Planning Area's location near the Diablo mountain range which creates a rain shadow. Average annual precipitation in Tracy is about 10 inches, which occurs primarily from November to April.

Most of the Tracy Planning Area is located on nearly flat land with slopes ranging from 0.2 to 0.6 percent. The hills southwest of Tracy, including the Tracy Hills area, have relatively steep slopes with grades ranging from one to 33 percent. Rainfall in Tracy from all slopes generally drains from south to north, towards the San Joaquin Delta watershed. However, this drainage pattern is interrupted by manmade obstacles, including roads, railroads, berms, levees, irrigation supply ditches, the California Aqueduct, and the Delta Mendota Canal, that are elevated slightly above grade.

Areas surrounding the Tracy Planning Area contribute little flow to the City's storm drainage facilities due to the natural topography around Tracy. Lands to the north and east of the City drain away from the City and toward the San Joaquin River. Stormwater south of the Planning Area drains to the east towards the valley floor where it dissipates into agricultural land. However, lands to the southwest and west drain towards the city to the Tracy West Area Watershed and other westernmost areas within the Tracy Planning Area.

Natural drainages and major man-made drainage and water conveyance facilities in the Planning Area include the Old River, Tom Paine Slough, Corral Hollow Creek, the California Aqueduct, Delta-Mendota Canal, and the Upper and Lower Main Canals operated by the West Side Irrigation District (WSID).

b. Regulatory Framework

There are several laws and policy documents that affect the requirements and infrastructure needs for the Tracy Planning Area. The most important of these are described in this section.

i. *Federal Water Pollution Control Act (Clean Water Act)*

The Clean Water Act (CWA), initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the act establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES Program. Section 402(p) requires that stormwa-

ter associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit. On December 8, 1999, U.S. EPA circulated regulations requiring permits for stormwater discharges from Small Municipal Separate Storm Sewer System operators, which includes the City of Tracy. Permits for small municipal storm sewer systems (MS4s) generally fall under the “Phase II” permits program, which regulate non-point source pollutants. In California, the NPDES Program is administered by the State.

ii. State Regulations

The State Water Resources Control Board (SWRCB) is responsible for implementing the Clean Water Act and does so by issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for storm water discharges – Individual permits and general permits). The SWRCB elected to adopt a state-wide general permit (Water Quality Order No. 2003-0004-DWQ) for small MS4s covered under the CWA to efficiently regulate numerous storm water discharges under a single permit. Permittees must meet the requirements in Provision D of the General Permit, which require development and implementation of a Storm Water Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable. The SWMP must include the following six minimum control measures:

- ◆ Public Education and Outreach on Storm Water Impacts
- ◆ Public Involvement/Participation
- ◆ Illicit Discharge Detection and Elimination
- ◆ Construction Site Storm Water Runoff Control
- ◆ Post-Construction Storm Water Management in New Development
- ◆ Redevelopment and Pollution Prevention/Good Housekeeping for Municipal Operations.

The State has approved the City of Tracy’s SWMP dated September 30, 2003 and the City is now implementing the controls outlined in the SWMP.

iii. Local Regulations

The following regulations were developed by the City of Tracy to address stormwater.

- ◆ **Storm Drainage Master Plan (SDMP).** The City's most recent *Storm Drainage Master Plan*, completed in 1994, states that open channels, detention ponds and integral components of the City's storm drainage facilities must be sized to accommodate 100-year storm event. This is referred to as "100-year design capacity." Facilities that are not considered integral must be designed to accommodate a 10-year storm event. Since the 1994 SDMP was adopted, development conditions in the Planning Area have changed substantially. As such, the City developed supplements to the SDMP that include additional information and policy direction.
- ◆ **City of Tracy Design Standards.** The City's design standards, prepared in 1988, set forth requirements for the design and operation of public improvements. The standards include requirements for hydrology calculations, estimation methods, stormwater flow models and design parameters for drainage basins and piping systems. In general, design parameters are compatible with planning parameters set forth in the City's Storm Drain Master Plan.
- ◆ **Storm Water Management Plan.** The City of Tracy's SWMP establishes Best Management Practices (BMPs) to limit to the Maximum Extent Practicable (MEP)⁵⁰, the discharge of pollutants from the City storm sewer system. The plan was written to comply with Section 402(p) of the Clean Water Act and Provision D, as written in the General Permit dated April 30, 2003 (Water Quality Order No. 2003-0004-DWQ). The SWMP identifies a five-year implementation plan for the BMPs, and the City of Tracy is currently implementing the SWMP.

⁵⁰ Maximum Extent Practicable (MEP) is the performance standard specified in Section 402(p) of the Clean Water Act.

c. Existing Storm Drainage System

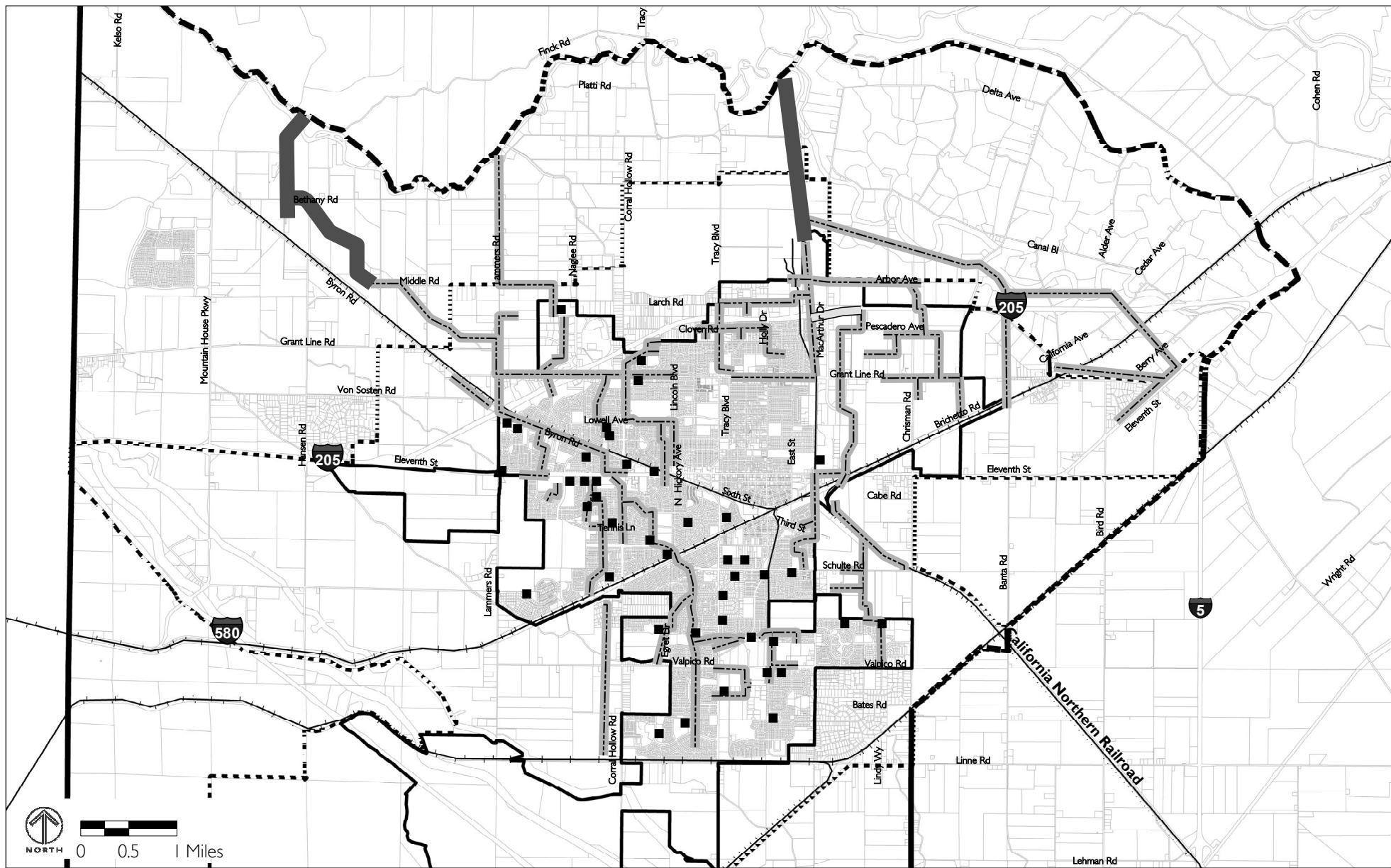
Tracy's storm drainage system is managed by the City's Public Works Department. Stormwater drains through open channels, storm drains and closed conduits owned, operated and maintained by the City. These channels drain into three outfalls, the WSID Main Drain, the Westside Channel Outfall System (that discharges into Old River via a force main) and the Sugar Cut Outfall. These three outfalls discharge storm runoff into Old River which is a part of the San Joaquin Delta. Pump stations are used to move water over grades; however, the majority of the system is gravity operated. The City utilizes detention basins at many locations to store and meter discharges before they are released into outfall facilities.

The SDMP (with supplements) divides the planning area into six drainage systems: the Westside Channel System, the Eastside Channel System, the Tracy West Area Watershed (previously known as the Lammers System), the Banta System, the I-205 Corridor Specific Plan System and the Sugar Cut System. Figure 4.10-1, Tracy Stormwater Facilities, shows the location of Tracy's stormwater facilities and these systems are described in depth below.

i. *Westside Channel System*

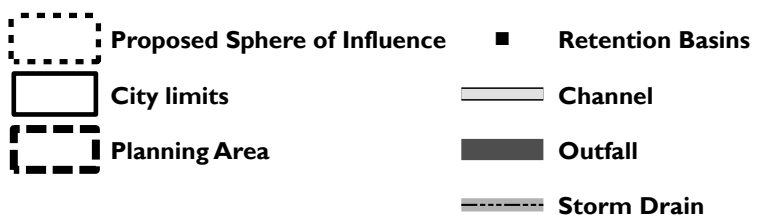
The Westside Channel System covers the area roughly from I-205 in the north to Linne Road and the Union Pacific Railroad tracks in the south and Lammers Road on the west. The eastern boundary generally follows MacArthur Drive between Linne Road and Schulte Road, then Tracy Boulevard north of Schulte Road. The Westside Channel System includes open channels, storm drains and a detention basin with a capacity of 80 acre-feet.

The Westside Channel segment south of Eleventh Street was completed in the 1990's and has a 100-year design capacity. Construction on the outfall system north of 11th Street and has been substantially completed during the summer of 2004. The system will ultimately drain into the Old River north of the intersection of Lammers Road and Bethany Road, via an 18 inch force main that serves a large detention basin and pump station located west of Naglee Road and south of Middle Road.



Data Source: City of Tracy, "Supplement to Storm Drainage Master Plan (SDMP); Exhibit 3A, Drainage Infrastructure Plan with Watershed Boundaries" by Stantec Consulting, Inc., May 9, 2003.

FIGURE 4.10-1



STORMWATER INFRASTRUCTURE

ii. Eastside Channel System

The Eastside Channel north of 11th Street to the Sugar Cut Outfall extends roughly from 11th Street, north along Mac Arthur Drive, and discharges into the Sugar Cut outfall and from there into the Old River. The Eastside Channel has a 100-year design capacity, with some excess capacity to accept additional runoff. The Eastside Channel System has two detention basins with a combined capacity of 451 acre-feet.

iii. Tracy West Area Watershed System

The Tracy West Area Watershed system, formerly known as the Lammers Watershed, extends roughly west of Lammers Road, following the City limits to the southeast. The Tracy West Area Watershed is largely undeveloped and agricultural and generates little or no runoff. The Tracy West Area Watershed receives offsite runoff generated from local hills and lands to the southwest.

Since the City's adoption of the 1994 SDMP, additional issues and considerations in storm drainage facilities master planning and design have arisen, and it is envisioned that the planned rate of discharge into outfall facilities and Old River to the north will need to be significantly reduced. This will need to be accomplished through a storm drainage network that relies heavily on detention facilities to store, attenuate, and restrict downstream runoff rates. The proposed Tracy Gateway project resides in the Tracy West Area System and has incorporated 134 acre-feet of stormwater detention volume into its onsite design. Further storm drainage master planning will be needed to redefine the overall storm drainage plan to serve the Tracy West Area Watershed.

iv. Banta Area System

The Banta Area System was proposed in the SDMP to serve future development in the northwest area of the City. These recommendations will need to be revised in the future, given the change in watershed area, and additional considerations regarding discharges into Old River and tributaries that have arisen since the conceptual plan for the Banta Area System was developed.

The final design will likely follow a similar model as the new storm drain infrastructure that will serve the Tracy West Area System, except that there are no significant sources of offsite runoff impacting the Banta Watershed other than Old River and its tributaries. When completed, the Banta Area System will have a 100-year design capacity, as required by City policies.

v. I-205 Corridor Specific Plan System

The I-205 Corridor Specific Plan System consists of storm drains and a large detention basin that were designed and constructed to serve the buildout of the I-205 Specific Plan Area, located on both sides of I-205 in the northwest quadrant of the City. The area includes West Valley Mall, Tracy Auto Plaza, various commercial developments and residential areas south of I-205. The existing detention basin was recently expanded to a capacity of 406 acre-feet, as a part of construction of the Westside Channel Outfall System project. The expanded detention basin, pump station and force main now serves both the I-205 Corridor Specific Plan area and relevant portions of the Westside Channel Watershed.

vi. Sugar Cut Channel System

The existing urbanized area north of Mount Oso between Tracy Boulevard and Central Avenue and the areas between Tracy Boulevard and East Street, north of Sixth Street drain into the Sugar Cut through the storm main on Grant Line Road. The existing channel north of Grant Line Road and north of the Leprino factory drains into the Sugar Cut.

d. Future System Improvements

The *Infill Properties Storm Drainage Analysis*, a supplement to the SDMP completed in December 2000, includes several suggested capital improvement projects (CIPs) in the Eastside and Westside Channel System areas to serve new projects scattered throughout the City and to correct existing deficiencies. These projects include installing new storm drains and enlarging existing storm drains, installing sediment basins, and backfilling existing retention ponds that are no longer needed. A number of improvements to the storm drainage system are proposed in the supplements to the SDMP and in other

supplemental documents that pertain to Specific Plan areas. A summary of all proposed improvements follows.

i. Westside Channel Outfall

The Westside Channel Outfall System will serve the western portion of the City within the Westside Channel Watershed. The proposed improvements include open channel segments, underground drains and augmentation of existing detention facilities. An existing pump station will pump water to an existing outfall into the Old River. This system is currently under construction and was completed in the summer of 2005.

ii. New Storm Drains

Three CIPs will involve the installation of new storm drains:⁵¹

- ◆ The Grant Line Road/City Outfall CIP will install an enlarged storm drain system, deepening of the grade of the City Outfall Channel between Grant Line Road and the Eastside Channel confluence, and the enlargement of an existing drainage structure crossing the City Outfall Channel. This project is scheduled to be completed by the Fall of 2006.
- ◆ Another CIP will install a storm drain in MacArthur Drive to provide an outfall for individual properties.
- ◆ The Mt. Diablo Avenue/Tracy Boulevard CIP will install new segments of storm drains to serve the area along Schulte Road between Central Avenue and Tracy Boulevard.

iii. Enlarging Storm Drains

A significant number of the City's older storm drains have significantly less capacity than is needed to meet the cities 10-year discharge requirement for non-integral infrastructure. Currently, retention ponds are used as a tempo-

⁵¹ City of Tracy, *Infill Properties Storm Drainage Analysis: Final Technical Study*, December 2000, p. 8.

rary measure to control storm runoff.⁵² As funds become available, these older storm drains are being replaced and upgraded on an ad hoc basis. Capital improvements necessary for the build-out of infill properties within the City limits will be paid for through developer fees. Other storm drain improvements will require allocation of funds from the General Fund.⁵³

iv. Retention Pond Removal

Both the Eastside and Westside Channel Watersheds have retention ponds that are no longer required for stormwater retention as a result of downstream improvements, such as open channels and detention basins, that have increased storage capacity.⁵⁴ The Miscellaneous Retention Pond Removal CIP is intended to backfill these obsolete ponds.⁵⁵

v. Additional Detention Basins

The City is building a new detention basin (DET 4), at the intersection of MacArthur Drive and the Union Pacific Railroad in the Eastside Channel System. When completed, it will have a capacity of 153 acre-feet. The City has also proposed nine additional detention ponds to supplement stormwater storage capacity. The surface area for each detention basin will vary based on available land but the total new capacity is estimated at 1,030 acre-feet. A portion of the storm run off will discharge into the Tracy West Area Watershed.

vi. Major Project-Specific Improvements

The following major system improvements have been identified.

- ◆ **Tracy Gateway Stormwater Detention Facilities.** As a condition of approval for the Tracy Gateway project, the City has required that the

⁵² City of Tracy, *Infill Properties Storm Drainage Analysis: Final Technical Study*, December 2000, p. 2 and p. 8.

⁵³ Personal Communication with Jim Nelson, Consultant, Stantec. February 23, 2004.

⁵⁴ Personal Communication with Jim Nelson, Consultant, Stantec. 2/23/04.

⁵⁵ City of Tracy, *Infill Properties Storm Drainage Analysis: Final Technical Study*, December 2000, p. 8.

developer fund and construct on-site stormwater detention facilities to include roughly 134 AF of detention volume.⁵⁶

- ◆ **Northeast Industrial Area.** Many properties in the Northeast Industrial Area remain in agricultural uses though the area is set aside for industrial development. New industrial uses in the Northeast Industrial Area will significantly increase the amount of stormwater runoff, which will require additional facilities. These facilities are outlined in the *Northeast Industrial Area Storm Drainage Analysis and Fee Justification Study* and its updates.

2. Standards of Significance

The City of Tracy's General Plan would have a significant impact to the stormwater collection system if it would:

- ◆ Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- ◆ Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems.
- ◆ Provide substantial additional sources of polluted runoff.
- ◆ Violate any water quality standards or waste discharge requirements.
- ◆ Otherwise substantially degrade water quality.

3. Impact Discussion

Development under the General Plan has the potential to cause significant impacts by increasing stormwater runoff associated with construction activities and increasing impermeable surfaces, thereby placing greater demands on the stormwater handling system. Runoff from developed surfaces, building roofs, parking lots and roads also contain impurities and have the potential to increase flooding. The proposed General Plan would address these potential

⁵⁶ City of Tracy, *Tracy Gateway Project Final EIR: Exhibit 1 Tracy Gateway General Plan Amendment and Concept Development Plan City of Tracy Conditions for Approval*, October 2002, p. 5.

impacts in several ways. Objective PF-8.2, P1 directs new development projects to incorporate methods of reducing stormwater runoff to reduce requirements for downstream storm drainage infrastructure and improve stormwater quality. The proposed General Plan also contains an action that also modifies the zoning ordinance to limit the amount of impervious surfaces in private yards (Objective PF-8.2, A1). These measures would mitigate potential impacts from increases in impermeable surfaces within the city.

Additionally, the proposed General Plan sets forth the City's policies and actions aimed at developing the stormwater collection system to satisfy future conditions and meet the needs of development. Objective PF-8.1, A1 and A2, directs the City to prepare a comprehensive update of the *Storm Drainage Master Plan* and update this plan on a periodic basis of at least every five years, in order to accurately evaluate flows and comprehensive improvement requirements based on the growth projections in the General Plan. The proposed General Plan also calls for stormwater infrastructure to be maintained in good condition and for infrastructure to attain capacity that conforms with the *Stormwater Management Plan*, *Storm Drainage Master Plan* and the *Parkways Design Manual* (Objective PF-8.1, P1 and Objective PF-8.2,P2). Objective PF-8.2, P3 calls for approval of development conditional upon existing or planned stormwater infrastructure that is in compliance with environmental regulations. Further, the proposed General Plan contains a policy that requires temporary on-site retention facilities that are in conformance with City standards for new development if sufficient downstream stormwater infrastructure has not yet been constructed (Objective PF-8.2, P4).

Additional policies in the Land Use Element would coordinate the approval of development projects with the provision of infrastructure and public services (Objective LU-1.4, P5), call for a concentrated pattern of residential development (Objective LU-1.4, P1 and P2) and encourage infill development (Objective LU-1.6, P4). These policies would provide the City with a framework to ensure that new stormwater handling infrastructure can be provided to meet the needs of continuing development under the General Plan.

Pursuant to regulations of the State Water Resources Control Board (SWRCB)⁵⁷, the City has prepared a *Storm Water Management Plan* that establishes BMPs to limit the discharge of pollutants from the City's storm sewer system to the Maximum Extent Practicable (MEP), as specified by Section 402(p) of the Clean Water Act. The *Storm Water Management Plan* includes BMPs related to construction site and post-construction runoff controls, illicit discharge detection and elimination, pollution prevention, as well as public education and outreach.

The specific environmental impact of constructing new stormwater infrastructure in the City limits and Sphere of Influence cannot be determined at this first-tier level of analysis; however, development and operation of stormwater infrastructure may result in potentially significant impacts that are addressed by various plans, policies and mitigation measures identified in other sections of this EIR. As specific stormwater infrastructure expansion projects are identified, additional project specific, second-tier environmental analysis will be completed.

The policy direction described above, in addition to other regulatory requirements regarding stormwater management ensure that the proposed General Plan will not have a significant impact on storm drainage facilities.

4. Impacts and Mitigation Measures

Since no significant stormwater-related impacts have been identified, no mitigation measures are required.

D. Energy

⁵⁷ Section 402(p) of the federal Clean Water Act and Provision D, General Permit dated April 30, 2003. (Water Quality Order No. 2003-0004-DWQ).

This section describes current conditions and potential impacts of the proposed General Plan with regard to energy use in Tracy.

1. Existing Setting

In 2000, California and much of the country experienced an electrical energy shortage. This energy shortage resulted in high utility rates and rolling blackouts and led to a heightened awareness of the need for energy conservation techniques as a means of saving money and reducing the need for rolling blackouts.

Energy conservation has numerous benefits besides economic and financial savings for individual consumers. The combustion of fossil fuels to produce heat or electricity, or to power internal combustion engines, has been linked to poor air quality in the San Joaquin Valley, global warming and negative impacts on crops. In Tracy, energy conservation can be achieved via a reduction in electricity usage and private automobile use, encouraging efficient siting and exposure for buildings, and implementing land use and transportation policies that encourage fewer and shorter vehicle trips.

Pacific Gas and Electric provides electricity and natural gas to Tracy's residents and businesses. While no specific information is available for the City, San Joaquin County consumed 1572 million kilowatts (kw) of energy in 2000. This is average 8655 kw per household in the County.

2. Standards of Significance

The City of Tracy's General Plan would have a significant impact to the energy systems if it would:

- ◆ Result in the wasteful, inefficient and unnecessary consumption of energy during construction or operation.

3. Impact Discussion

The Open Space and Conservation Element contains the goal to promote the efficient use of energy resources in the City (Goal OSC-5). This goal contains a series of policies and actions to ensure that development is designed for

maximum energy efficiency and to reduce the use of energy through the City's direct actions. Under the proposed General Plan, new development should include solar orientation, the use of materials and mechanical systems that reduce energy consumption and the use of alternative energy sources (Objective OSC-5.1, P1, P2 and P3). New businesses would be encouraged to replace diesel vehicles with less-polluting alternatives (Objective OSC-5.1, P4). study ways to encourage "green" building, including considering modification of zoning and building codes to allow for a variety of energy efficient technologies (Objective OSC-5.1, A1 and Objective 5.2, A3). The proposed General Plan also includes several actions for the City, on its own and in partnership with public utilities to develop inform the public about energy-saving technologies, such as solar panels, low-energy appliances and weatherization measures for homes and businesses through the development of education programs and design guidelines. (Objective OSC-5.1, A2 through A4).

Policies for the City's direct actions include the purchase of alternatively fueled vehicles, such as electric, CNG and hybrid-electric (Objective OSC-5-2, P1), the promotion of the development and operation of alternative energy systems (Objective OSC-5.2, P2 and P4), and the implementation of energy efficiency measures in existing and future City facilities (Objective OSC-5.2, P7). Operation of CNG and hybrid-electric vehicles is currently underway with the City's Tracer Bus system. The proposed General Plan also includes a policy that requires that review of future development project include consideration of energy saving measures in site planning and building design (Objective OSC-5.2, P5), and that the City would support land use patterns that maximize energy efficiency through minimizing transportation and taking advantage of existing capital improvements (Objective OSC-5-2, P8).

Additionally, the Circulation Element contains policies to promote the use of alternative transportation including walking, biking and transit use in order to reduce driving and thus energy use. Goal CIR-3 presents policies and actions for creating opportunities for safe and convenient bike and pedestrian travel. This includes actions to update the *Bikeways Master Plan* and to update the *Roadway Master Plan* to include bicycle routes (Objective CIR-3.1, A1 and

A2). It also includes a requirement that new development includes pedestrian and bicycle facilities internal to development that connect to city-wide facilities and that non-residential developments provide bicycle parking and/or storage facilities (Objective CIR-3.1, P4 and P5). Goal CIR-4 promotes the use of transit as an alternative to the automobile and includes policies for continuing the Tracer service (Objective CIR-5.1, P2) and encouraging improved regional transit service, including ACE and other regional rail services (Objective CIR-4.1, P5).

Finally, the Land Use and Community Character Elements calls for a urban form that encourages walking and biking. Goal CC-2 identifies a series of actions to improve connectivity in the City to encourage walking and biking. Objective CC-2.2, P4 requires new residential developments to design neighborhoods so that homes are within a short car ride or walking distance to a school, park or shopping; it also recommends that these types of designations should be no more than a ¼-mile distance from residential neighborhoods. Objective LU-1.5, P1 creates opportunities for high-density, infill development near the existing and proposed transit stations thereby placing more residents and employees with a ¼ mile walking distance of transit stations. These policies would encourage people to walk, bike and take transit.

Given these policies and actions, the General Plan would not result in the wasteful, inefficient and unnecessary consumption of energy.

4. Impacts and Mitigation Measures

Since no significant energy-related impacts have been identified, no mitigation measures are required.

4.11 GEOLOGY, SOILS AND SEISMIC HAZARDS

This section summarizes information on geology, soils and seismic hazards in Tracy, as well as potential area-wide geologic hazards and regional seismic characteristics that are relevant to development within the Tracy Planning Area. An evaluation of the effects of the proposed General Plan and ensuing development with regard to these potential hazards follows. Potential impacts to mineral resources are discussed in Section 4.8.

A. Existing Setting

This section describes and discusses the existing setting of the Tracy Planning Area in the context of the regulatory environment, regional and local geology and seismic activity.

1. Regulatory Framework

The State of California has established a variety of regulations and requirements related to seismic safety and structural integrity, including the California Building Code, the Alquist-Priolo Earthquake Fault Zoning Act and the Seismic Hazards Mapping Act.

a. California Building Code

The California Building Code (CBC) is included in Title 24 of the California Code of Regulations and is a portion of the California Building Standards Code. Under State law, all building standards must be centralized in Title 24 or they are not enforceable. The CBC incorporates the Uniform Building Code, a widely adopted model building code in the United States.

Through the CBC, the State provides a minimum standard for building design and construction. The CBC contains specific requirements for seismic safety, excavation, foundations, retaining walls and site demolition. It also regulates grading activities, including drainage and erosion control.¹ Tracy

¹ California Code of Regulations, Title 24 (California Building Standards Code) summary page. http://www.bsc.ca.gov/title_24/t24_2001.html, accessed on November 4, 2003.

adopted the State Building Code by reference as part of its Municipal Code pursuant to Government Code section 50022.2. (Ord. 996 § 3 (part), 1999).

b. Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act² was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The main purpose of the Act is to prevent the construction of buildings used for human occupancy on top of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.³

The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones)⁴ around the surface traces of active faults, and to issue appropriate maps. The maps are distributed to all affected cities, counties, and State agencies for their use in planning and controlling new or renewed construction. Local agencies must regulate most development projects within the zones and there can generally be no construction within 50 feet of an active fault zone.⁵

As of May 1, 1999, the California Geologic Survey does not list the City of Tracy on its list of cities affected by Alquist-Priolo Earthquake Fault Zones.⁶

c. Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, passed in 1990, addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically-induced

² Called the *Alquist-Priolo Special Studies Zones Act* until renamed in 1993.

³ California Geological Survey, Alquist-Priolo Earthquake Fault Zones, <http://www.consrv.ca.gov/CGS/rghm/ap/>, accessed on 2/18/ 2004.

⁴ Earthquake Fault Zones are regulatory zones around active faults. The zones vary in width, but average about one-quarter mile wide. <http://www.consrv.ca.gov/cgs/rghm/ap/index.htm>, accessed on 11/ 18/ 2003.

⁵ California Geological Survey, Alquist-Priolo Earthquake Fault Zones, <http://www.consrv.ca.gov/CGS/rghm/ap/>, accessed on 2/18/04.

⁶ <http://www.consrv.ca.gov/CGS/rghm/ap/affected.htm>, accessed on 5/9/05.

landslides.⁷ Under the Act, seismic hazard zones are to be mapped by the State Geologist to assist local governments in land use planning. The Act states that “it is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety.”⁸ Section 2697(a) of the Act additionally requires that “cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard.” San Joaquin County has not been mapped under the Seismic Hazards Mapping Act yet since the State has targeted higher risk areas, such as the San Francisco Bay Area and the Los Angeles/Riverside areas.⁹

2. Regional Geology

Most of the Tracy Planning Area lies within the Great Valley between the Sierra Nevada geomorphic province to the east and the Coast Ranges to the west. The portions of the Tracy Planning Area that lie in the Great Valley fall into one of three categories of geomorphic unit: dissected uplands, low alluvial plains and fans, or river flood plains and channels.

Parts of the southwestern portion of the Tracy Planning Area lie within the Coast Ranges province. The Coast Ranges consist of a series of parallel, linear ranges separated by structural depressions. The Diablo Range, which underlies a portion of the Tracy Planning Area, is the easternmost of these linear

⁷ California Geological Survey, Alquist-Priolo Earthquake Fault Zones, <http://www.consrv.ca.gov/CGS/rghm/ap/>, accessed on February 18, 2004.

⁸ California Public Resources Code, Division 2, Chapter 7.8, Article 7.8, Section 2691(c), <http://www.consrv.ca.gov/cgs/codes/prc/chap-7-8.htm>, accessed on February 19, 2004.

⁹ Personal conversation with Candice Hill, California Geological Survey, Seismic Hazards Mapping Program., 5/ 9/05.

ranges. Numerous faults and shear zones are present in the ranges, the most prominent being structures of the San Andreas fault system.¹⁰

3. Local Geology

The southwestern portion of the Tracy Planning Area, located within the Diablo Range, generally consists of rolling hills cut by drainage channels, a condition which results in gentle to moderately steep hill slopes and nearly flat topped terraces. This portion of the Tracy Planning Area corresponds with the “dissected” geomorphic unit. Surface water flow is generally to the northeast.

Proceeding to the northeast, from the vicinity of I-580 to Tracy, topography flattens into the “low alluvial plains and fans” geomorphic unit. These gently sloping, board fans are dissected by fewer drainage channels than the uplands. Surface water flow is directed to the northeast, except for engineered flow in human-made features such as the Delta-Mendota Canal and the California Aqueduct.

Northeast of the canals, extending to the boundaries of the Tracy Planning Area, the “river flood plains and channels” geomorphic unit consists of relatively level topography, slightly sloping to the north. The northern boundary of the Tracy Planning Area follows Old River and Paradise Cut Slough. Topographic elevations across the Tracy Planning Area vary from over 1,600 feet in the uplands to slightly above sea level adjacent to the Old River.¹¹

Previous studies of local geology generally agree that the Tracy Planning Area is underlain by folded Cretaceous and Tertiary sediments. Descriptions of rock units exposed in the Tracy Planning Area are provided from the Dames and Moore *Geologic Hazards Assessment*:

¹⁰ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan 1993*, SCH No. 91092060, July 19, 1993, p. 249.

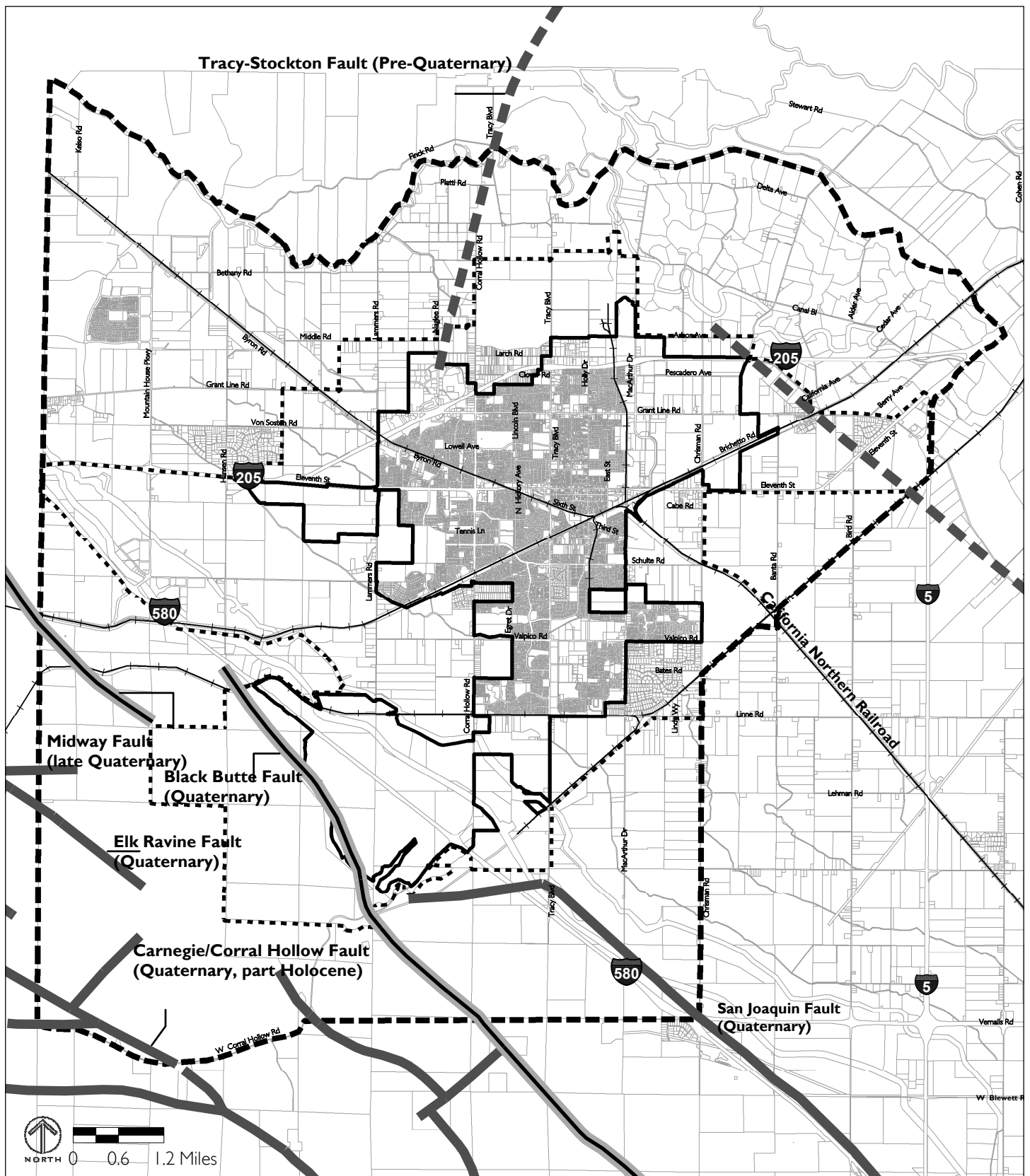
¹¹ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan 1993*, SCH No. 91092060, July 19, 1993, p. 250.

- ◆ Quaternary Younger Alluvium underlies most of the area northeast of the canals and consists of unconsolidated gravels, sands and clays.
- ◆ Quaternary Older Alluvium underlies the older alluvial fans and consists of slightly coarser sediments than younger alluvium.
- ◆ Tulare Formation outcrops in the southeast portion of the site and consists of gravels, sands, and clays. It contains the Corcoran Clay Member, which is a regionally occurring aquitard.
- ◆ Neroly Formation is a generally resistant unit consisting of alternating thick-bedded to massive layers of moderately well-cemented blue-grey argillaceous sandstone and well-cemented conglomerate. The Neroly Formation appears to be the predominant units underlying the uplands area.
- ◆ Moreno Shale is a shale unit which forms smooth-sided slopes primarily in the central portion of the uplands. Clayey soils occur over this less resistant unit. Soil development appears to extend to a greater depth than in other uplands units and outcrop exposures of the Moreno Shale are less common.
- ◆ Panoche Formation consists of well-cemented sandstone interlayered with less resistant sandstone and grey shale. The Panoche Formation outcrops only occasionally in the uplands area.¹²

4. Seismicity, Faults and Fault Zones

The major active faults that are closest to, but outside of the Tracy Planning Area, have historically been the source of earthquakes felt in Tracy, including the San Andreas, Calaveras, Hayward, and Greenville faults. As shown in Figure 4.11-1, data from the State Department of Conservation and the U.S. Geological Survey indicate that there are six faults in the Tracy Planning Area, five of which are located near the edges of the proposed Sphere of Influence. The Tracy-Stockton fault, a Pre-Quaternary fault that passes

¹² Dames & Moore, *Geologic Hazards Assessment, Urban Growth Management Plan, City of Tracy, CA*, July 31, 1991, pp. 3-4.



- | | | | |
|--|-------------------------------------|--|------------------------------------|
| | Proposed Sphere of Influence | | Approximately located fault |
| | City limits | | Certain fault location |
| | Planning Area | | Concealed fault location |

FIGURE 4.11-1

REGIONAL EARTHQUAKE FAULTS

Data Sources:
 Fault locations: "GIS Data for the Geologic Map of California," California Dept. of Conservation, Division of Mines and Geology (2000); and "Recent Earthquake Activity, California-Nevada," U.S. Geological Survey (<http://quake.usgs.gov/recenteqs/latest.htm>; accessed 7/6/05).
 Fault Names: "Final Environmental Impact Report for the City of Tracy Urban Management Plan" (1993).

beneath the City of Tracy in the deep subsurface, is considered inactive.¹³ The five other faults are located in the southwestern portion of the Tracy Planning Area. The Black Butte fault is a Quaternary fault. The Midway and San Joaquin faults are classified as late Quaternary faults, and the Carnegie/Corral Hollow fault which runs along the southern boundary of the Lawrence Livermore National Laboratory Site 300, is classified as Quaternary, with a portion as Holocene.¹⁴ The Elk Ravine fault, which is considered inactive, lies between the Carnegie/Corral Hollow, Black Butte and Midway faults.¹⁵

As noted above, the California Geologic Survey does not list Tracy or San Joaquin County on its list of cities and counties affected by Alquist-Priolo Earthquake Fault Zones, as of May 1, 1999.¹⁶

5. Seismic and Geologic Hazards

This section describes known potential geologic and seismic hazards in the Tracy Planning Area.

The strength of an earthquake that can occur along a fault is generally expressed in two ways: *magnitude* and *intensity*. Magnitude, which is expressed in whole numbers and decimals (e.g. 7.1), is a measure that depends on the seismic energy radiated by the earthquake as recorded on seismographs. The original magnitude scale is the Richter scale.¹⁷ Earthquakes with magnitude of about 2.0 or less on the Richter scale are usually called microearthquakes

¹³ Dames & Moore, *Geologic Hazards Assessment, Urban Growth Management Plan, City of Tracy, CA*, 7/31/91.

¹⁴ Information obtained from both the *Northeast Industrial Concept Development Plan DEIR* and the *Tracy Hills Specific Plan, Appendix D*.

¹⁵ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan 1993*, SCH No. 91092060, 7/19/93, p. 252.

¹⁶ <http://www.consrv.ca.gov/CGS/rghm/ap/affected.htm>; accessed on 6/26/05.

¹⁷ California Geological Survey, *How Earthquakes and Their Effects are Measured*, Note 32, Revised April 2002.

and are not commonly felt by people. Events with magnitudes of about 4.0 and up are felt by most people. The Richter Scale has no upper limit and is not used to express damage.

The most commonly used magnitude scale today is the Moment Magnitude (Mw) scale, which is related to the physical size of fault rupture and the movement across a fault. Mw is based on the seismic moment¹⁸ at the source, or epicenter, of the earthquake. The Moment Magnitude scale is a way of rating the seismic moment of an earthquake with a simple, logarithmic numerical scale similar to the original Richter magnitude scale. Because it does not “saturate” the way local magnitude does; in other words, there is no particular value beyond which all large earthquakes have about the same magnitude. Thus, the Moment Magnitude scale is used for large earthquakes—those that would have a local magnitude of about 6.0 or larger.¹⁹

The force of an earthquake at a particular place is measured on the Modified Mercalli Intensity Scale, which is a subjective ranking of earthquakes’ effects on persons and structures. It is expressed in Roman numerals from I to XII. Lower numbers on the scale indicate less severe shaking. Table 4.11-1 summarizes the Modified Mercalli Intensity Scale in relation to the Richter Scale.

a. Ground Shaking

Earthquake ground shaking is the source of the most widespread earthquake damage. The intensity of ground shaking can be several times larger on sites underlain by thick deposits of saturated sediments than on bedrock.

¹⁸ The seismic moment of an earthquake is determined by the strength or resistance of rocks to faulting multiplied by the area of the fault that ruptures and by the average displacement that occurs across the fault during the earthquake. (Source: California Geological Survey, *How Earthquakes and Their Effects are Measured*, Note 32, Revised April 2002.)

¹⁹ Sources: California Geological Survey, *How Earthquakes and Their Effects are Measured*, Note 32, Revised April 2002; <http://www.scecdc.scec.org/Module/sec3pg19.html>; accessed on 6/26/05.

TABLE 4.11-1 **MODIFIED MERCALLI AND RICHTER SCALES**

Richter Magnitude	Modified Mercalli Category	Expected Modified Mercalli Maximum Intensity at Epicenter
2	I-II	Usually detected only by instruments
3	III	Felt indoors
4	IV-V	Felt by most people Slight damage
5	VI-VII	Felt by all Many frightened and run outdoors Damage minor to moderate
6	VII-VIII	Everybody runs outdoors Damage moderate to major
7	IX-X	Major damage
8+	X-XII	Total and major damages

Source: ABAG (<http://www.abag.ca.gov/bayarea/eqmaps/doc/mmi.html>; accessed on 7/6/05)

The amount of ground shaking at a particular site depends on:

- ◆ Characteristics of the earthquake source (magnitude, location and area of causative fault surface)
- ◆ Distance from the fault
- ◆ Amplification effects of local geologic deposits

The Tracy area has a low-to-moderate seismic history. The largest recorded measurable magnitude earthquake in Tracy measured 3.9 on the Richter scale.²⁰ The greatest potential for significant ground shaking in Tracy is believed to be from maximum credible earthquakes occurring on the Calaveras, Hayward, San Andreas or Greenville faults. Possible recent movement on

²⁰ *Northeast Industrial Concept Development Plan DEIR*, 1996, p.4.16.

the Carnegie/Corral Hollow fault could mean that there is potential for significant ground shaking from a maximum credible earthquake on this fault as well. Current data from Lawrence Livermore Laboratory estimate the maximum credible earthquake likely to be assigned to the Carnegie/Corral Hollow fault will be around M6.5 on the Richter scale.²¹ The potential for activity on the Black Butte and Midway faults is uncertain at this time.²² As reported in the 1993 *Urban Management Plan* (UMP) EIR, and confirmed by additional studies, the maximum expected seismic event in the Tracy area would register 7.0 on the Richter scale.^{23,24}

b. Ground Rupture

Ground rupture due to earthquakes occurs along fault lines. Since no known active faults pass through Tracy, no portion of the city is thought to be subject to ground rupture. The Black Butte, Midway, Elk Ravine, Carnegie Corral Hollow²⁵ and San Joaquin Faults, which lie to the south and southwest of the Tracy, represent possible fault rupture hazards in the Tracy Planning Area.²⁶

²¹ Information obtained from both the *Northeast Industrial Concept Development Plan DEIR* and the *Tracy Hills Specific Plan, Appendix D*.

²² *Tracy Hills Specific Plan*, Appendix D, page D-1, June 1998.

²³ *Northeast Industrial Concept Development Plan DEIR*, 1996, p. 4.18.

²⁴ The Department of Conservation Division of Mines and Geology reassessed the Tracy's seismic exposure after completion of the UMP EIR and identified the thirty-kilometer Coast Range-Central Valley blind-thrust fault zone along the western edge of the valley. The characteristic earthquake magnitude for this fault segment involves a potential Moment Magnitude Mw 6.7 corresponding with a close epicentral distance of seven to eight kilometers. The reassessment does not exceed the estimated maximum earthquake potential for Tracy as described in the UMP EIR.

²⁵ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan 1993*, SCH No. 91092060, 7/19/93, p. 245.

²⁶ "Recent Earthquake Activity, California-Nevada", U.S. Geological Survey (<http://quake.usgs.gov/recenteqs/latest.htm>, accessed on 7/6/05).

c. Unreinforced Masonry Buildings (URMs)

Unreinforced masonry buildings, which are built of brick, stone or concrete without structural steel reinforcements, represent a particular earthquake hazard since they can easily collapse during an earthquake.

In 1986, a bill was passed in the California State Legislature requiring inspection and mitigation of all types of Unreinforced Masonry (URM) buildings within the State's Seismic Safety Zone 4. This bill has since been codified as Government Code Sec. 8875 et seq. The law requires cities to identify potentially hazardous URM buildings, develop mitigation programs to reduce the hazards and submit the results to the State Seismic Safety Commission. As noted, above, the majority of Tracy is located within Seismic Zone 3, and all of the unreinforced masonry buildings within the City limits and SOI lie within this zone. Portions of recently annexed land lie within Seismic Zone 4, but no structures of this type are located in this area.

d. Liquefaction

Liquefaction occurs when the strength of saturated, loose, granular materials, such as silt, sand or gravel, is dramatically reduced as a result of an earthquake. This earthquake-induced deformation transforms a stable material into a temporary fluid-like state in which solid particles are virtually in suspension, akin to quicksand.

Liquefaction is restricted to certain geologic and hydrologic environments, primarily recently deposited sands and silts in areas with high ground water levels. Generally, the younger and looser the sediment, and the higher the water table, the more susceptible the soil is to liquefaction. Sediments most susceptible to liquefaction include Holocene (less than 10,000-year-old) delta, river channel, flood plain, and aeolian deposits, and poorly compacted fills. Dense soils, including well-compacted fills, have low susceptibility to liquefaction.

The northern portion of the Tracy Planning Area has surficial soils that have low liquefaction potential. However, the underlying soils are relatively clean,

water-saturated sands and peats which have high liquefaction potential. The south central portion of the Tracy Planning Area is moderately susceptible liquefaction due to loose, coarse-grained deposits.²⁷

e. Landslides and Ground Failure

Landslides are common in hill areas and mountains as loose material moves down the slopes. Some of the natural causes of this instability are earthquakes, weak materials, stream and coastal erosion, and heavy rainfall. In addition, certain human activities tend to make earth materials less stable and increase the chance of ground failure. Activities contributing to instability include extensive irrigation, poor drainage or groundwater withdrawal, removal of stabilizing vegetation and over-steepening of slopes by undercutting them or overloading them with artificial fill. These causes of failure, which normally produce landslides and differential settlement, are augmented during earthquakes by strong ground motion.

The landslide risk in Tracy is low in most areas. In the wider Tracy Planning Area, some limited potential for risk exists for grading and construction activities in the foothills and mountain terrain of the upland areas in the southwest. The potential for small scale slope failures along river banks also exists.²⁸

f. Land Subsidence

Land subsidence, or settlement, is a slow-to-rapid downward movement of the ground surface that can be caused by a variety of factors. Typically, significant subsidence occurs only in areas underlain by soft soils such as marsh deposits or in areas susceptible to liquefaction. Area subsidence potential has not been documented in the Tracy Planning Area. However, due to shallow groundwater levels and soft and peaty soils in the vicinity of the Old River

²⁷ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan 1993*, SCH No. 91092060, 7/19/93, p. 246.

²⁸ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan 1993*, SCH No. 91092060, 7/19/93, p. 245.

and Paradise Cut and Tom Paine Sloughs, there is the potential for subsidence in these areas.²⁹

g. Soil Hazards

Soil types found in the Tracy Planning Area are shown in Figure 4.11-2 and listed in Table 4.11-2. The dominant soil types found within Tracy's Sphere of Influence (SOI) include Capay Clay and Capay-Urban Land Complex and Stomar Clay Loam. Other soil types within Tracy's SOI include the following:

- ◆ Calla-Carbona complex, 8 to 30 percent slopes (CGE/CZE)
- ◆ Carbona clay loam, 2 to 8 percent slopes (AC)
- ◆ Zacharias gravelly clay loam, 0 to 2 percent slopes (LR)
- ◆ Zacharias clay loam, 0 to 2 percent slopes (LS)

The majority of Tracy is on flat land with little risk of erosion. However, there is potential for the loss of topsoil with any development that occurs on hillsides because the removal of vegetation can increase erosion. As noted in Table 4.11-2, soil types, such as the Calla Carbona complex and Carbona Clay Loam, are more susceptible to erosion and are found in the Tracy Hills area.

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement and distorting structural elements. Expansion is a characteristic of clay-type soils such as those found in a large portion of Tracy.³⁰ In particular, portions of the Tracy Planning Area to the north and west of Tracy, and soils in the vicinity of I-580 have high shrink/swell potential. Areas within Tracy and soils in the upland areas exhibit moderate shrink/swell potential.³¹

²⁹ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan 1993*, SCH No. 91092060, 7/19/93, p. 247.

³⁰ San Joaquin Council of Governments, *2001 RTP Program EIR*, September 2001, p.3.9-5.

³¹ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan 1993*, SCH No. 91092060, 7/19/93, p. 246.

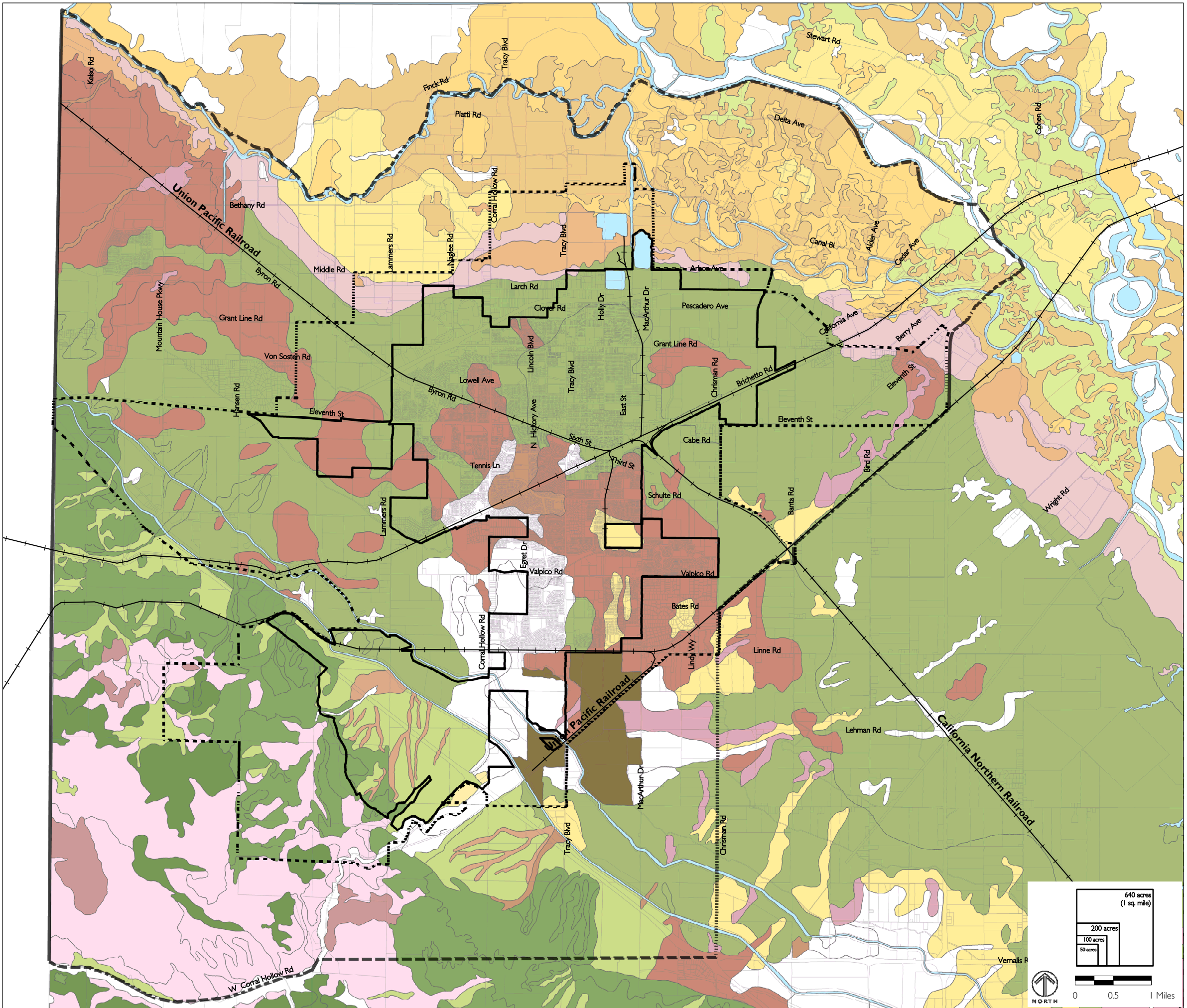
B. Standards of Significance

The City of Tracy General Plan would result in a significant geologic or seismic impact if it would:

- ◆ Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
 - Seismic-related ground failure, including liquefaction.
 - Landslides.
- ◆ Result in substantial soil erosion or the loss of topsoil.
- ◆ Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- ◆ Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
- ◆ Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

FIGURE 4.11-2

TRACY AREA
SOIL CLASSIFICATIONS



- | | |
|------------------------|----------|
| AVE; AVF | PD |
| CNC; CZF; CGE/CZE; CNE | PLC |
| CP; CPB; CS; CPU | RK |
| AC; ZAF | RM; RW |
| CC; CB | VZE |
| ZP | VR |
| EB | WA |
| BR | GAF; GAG |
| FC | LS; LR |
| GC; GV | WATER |
| ME | GP |

- City Limit
- Proposed Sphere of Influence
- Planning Area

Data Source: California Soil Conservation Service.

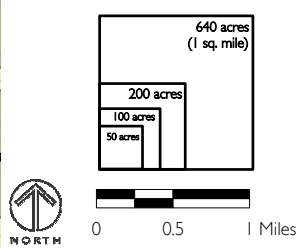


Figure 4.11-2 Tracy Area Soil Classifications 11x17 color BACK

TABLE 4.11-2 **SOIL TYPES IN THE TRACY PLANNING AREA, SAN JOAQUIN COUNTY**

Soil Name	LCC
Alo-Vaquero complex, 8 to 30 percent slopes (AVE)	IVe
Alo-Vaquero complex, 30 to 50 percent slopes (AVF)	VIe
El Solyo Clay Loam, 0 to 2 percent slopes (BR)	IVs
Carbona clay loam, 2 to 8 percent slopes (AC)	IVe
Columbia fine sandy loam, drained, 0 to 2 percent slopes (CB)	IVs
Columbia fine sandy loam, clayey substratum, partially drained, 0 to 2 percent slopes (CC)	IVw
Calla clay loam, 2 to 8 percent slopes (CNC)	IVe
Calla-Pleito complex, 8 to 30 percent slopes (CNE)	IVe
Capay clay, 0 to 2 percent slopes (CP)	IVs
Capay clay, 2 to 5 percent slopes (CPB)	IVe
Capay-Urban land complex, 0 to 2 percent slopes (CPU)	IVs
Capay clay, saline-sodic, 0 to 2 percent slopes (CS)	IVw
Calla-Carbona complex, 8 to 30 percent slopes (CGE/CZE)	IVe
Calla-Carbona complex, 30 to 50 percent slopes (CZF)	VIe
Egbert silty clay loam, partially drained, 0 to 2 percent slopes (EB)	IVw
Fluvaquents, 0 to 2 percent slopes, frequently flooded (FC)	VIIw
Wisflat-Arburua-San Timoteo complex, 30 to 50 percent slopes (GAF)	VIIe
Wisflat-Arburua-San Timoteo complex, 50 to 75 percent slopes (GAG)	VIIe
Grangeville clay loam, partially drained, 0 to 2 percent slopes (GC)	IVw
Pits, gravel (GP)	
Grangville fine sandy loam, partially drained, 0 to 2 percent slopes (GV)	IVw

TABLE 4.11-2 (CON'TD) **SOIL TYPES IN THE TRACY PLANNING AREA, SAN JOAQUIN COUNTY**

Soil Name	LCC
Zacharias gravelly clay loam, 0 to 2 percent slopes (LR)	IV _s
Zacharias clay loam, 0 to 2 percent slopes (LS)	IV _c
Merritt silty clay loam, partially drained, 0 to 2 percent slopes (ME)	IV _w
Pescadero clay loam, partially drained, 0 to 2 percent slopes (PD)	IV _w
Pleito clay loam, 2 to 8 percent slopes (PLC)	IV _e
Reiff loam, 0 to 2 percent slopes (RK)	IV _s
Stomar clay loam, 0 to 2 percent slopes (RM)	IV _s
Stomar clay loam, 0 to 2 percent slopes (RW)	IV _w
Vaquero-Cabona complex, 8 to 30 percent slopes (VZE)	VI _e
Vemalia clay loam, 0 to 2 percent slopes (VR)	IV _e
Water (W)	
Willows clay, partially drained, 0 to 2 percent slopes (WA)	IV _w
Carbona complex, 15 to 50 percent slopes (ZAF)	VI _e
Dumps (ZP)	

LCC = Land Capability Classification

Class I: few limitations that restrict their use

Class II: some limitations that reduce the choice of plants or require moderate conservation practices

Class III: severe limitations that restrict choice of plants or require special conservation practices or both.

Class IV: severe limitations that restrict choice of plants, require very careful management or both.

Class V: have little or no erosion hazard but have other limitations impractical to remove that limit their use largely to pasture range, woodland or wildlife food.

Class VI: have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture or range, woodland, or wildlife food and cover.

Class VII: have limitations that preclude their use for commercial plant production and restrict their use to recreation, wildlife, or water supply or to aesthetic purposes.

e = erosion and runoff

w = excess water

c = climatic limitations

s = root zone limitations

Source: California Soil Conservation Service

C. Impact Discussion

Increased development proposed under the General Plan could increase the number of people and building exposed to geologic hazards. The proposed General Plan Update includes a series of policies and actions within the Safety Element to minimize harm from geologic hazards such as earthquakes.

1. Ground Shaking

Ground shaking may pose a risk to increased numbers of people and property in Tracy resulting from the proposed General Plan, and can elevate risk if buildings are not properly designed for seismic safety. Development in the city must comply with the California Uniform Building Code (UBC), which outlines standards for seismic design, foundations and drainage and requires that geotechnical engineering studies be undertaken for any development in areas where potentially serious geologic risks exist (Objective SA-1.1, P1). Compliance with the UBC is already required by City ordinance and would also be required under the proposed General Plan's Objective SA-1.2, P2 that require all construction to conform to the UBC and also requires geotechnical reports to be prepared for areas where potentially serious geologic hazards exist. Because of these policies, the implementation of the proposed General Plan would reduce the impact of ground shaking to people and structures and would not result in significant impacts.

2. Ground Rupture

There is however a slight risk of ground rupture within the southwest portion of the Tracy Planning Area, in the Tracy Hills area, due to the existence of the Black Butte fault line which runs in a northwest-southeast direction at the southern edge of area proposed for development. However, as there is little or no new development proposed in the General Plan for this area. Moreover, the Tracy Hills Specific Plan EIR includes mitigations that state that any development near the Black Butte and Midway faults should have adequate setbacks as a precaution. Thus, no significant impact associated with ground rupture is expected.

3. Unreinforced Masonry Buildings

A risk associated with ground shaking in Tracy is the failure or collapse of buildings built of unreinforced masonry. Although there are several of these buildings in Tracy, particularly in the downtown area, they are located within Seismic Zone 3, and are therefore not required by law to be part of a retrofit plan. Nevertheless, in the interest of safety, the proposed General Plan outlines a policy that requires all buildings to comply with the California Uniform Building Code (UBC), in order to protect life and property from seismic hazards (Objective SA-1.2, P1).

4. Liquefaction

For the most part Tracy is at low risk for liquefaction, except for the river banks of rivers within the Tracy Planning Area. Objective SA-1.1 states that geologic hazards should be minimized. The Safety Element contains a policy requiring that geotechnical engineering studies be undertaken for any development in areas where potentially serious geologic risks exist (Objective SA-1.1, P1), which would include liquefaction. The implementation of this policy would reduce the potential risk of liquefaction to a less-than-significant level.

5. Landslides and Ground Failure

Due to the relatively flat land in most of Tracy's Planning Area, the implementation of the proposed General Plan would not result in a significant impact to the risk of landslides or ground failure. The proposed Tracy Hills Specific Plan locates single-family housing on the hillsides southwest of the City limits, but has completed a separate environmental impact report that contains mitigation measures to address any significant impacts to the risk of landslides or ground failure. Therefore, no significant impact associated with landslides and ground failure is anticipated.

6. Land Subsidence

Tracy is at low risk for land subsidence, except for the river banks of rivers within the Tracy Planning Area. Objective SA-1.1 states that geologic hazards should be minimized. The Safety Element contains a policy requiring

that geotechnical engineering studies be undertaken for any development in areas where potentially serious geologic risks exist (Objective SA-1.1, P1), which would include land subsidence. The implementation of this policy would reduce the potential risk of land subsidence to a less-than-significant level.

7. Soil Hazards

The proposed General Plan contains policies to address the wide variety of potential impacts to soils in the area as they relate to geologic hazards and erosion.

a. Soil Erosion

Although the majority of Tracy is on flat land with little risk of erosion, there is potential for the loss of topsoil with any development that occurs on hillsides because the removal of vegetation can increase erosion. There is not any development proposed for the hillsides except for the Tracy Hills development, which completed a separate environmental impact report and contains mitigation measures to address any significant impacts to topsoil. Therefore, the implementation of the proposed General Plan would not result in a significant impact to topsoil and erosion.

b. Soil Expansion

Tracy does have a moderate to high risk for expansive soils, depending on the location and soil type. Implementation of the proposed General Plan would increase the number of people and structures potentially exposed to expansive soils and would thus result in potentially significant impacts. The Safety Element contains an objective to minimize geologic hazards, and a policy to require geotechnical reports for all development proposed in areas with risk of geological hazard (Objective SA-1.1, P2). Therefore, the implementation of the General Plan policy would reduce the potential impact related to the risk of soil expansion to less-than-significant.

c. Soil Capacity and Septic Systems

Objective PF 7.1, P3 directs all new “habitable structures” within the City limits must connect to the City’s wastewater collection system. Objective PF 7.3, P6 states that prior to any development approvals within an Urban Reserve in the city, wastewater master planning and treatment and disposal studies—funded by the proponents of the development—must be completed to demonstrate how adequate wastewater treatment will be provided for the area in question. Objective PF 7.3, P5 also requires that new development must fully fund the cost of new wastewater treatment and disposal facilities. As a result, no new septic or alternative wastewater systems would be allowed under the proposed General Plan and no impact associated with soil capacity to support these systems would occur.

D. Impacts and Mitigation Measures

Since no significant impacts were identified, no mitigation measures are required.

4.12 HYDROLOGY AND FLOODING

This section summarizes information on hydrology and flooding in the City of Tracy, and provides an evaluation of the effects the proposed General Plan would have on hydrologic resources and flooding.

A. Existing Setting

Tracy is located within the San Joaquin River drainage system and typically receives lower amounts of rainfall relative to other locations within the region. Typical annual precipitation in the Tracy area is about 10 inches, which occurs primarily from November to April.

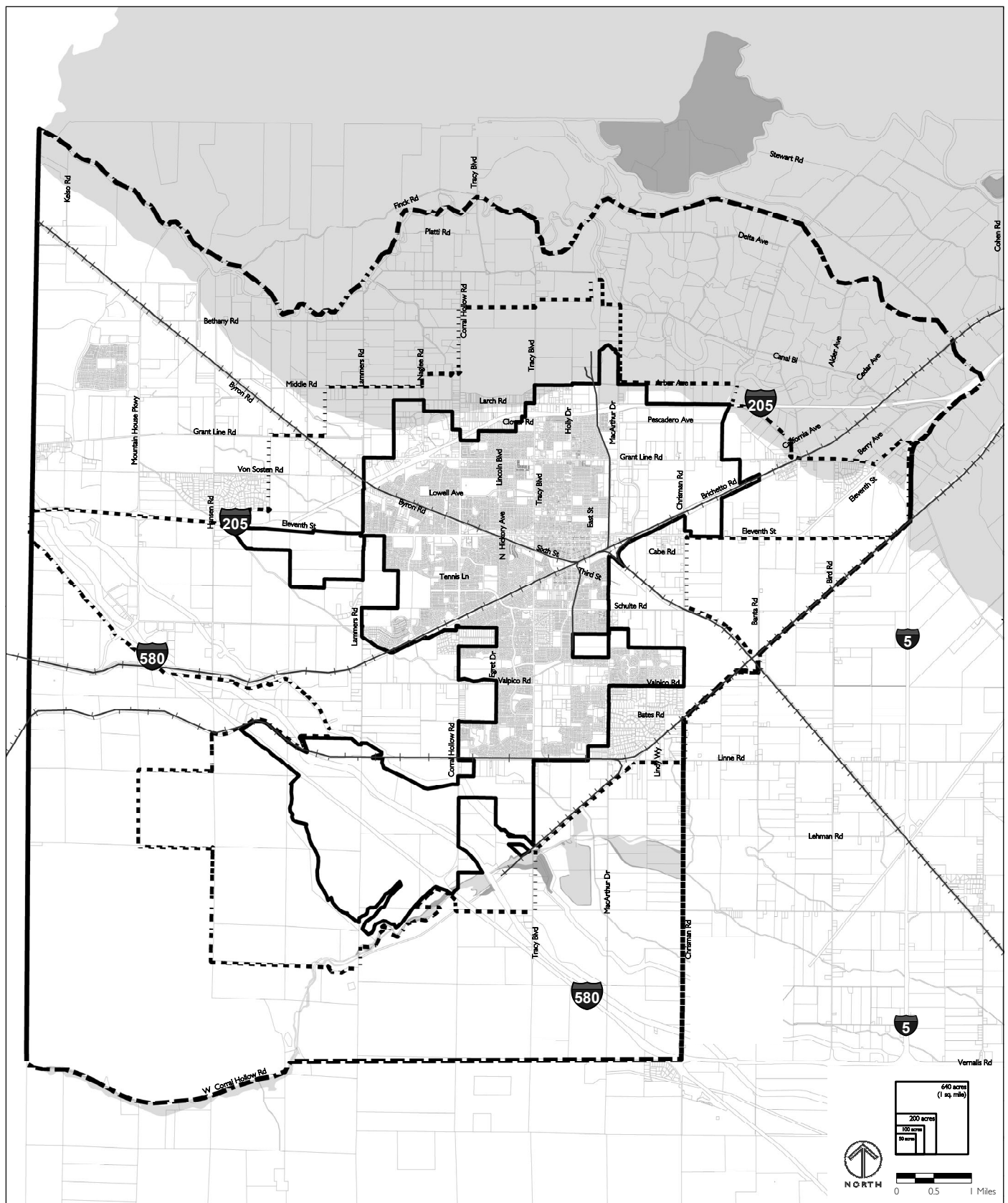
Natural drainages and major man-made drainage and water conveyance facilities in the Tracy Planning Area include the Old River, Tom Paine Slough, Corral Hollow Creek, the California Aqueduct, Delta-Mendota Canal, and the Upper and Lower Main Canals. The natural streams and rivers are generally located on the north side of the City and outside the proposed Sphere of Influence (SOI).

1. 100-Year Floodplains

Floodplain zones are determined by the Federal Emergency Management Agency (FEMA) and used to create Flood Insurance Rate Maps (FIRMs). These tools assist cities in mitigating flooding hazards through land use planning. FEMA also outlines specific regulations for any construction, whether residential, commercial, or industrial within 100-year floodplains.¹

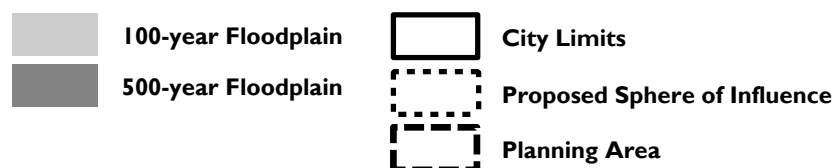
The most recent FIRM for the City of Tracy is dated June 18, 1987. As shown in Figure 4.12-1, the majority of land within the City limits is outside of the 100-year floodplains (Zone X). The northern portion of the Tracy Planning Area falls within FIRM Zone A, which indicates the 100-year flood

¹ The 100-Year floodplain is the area that has a one percent chance of being inundated during any particular 12-month period. The risk of this area being flooded in any century is one percent but statistically the risk is almost 40 percent in any 50-year period.



Data Source: Q3 Flood Data derived from Flood Insurance Rate Maps published by the Federal Emergency Management Agency (FEMA); San Joaquin data set published in 1996.

FIGURE 4.12-1



FLOODPLAINS IN THE PLANNING AREA

plain. This area covers the northern portion of the proposed SOI, including the Holly Sugar area, parts of Larch Clover, the area just north of the Northeast Industrial Area and Urban Reserve 3, as well as a small part of the City limits in the vicinity of the I-205 Regional Commercial area.

Lands within the FEMA-designated 100-year floodplain or Zone A are subject to mandatory flood insurance purchase as required by FEMA. The insurance rating is based on the difference between the base flood elevation (BFE), the average depth of the flooding above the ground surface for a specific area, and the elevation of the lowest floor. Because Tracy participates in the National Flood Insurance Program, it must require development permits to ensure that construction materials and methods will mitigate future flood damage. New construction and substantial improvements of residential structures are also required to “have the lowest floor (including the basement) elevated to or above the base flood level.” Non-residential structures must have their utility systems above the BFE or be of flood-proof construction.

2. Dam Failure

Some areas in the northern portion of the Tracy Planning Area have the potential to be affected by dam failure inundation such as from the San Luis Reservoir, New Melones and New Exchequer dams, as shown in Figure 4.12-2. The northern most portion of the Sphere of Influence and the City limits fall within areas that could be potentially affected by dam inundation, including the Holly Sugar property and the northern portions of Larch Clover and Urban Reserves 1 and 3.

In addition, portions of San Joaquin County could be subject to flooding due to seiches resulting in levee failure. However, the City of Tracy is not in close proximity to the areas most likely to be affected.²

3. Tsunamis and Seiches

A tsunami is a large sea wave generated by earthquakes. These waves travel

² SJCOG, 2001 RTP Program EIR, September 2001, p. 3.9-8.

across the ocean at hundreds of miles an hour and are capable of causing waves cresting tens of feet high. Since Tracy has no ocean frontage and is located inland across several mountain ranges from the ocean, the risk of a tsunami is very low.³ A seiche is a wave generated in a bay or lake, which can be compared to the back-and-forth sloshing of water in a tub. Seiches can be caused by winds, changes in atmospheric pressure, underwater earthquakes, or landslides into the water. Bodies of water including reservoirs, ponds, and swimming pools are likely to experience seiche waves up to several feet in height during a strong earthquake. Portions of San Joaquin County could be subject to flooding due to tsunamis or seiches resulting in levee failure. However, Tracy is not in close proximity to the areas most likely to be affected.⁴ Some potential seiche risk has been identified for the Tracy Planning Area due to overtopping of the San Luis Reservoir dam or other enclosed body of liquid during a seismic event. Also, the hillsides in the southwest portion of the Tracy Planning Area could be at risk for mudflows as a result of a seiche. The hazard level corresponds to the level of hazard for ground shaking.⁵

B. Standards of Significance

The proposed Tracy General Plan would have a significant impact to flooding or hydrology if it would:

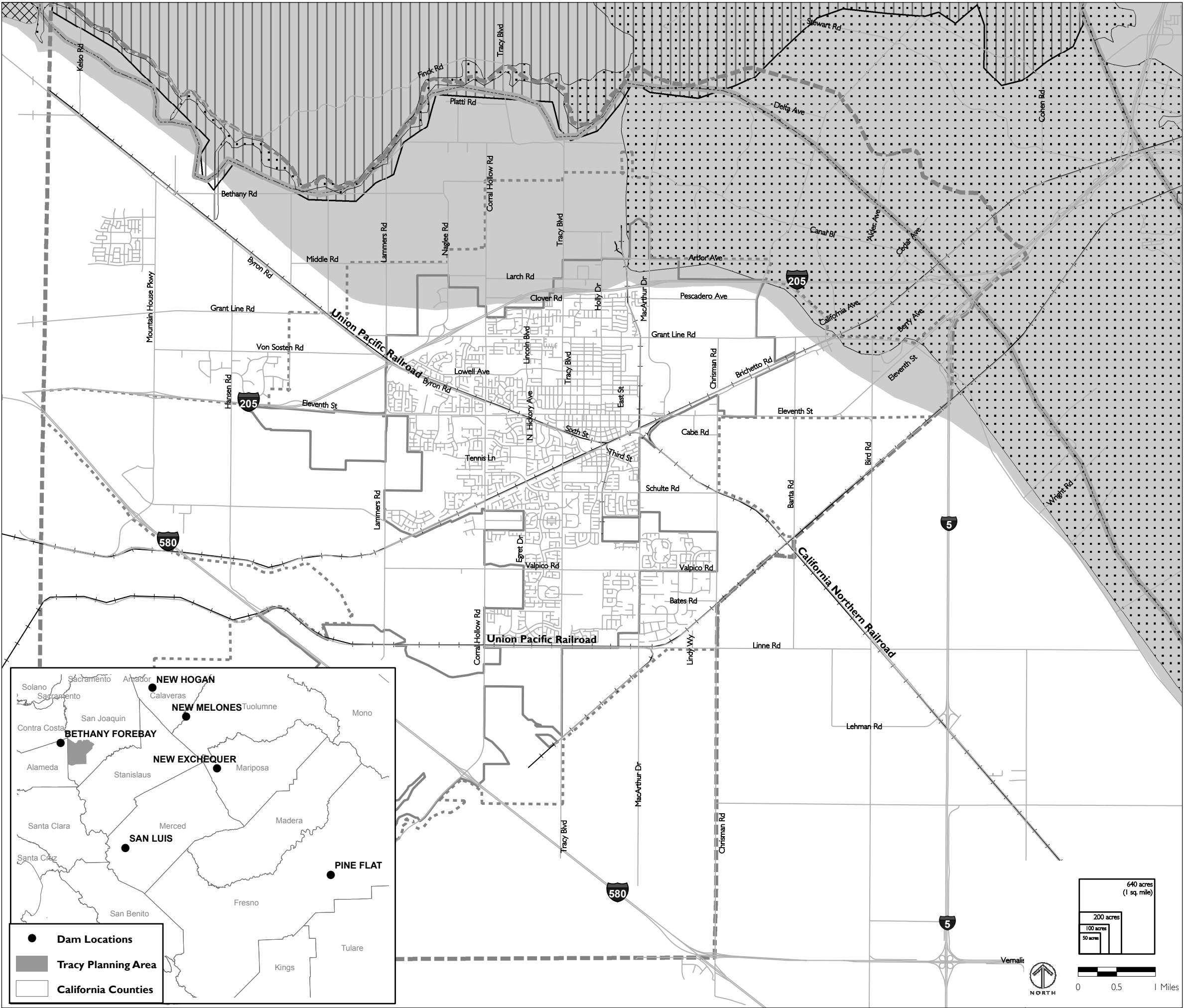
- ◆ Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion, siltation or flooding on- or off-site.

³ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan 1993*, SCH No. 91092060, July 19, 1993, p. 247.

⁴ San Joaquin Council of Governments, *2001 RTP Program EIR*, September 2001, p. 3.9-8.

⁵ City of Tracy, *Final Environmental Impact Report for the City of Tracy Urban Management Plan/General Plan 1993*, SCH No. 91092060, July 19, 1993, p. 247.

FIGURE 4.12-2



DAM INUNDATION RISK AREAS

- City Limit
- Proposed Sphere of Influence
- Planning Area
- Areas at risk for inundation from failure of San Luis Reservoir and New Melones Dam
- Areas at risk for inundation from failure of Bethany Dam
- Areas at risk for inundation from failure of Pine Flat Dam
- Areas at risk for inundation from failure of New Hogan Dam
- Areas at risk for inundation from failure of New Exchequer Dam

Note: This map depicts six overlapping areas that are at risk for inundation in the event of dam failures. To aid in legibility, the solid shaded area represents the most extensive extent of inundation (San Luis Reservoir and New Melones Dam). The hatched and dotted areas represent inundation areas for other dams.

Data Source: State of California, Governor's Office of Emergency Services, 2000.

Figure 4.12-2 Dam Inundation Risk Areas (11x17, B/W) FRONT

Figure 4.12-2 Dam Inundation Risk Areas (11x17, B/W) BACK

- ◆ Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
- ◆ Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- ◆ Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
- ◆ Be impacted by inundation by seiche, tsunami or mudflow.

C. Impact Discussion

The proposed General Plan includes specific goals, objectives, policies and actions to address potential impacts related to hydrology and flooding. Storm drainage impacts and mitigation measures are discussed in Section 4.10 of this Draft EIR. The greatest flooding risks to the Tracy Planning Area exist as a result of flooding from the Tom Paine Slough and Old River and the failure of the San Luis Reservoir, New Melones and New Exchequer dams.

a. Flooding

The majority of the urbanized area of Tracy is outside of the 100-year floodplain and thus would not be at risk to flooding hazards. As is discussed above, there are areas in the northern portion of the City limits in the I-205 Regional Commercial area and just north of I-205 and the Northeast Industrial Area, and within the Sphere of Influence or Planning Area, that are within the 100-year floodplain. The proposed General Plan does anticipate some non-residential development for some of these areas within the 20-year planning horizon of this General Plan, which could result in a significant impact related to flooding.

To minimize the risk of exposing people or property to flood hazards, the proposed General Plan includes a goal and an objective, supported by several

policies and actions to minimize risks to development related to flooding and inundation (Goal SA-2, Objective SA-2.1). This goal and objective includes a policy that would prohibit development in areas within the 100-year floodplain, as mapped by FEMA, if it would result in any increased flooding risk and impacts related to flooding, such as increasing erosion or sedimentation, increased costs to providing emergency services during and after flooding, deterioration of water quality, among other conditions. Other policies included under this goal and objective would require that development, including public facilities, within the 100-year floodplain be flood-proofed at or above the base year flood elevation, and that the City would prevent the construction of flood barriers that divert flood water or increase flooding in other areas (Objective SA-2.1, P2 and P3). A policy is also included to encourage property-owners within the 100-year floodplain to purchase National Flood Insurance (Objective SA-2.1, P3). Actions to support Objective SA 2.1 direct the City to continue to participate in the National Flood Insurance Program, to implement the City's existing *Storm Drainage Master Plan*, which provides storm drainage capacity sufficient to contain 100-year and 10-year flood flows under specific conditions, and to require structures that are allowed to be built in areas of flood risk to be built in a manner to minimize that risk (Objective SA-2.1, A1 through A3). Moreover, Chapter 9.52 of the Tracy Municipal Code establishes regulations limiting new construction in an area of special flood hazard. As a result, the implementation of the proposed General Plan and its policies would reduce the potential impact associated with exposure to the 100-year flood plain to a less-than-significant level.

b. Dam Failure

The failure of dams in the San Joaquin River floodplain in the event of an earthquake has the potential to create flooding in the northern portion of the Sphere of Influence (SOI) and in some areas within the City limits. Under the proposed General Plan, some of the areas in the northern edge of the City limits would be expected to develop with commercial and some industrial uses. A majority of the area within the SOI and outside of the City limits would not be developed and remain in agricultural use. Moreover, the pro-

posed General Plan states that development is not expected in Urban Reserve 1 within the 20-year planning horizon of this General Plan.

As, discussed above, the proposed General Plan includes policies and actions under Objective SA-2.1 that are intended to minimize flood risk to development, including prohibiting development to be located in the 100-year floodplain, as established by FEMA, unless certain conditions are met, and to continue to participate in the National Flood Insurance Program. As risk of dam failure is small, because the County continues to maintain the dam to withstand probable seismic activity, the potential impact of allowing additional development within the dam inundation area would be considered less-than-significant.

c. Drainage Patterns and Stream Alignments

Development proposed under the General Plan is not anticipated to significantly alter existing drainage patterns or stream alignments. First, no new development is located adjacent to existing streams or other waterways. Additionally, new development would not be approved within the 100-year flood plain if it interferes with existing waterflow capacity, increases erosion or sedimentation and contributes to the deterioration of any watercourse (Objective SA-2.1, P1). Several proposed General Plan policies and actions address the potential for new development to increase stormwater runoff, which could increase the risk of flooding. These policies and actions, which are discussed in more detail in Section 4.10 of this Draft EIR, would mitigate the potential for increased storm water runoff and flooding. Hence no significant impact would be expected.

d. Seiche and Tsunami

As previously mentioned, Tracy is at a low risk to seiche and tsunami and the implementation of the proposed General Plan is not expected to increase these risks. In addition, other than the Tracy Hills project, which was approved under a previous process, no new development is proposed in the hill-sides, where there is a risk of mudflow. Thus, no impact associated with seiche, tsunami or mudflow would be expected.

D. Impacts and Mitigation Measures

Since no significant hydrology or flooding-related impacts have been identified, no mitigation measures are required.

4.13 HAZARDOUS MATERIALS AND OTHER HAZARDS

This section summarizes information on hazardous materials, wildland fire hazards, airport safety and emergency preparedness in the City of Tracy, and provides an evaluation of the effects of the proposed General Plan on hazardous materials and these other hazards. Information on seismic and geological hazards can be found in Section 4.11 and information of flooding hazards is provided in Section 4.12.

A. Existing Setting

1. Hazardous Materials

Products as diverse as gasoline, paint solvents, film processing chemicals, household cleaning products, refrigerants and radioactive substances are categorized as hazardous materials. What remains of a hazardous material after use or processing is considered to be a hazardous waste. The handling, transportation and disposal of such waste is of concern to all communities. Improper handling of hazardous materials or wastes may result in significant effects to human health and the environment.

a. State, Federal and Local Regulations

Hazardous materials and hazardous wastes in Tracy are heavily regulated by a range of federal, State and local agencies. One of the primary hazardous materials regulatory agencies is the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC). DTSC is authorized by the U.S. Environmental Protection Agency (EPA) to enforce and implement federal hazardous materials laws and regulations.

San Joaquin County has prepared a Hazardous Material Area Plan, in accordance with the California Health and Safety Code (HSC) (Division 20, Chapter 6.95, §25500 et seq.) and California Code of Regulations (CCR) (Title 19, Article 3, §2270 et seq.). The Plan is designed to protect human health and the environment through hazardous materials emergency planning, response and agency coordination and community right-to-know programs. The Plan outlines the roles and responsibilities of federal, State and local agencies in

responding to hazardous material releases and incidents. The City of Tracy's Police and Fire Departments work with San Joaquin County to implement this plan.

The County Office of Emergency Services (OES) administers the Emergency Planning and Community Right-to-Know program for the Tracy Planning Area. Under Chapter 6.95 of the California Health and Safety Code and the Federal Resource Conservation and Recovery Act, any business storing quantities of hazardous materials greater than 55 gallons of liquid, 500 pounds of solid or 200 cubic feet of some compressed gasses must file a hazardous materials business plan annually that establishes incident prevention measures, hazardous material handling protocols and emergency response and evacuation procedures.

b. Sources of Hazardous Materials

Many businesses and residents in Tracy use hazardous materials and generate some amount of hazardous waste. The most common hazardous waste in Tracy are generated from gasoline service stations, dry cleaners, automotive mechanics, auto body repair shops, machine shops, printers and photo processors, and agriculture. Most of these wastes are petroleum-based or hydrocarbon hazardous waste and include cleaning and paint solvents, lubricants and oils. However, medical wastes, defined as potential infectious waste from sources such as laboratories, clinics and hospitals, are also included among the hazardous wastes found in Tracy. There are also numerous light and heavy industrial users that use hazardous materials and generate hazardous waste throughout the City and Sphere of Influence.

Household hazardous waste also poses a threat to human health and the environment. As such, San Joaquin County operates a household hazardous waste facility at the Stockton airport that is open to Tracy residents. The City of Tracy also facilitates that process by sponsoring local hazardous waste collection sites on a periodic basis.

c. Transportation

Hazardous materials are primarily transported through the major corridors running through the Tracy Planning Area including, I-205, I-580, I-5, and Eleventh Street. Hazardous materials are also carried on the rail lines in the City. Transportation of hazardous materials on roadways and rail lines is highly regulated by the U.S. Department of Transportation and federal safety standards are also included in the California Administrative Code. The risk to public health and the environment is present in the case of a crash on the roadways or rail lines involving hazardous materials in and around the City.

d. Superfund Sites

The Superfund Program was established by the EPA in 1980 to locate, investigate, and clean up the worst sites nationwide contaminated by hazardous waste. EPA selects these sites based on the evaluation of factors such as: human health and environmental risk; immediacy of any needed response; projected expenses to the Fund; ability to maintain a strong enforcement program; leverage of other cleanups; and the level of support for listing from the local government and community. The EPA has listed two hazardous waste sites on the Superfund National Priorities List (NPL) within the Tracy Planning Area. One is the Tracy Defense Depot, which is located on the east side of Tracy, on Chrisman Road between Valpico and Schulte Roads.¹ The second one is the Lawrence Livermore National Lab (Site 300), which is located in the southwest corner of the Tracy Planning Area.² Both sites currently have human exposure under control, but have not yet mitigated effects to the groundwater migration.

2. Wildland Fires

The risk of wildland fires is related to a combination of factors, including winds, temperatures, humidity levels and fuel moisture content. Of these

¹ <http://cfpub.epa.gov/supercpad/cursites/csitinfo.cfm?id=0902762>;
accessed on 7/6/05.

² <http://cfpub.epa.gov/supercpad/cursites/csitinfo.cfm?id=0902742>;
accessed on 7/6/05.

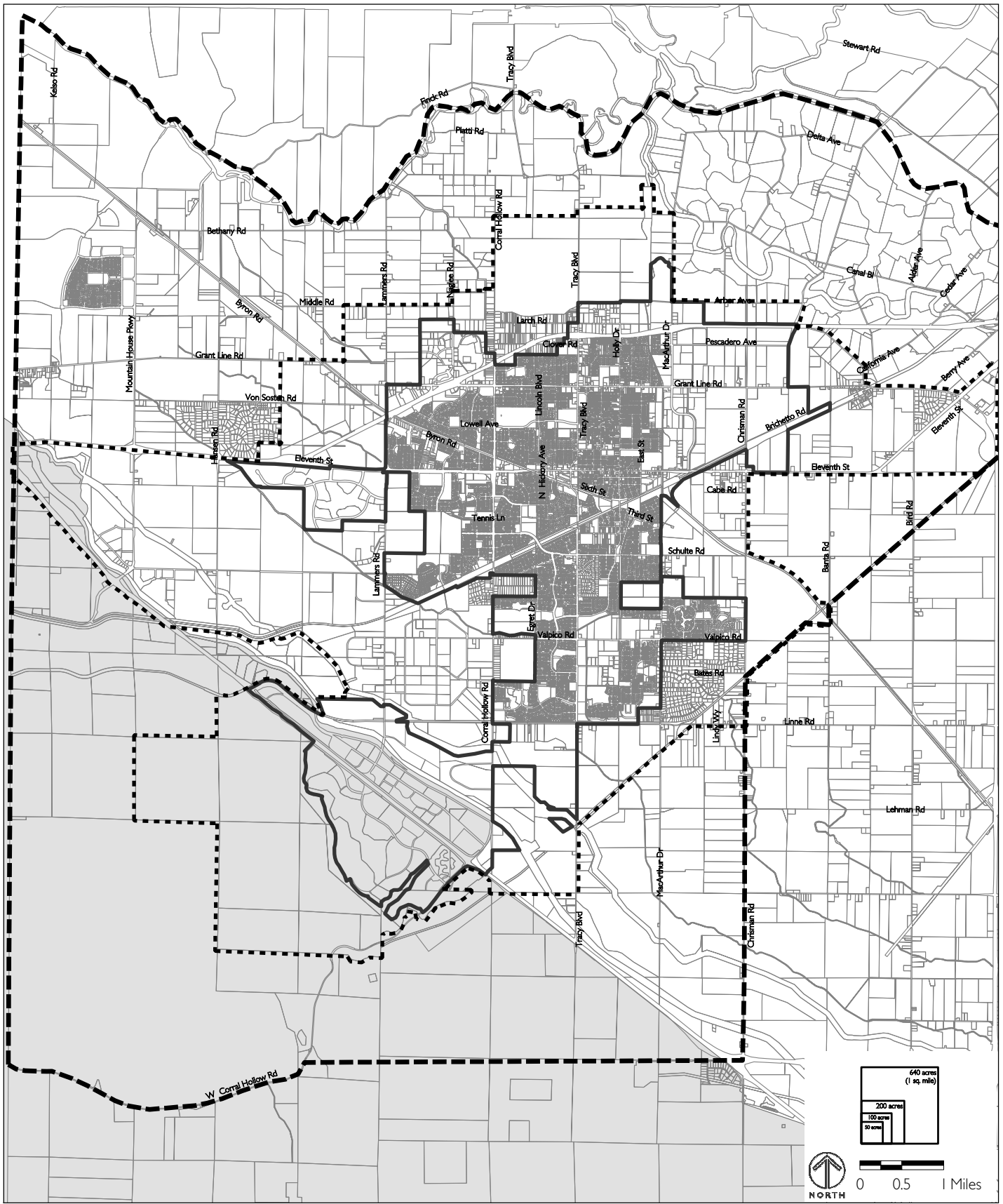
four factors, wind is the most crucial. Steep slopes also contribute to fire hazard by intensifying the effects of wind, and making fire suppression difficult. Features in some parts of the Tracy Planning Area, including highly flammable vegetation and warm and dry summers with temperatures often exceeding 100 degrees Fahrenheit, create a situation that results in potential wildland fires. Where there is easy human access to dry vegetation, fire hazards increase because of the greater chance of human carelessness. High hazard areas include outlying residential parcels and open lands adjacent to residential areas.

To quantify this potential risk, the California Department of Forestry (CDF) has developed a Fire Hazard Severity Scale that utilizes three criteria in order to evaluate and designate potential fire hazards in wildland areas. The criteria are fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Figure 4.13-1 presents the Fire Hazard Severity Scale for the Tracy area. As is shown in the figure, a portion of the lands on the southwest side of the City are designated as having a Moderate wildland fire hazard, but no part of the Tracy Planning Area has a High wildland fire hazard designation.

3. Airport Safety

The Tracy Municipal Airport is a non-controlled general aviation airport owned by the City and managed by the Parks and Community Services Department. The Federal Aviation Administration (FAA) and Caltrans establish distances of ground clearance for take-off and landing safety based on the type of aircraft that use airports. These areas identify land use and dimensional standards for buildings and uses within the approaches.

The Tracy Municipal Airport is subject to the *San Joaquin County Airport Land Use Plan* and the City's *1998 Airport Master Plan – Tracy Municipal Airport*. This plan identifies future improvements for the airport to meet future aviation needs. The plan also identifies compatible land uses for the various safety zones around the airport. This is because the type of development occurring in the airport environs impacts the safety of aircraft operation, as well



Source: California Department of Forestry and Fire Protection, 2001.

FIGURE 4.13-1

- Moderate Fire Hazard Severity
- City Limit
- Proposed Sphere of Influence
- Planning Area

STATE FIRE HAZARD SEVERITY ZONES

CITY OF TRACY
GENERAL PLAN DRAFT EIR

as impacting the number of people exposed to aircraft hazards, such as airplane crashes.

The San Joaquin County Airport Land Use Commission is an advisory body that assists local agencies with ensuring the compatibility of land uses in the vicinity of airports. The County ALUC reviews proposed development projects for consistency with airport land use compatibility. Airport operators recognize that uses that encroach upon and conflict with airports can reduce the ability of an airport to serve its function and can, over time, reduce the safety of airport operations, as well as the airport's viability to the region's economy.

4. Emergency Preparedness

As required by State law, Tracy has established emergency preparedness procedures to respond to a variety of natural and man-made disasters that could confront the community. The basic purposes of emergency preparedness are to provide procedures for the management of critical resources during emergencies, establish a mutual understanding of authority, responsibilities, functions and operations during emergencies and to provide a basis for coordinating with the County on emergency responses. These procedures are outlined in the City of Tracy Emergency Plan, revised in November 1997 in cooperation with the Tracy Fire and Police Departments. The Emergency Plan establishes the Standardized Emergency Management System (SEMS) required by State law, and includes information on mutual aid agreements, hierarchies of command, and different levels of response in emergency situations. The Emergency Plan also explains the functions of the Emergency Operations Center (EOC), which is a designated location for centralized management of coordinated emergency response.

B. Standards of Significance

The proposed Tracy General Plan would have a significant impact on hazardous materials and other hazards if it would:

- ◆ Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.
- ◆ Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- ◆ Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- ◆ Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- ◆ Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.
- ◆ For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.
- ◆ Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

C. Impact Discussion

This section discusses the potential hazards and hazardous materials impacts associated with adoption and implementation of the proposed General Plan. Implementation of this General Plan would allow for the development of new residential, commercial, office and industrial uses. This could increase the amount of hazardous materials used and wastes generated, as well as the number of people and structures exposed to these and other hazards.

1. Hazardous Materials and Hazardous Waste

Implementation of the General Plan would result in new residential, commercial, office and industrial uses. As a result, more hazardous materials would be used in the Tracy Planning Area. This has the potential to create a significant impact on the community. However, the proposed General Plan policies and actions address the potential threat of hazardous materials to human health and would reduce the impacts to a less-than-significant level, as discussed below.

a. Hazardous Materials Generators

The expected increase in residential development would result in more household hazardous materials being used, stored and discarded within the community. As is stated in the existing setting information, San Joaquin County operates a hazardous materials collection site at the Stockton Airport and the City of Tracy holds periodic household hazardous waste collection events. The proposed General Plan would have the City hold at least one hazardous materials collection event per year (Objective SA-4.1, A3). In addition, the City would continue to encourage the reduction of solid and hazardous wastes generated within the city, and to implement processing procedures and local siting criteria, in accordance with Countywide plans (Objective SA-4.1, P5). The City would also promote public education about household hazardous materials use and disposal (Objective SA-4.1, P7).

The proposed General Plan would result in additional businesses that handle hazardous materials. In accordance with State regulations, businesses that handle hazardous materials are required to have a hazardous materials business plan and new businesses must submit emergency response plans to the City as a part of land use applications (Objective SA-4.1, P4). In an effort to reduce the impact of hazardous materials incidents, the City would coordinate with the San Joaquin County Office of Emergency Services to keep an inventory of all businesses and facilities that transport, use or store hazardous materials (Objective SA-4.1, A2) and to implement the County's Hazardous Materials Area Plan (Objective SA-4.1, P6).

Some of the new hazardous material generators may be located within two miles of new and existing schools. Since hazardous materials are used in such a large range of activities, including by schools themselves, it is impossible to avoid the location of some hazardous material activities near to schools. However, existing regulation by the State and County and the proposed General Plan policies, as discussed above, would ensure that hazardous material use, emission, and transportation would be controlled to a safe level and thus, would not create a significant impact to adjacent schools.

Implementation of these policies and existing regulations would reduce the potential impact of hazardous materials generated and used by residents and businesses to a less-than-significant level.

b. Pesticide Use

Implementation of the General Plan would result in additional residential areas on the edges of the urbanized area where agricultural operations use pesticides, a hazardous material. Serious adverse impacts associated with pesticides either within or outside the agricultural environment could occur, however the City does not have any direct authority over the use of pesticides. The County Agricultural Commissioner, California Environmental Protection Agency and Department of Pesticide Regulation are major enforcement agencies responsible for controlling and monitoring pesticide use.

The proposed General Plan does include policies to minimize the impact of pesticide use on urban populations. Through its land use approval process, the City would limit the land uses allowed near agricultural areas to those not affected by the impacts of agricultural operations, such as noise, dust and odors (Objective OSC-2.2, P2). In addition, buffers would be established between agricultural areas and urban areas. The required buffer would be located on the land where the use was being changed, and its size would vary depending on the specific site conditions (Objective OSC-2.2, P1 and Objective SA-4.1, P1). The Community Character Element of the proposed General Plan also directs the City to encourage development that creates a “soft” edge to the City to the extent feasible. This would entail a gradual or smooth

transition between rural and potential residential uses through techniques such as having a buffer zone to separate uses (Objective CC-4.2, P2 and P3). These policies and existing State and County enforcement activities would be expected to reduce the impact of hazards associated with pesticide use to a less-than-significant level.

c. Transportation of Hazardous Materials

The amount of hazardous materials transported through the Tracy Planning Area on major arterials, regional highways (I-205, I-580 and I-5) and the Union Pacific rail lines, is likely to increase as a result of residential, commercial and industrial development allowed by the proposed General Plan. Thus, there is a potential for a significant impact. Objective SA-4.1, P3 would promote the safe transport of hazardous materials through Tracy by maintaining formally-designated hazardous material carrier routes to direct vehicles away from populated and sensitive areas; prohibiting the parking of vehicles transporting hazardous materials on city streets; and would require that new pipelines or other channels carrying hazardous materials avoid populated areas. As noted above, the proposed General Plan also includes a policy stating that the City will also coordinate with the County to maintain an inventory of businesses that are involved in the transportation, storage and use of hazardous materials (Objective SA-4.1, A2). These policies and actions will not prevent all potential hazardous material releases, but would serve to minimize both the frequency and magnitude of such releases. In combination with existing federal and State regulation, these policies and actions would reduce the potential impacts from the transportation of hazardous materials to a less-than-significant level.

d. Contaminated Sites

As is discussed above, there are two Superfund sites located in the Tracy Planning Area. Both are owned and operated by the federal government. Since no growth is planned on either site, no significant impact would result.

There are, however, numerous vacant and underutilized parcels in the City that were historically used for commercial or industrial uses where redevelop-

opment could occur. Some of these sites have the potential to contain contamination in the buildings (such as asbestos), soil or groundwater. To mitigate the impact, the developers are required to conduct the necessary level of environmental investigation prior to project approval to ensure that redevelopment of the site would not affect the environment or the health or safety of future property owners (Objective SA-4.1, P2). This policy would reduce the potential impact to a less-than-significant level.

2. Wildland Fires

Although the western edge of the City of Tracy is located in an area with a moderate wildland fire potential according to the California Department of Forestry, the proposed General Plan policies would mitigate potential impacts to a less-than-significant level. The proposed General Plan includes policies to minimize risk to health and safety by requiring that new private and public development projects in areas of potential wildland fire hazards employ certain safety measures, including the use of fire-resistant plants, ground cover, and roofing materials, and clearing areas around structures of potential fuel (Objective SA-3.1, P1 and P4). New development would also be required to satisfy fire flow and hydrant standards established by the City to facilitate fire-fighting in the event of a fire (Objective SA-3.1, P3). Development in areas with steep terrain would be restricted in order to ensure fire safety (Objective SA-3.1, P2). The proposed General Plan also includes a policy for the City's Fire Department to train regularly for urban and wildland firefighting conditions (Objective SA-3.1, P5); as well as an action for the City to maintain an up-to-date map of areas vulnerable to wildland fires (Objective SA-3.1, A1). The implementation of these policies would reduce the potential impacts to less-than-significant levels.

3. Airport Safety

Implementation of the proposed General Plan would result in increased development in areas within a two-mile radius of the Tracy Municipal Airport. This has the potential to create a significant impact if incompatible development is allowed within airport hazard zones. The proposed General Plan includes several policies to ensure that existing and new development in prox-

imity to the airport is compatible and conforms to safety requirements, as determined by the Federal Aviation Administration and the San Joaquin County Airport Land Use Commission (Objective LU-6.3, P1 and P2, and Objective SA5.1, P1). In addition, the proposed General Plan includes an action to develop an emergency plan to respond to aviation incidents in the City (Objective SA-5.1, A1). Implementation of these policies and actions would avoid a significant safety impact associated with the Tracy Municipal Airport.

4. Emergency Preparedness

The proposed General Plan would result in new development and population growth, resulting in an increase in demand for emergency services during disasters. Numerous polices in the proposed General Plan address the City's emergency preparedness in the event of natural or man-made disasters. The City would commit to keeping emergency access routes free of traffic impediments and regularly update those routes (Objective SA-6.1, P1 and A2). The proposed General Plan includes actions for the City to update its emergency preparedness plan in response to changes in land use, population and city boundaries, and to conduct periodic drills using the emergency response systems to test the effectiveness of City procedures (Objective SA-6.1, A1 and A4). Another area of concern is educating the public about emergency preparation and evacuation procedures. This concern is addressed in the development of public education programs about emergencies (Objective SA-6.1, A5). Taken together, these polices and actions would reduce the impact of emergency preparedness to a less-than-significant level.

D. Impacts and Mitigation Measures

Since no significant safety-related impacts have been identified, no mitigation measures are required.

4.14 NOISE

This chapter discusses the existing noise environment in Tracy and analyzes the potential impacts of the proposed General Plan on the Tracy noise environment. To provide context for the discussion, the section begins with an explanation of what noise is and existing noise regulation. A noise study was prepared by Illingworth & Rodkin, Inc. to prepare this section.

A. Existing Conditions

1. Measurement of Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its pitch or its loudness. Pitch is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. Loudness is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A decibel (dB) is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10-decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 4.14-1.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 4.14-2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called Leq. The most common averaging period is hourly, but Leq can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Community Noise Equivalent Level, CNEL, is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 p.m. - 10:00 p.m.) and a 10 dB addition to nocturnal (10:00 p.m. - 7:00 a.m.) noise levels. The Day/Night Average Sound Level, L_{dn} , is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

TABLE 4.14-1 **DEFINITIONS OF ACOUSTICAL TERMS**

Term	Definitions
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L01, L10, L50, L90	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Equivalent Noise Level, Leq	The average A-weighted noise level during the measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Day/Night Noise Level, Ldn	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Lmax, Lmin	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

TABLE 4.14-2 TYPICAL SOUND LEVELS

Noise Generators (At a Given Distance)	A-Weighted Sound Level in Decibel	Noise Environments	Subjective Impression
	140		
Civil defense siren (100 feet)	130		
Jet take-off (200 feet)	120		Pain threshold
	110	Rock music concert	
Diesel pile drive (100 feet)	100		Very loud
Freight cars (50 feet)	90	Boiler room Printing press plant	
Pneumatic drill (50 feet)	80	In kitchen with garbage disposal	Moderately loud
Freeway (100 feet)	70	running	
Vacuum cleaner (10 feet)	60	Data processing center	
Light traffic (100 feet)	50	Department store	
Large transformer (200 feet)	40	Private business office	Quiet
Soft whisper (5 feet)	30	Quiet bedroom	
	20	Recording studio	
	10		Threshold of hearing

2. Effects of Noise

This section discusses several effects of noise including hearing loss, sleep and speech interference and annoyance.

a. Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise, but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) has a noise exposure standard, which is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

b. Sleep and Speech Interference

The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noise of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA L_{dn} .

The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 12 to 17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57 to 62 dBA L_{dn} with open windows and 65 to 70 dBA L_{dn} if the windows are closed. Levels of 55 to 60 dBA are common along collector streets and secondary arterials, while 65 to

70 dBA is a typical value for a primary/major arterial. Levels of 75 to 80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed; those facing major roadways and freeways typically need special glass windows.

c. Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that the causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed.

There continues to be disagreement about the relative annoyance of noise from aircrafts and roadways. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is about 55 dBA L_{dn} . At an L_{dn} of about 60 dBA, approximately two percent of the population is highly annoyed. When the L_{dn} increases to 70 dBA, the percentage of the population highly annoyed increases to about 12 percent of the population. There is, therefore, an increase of about one percent per dBA between an L_{dn} of 60 to 70 dBA. Between an L_{dn} of 70 to 80 dBA, each decibel increase results in about a two percent increase in population that is highly annoyed. People appear to respond more adversely to aircraft noise. When the L_{dn} is 60 dBA, approximately ten percent of the population is believed to be highly annoyed. Each decibel increase to 70 dBA adds about two percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in about a three percent increase in the percentage of the population highly annoyed.

3. Regulatory Framework

a. Federal Highway Administration and Caltrans Policies

The Federal Highway Administration (FHWA) provides procedures and criteria for noise assessment studies for federal highway projects. It requires that noise abatement measures be considered on all major transportation projects if the project will cause a significant increase in noise levels, or if projected noise levels approach or exceed the noise abatement criteria level for activities occurring on adjacent lands. The California Department of Transportation (Caltrans) utilizes similar procedures and criteria.

The FHWA Noise Assessment Criteria for various land use ratings are given in Table 4.14-3. These noise criteria are assigned to both exterior and interior activities. The FHWA identifies a traffic noise impact when the predicted traffic noise levels approach or exceed the noise abatement criteria. If these criteria sound levels are predicted to be approached or exceeded during the noisiest 1-hour period, noise abatement measures must be considered and, if found to be reasonable and feasible, they must be incorporated as part of a given project. Following the Caltrans protocol, a traffic noise impact will occur when predicted noise levels approach or exceed criteria sound levels within 1 dBA.

b. Federal Transit Administration (FTA) Policies

Groundborne vibration impacts are typically associated with fast moving railroad operations, and large industrial equipment. The Federal Transit Administration (FTA) of the U.S. Department of Transportation has developed vibration impact assessment criteria for evaluating vibration impacts associated with rapid transit projects. These criteria for groundborne vibration impacts on occupants inside buildings are shown in Table 4.14-3, and are based on rms average vibration levels calculated over a 1 second period to relate to average, maximum, vibration levels experienced by humans. Note that there are criteria for frequent events (more than 70 events per day) and infrequent events (less than 70 events per day).

TABLE 4.14-3 **FEDERAL NOISE ABATEMENT CRITERIA**

Rank	A-Weighted Sound Level dBA	Suitable Locations
A	57 exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to serve its intended purpose.
B	67 exterior	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 exterior	Developed lands, properties, or activities not included in Categories A or B above.
D	---	Undeveloped lands.
E	52 interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: Federal Highway Administration, 1982

The FTA criteria are based primarily on experience with passenger train operations, such as rapid transit and commuter rail systems. The main difference between passenger and freight operations is the time duration of individual events, a passenger train lasts few seconds whereas a long freight train may last several minutes, depending on speed and length. Although the criteria are based on shorter duration events reflected by passenger trains, they are used in this assessment to evaluate the potential of vibration annoyance on the site due to large freight trains as well. It should also be noted that the FTA criteria limits contained in Table 4.14-4 are not appropriate for evaluating the potential of building structural or cosmetic damage due to train operations. It is extremely rare that train operations can cause any such damage except in the

TABLE 4.14-4 GROUNDBORNE VIBRATION IMPACT CRITERIA

Land Use Category	Groundborne Vibration Impact Limits (Re 1,μinch/sec., rms)	
	Frequent Events	Infrequent Events
Category 1: Buildings where low ambient is essential for interior operations	65 VdB	65 VdB
Category 2: Residences and buildings where people normally sleep	72 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime uses	75 VdB	83 VdB

Source: U.S. Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, April 1995, DOT-T

case of weakened structures or historic buildings. Even in such cases, structural damage is unlikely unless the buildings are located extremely close to the tracks.

c. Tracy Noise Ordinance

The City of Tracy has adopted a quantitative noise ordinance. The Noise Control Ordinance is contained in Article 9 of the City's Municipal Code. The Ordinance establishes allowable noise level limits based on the zoning district. The maximum allowable noise level limit is 55 dBA in residential districts, 65 dBA in commercial districts, 75 dBA in industrial/aggregate mining and agricultural districts. When property lines form the joint boundary of two district zones the sound level limit shall be the arithmetic mean of the limit applicable to each of the two zones. The Ordinance sets forth procedures for extensions, variations, exceptions and identifies specific prohibitions regarding noise within the City.

4. Existing Noise Sources in Tracy

The most important source of community noise in Tracy is vehicular traffic on Interstate 205 and the local street network, with I-205 having the highest noise levels. Railroad trains intermittently generate noise levels that are significant along the railroad tracks. Localized and intermittent noise impacts occur as a result of the Altamont Commuter Express train on the southern side of the City. L_{dn} noise levels exceed 60 dBA within approximately 260 feet of the primary freight and commuter railroad tracks. Moreover, train warning whistles can generate maximum noise levels of approximately 105 dBA at 100 feet and are audible throughout the community.

Noise is also generated on individual parcels whether industrial, commercial or residential. These noise sources are regulated by the City's Noise Ordinance and so do not generally negatively affect the overall noise environment throughout the community.

The Tracy Municipal Airport is a source of community noise in its vicinity. The Tracy Municipal Airport is located in the southern portion of the City between Tracy Boulevard and Corral Hollow Road. General aviation aircraft using the Tracy Airport contribute to intermittent noise levels in Tracy. The airport currently has about 50,000 annual airport operations¹. These are comprised mostly of single-engine light aircraft (maximum gross weight 12,000 lbs.), some twin-engine aircraft, and occasional corporate jets. There are no jets currently based at the airport. Other activities at the airport include two hot air balloon companies, Ultralights, and an area where aerobatic flight is allowed.

Aircraft noise in California is described in terms of the community noise equivalent level (CNEL). As mentioned previously, CNEL is approximately equivalent to the day/night average noise level (L_{dn}) but includes a 5 dB weighting factor for the evening hours (7:00 PM to 10:00 PM). The San Joa-

¹ Telephone conversation with Rod Buchanan, Deputy Department Director, Parks and Community Services Department, October 2003.

quin County 2020 General Plan contains CNEL noise contours for Tracy Airport is shown in Figure 4.14-1.

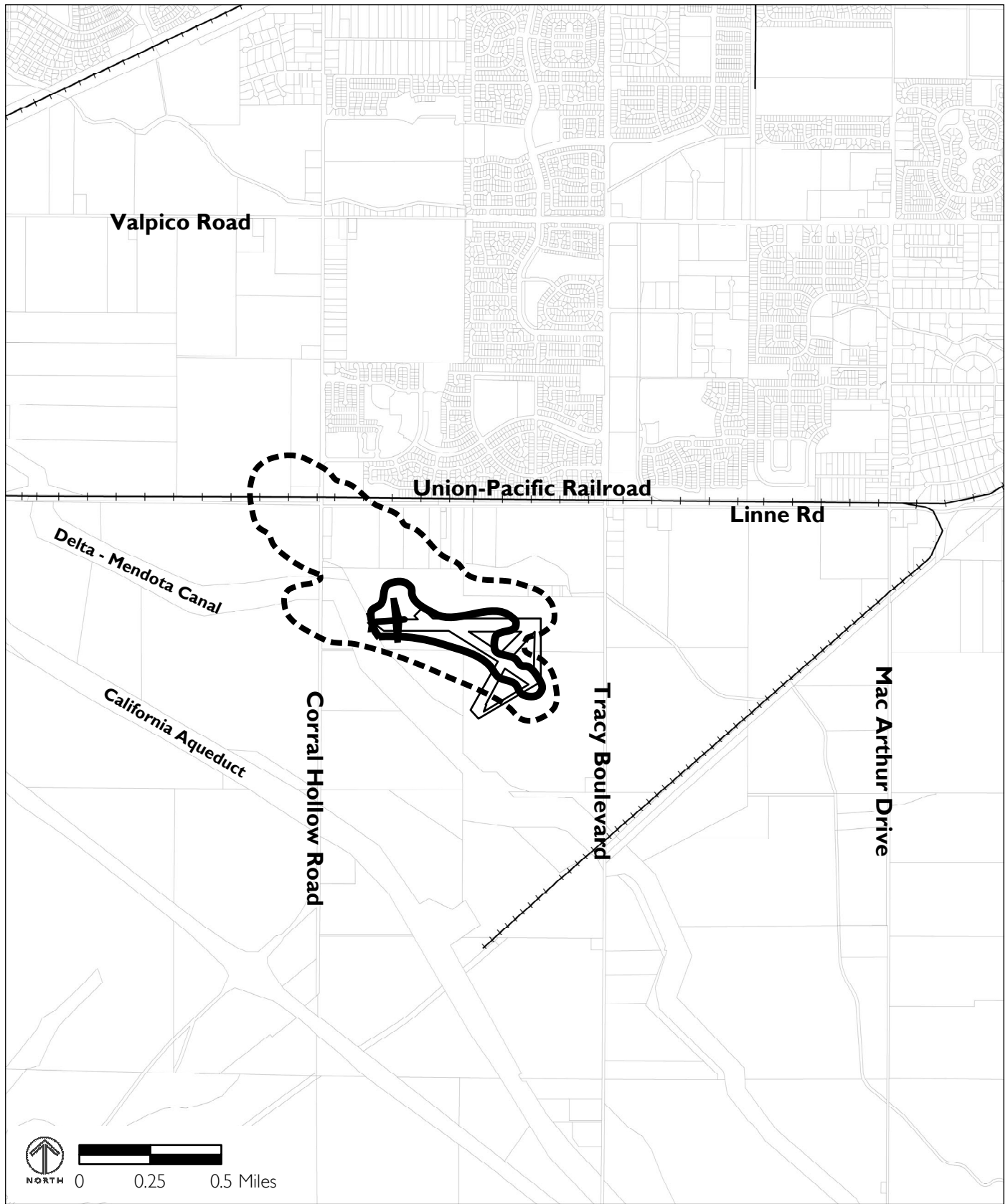
5. Noise Measurements

In order to document Tracy's noise environment, both long- and short-term, noise measurements were taken at locations throughout the city. This section documents the results of those measurements.

a. Long-Term Noise Measurements

Long-term noise levels were monitored at ten locations in Tracy over a period of two and three days in June of 2003. Noise levels were monitored by Illingworth & Rodkin, Inc. at two locations along Interstate 205 previously during preparation of the Noise Study Report for improvements to the I-205 freeway. The noise measurement locations are shown on Figure 4.14-2. The measured data are summarized in Table 4.14-5 and the data measured at the 12 long-term sites are summarized in Figures 1 through 12 of Appendix A. The following discussion summarizes the long-term noise measurements.

- ◆ *Location LT-1 – Adjacent to Altamont Commuter Express Line and West Linne Road.* Location LT-1 was selected to represent the noise exposure in the residential neighborhood along English Oak Court which adjoins the Altamont Commuter Express Railroad Line. The measurement location was made about 50 feet behind the 12 to 14 foot high sound wall that currently separates the neighborhood from the railroad track. The data, shown in Figure 1 of Appendix A, shows the measured noise level was 65 dBA L_{dn} . Maximum noise levels from individual railroad train passbys ranged from approximately 85 to 100 dBA.
- ◆ *Location LT-2 – Altamont Commuter Express Line near Chrisman Road.* Noise levels approximately 35 feet from the ACE line near Chrisman Road were dominated by railroad train traffic on the same line. This location was selected to measure the noise level along this train track where no sound wall exists. The measured noise level was 73 dBA L_{dn} . Maximum noise levels from railroad train events were in the range of 85 to 104 dBA. The data are shown in Figure 2 of Appendix A.



Source: San Joaquin County Airport Land Use Plan

FIGURE 4.14-1

— 65 dBCNEL
 - - - 60 dBCNEL

TRACY MUNICIPAL AIRPORT NOISE CONTOURS

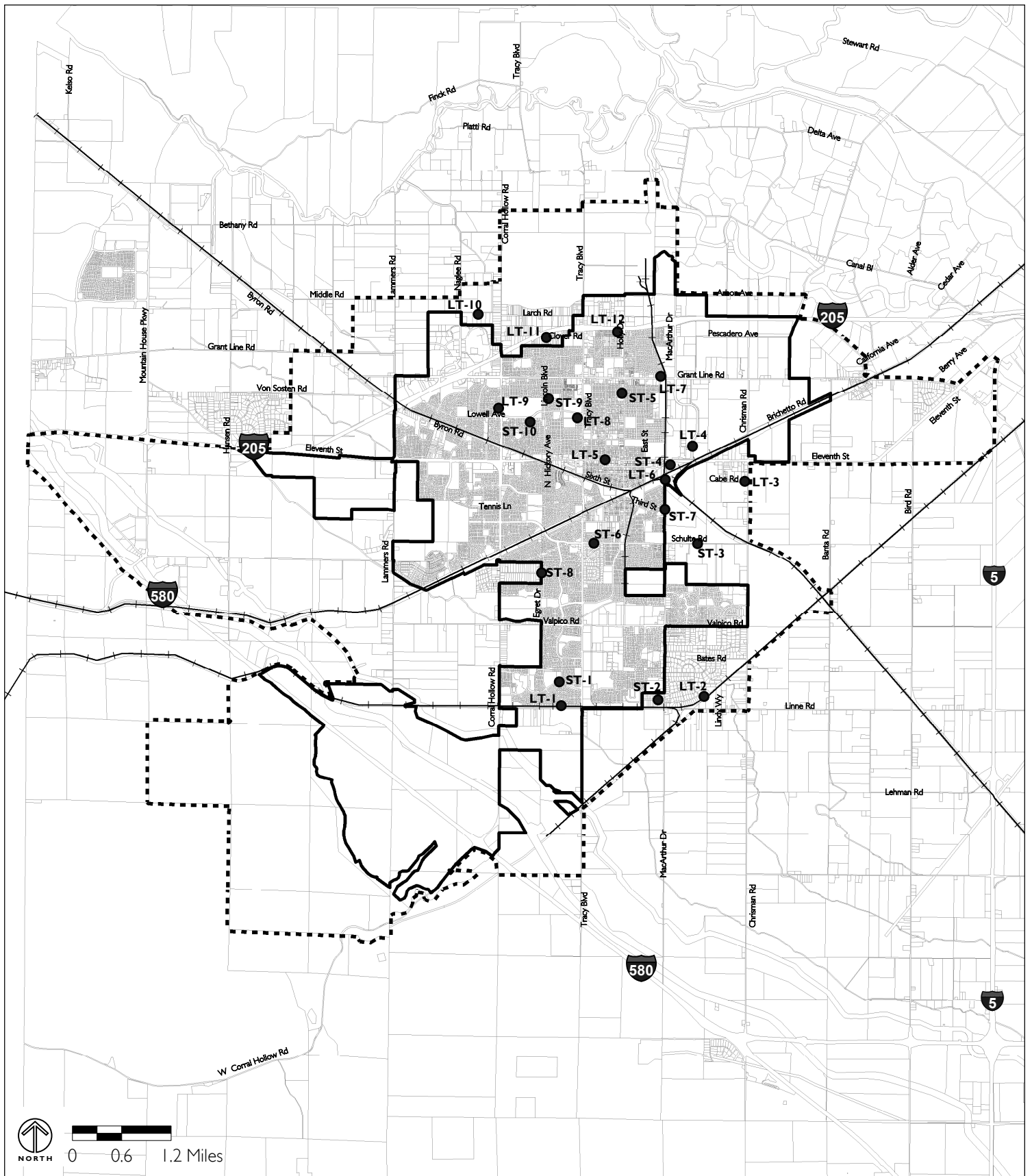


FIGURE 4.14-2

- LT Long-Term Measurement Location
- ST Short-Term Measurement Location
- ▭ City Limit
- ▭ Proposed Sphere of Influence

NOISE MEASUREMENT LOCATIONS

TABLE 4.14-5 SUMMARY OF NOISE MONITORING

Site	Location	Date	Time	Leq	L(1)	L(10)	L(50)	L(90)	Ldn
Long-Term Measurements									
LT-1	Residential Land Uses at South End of English Oak Court Adjacent to Altamont Commuter Express Line and West Linne Rd.	6/2/03 to 6/4/03	17:00 to 10:00	--	--	--	--	--	65
LT-2	~ 35 feet from the Altamont Commuter Express Line near Chrisman Rd.	6/2/03 to 6/4/03	17:00 to 10:00	--	--	--	--	--	73
LT-3	~ 120 feet from the Centerline of Chrisman Rd.	6/2/03 to 6/4/03	18:00 to 11:00	--	--	--	--	--	70
LT-4	~ 80 feet from the Centerline of North MacArthur Rd.	6/4/03 to 6/6/03	12:00 to 13:00	--	--	--	--	--	66
LT-5	~ 90 feet from the Centerline of Eleventh St. at Wall Rd.	6/4/03 to 6/6/03	13:00 to 13:00	--	--	--	--	--	71
LT-6	6th St. Railroad Junction	6/4/03 to 6/6/03	13:00 to 14:00	--	--	--	--	--	72
LT-7	~ 50 feet from the Centerline of Grant Line Rd.	6/4/03 to 6/6/03	16:00 to 16:00	--	--	--	--	--	75
LT-8	~ 80 feet from the Centerline of Tracy Blvd at Dr. Powers Park	6/6/03 to 6/9/03	15:00 to 14:00	--	--	--	--	--	70
LT-9	~ 190 feet from the Centerline of Corral Hollow Rd.	6/6/03 to 6/9/03	16:00 to 13:00	--	--	--	--	--	69
LT-10	West Larch Rd. east of Naglee Rd.	6/6/03 to 6/9/03	16:00 to 13:00	--	--	--	--	--	69
LT-11	11240 Clover Rd. adjacent to I-205	10/31/00 to 11/1/00	10:00 to 10:00	--	--	--	--	--	82
LT-12	Rear Yard of 245 Hawthorne Dr. adjacent to I-205 (shielded by sound wall)	1/29/01 to 1/30/01	14:00 to 14:00	--	--	--	--	--	72

TABLE 4.14-5 SUMMARY OF NOISE MONITORING CONTINUED

		Date	Time	Leq	L(1)	L(10)	L(50)	L(90)	Ldn
Short-Term Measurements									
ST-1	~ 70 feet from the Centerline of Whispering Wind Rd at Adams Park	6/3/03	15:14 to 15:24	58	68	62	53	47	60
ST-2	~ 130 feet from the Centerline of MacArthur Rd.	6/3/03	15:40 to 15:50	59	70	63	55	50	63
ST-3	~ 50 feet from the Centerline of East Schulte Rd.	6/3/03	16:08 to 16:18	62	73	66	54	48	65
ST-4	~ 100 feet from the Centerline of MacArthur Rd. near 11th St.	6/4/03	13:26 to 13:36	63	72	67	60	55	67
ST-5	~ 80 feet from the Centerline of Holly Dr.	6/4/03	13:50 to 14:00	59	68	63	56	49	63
ST-6	~ 115 feet from the Centerline of South Central Ave.	6/4/03	14:16 to 14:26	57	63	60	56	51	60
ST-7	~ 160 feet from the Centerline of Mac Arthur Rd.	6/4/03	14:40 to 14:50	58	66	61	56	49	61
ST-8	Rear Yard of 460 West Schulte Rd.	6/4/03	15:03 to 15:13	51	57	53	51	49	54
ST-9	~ 100 feet from the Centerline of Lincoln Blvd.	6/6/03	16:37 to 16:47	60	70	64	58	52	62
ST-10	~ 70 feet from the Centerline of West Lowell Ave.	6/6/03	16:53 to 17:03	59	67	62	57	52	60

- ◆ *Location LT-3 – Chrisman Road near Cabe Road.* This noise measurement location was approximately 120 feet from the centerline of Chrisman Road near Cabe road and was selected to measure vehicular traffic noise along Chrisman Road. The measured noise level was 70 dBA L_{dn} . The hourly average noise levels typically ranged from 60 dBA during the nighttime to 70 dBA during the peak hour. Background noise levels ranged from 45 to 55 dBA. The data are shown in Figure 3 of Appendix A.
- ◆ *Location LT-4 – North McArthur Road.* Noise levels were measured approximately 80 feet from the centerline of North McArthur Road to characterize the noise exposure levels along North McArthur Road. The noise measurement location was located between Stoneridge Road and Eleventh Street. The measured data are shown on Figure 4 of Appendix A. The measured noise level was 66 dBA L_{dn} . Hourly average noise levels typically range from 55 dBA to 65 dBA. Background noise levels range from about 45 to 55 dBA.
- ◆ *Location LT-5 – Corner of Eleventh Street and Wall Road.* The noise environment was dominated by heavy vehicular traffic on Eleventh Street. The measured noise level was 71 dBA L_{dn} . The noise measurement data are shown in Figure 5 of Appendix A. Hourly average noise levels ranged from about 55 dBA L_{eq} to 75 dBA L_{eq} . Background noise levels dropped to about 40 dBA during the middle of the night but increased to about 60 dBA during the daytime due to the heavy traffic volume.
- ◆ *Location LT-6 – Sixth Street Railroad Junction.* The noise environment at Location LT-6 was dominated by railroad train traffic at the junction of four railroads. The measured noise level was 72 dBA L_{dn} . The noise measurement data are shown in Figure 6 of Appendix A. Maximum noise levels from single railroad train events ranged from about 85 dBA to 110 dBA at the monitoring location.
- ◆ *Location LT-7 – Grant Line Road near “E” Street.* Location LT-7 was approximately 50 feet from the centerline of Grant Line Road east of “E” Street across from a kitchen and bath cabinet store and the Port Oasis

Trailer Park. The measured noise level was 75 dBA Leq. Grant Line Road traffic dominated the noise environment. The noise measurement data are shown in Figure 7 of Appendix A. Hourly average noise levels range from about 70 to 75 dBA L_{dn} during the daytime down to about 60 dBA Leq in the middle of the night. Background noise levels range from about 55-60 dBA during the daytime down to about 45 dBA in the middle of the night.

- ◆ *Location LT-8 – Tracy Boulevard at Dr. Powers Park.* Measurement Location LT-8 was approximately 80 feet from the centerline of Tracy Boulevard at Dr. Powers Park and was selected to characterize noise levels along Tracy Boulevard. The measured noise level was 70 dBA L_{dn}. Hourly average noise levels typically ranged from about 65 to 70 dBA Leq during the daytime and drop to about 55 dBA Leq in the middle of the night. Background noise levels were typically 50 to 60 dBA during the daytime dropping to as low as 35 to 40 dBA in the middle of the night. The noise measurement data are shown in Figure 8 of Appendix A.
- ◆ *Location LT-9 – Corral Hollow Road.* Noise measurements at Location LT-9 was approximately 190 feet from the centerline of Corral Hollow Road and was selected to characterize the noise exposure along Corral Hollow Road. The measured noise level was 69 dBA L_{dn}. Hourly average noise levels ranged from about 65 to 70 dBA Leq during the daytime and drop to about 50 to 55 dBA Leq at night. Background noise levels were typically 50 to 60 dBA during the daytime dropped to about 40 dBA in the middle of the night. The noise measurement data are shown in Figure 9 of Appendix A.
- ◆ *Location LT-10 – West Larch Road East of Negley Road.* Noise measurements approximately 16 feet from the West Larch Road centerline east of Negley Road were made to characterize the noise environment out in the potentially developing area of Tracy. The noise measurement location was immediately adjacent to the roadway edge where high speed local traffic substantially elevated the noise level. The measured noise level was 69 dBA L_{dn}. Vehicular traffic very close to the microphone resulted

in the relatively high L_{dn} adjacent to a relatively low volume roadway. Background noise levels were typically 50 to 55 dBA during the daytime and 40 to 45 dBA at night. The noise measurement data are shown in Figure 10 of Appendix A.

- ◆ *Location LT-11 – I-205 at 11240 Clover Road.* This location was selected to characterize existing noise levels along I-205 where no noise mitigation currently exists. The measured noise level was 82 dBA L_{dn} . This is a severe noise environment demonstrating the extent of freeway traffic noise in the I-205 corridor. The noise measurement data are shown in Figure 11 of Appendix A. The data show a tight range of noise levels from the minimum sound level to the maximum sound level which is typical of freeway traffic noise. Hourly average noise levels do not vary much day or night due to heavy truck traffic at night and heavy total traffic during the daytime. The range in hourly average noise levels is between 80 dBA during the daytime and 74 dBA at night. Minimum noise levels are typically in the range of 70 to 75 dBA, although noise levels do drop to between 55 and 65 dBA during the middle of the night.
- ◆ *Location LT-12 – I-205 Noise Behind Existing Sound Wall at 245 Hawthorne Drive.* Noise levels were monitored at this location to determine the noise level behind an existing sound wall along I-205. The measured noise level was 72 dBA L_{dn} . The range of noise levels was again narrow with typical hourly average noise levels during the daytime in the range of 65-70 dBA L_{eq} and with noise levels dropping to about 62 dBA L_{eq} in the middle of the night. Background noise levels similarly were between 60 and 65 dBA during the daytime dropping to a low of between 50 and 55 dBA in the middle of the night. The noise measurement data are shown in Figure 12 of Appendix A.

b. Short-Term Spot Measurements

Short-term spot measurements were made at ten locations throughout Tracy in June of 2003 to characterize typical daytime noise levels and to collect traffic and noise data to be used subsequently in the computation of traffic noise contours for the General Plan. The noise measurement locations are shown in Figure 4.14-2. The data in Table 4.14-3 also shows the estimated L_{dn} for the

short-term spot measurements based on correlations with long-term measurements nearby. It can be seen that average noise levels (Leq) range from about 51 dBA in a quiet rear yard up to 63 dBA along McArthur Road. Vehicular traffic on the street network was the dominant noise source during measurements. There were contributions from local neighborhood noise, a tractor at a rural location (ST-3), and a train was heard at Location ST-4 along McArthur Road near Eleventh Street which generated a maximum level of 68 dBA. General aviation aircraft at Location ST-5 generated a maximum level of 55 dBA but automobiles and motorcycles were typically 10 dBA louder. At the Schulte Road location (ST-8) distant traffic, a distant aircraft, wind in the vegetation, and crows were all audible contributing to a quiet rural noise environment in the backyard of this home.

6. Vibration

Railroads in Tracy are a source of ground-borne vibration. Although vibration levels were not measured as part of the General Plan process, measured data and previous experience with vibration generated by railroad trains shows that , ground-borne vibration levels are typically greater than the FTA criteria for infrequent events (80 VdB) at a distance of about 100 feet or less from the centerline of the railroad tracks.

B. Standards of Significance

The City of Tracy's General Plan would create a significant noise impact if it would:

- ◆ Cause the Ldn at noise-sensitive uses to increase by 3 dB or more and exceed the “normally acceptable” level;
- ◆ Cause the Ldn at noise-sensitive uses to increase 5 dB or more and remain “normally acceptable”;
- ◆ Cause new noise levels to exceed the City of Tracy Noise Ordinance limits.
- ◆ Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels, as identified by the FTA guidelines.

- ◆ Cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- ◆ Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project, including the following:
 - Construction activities that cause noise levels to exceed an hourly average of 60 dBA Leq and exceed existing ambient noise levels by 5 dBA or more at a sensitive receiver, and last more than one construction season, would be considered to cause a substantial temporary or periodic increase in ambient noise.
 - Noise-sensitive uses proposed within the airport's 60 CNEL noise contour or exposed to excessive maximum noise levels from aircraft overflights would cause a significant noise impact.
- ◆ Expose people residing or working in the project area to excessive aircraft noise levels.

C. Impact Discussion

The following discussion provides an overview of changes in the noise environment and community noise exposure that could result from implementation of the General Plan.

1. Traffic Noise Increases

Vehicular traffic on existing roadways in Tracy would increase as development proceeds and the City's population increases. Traffic noise levels throughout Tracy were modeled to determine how changes in vehicular traffic volumes would affect traffic noise levels. Increases in traffic noise resulting from the preferred alternative are shown in Table 4.14-6. Noise levels would increase substantially (3 dBA L_{dn} or greater) along major roadways throughout Tracy, including portions of Interstate 205, Interstate 580, Grant Line Road, Schulte Road, Valpico Road, Linne Road, Lammers Road, Corral Hollow Road, Tracy Boulevard, and MacArthur Drive with the implementation

TABLE 4.14-6 TRAFFIC NOISE INCREASES RESULTING FROM THE GENERAL PLAN PREFERRED ALTERNATIVE

Roadway	Segment	Distance to Centerline (feet)	Existing Ldn (dBA)	Preferred General Plan Ldn (dBA)	Increase (dBA)	Significant Impact (Yes/No)
Interstate 205	West of Eleventh Street	150	83	85	2	N
Interstate 205	Btwn Eleventh Street and Corral Hollow	150	82	85	3	Y
Interstate 205	Btwn Corral Hollow and MacArthur	150	82	86	4	Y
Interstate 205	East of MacArthur Drive	150	82	86	4	Y
Interstate 580	North of Corral Hollow	150	77	80	3	Y
Interstate 580	South of Corral Hollow	150	78	81	3	Y
Interstate 5	North of Eleventh Street	150	80	81	1	N
Interstate 5	South of Eleventh Street	150	77	77	0	N
Grant Line Road	West of Corral Hollow	75	77	78	1	N
Grant Line Road	East of Corral Hollow	75	75	78	3	Y
Grant Line Road	East of Tracy Boulevard	75	73	74	1	N
Grant Line Road	East of Chrisman Road	75	71	74	3	Y
Eleventh Street	East of Lammers Road	75	73	75	2	N
Eleventh Street	East of Corral Hollow	75	72	74	2	N
Eleventh Street	East of MacArthur Drive	75	73	74	1	N
Eleventh Street	East of Banta Drive	75	74	74	0	N
Schulte Road	West of Corral Hollow	75	58	72	14	Y
Schulte Road	East of Corral Hollow	75	67	71	4	Y
Schulte Road	East of Tracy Boulevard	75	68	70	2	N
Schulte Road	East of MacArthur Drive	75	63	66	3	Y
Valpico Road	West of Corral Hollow	75	59	62	3	Y
Valpico Road	East of Tracy Boulevard	75	67	71	4	Y
Valpico Road	East of MacArthur Drive	75	60	64	4	Y
Linne Road	West of Corral Hollow	75	62	69	7	Y
Linne Road	East of Tracy Boulevard	75	64	71	7	Y
Lammers Road	South of Grant Line Road	75	61	73	12	Y
Lammers Road	South of Eleventh Street	75	62	71	9	Y
Lammers Road	North of Valpico Road	75	67	73	6	Y
Corral Hollow	South of Grant Line Road	75	74	76	2	N
Corral Hollow	South of Eleventh Street	75	73	76	3	Y
Corral Hollow	South of Schulte Road	75	69	72	3	Y
Corral Hollow	North of Valpico Road	75	65	71	6	Y
Tracy Boulevard	North of Grant Line Road	75	69	70	1	N
Tracy Boulevard	South of Grant Line Road	75	70	71	1	N
Tracy Boulevard	North of Eleventh Street	75	70	69	-1	N
Tracy Boulevard	South of Eleventh Street	75	71	71	0	N
Tracy Boulevard	North of Schulte Road	75	69	70	1	N
Tracy Boulevard	South of Schulte Road	75	68	71	3	Y
Tracy Boulevard	South of Valpico Road	75	66	68	2	N
MacArthur Drive	South of I-205	75	69	71	2	N
MacArthur Drive	South of Grant Line Road	75	66	72	6	Y
MacArthur Drive	South of Eleventh Street	75	65	68	3	Y
MacArthur Drive	North of Valpico Road	75	65	68	3	Y
MacArthur Drive	South of Valpico Road	75	66	73	7	Y
Chrisman Road	South of Eleventh Street	75	71	72	1	N
Chrisman Road	South of Schulte Road	75	70	72	2	N

of the General Plan. Other than Valpico Road and Interstate 580, all significant increases would occur adjacent to existing noise sensitive areas.

Traffic on new roadways planned in the General Plan would also create noise increases of 3dB L_{dn} or greater. These planned roadways include connections from I-205 to Byron, Lammers, and Grant Line Roads; an extension of Valpico Road to Eleventh Street, and a major arterial connecting Chrisman Road to I-205 and Arbor Avenue to the north, and several minor arterial and collector roadways at the east end of Tracy. Many of these roadways would be located adjacent to existing or new residential areas. New arterial roadways and interchanges are proposed to serve new development. New roadways would substantially increase the noise environment at receivers in the vicinity.

Policies in the proposed General Plan would ensure that the citizens of Tracy are protected from excessive noise levels. Figure 9-2 in the proposed General Plan outlines guidelines regarding land use compatibility for community noise environments. This information, in addition to the City's Noise Ordinance, shall be used to help determine whether impact from new projects will occur in the city as a result of the General Plan. The policies in Objective N-1.2 attempt to control excessive sources of noise in the city, including noise from roadways. P1 directs the city to reduce traffic noise levels in existing residential areas through enforcement and structural improvements, to the extent that it is feasible. P3 presents "quiet pavement" as a potential noise reduction strategy that could be utilized to reduce noise level increases resulting from General Plan development. Additionally, Objective N-1.3, Policies P1, P2, P3, and P5 ensure that noise impacts from new projects will be evaluated during the design review process and mitigated as a condition of project approval.

Although these proposed policies provide significance thresholds to be used in the evaluation of project impacts and criteria to ensure that new projects are evaluated properly, it is not likely that all traffic noise impacts resulting from the General Plan will be adequately mitigated. Given the anticipated growth

of the community and expected traffic noise level increases resulting from the project, the impact would be significant and unavoidable.

2. Noise Exposure in New Development

Under the proposed General Plan, new noise sensitive development is proposed throughout the City, and in some cases, in noisy areas. Distances to existing and future traffic noise contours along major Tracy roadways are shown in Table 4.14-7. This table, along with guidelines for land use compatibility relative to associated noise environments in the proposed General Plan Noise Element, Land Use Compatibility for Community Noise Environment, should be used as a guide by the City to determine where noise studies are needed. New residential land uses proposed within the 60 dBA L_{dn} traffic noise contour would be exposed to noise levels exceeding those considered compatible with the proposed use. New noise-sensitive development proposed in the vicinity of railroads may also be exposed to noise levels incompatible with the proposed use.

The policies proposed to achieve Objective N-1.1 define appropriate exterior and interior noise levels for new land uses and require that measures be incorporated into all new development to attenuate exterior and/or interior noise levels to those considered normally acceptable for the land use. Specifically, P3 states that all new single family residential development shall maintain a noise standard of 60 Ldn for exterior noise in private use areas and P6 states that all multi-family residential developments shall maintain a standard of 65 Ldn for community outdoor recreation areas. P5 states that all new residential projects shall maintain an interior standard of 45 Ldn.

In areas where the existing noise level is above 60 Ldn, the proposed General Plan states that new residential projects shall be analyzed according to protocols in the California Building code (Objective N-1.1, P8). Further, Objective N-1.1, P9 states that measures to attenuate exterior and/or interior noise levels to acceptable levels shall be incorporated into all developments. Further, the City shall not allow new noise sensitive land uses in areas where measures

cannot be implemented to reduce noise levels to normally acceptable levels (Objective N-1.1, P1).

Finally, policies proposed to achieve Objective N-1.3 would reduce the impacts of introducing noise sensitive uses in noisy areas by considering noise issues in the development review process and requiring that significant noise impacts be mitigated. These policies would adequately reduce noise impacts to a less-than-significant level.

3. Incompatible Land Uses

New manufacturing, commercial, office, or other noise-generating uses to be developed under the General Plan could substantially increase noise levels at existing noise-sensitive land uses or could expose receivers to noise levels that exceed the City's Noise Ordinance. Typical noise conflicts would be caused by noise sources such as outdoor dining areas or bars, mechanical equipment, outdoor maintenance areas, truck loading docks, and parking lots. Development under the proposed General Plan would introduce new noise-generating sources adjacent to existing noise-sensitive areas and new noise-sensitive uses adjacent to existing noise-generating sources.

However, new projects developed under the proposed General Plan would be subject to the City's Noise Ordinance, ensuring that existing residences and noise-sensitive land uses would not be exposed to excessive noise. In addition, the Land Use Compatibility for Community Noise Environment guidelines presented in Figure 9-2 of the proposed General Plan would be used by the City to evaluate noise-sensitive land use proposals in the vicinity of known noise sources.

Additionally, the policies proposed to achieve Objective N-1.1 and Objective N-1.3 would reduce the impacts of the encroachment of noise sensitive uses adjacent to noise-producing land uses. The proposed General Plan includes policies that would reduce the impacts of new noise generating uses on

TABLE 4.14-7 GENERAL PLAN PREFERRED ALTERNATIVE TRAFFIC NOISE CONTOURS

Roadway	Segment	Distance to Center- line (feet)	Future Ldn (dBA)	Noise Contour Distance from Roadway Centerline (feet)		
				70 Ldn	65 Ldn	60 Ldn
Interstate 205	West of Eleventh Street	150	85	1610	3470	7490
Interstate 205	Between Eleventh Street and Corral Hollow	150	85	1580	3400	7340
Interstate 205	Between Corral Hollow and MacArthur Drive	150	86	1720	3700	7980
Interstate 205	East of MacArthur Drive	150	86	1670	3590	7750
Interstate 580	North of Corral Hollow	150	80	680	1470	3160
Interstate 580	South of Corral Hollow	150	81	800	1730	3720
Interstate 5	North of Eleventh Street	150	81	770	1650	3560
Interstate 5	South of Eleventh Street	150	77	470	1020	2190
Grant Line Road	West of Corral Hollow	75	78	270	580	1260
Grant Line Road	East of Corral Hollow	75	78	240	520	1120
Grant Line Road	East of Tracy Boulevard	75	74	140	300	650
Grant Line Road	East of Chrisman Road	75	74	140	310	670
Eleventh Street	East of Lammers Road	75	75	160	350	750
Eleventh Street	East of Corral Hollow	75	74	140	300	650
Eleventh Street	East of MacArthur Drive	75	74	130	280	610
Eleventh Street	East of Banta Drive	75	74	140	300	640
Schulte Road	West of Corral Hollow	75	72	100	210	450
Schulte Road	East of Corral Hollow	75	71	90	190	410
Schulte Road	East of Tracy Boulevard	75	70	80	170	360
Schulte Road	East of MacArthur Drive	75	66	--	90	200
Valpico Road	West of Corral Hollow	75	62	--	50	110
Valpico Road	East of Tracy Boulevard	75	71	90	190	420
Valpico Road	East of MacArthur Drive	75	64	--	10	30
Linne Road	West of Corral Hollow	75	69	70	140	310
Linne Road	East of Tracy Boulevard	75	71	90	190	400
Lammers Road	South of Grant Line Road	75	73	--	240	520
Lammers Road	South of Eleventh Street	75	71	90	190	400
Lammers Road	North of Valpico Road	75	73	120	250	540
Corral Hollow	South of Grant Line Road	75	76	200	420	910
Corral Hollow	South of Eleventh Street	75	76	180	390	840
Corral Hollow	South of Schulte Road	75	72	100	210	460
Corral Hollow	North of Valpico Road	75	71	80	180	390
Tracy Boulevard	North of Grant Line Road	75	70	80	170	360
Tracy Boulevard	South of Grant Line Road	75	71	80	180	390
Tracy Boulevard	North of Eleventh Street	75	69	70	150	310
Tracy Boulevard	South of Eleventh Street	75	71	90	200	430
Tracy Boulevard	North of Schulte Road	75	70	80	170	360
Tracy Boulevard	South of Schulte Road	75	71	80	180	390
Tracy Boulevard	South of Valpico Road	75	68	60	130	270
MacArthur Drive	South of I-205	75	71	80	180	380
MacArthur Drive	South of Grant Line Road	75	72	100	220	470
MacArthur Drive	South of Eleventh Street	75	68	60	130	270
MacArthur Drive	North of Valpico Road	75	68	50	120	250
MacArthur Drive	South of Valpico Road	75	73	110	240	520
Chrisman Road	South of Eleventh Street	75	72	110	230	510
Chrisman Road	South of Schulte Road	75	72	110	230	510

existing noise sensitive uses by requiring that such development projects be evaluated for potential noise impacts and conflicts as part of the development review process and mitigated to minimize noise impacts (Objective N-1.2, P2, Objective N-1.3-P1, P2, P3, P4 and P5). Objective N-1.3-P5 provides suggestions for the design of projects utilizing site design techniques to minimize noise impacts. The proposed policies discussed above would adequately reduce these impacts to a less-than-significant level.

4. Groundborne Vibration

Development under the proposed General Plan would not introduce new sources of groundborne vibration. However, potential groundborne vibration issues could result from railroad operations if vibration sensitive development, such as residences, are proposed close to the railroad tracks. Sensitive developments proposed within 100 feet of a railroad would result in a significant vibration impact.

5. Airport Noise

The Tracy Municipal Airport, located in the southern portion of the City between Tracy Boulevard and Corral Hollow Road, is a source of community noise in its vicinity. New noise sensitive uses are not planned in areas within the San Joaquin County 2020 General Plan 60 or 65 dB CNEL noise contours for Tracy Airport (shown in Figure 4.14-1). Thus, no significant impact would occur.

6. Construction Noise

Residences and businesses located adjacent to proposed development would be affected by construction noise during build-out of the General Plan. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction durations last over extended periods of time. Major noise generating construction activities could include demolition activities, site grading and excavation, building erection, paving and landscap-

ing. These activities could occur in areas immediately adjacent to existing noise-sensitive receptors.

The highest construction noise levels would be generated during grading and excavation, with lower noise levels occurring during building construction. Large pieces of earth-moving equipment, such as graders, scrapers, and bulldozers, generate maximum noise levels of 85 to 90 dBA at a distance of 50 feet. Typical hourly average construction-generated noise levels are about 80 to 85 dBA measured at a distance of 50 feet from the site during busy construction periods. In addition, pile driving may occur at some of the proposed development sites. This type of construction activity can produce very high noise levels of approximately 105 dBA at 50 feet. These noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor. Intervening structures or terrain would result in lower noise levels. Noise levels anticipated over temporary periods of time as a result of construction facilitated by the proposed General Plan would generate potentially significant noise impacts.

Objective N-1.2, P4 limits construction in the vicinity of noise sensitive land uses to daylight hours or 7:00 am to 7:00 pm. However, this policy is not sufficient to mitigate construction noise impacts so a significant impact would occur.

D. Impacts and Mitigation Measures

While policies and other regulations would reduce noise impacts to the extent feasible, significant and unavoidable impacts would occur in regards to temporary, short-term and long-term noise impacts under the proposed General Plan.

Impact NOI-1: As discussed on page 4.14-22, the City's Noise Ordinance and policies in the proposed General Plan serve to control excessive sources of noise in the city and ensure that noise impacts from new projects are

evaluated when they are reviewed. Despite these policies and regulations, significant noise levels increases (3 dBA L_{dn} or greater) associated with increased traffic would occur adjacent to existing noise sensitive uses along portions of Interstate 205, Grant Line Road, Schulte Road, Linne Road, Lammers Road, Corral Hollow Road, Tracy Boulevard, and MacArthur Drive. New roadways facilitated by the General Plan would also increase existing noise levels at receivers in Tracy.

This is a significant and unavoidable impact. No additional mitigation is available.

Impact NOI-2: New development proposed along existing railroad lines could expose residents to vibration levels in excess of Federal standards. The proposed General Plan does not address potential groundborne vibration impacts.

Mitigation Measure NOI-2: A policy should be added to the proposed General Plan under Objective N-1.3 that states that the City will seek to reduce impacts from groundborne vibration associated with rail operations by requiring that vibration-sensitive buildings (e.g., residences) are sited at least 100-feet from the centerline of the railroad tracks whenever feasible. The policy should further state that development of vibration-sensitive buildings within 100-feet from the centerline of the railroad tracks would require a study demonstrating that ground borne vibration issues associated with rail operations have been adequately addressed (i.e., through building siting or construction techniques).

Impact NOI-3: Construction associated with development projected during the planning horizon of the proposed General Plan would temporarily elevate noise levels at adjacent land uses by 15 to 20 dBA or more.

Mitigation Measure NOI -3: In addition to the time-of-day restriction in Objective N-1.2, P4, the following standard construction noise control measures should be included as requirements at construction sites to minimize construction noise impacts:

- ◆ Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- ◆ Locate stationary noise generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.
- ◆ Utilize “quiet” air compressors and other stationery noise sources where technology exists.
- ◆ When necessary, temporary noise control blanket barriers shall shroud pile drivers or be erected in a manner to shield the adjacent land uses. Such noise control blanket barriers can be rented and quickly erected.
- ◆ Foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile. The pre-drilling of foundation pile holes is a standard construction noise control technique. Pre-drilling reduces the number of blows required to seat the pile.
- ◆ The project sponsor shall designate a “disturbance coordinator” who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. The project sponsor shall also post a telephone number for excessive noise complaints in conspicuous locations in the vicinity of the project site. Additionally, the project sponsor shall send a notice to neighbors in the project vicinity with information on the construction schedule and the telephone number for noise complaints.

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4.15 AIR QUALITY

This section discusses the geography and meteorology, the regulatory framework for air quality, the existing air conditions in the City of Tracy and the San Joaquin region. This section also describes impacts to air quality in Tracy and the region relating to construction, direct and indirect emissions associated with the proposed General Plan, and mitigation measures warranted to reduce or eliminate any identified significant impacts, based on the assessment guidelines of the San Joaquin Valley Air Pollution Control District (SJVAPCD).

A. Existing Setting

The following describes the existing regulatory and physical environment with regard to air quality in Tracy and the San Joaquin region.

1. Regulatory Framework

a. Federal and State Regulations

The National and California Clean Air Acts have established ambient air quality standards for different pollutants. National ambient air quality standards, administered by the U.S. Environmental Protection Agency (EPA), were established by the Clean Air Act of 1970 (amended in 1977 and 1990) for six criteria pollutants. These pollutants are so named because they have specific criteria for exposure based on health risks and environmental effects. Criteria pollutants include ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), inhalable particulate matter (PM₁₀ and PM_{2.5}) and lead (Pb).

California established ambient air quality standards in 1969 through the Mulford-Carrell Act. Pollutants regulated under the California Clean Air Act, which is administered by the California Air Resources Board (CARB) are similar to those regulated under the Federal Clean Air Act. In many cases, California standards are more stringent than the national standards. Table 4.15-1 summarizes the air quality standards and provides a brief description of

the six criteria air pollutants. Pollutants of greatest concern to the Tracy region (i.e., O₃, CO, PM₁₀ and PM_{2.5}) are described in further detail as follows.

i. Ozone

Ground-level ozone is the principal component of smog. Ozone is not directly emitted into the atmosphere but is formed by the photochemical reaction of ozone precursors. These precursor compounds are generally of two classes: reactive organic gases (ROG) and nitrogen oxides (NO_x). Ozone levels are highest during late spring through late summer when precursor emissions are high and meteorological conditions are favorable for the necessary complex photochemical reactions to occur. Motor vehicles are the predominant source of reactive ozone precursor emissions in the Central Valley (as with the rest of the State).

ii. Carbon Monoxide (CO)

CO is a non-reactive pollutant that is highly toxic, invisible, and odorless. It is formed by the incomplete combustion of fuels. The largest source of CO emissions is motor vehicles. Wood stoves and fireplaces also contribute to high levels of CO. Unlike ozone, CO is directly emitted to the atmosphere. The highest CO concentrations occur during the nighttime and early mornings in late fall and winter. Ambient CO levels are strongly influenced by meteorological factors such as wind speed and atmospheric stability.

iii. Inhalable Particulates

This pollutant is composed of two classes of compounds: PM₁₀ and PM_{2.5}. PM₁₀ means particulate matter 10 microns or less in diameter and PM_{2.5} refers to particulate matter 2.5 microns or less in diameter. PM_{2.5} is a subset of PM₁₀ that has pronounced health effects, so a stringent federal standard was recently adopted by EPA. Sources of inhalable particulates include smoke, dust, aerosols, and metallic oxides. Some inhalable particulates are considered toxic. Although particulates are found naturally in the air (such as sea salt), most particulate matter found in the Central Valley region is emitted either

TABLE 4.15-1 **AMBIENT AIR QUALITY STANDARDS FOR CRITERIA POLLUTANTS**

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone (O ₃)	1 hour	0.09 ppm*	--(1)	Irritation and possibly permanent lung damage.	Motor vehicles, including refining and gasoline delivery.
	8 hours	0.07 ppm	0.08 ppm		
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Deprives body of oxygen in the blood. Causes headaches and worsens respiratory problems.	Primarily gasoline-powered internal combustion engines.
	8 hours	9.0 ppm	9 ppm		
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Average	---	0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum-refining, power plants, aircraft, ships, and railroads.
	1 hour	0.25 ppm	---		
Sulfur Dioxide (SO ₂)	Annual Arithmetic Average	---	0.03 ppm	Irritates and may permanently injure respiratory tract and lungs. Can damage plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	---		
	24 hours	0.04 ppm	0.14 ppm		
Respirable Particulate Matter (PM ₁₀)	24 hours	50 ug/m ³ (PM ₁₀)	150 ug/m ³ (PM ₁₀)	May irritate eyes and respiratory tract; decrease lung capacity, cause cancer and increased mortality. Produces haze and limits visibility.	Industrial and agricultural operations, combustion, wood smoke, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
	Annual Arithmetic Mean	20 ug/m ³ (PM ₁₀)	50 ug/m ³ (PM ₁₀)		
	24 hour	--	65 ug/m ³ (PM _{2.5})		
Fine Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	12 ug/m ³ (PM _{2.5})	15 ug/m ³ (PM _{2.5})		
Lead	30 Day Average	1.5 ug/m ³		Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurological dysfunction (in severe cases).	Present source include: lead smelters, battery manufacturing & recycling facilities. Past sources include: combustion of leaded gasoline.
	Calendar Quarter	---	1.5 ug/m ³		

* Note ppm = part per million; ug/m³ = micrograms per cubic meter

(1) The national 1-hour ozone standard was revoked by the U.S. EPA on June 15, 2005.

Source California Air Resources Board, May 6, 2005

directly or indirectly by motor vehicles, industry, construction, agricultural activities, and wind erosion of disturbed areas. Most PM_{2.5} is comprised of combustion products (i.e. soot), or secondary aerosols (gasses that change state to solids). This is considered a problem in most of the US, although monitoring is still conducted to ensure continued public health protection.

iv. Toxic Air Contaminants (TAC)

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

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to the CARB, diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the federal Hazardous Air Pollutants (HAPS) programs.

In cooler weather, smoke from residential wood combustion can be a primary source of TACs. High-localized TAC concentrations can result when cold stagnant air traps smoke near the ground and, with no wind; the pollution can persist for many hours. Wood smoke also contains a significant amount of PM₁₀ and PM_{2.5}. These fine particulate can carry TACs on their surface, and transport them deep into the lungs. Wood smoke is also an irritant and is implicated in worsening asthma and other chronic lung problems.

In April of 2005, the CARB published a handbook on air quality and land use issues that includes advisory recommendations for siting sensitive land uses (e.g., residences and schools) near specific sources of air pollution.¹ The primary air pollution sources addressed that are located in Tracy are freeways, urban roads with over 100,000 vehicles per day, rural roads with over 50,000 vehicles per day, distribution centers, dry cleaners and large gasoline stations. The advisory recommendations include not siting new residences nor other sensitive land uses within 500 feet of freeways or arterials, 1,000 feet from distribution centers that accommodate a substantial level of truck traffic, and 300 feet from dry cleaners and 50 feet from gas stations.² The recommendations are based on cursory evaluations of similar types of land use conflict scenarios and therefore are not intended to be standards that are strictly adhered to in every situation. According to the handbook, several factors would affect the level of significance from these types of sources, including truck volumes and activity, topography, meteorology, type of sensitive land use and proposed setback. The CARB therefore recommends a site-specific analysis to determine actual risk near a particular facility. The CARB handbook states that the advisory recommendations should be used to guide analysis of impacts to new sensitive receptors that are proposed within these recommended setbacks, however, that land use agencies also have to balance this with other considerations, including housing and transportation needs, economic development priorities and other quality of life issues.

b. San Joaquin Valley Air Pollution Control District (SJVAPCD)

The SJVAPCD has responsibility for local air quality regulation. The SJVAPCD's primary responsibility is to regulate stationary sources and develop plans to achieve and maintain air quality standards. The CARB and U.S. EPA have jurisdiction over controlling emissions from mobile sources. To protect public health, the SJVAPCD has adopted plans to achieve ambient air quality standards. The air district must continuously monitor its progress for plan implementation. SJVAPCD must report this effort regularly to the

¹ California Air Resources Board, 2005. "Air Quality and Land Use Handbook: A Community Health Perspective," April 2005, p.4.

CARB and the EPA. It must also periodically revise its attainment plans to reflect new conditions and requirements. The SJVAPCD tries to exercise a uniform emission control effort that will bring the entire region into compliance with State and federal standards as quickly as possible.

In coordination with the San Joaquin Council of Governments (SJCOG), the SJVAPCD has prepared several plans to address attainment of both the federal and State Ozone standards. These plans are based on the latest planning assumptions (i.e., presumably the 1993 General Plan for Tracy). The 1994 Ozone Attainment Demonstration Plan included the strategy for achieving the federal 1-hour standard, and fulfilled California's requirement for addressing the State Ozone standard. Because the area failed to attain the standard by the end of 1999, the EPA reclassified the area from a serious to severe nonattainment area. Under the severe designation, the EPA required the SJVAPCD to prepare a plan demonstrating attainment of the standard by the end of 2005 and rate of progress plans demonstrating reduction of ozone precursor emissions at a rate of three percent per year (averaged over a 3-year period).

The Amended 2002-2005 Rate of Progress Plan is the latest plan submitted that addressed the federal 1-hour Ozone standard.³ However, EPA rejected the plan, and at the State's request, has proposed to reclassify the area as an extreme nonattainment area. As a result, the SJVAPCD submitted the 2004 Extreme Ozone Attainment Plan to the EPA. The plan is currently under review. Without the redesignation, the EPA would have to subject the region to a federally imposed control plan. Work has recently begun to prepare the 8-hour ozone federal attainment plan, which is expected in 2007. The latest plan addressing the State Ozone standard is the 2000 Triennial Update. However, Chapter 8 of the 2004 Extreme Ozone Attainment Plan addresses the California Clean Air Act triennial progress report requirements. All of these

² *Ibid.*

³ The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005

plans include strategies for reducing the emissions of Ozone precursor pollutants.

The 2003 PM₁₀ Plan is the SJVAPCD's strategy for achieving the National Ambient Air Quality Standards for particulate matter measuring less than 10 microns in diameter (PM₁₀). The plan is designed to meet the requirements of the federal Clean Air Act and contains measures needed to attain the federal PM₁₀ standard at the earliest possible date. The PM₁₀ Plan will become part of the State Implementation Plan for the San Joaquin Valley. An update to the attainment plan for PM₁₀ is due to EPA in 2006.

In terms of program evaluation, the SJVAPCD recommends that communities using the DTIM transportation model to estimate ozone precursor emissions. The SJVAPCD recommends that the DTIM runs should be consistent with those used to show Transportation Conformity. Alternatively, the CARB mobile emission inventory model EMFAC2002 can be used in communities that do not have DTIM. Intersections with high congestion should be modeled for CO hotspots using Caline4.

Due to the relationship between land development, transportation and emissions from mobile sources, the SJVAPCD provides guidance to cities and counties on developing General Plans that will help create better air quality in the future. To this end, the SJVAPCD prepared the *Air Quality Guidelines for General Plans* that sets forth 77 goals, policies, and implementation strategies for air quality. The Guidelines emphasize a comprehensive approach to air quality planning including integrating land use planning in support of alternative transportation, implementing programs that reduce congestion and vehicle use, reviewing of project and cumulative air quality impacts under CEQA, reducing exposure to toxic air pollutants, establishing appropriate land use buffers around existing and proposed land uses that would be a source of odors, and reducing emissions from energy consumption and area sources, including water heaters, woodstoves, fireplaces and barbecues.

The SJVAPCD has not yet specifically addressed the CARB's advisory recommendations regarding siting distances between sensitive receptors and certain sources of air pollution, as described above. However, SJVAPCD is currently working on an update to its *Guide for Assessing and Mitigating Air Quality Impacts*, which is expected to provide additional guidance on this issue.⁴

2. Geography and Meteorology

Tracy is located in the northwest part of the San Joaquin Valley. Elevation of this flat floor portion of the valley is about 150 feet above sea level. The San Joaquin Valley Air Basin is about 35 miles wide and 250 miles long. Surrounded by mountain ranges, the air basin drains to the north with an opening at the Carquinez Strait, which leads into the San Francisco Bay and then the Pacific Ocean.

Wet winters and dry summers characterize the Tracy region's inland Mediterranean-type climate. Climate is temperate, with an average annual high of 75 degrees and an average low of 47 degrees. Rainfall totals can vary widely over a short distance with windward mountain areas west of Tracy averaging over 24 inches of rain and shadow areas, such as the city proper, averaging about 10 inches annually. During stormy periods, horizontal and vertical air movement ensures rapid pollutant dispersal. Rain also washes out particulate and other pollutants. Conversely, during calm periods, pollutant levels can build up to unhealthful levels.

Winds from March to November typically blow from the west near Tracy. During winter months, drainage winds are more common, with colder air from surrounding mountains flowing down into the valley floor and then out toward the Delta.

Normally, air temperatures decrease with increasing elevations. Sometimes this normal pattern is inverted, with warm air aloft, and cooler air trapped

⁴ Personal communication with Chrystal Meier, SJVAPCD, 9/8/05.

near the earth's surface. This atmospheric condition occurs in all seasons. In summer, especially when wind speeds are very low, a strong inversion will trap air emissions near the surface allowing high levels of ozone smog to develop. In winter, persistent inversions can trap emissions of particulate (e.g., woodsmoke) and carbon monoxide near the surface, resulting in unhealthy air quality.

The potential for serious summer air pollution in the San Joaquin Valley is strong because of high surface temperatures, plentiful sunshine, relatively stable air, and mountains that trap emissions. In winter, low rainfall, strong inversions and weak winds allow emissions to build up to high levels. In Tracy, local pollution sources are augmented by emissions transported from upwind sources. Conversely, air pollutant emissions created in Tracy can be transported toward other communities by the wind, and contribute to unhealthy levels in those areas. Hence controlling air pollution requires both local and regional efforts and unified programs to achieve clean air.

3. Existing Air Quality Conditions

a. Criteria Pollutants

Ambient air quality is affected by the rate and concentration of pollutant emissions and meteorological conditions. Factors such as wind speed, atmospheric stability, and mixing height all affect the atmosphere's ability to mix and disperse pollutants. Long-term variations in air quality typically result from changes in emissions, while short-term variations result from changes in atmospheric conditions. There are several continuous air monitoring stations operated by government agencies in the Tracy area. Measured air pollutant data indicate that ground-level ozone, PM₁₀, and PM_{2.5}, are the air pollutants of greatest concern because they are fatal in high concentrations.

The monitors in Tracy and Stockton are generally representative of air quality in this part of the San Joaquin Valley. Ambient air pollution data typically receives great scrutiny and quality assurance testing, so final data lags about one year behind the current calendar year. State and federal air quality

standards, and the highest local air pollutant levels measured over the past five years (2000-2004) are reported in Table 4.15-2.

Air pollutant emissions in Tracy, including emissions of toxic air contaminants come from a variety of sources. Most industrial sources would be buffered from residences or other sensitive receptors through land uses decisions. However, diesel exhaust from trucks and other diesel-powered equipment can result in significant exposures to air toxic contaminants. In Tracy, the I-205 and I-580 freeways include high volumes of truck traffic that lead to substantial emissions of diesel particulate matter, a known carcinogen. Tracy also contains numerous distribution centers that include substantial truck traffic.

In general, air quality in Tracy between 2000 and 2004 has been better than other parts of the San Joaquin Valley. During this time, the State one-hour ozone standard was exceeded from three to 16 times a year, and the federal standard was not exceeded. National eight-hour ozone standards were exceeded three to ten times a year. State PM₁₀ standards have been exceeded from 36 to 60 times a year. Federal PM_{2.5} daily standards have been exceeded from one to five times a year. Standards for all other criteria pollutants were not exceeded in the five year period.

The CARB publishes an almanac each year that evaluates air quality trends statewide. It also makes forecasts about future pollution levels. According to the CARB, emission sources for ozone precursors in the San Joaquin Valley are from both motor vehicles and industry, with oil fields at the south end of the valley producing high NO_x levels. Agriculture, fugitive dust from paved and unpaved roads, and waste burning all contribute to high background levels of PM₁₀.

From 1981 to 2000 population increased 56 percent while Vehicle Miles Traveled increased 136 percent. Much of this increase is due to the way communities are designed as well as housing pricing that encourages long commutes. In spite of this dramatic increase in vehicle travel, controls on stationary and mobile sources improved ozone air quality about 12 percent. Likewise,

TABLE 4.15-2 **MEASURED AIR POLLUTANT CONCENTRATIONS IN SAN JOAQUIN COUNTY¹**

Pollutant	Average Time	National Ambient Air Quality Standard	California Ambient Air Quality Standard	Measured Levels				
				2000	2001	2002	2003	2004
Ozone (O ₃)	1-Hour	—(1)	0.09 ppm	0.12 ppm	0.11 ppm	0.11 ppm	0.10 ppm	0.11 ppm
	8-Hour	0.08 ppm	0.07 ppm	0.09 ppm	0.09 ppm	0.10 ppm	0.09 ppm	0.10 ppm
Carbon Monoxide (CO)	8-Hour	9 ppm	9.0 ppm	3.9 ppm	6.0 ppm	3.2 ppm	3.1 ppm	2.5 ppm
Fine Particulate Matter (PM _{2.5})	1-Hour	65 µg/m ³	--	78 µg/m³	76 µg/m³	64 µg/m ³	45µg/m³	41 µg/m³
	Annual	15µg/m ³	--	16 yg/m³	14 µg/m ³	17 µg/m³	14 µg/m ³	13µg/m ³
Respirable Particulate Matter (PM ₁₀)	24-Hour	150 µg/m ³	50 µg/m ³	91 yg/m³	140 yg/m³	87 µg/m³	90 µg/m³	61 µg/m³
	Annual State/Fed	50 µg/m ³	20 µg/m ³	29/32 µg/m ³	30/35 µg/m ³	31/36µg/m ³	28 µg/m³	29 µg/m³

Source: California Air Resources Board, <http://www.arb.ca.gov/adam>.

Notes:

ppm = parts per million

µg/m³ = micrograms per cubic meter

NA = data not available

Values reported in bold exceed ambient air quality standard

(1) The national 1-hour ozone standard was revoked by the U.S. EPA on June 15, 2005.

control measures have reduced PM₁₀ levels by about 32 percent. According to the California Clean Air Campaign, the San Joaquin Valley still has some of the worst air pollution in the nation, with about 12,000 people hospitalized for asthma in 2002.

b. Potential Sources of Significant Odors

The primary source of potential odors in Tracy would be the Wastewater Treatment Plant at Holly Drive just north of I-205. Other smaller odor sources, such as industrial facilities or restaurants are dispersed throughout the City.

c. Attainment Status

As is shown in Table 4.15-4, the region does not meet federal standards for ground level ozone and fine particulate matter. The EPA is proposing to grant a request by the State to voluntarily reclassify the region (under the federal Clean Air Act) from a severe to an extreme 1-hour ozone nonattainment area. Under this action, an extreme ozone nonattainment area plan was submitted to the EPA in 2004. Reclassification will stop the sanctions and federal implementation plan clocks that were started when the EPA made a finding that the State failed to submit the statutorily required severe area attainment demonstration plan.

4. Existing and Projected Trends in Air Pollutant Emissions

Air pollutant emission inventories are maintained by the CARB. These inventories are developed for air basins and counties throughout California. Emission inventories are not developed for individual cities. The existing and projected emission inventory for San Joaquin County is presented in Table 4.15.5. Emissions of ozone precursor pollutants (ROG and NO_x) are anticipated to decrease during future years. While ROG decreases will occur, reductions in NO_x emissions are anticipated to be substantial coming mainly from the control of mobile sources. While mobile source emissions of NO_x have been decreasing since 1990 (even though population and vehicle use has increased), greater decreases are anticipated. PM₁₀ and PM_{2.5} are problematic

TABLE 4.15-4 **ATTAINMENT OF AMBIENT AIR QUALITY STANDARDS SAN JOAQUIN COUNTY (INCLUDING TRACY)**

Pollutant	Federal Designation	State Designation
Ozone - one hour	No Federal Standard*	Nonattainment/Severe
Ozone - eight hour	Nonattainment/Serious	No State Standard
PM2.5	Nonattainment	No State Standard
PM10	Nonattainment	Nonattainment
CO	Unclassified/Attainment	Attainment
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Unclassified/Attainment	Attainment

*US EPA revoked the 1-hour ozone standard on June 15, 2005.

Source: SJVAPCD 7/13/2005 <http://www.valleyair.org/aqinfo/attainment.htm>

in the future. These emissions, which come from a large variety of sources, are anticipated to increase through 2020 by 10 to 15 percent.

B. Standards of Significance

The proposed General Plan would have a significant impact to air quality if it would:

- ◆ Allow increases in vehicle activity, which lead to increases in air pollutant emissions, that are not consistent with the applicable Clean Air Plan.
- ◆ Allow for development that would cause significant odor complaints.
- ◆ Allow for development that would expose people to substantial levels of toxic air contaminants.

TABLE 4.15-5 **EXISTING AND PROJECTED EMISSION INVENTORY FOR SAN JOAQUIN COUNTY**

Pollutant	Source	Daily Emissions in Tons per Day		
		Existing 2003	2010	2020
Reactive Organic Gases (ROG)	Stationary	8.1	9.1	10.6
	Area	15.9	16.6	19.0
	Mobile	25.6	15.9	10.2
	Total	49.6	41.7	39.8
Nitrogen Oxides (NO _x)	Stationary	17.9	18.3	20.7
	Area	1.7	1.6	1.6
	Mobile	61.0	41.3	23.3
	Total	80.6	61.2	45.6
Respirable Particulate Matter (PM ₁₀)	Stationary	2.6	2.9	3.4
	Area	30.0	31.9	35.0
	Mobile	2.8	2.5	2.3
	Total	35.4	37.4	40.7
Fine Particulate Matter (PM _{2.5})	Stationary	1.9	2.0	2.4
	Area	10.2	10.8	11.9
	Mobile	2.3	2.0	1.7
	Total	14.4	14.9	16.0

- ◆ Lead to unacceptably high localized concentrations of carbon monoxide.
- ◆ Allow for development that would cause construction emissions that expose people to high levels of dust and equipment exhaust.

C. Impact Discussion

The following provides an analysis of the effects of the proposed General Plan on regional air quality.

1. Consistency with Clean Air Planning Efforts

The following section discusses the proposed General Plan's consistency with the regional clean air planning efforts.

a. Clean Air Planning Population Assumptions and Projections

Future development in Tracy would generate emissions of ozone precursor pollutants and PM₁₀, both of which affect regional air quality. Development allowed under the proposed General Plan would be greater than that allowed under the current General Plan. This increased development could lead to greater vehicle use, as measured in daily vehicle miles traveled.

Future changes to air pollutant emissions in the Tracy area were computed based on vehicle miles traveled (VMT) estimates, since most air pollutant emissions associated with land use development occur from vehicle use. The CARB motor vehicle emissions model (EMFAC2002) was used along with vehicle miles traveled estimates to calculate daily emissions in terms of pounds per day for existing, future 2025 under the current General Plan assumptions, and 2025 under the proposed General Plan assumptions. Specifically, the BURDEN portion of the EMFAC2002 model, using San Joaquin County default summer conditions, was used with VMT projections. Daily VMT and air pollutant emissions are shown in Table 4.15-6.

As shown in Table 4.15-6, emissions of ozone precursors (ROG and NO_x) are expected to decrease over the life of the proposed General Plan. The combination of fleet turnover with vehicles that have better emissions controls and reformulated vehicle fuel would substantially reduce motor vehicle emission rates over the next 20 years. Cleaner vehicle exhaust is the primary strategy for reducing air pollutant levels to meet State and federal air quality standards. While emissions would decrease in the future under both the current and proposed General Plan, emissions under the proposed General Plan would be greater. There are no quantitative thresholds to judge the significance of these changes to future emissions. The air pollutant emissions projections provided in Table 4.15-6 are for information purposes only.

TABLE 4.15-6 **COMPARISON OF PROJECTED VEHICLE MILES TRAVELED AND EMISSIONS ASSOCIATED WITH PROPOSED GENERAL PLAN**

Projected Amount					
	Base Year 2003	Existing Tracy General Plan	Tracy Proposed General Plan	Difference	% Difference
Vehicle Miles Traveled Projections					
VTM (x1,000 Miles)	2,841	8,477	8,962	485	5.7%
Resulting Emissions Estimates in Pounds per Day					
ROG (lbs/Day)	5,685	2,950	3,082	132	4.5%
CO (lbs/Day)	54,272	22,681	23,884	1,203	5.3%
NO _x (lbs/Day)	11,817	4,275	4,498	223	5.2%
PM ₁₀ (lbs/Day)*	3,474	10,666	11,274	608	5.5%

*Includes dust from paved roadways based on CARB area source emission inventories for San Joaquin County, motor vehicle exhaust, and tire/brake wear.

The population of Tracy would increase as a result of development of the land uses allowed under the proposed General Plan. Increases in VMT would occur as a result of increased population, and thus, increased emissions of ozone precursors and PM₁₀. Traffic projections associated with growth in Tracy indicate that the proposed General Plan could allow VMT to grow at a rate of almost 6 percent greater than the current General Plan. Since the proposed General Plan could result in greater VMT than current General Plan, it would be in conflict with the regional clean air planning efforts. While the increases over the region are relatively small when compared with San Joaquin County's total projected mobile source emissions, the fact that they ex-

ceed those projections used in the clean air planning efforts would nonetheless constitute a significant and unavoidable air quality impact.

The proposed General Plan includes an updated Air Quality Element along with numerous land use and circulation policies that seek to reduce air pollution and minimize the air quality impacts of new development. The proposed General Plan includes policies that prioritizes infill of existing neighborhoods, and ensures that urban development occur adjacent to existing urbanized areas. The General Plan also include policies to take advantage of existing and future transit opportunities. In addition, the General Plan focuses on mixed-use land uses that would promote alternative modes of transportation and contains numerous policies and programs that, if adopted and implemented, would act to help reduce motor vehicle use from new development. This would in turn reduce the rate of vehicle miles traveled from trips generated in Tracy. Many of these policies are listed below under “Consistency with TCMs.”

The Air Quality Element of the proposed General Plan contains policies supporting four main objectives aimed at improving air quality. Policies 1 through 5 under Objective AQ-1.1 promote land use patterns that would reduce the number and length of vehicle trips, encourage mixed use developments, maintain a balance between housing and jobs (shorter commute trips), and encourage uses that would encourage walking and biking. Objective AQ-1.2 includes 14 policies and two actions that would contribute to reducing air pollutant emissions through CEQA review, implementation of best management practices, limitations on wood burning fireplaces, reductions in energy usage, application of dust control measures, and providing appropriate buffers between sources of air pollutant emissions and sensitive receptors such as residences. Objective AQ-1.3 includes six policies and two actions that would support alternative modes of transportation such as carpooling, transit, bicycling and walking, which would reduce dependence on motor vehicles. Finally, Objective AQ-1.4 includes two policies and two actions that would coordinate improvements efforts with those outside of Tracy and provide education to the public.

While the various policies and actions outlined above would reduce air pollutant emissions that affect both Tracy and the region, the impact from the proposed General Plan would be significant, because it would result in higher VMT than the current General Plan and assumptions used by SJCOG and SJVAPCD in assumptions used for relevant clean air plans.

b. Consistency with Clean Air Transportation Control Measures

The SJVAPCD and SJCOG clean air planning efforts assume that appropriate TCMs will be incorporated into new projects. Table 4.15-7 lists the policies of the proposed General Plan that are supportive of the TCMs adopted by SJVAPCD and SJCOG. A description of each TCM is provided along with a listing of relevant proposed General Plan policies that would implement each measure. The proposed policies support and reasonably implement the applicable TCMs, and thus would be consistent with these measures. Thus, no significant impact would occur with regard to TCMs that have been adopted by the SJVAPCD as part of the region's clean air planning efforts.

c. Exposures to Odors

As noted above, the SJVAPCD's *Air Quality Guidance for General Plans* calls for a General Plan to establish appropriate land use buffers around existing and proposed land uses that would be a source of odors. The proposed General Plan includes policies under Objective AQ-1.2 that could minimize the impact of potential sources of odor (Objective AQ-1.2, P1, P10 and P11).

However, the proposed General Plan land use maps indicate that land uses containing future sensitive receptors could be placed near sources of odors that could generate frequent odor complaints. The proposed General Plan does not include any policies that specifically require appropriate buffers between sensitive receptors and sources of odors. Such buffer zones should be established through General Plan policies, in the General Plan land use map, and in implementing ordinances, such as the Zoning Ordinance. This would result in potentially significant land uses conflicts with air pollutant sources. The significance of this impact would have to be determined on a project-by-

TABLE 4.15-7 **RELEVANT PROPOSED GENERAL PLAN POLICIES SUPPORTING REGIONAL TCMs**

Transportation Control Measures	Relevant Draft General Plan 2025 Programs and Policies
1. Public Transit	Objective CC-9.1 – Policy 2 - Village Centers should include provisions for public transit.
	Objective CIR-2.1 – Policy 1 - The City shall continue to cooperate with regional and State agencies, including Caltrans and San Joaquin Council of Governments (SJCOG) to study plan and fund improvements to the regional transportation system. These regional transportation improvements may include freeway widening, the construction of regional roadways, regional passenger rail expansions, additions to the existing commuter bus system and provision of park-and-ride lots near facilities heavily used by commuters.
	Objective CIR-4.1 – Policy 2 - The City shall continue to operate the Tracer fixed-route and para-transit transit service and expand service to new residential and non-residential areas if funding for additional service is available and is warranted by ridership demand.
	Objective CIR-4.1 – Policy 3 - The City shall seek funding from regional and State and federal agencies to fund additional transit service expansions and improvements.
	Objective CIR-4.1 – Policy 4 - The City shall require large developments to provide for transit with adequate street widths and curb radii, bus turnouts, bus shelters, park-and-ride lots and multi-modal transit centers, if appropriate.
	Objective CIR-4.1 – Policy 5 - The City shall encourage efforts for additional regional transit service, including expansion of the existing ACE service, expansion of the existing commuter bus service, and new commuter rail service from Tracy to other areas in the region.
	Objective CIR-4.2 – Policy 1 - The City shall continue to pursue the development of the Multi Modal Transit Center at Central Avenue and 6 th Street.
	Objective CIR-4.2 – Policy 2 - The City shall preserve the necessary rights-of-way by continuing the implementation of current arterial street standards and ensuring the preservation of existing rail corridors to facilitate the development of an expanded transit program in the future.
	Objective CIR-4.2 – Policy 3 - The City shall encourage the expansion of transit services through coordination and cooperation with the Bay Area Rapid Transit District (BART), San Joaquin Regional Rail Commission, San Joaquin Regional Transit District, the Altamont Commuter Express (ACE), on services that expand the mobility and accessibility of transporting people, goods and services in and through Tracy and the region.
	Objective CIR-4.2 – Policy 4 - The City shall develop a fully integrated multi-modal transportation system that takes into account access to employment, education, shops, medical services and that facilitates participation in social and recreational opportunities.
	Objective CIR-4.2 – Policy 5 - The City shall provide an efficient, effective and coordinated transit system that maximizes use of regional, state and federal funds.

TABLE 4.15-7 (CON'T) **RELEVANT PROPOSED GENERAL PLAN POLICIES SUPPORTING REGIONAL TCMS**

Transportation Control Measures	Relevant Draft General Plan 2025 Programs and Policies
2. Rideshare Program	Objective AQ-1.3 – Policy 2 - The City shall encourage Caltrans to implement High Occupancy Vehicle (HOV) lanes on regional freeways in and around the Tracy Planning Area.
3. Park and Ride Lots	<p>Objective CIR-2.1 – Policy 2 - The City should ensure that land needed for park-and-ride facilities is conserved in new development areas.</p> <p>Objective CIR-4.1 – Policy 1 - The City shall continue to partner with SJCOG, SJRTD and Caltrans in efforts to locate park-and-ride lots and other transit-related facilities in the City of Tracy.</p>
4. Traffic Flow Improvements	<p>Objective CC-2 - Policy 1. - New development projects should be designed on a traditional, modified, or curvilinear grid within the City’s arterial street network. Cul-de-sacs may be used within the grid so long as the objective of pedestrian and bicycle connectivity is achieved.</p> <p>Objective CC-2.2 - Policy 5 - Streets shall be continuous within and between Neighborhoods, including those that are built by different developers or builders.</p> <p>Objective CC-2.2 - Policy 7 - New and existing site features, such as parks, utility easements, and drainage ways, should be improved and used as physical connections within and between Neighborhoods.</p> <p>Objective CC-5.2 - Policy 1 - Neighborhoods should generally be no more than ½ mile wide in any direction.</p> <p>Objective CC-5.2 - Policy 2 - Neighborhoods should not be bisected by a physical barrier, such as an arterial street, a railroad track or a major drainage way</p> <p>Objective CIR-1.2 – Policy 2 - The City shall implement a connected street pattern with multiple route options for vehicles, bikes and pedestrians.</p> <p>Objective CIR-1.2 – Policy 3 - New development shall be designed to provide vehicular, bicycle and pedestrian connections with adjacent development.</p> <p>Objective CIR-1.2 – Policy 5 - New development should be designed with a grid or modified grid pattern to facilitate traffic flows and to provide multiple connections to arterials streets.</p> <p>Objective CIR-1.5 –Policy 2- The City shall coordinate the timing of traffic signals on arterials to facilitate traffic movement.</p> <p>Objective CIR-1.6 – Policy 2 - New development shall implement traffic calming measures where necessary so long as connectivity is not diminished</p> <p>Objective CIR-4.2 –Policy 6 - The City shall pursue economical, long-term solutions to transportation problems by encouraging community designs which encourage transit use, and walking, bicycling and other non-motorized forms of transportation.</p>

TABLE 4.15-7 (CON'T) **RELEVANT PROPOSED GENERAL PLAN POLICIES SUPPORTING REGIONAL TCMS**

Transportation Control Measures	Relevant Draft General Plan 2025 Programs and Policies
5. Bicycle and Pedestrian Programs continued	Objective CC-2.2 - Policy 1 - The Downtown and Village Centers shall have direct pedestrian, bicycle and vehicular connections to all Neighborhoods or development projects within an Employment Area
	Objective CC-2.2 - Policy 2 - Neighborhoods should have direct pedestrian, bicycle and vehicular connections to their Focal Points and Village Center.
	Objective CIR-3.1 – Policy 1 - The City shall incorporate appropriate bicycle and pedestrian facilities on all roadways constructed by the City, Class I to the extent feasible.
	Objective CIR-3.1 – Policy 2 - To the extent possible, the City shall separate vehicular from bicycle and pedestrian traffic on higher-speed and higher-volume roadways through the use of off-street bicycle and pedestrian facilities.
	Objective CIR-3.1 – Policy 3 - The City may separate bicycle from pedestrian users on high usage bicycle and pedestrian paths.
	Objective CIR-3.1 – Policy 4 - The City’s bicycle and pedestrian system shall have a high level of connectivity, especially between residences and common local destinations, such as schools, shopping and parks. A higher level of bicycle and pedestrian connectivity is defined as a shorter or similar distance to common destinations for bicycles and pedestrians compared to distances for vehicles.
	Objective CIR-3.1 – Policy 5 - New development shall include pedestrian and bicycle facilities internal to the development and that connect to citywide facilities, such as parks, schools and recreational corridors.
	Objective CIR-3.1 – Policy 6 - New development sites for commercial, employment, educational, recreational and park-and-ride land uses shall provide bicycle parking and/or storage facilities.
	Objective OSC-4.3 – Policy 2 - All development projects should provide linkages to the regional bike and trail system and circulation within the development project site, wherever feasible.
	Objective OSC-4.3 – Policy 3 - The City shall pursue the completion of all trail systems designated in the Bikeways Master Plan.
	Objective OSC-4.3 – Policy 4 - The City shall partner with San Joaquin County to coordinate regional trail linkages.
	Objective AQ-1.3 – Policy 4 -The City shall support efforts to retain the railroad right-of-way for future public transit and bicycle facilities.
	Objective AQ-1.3 – Policy 5 - Direct pedestrian and bicycle linkages from residential areas to parks, schools, retail areas, Downtown, high-frequency transit facilities and major employment areas shall be planned and implemented.
	Objective CC-2.2 – Policy 4 - Neighborhoods shall be designed so that daily shopping errands and trips to their Focal Points can generally be completed within easy walking or biking distances or within a short car drive.
	Objective CC-5.2 - Policy 3 - Design streets in Neighborhoods to enhance the sense of place and

TABLE 4.15-7 (CON'T) **RELEVANT PROPOSED GENERAL PLAN POLICIES SUPPORTING REGIONAL TCMS**

Transportation Control Measures	Relevant Draft General Plan 2025 Programs and Policies
	<p>create a safe and comfortable pedestrian environment.</p> <p>Objective CC-5.2- Policy 4 - In most instances, block lengths should be short, typically no more than 400 feet, to create a fine-grained street pattern that allows for multiple routes through a neighborhood and greater opportunities for pedestrian activity.</p> <p>Objective CC-5.2 - Policy 5 - Street patterns and block lengths in hillside areas may be designed to follow natural topography and open spaces as long as the objective of hometown feel and bicycle and pedestrian connectivity are achieved.</p> <p>Objective CC-5.2 - Policy 8 - Sidewalks should be provided on both sides of the streets in all Neighborhoods, except areas designated as Residential Very Low, where it may be acceptable to have sidewalks on only one side of the street.</p> <p>Objective CC 8-1 – Policy 5 - The following policies and guidance shall apply to development in the Downtown to enhance the pedestrian environment:</p> <ul style="list-style-type: none"> Should include human-scale details in the design of buildings such as windows on the street, awnings, and architectural features that create a visually interesting pedestrian environment. Should include areas designed to create spaces where people can interact and socialize, such as parks, plazas or open air seating in cafes and restaurants, as well as pedestrian amenities such as awnings, pedestrian-scaled lighting, benches and trash cans. Street trees shall be planted that provide a tree canopy over the street. Should have loading facilities screened from public view and located away from residential uses. Should locate parking lots behind or on the side of buildings where possible to reduce their visual impact. Shall provide screening for parking lots through the use of landscaping or low walls. Shall have landscaped parking lots to create an attractive pedestrian environment and reduce the impact of heat islands. May utilize shared parking where applicable to reduce the total number of parking spaces. <p>Objective CC 8-3 – Policy 4 - All new development shall enhance and be oriented towards the pedestrian environment.</p> <p>Objective CC-9.2 – Policy 1 -Village Centers should be designed around a main street that is designed to encourage and facilitate pedestrian activity.</p> <p>Objective CC-9.4 – Policy 4 - Buildings in Village Centers shall feature outdoor use areas to provide a feeling of permanence and durability, such as plazas and open air seating in cafes and restaurants.</p> <p>Objective CC-9.4 – Policy 5 - Loading facilities in Village Centers for uses requiring delivery from large trucks shall be screened from public view and located away from residential uses.</p>

TABLE 4.15-7 (CON'T) **RELEVANT PROPOSED GENERAL PLAN POLICIES SUPPORTING REGIONAL TCMS**

Transportation Control Measures	Relevant Draft General Plan 2025 Programs and Policies
	Objective CC-9.5 – Policy 4 - Direct and safe pedestrian connections between parking lots and buildings in Village Centers shall be provided.
	Objective CC-9.6 – Policy 1 - Sidewalks in Village Centers shall be of an adequate width to comfortably accommodate high volumes of pedestrian traffic. In such areas, sidewalk widths of 12 feet are encouraged.
	Objective CC-9.6 – Policy 3 - Sidewalks in Village Centers shall be located on both sides of the street.
	Objective CC-9.6 – Policy 4 - Pedestrian amenities such as shade trees with a broad canopy, pedestrian-scaled lighting, benches and trashcans should be included in all Village Centers.
	Objective CC-10.1 – Policy 1 - Building setbacks on Corridors shall be minimized to enhance the pedestrian environment and character of the area.
	Objective CC-10.1 – Policy 2 - Buildings and building entrances on Corridors shall be oriented to the pedestrian environment.
	Objective CC-10.1 – Policy 3 - Buildings on Corridors shall include human-scale details such as windows facing the street, awnings, and architectural features that create a visually interesting pedestrian environment.

project basis, since the actual setback distance would be site-specific and vary depending on a number of factors unique to the sources in Tracy (e.g., meteorology). This would result in a potentially significant impact with regard to exposure to odors.

d. Exposures to Toxic Air Contaminants

The proposed General Plan land use map indicates that land uses containing future sensitive receptors could be located within the CARB's advisory recommendations for setback distances for specific sources of toxic contaminants, and thus, significant future exposures of sensitive receptors to diesel exhaust particulate matter from truck traffic on the freeways or near distribution centers could occur.

As noted above, the CARB's recommended setback distances between sensitive receptors and specific sources of air pollutants are advisory in nature, and that local land use agencies should balance the recommendations with other goals including housing and transportation needs, economic development priorities and community character issues. The SJVAPCD is currently updating its *Guide for Assessing and Mitigating Air Quality Impacts*, which is expected to include guidance regarding the CARB's advisory recommendations.

The proposed General Plan includes policies under Objective AQ-1.2 that could minimize the impact of potential sources of toxic air contaminants. Policies 10 and 11 under Objective AQ-1.2 require that residential developments and other uses with sensitive receptors shall be located an adequate distance from air pollution sources such as freeways, arterial roadways and other stationary sources. Objective AQ-1.2, P12, requires sources of new toxic air pollutants to prepare a Health Risk Assessment and to establish appropriate buffer zones around those areas that pose substantial health risks, as determined by the Assessment. Finally, Objective AQ-1.2, P1, requires that the City assess air quality impacts using the latest version of CEQA guidelines and those prepared by the SJVAPCD. Thus, the City shall follow any additional guidance related to the CARB advisory setback recommendations when they are forthcoming by the SJVAPCD.

The combination of these policies and guiding mechanisms, in part by implementation of the proposed General Plan, would reduce potentially significant impact with regard to exposure to toxic air contaminants to a less-than-significant level.

2. Carbon Monoxide Concentrations

For local air quality impacts, carbon monoxide (CO) is the pollutant of primary concern. Violations of an ambient CO air quality standard (either 1-hour or 8-hour) would be considered a significant adverse impact. Elevated CO concentrations are usually associated with roadways that are congested with heavy traffic volumes. A CO hotspot is an area that could exceed air quality standards from vehicle emissions under congested traffic conditions. Air pollutant monitoring data indicate relatively low background levels in Tracy.

The Caline4 line-source dispersion model along with emission factors produced by the Emfac2002 model were used to predict carbon monoxide concentrations at the most congested intersections in Tracy for existing and future conditions. The most congested intersections are those signalized intersections with high traffic volumes that operate at a level of service (LOS) of D or worse. The model uses worst-case meteorological conditions to predict one-hour levels that are adjusted to 8-hour levels and added to background concentrations. Predicted concentrations are compared to the State ambient air quality standards. Carbon monoxide concentrations were predicted for current conditions, and future conditions under the existing General Plan and the proposed General Plan. As shown in Table 4.15-8, carbon monoxide concentrations are predicted to be below the State ambient air quality standard of 9.0 parts per million (ppm). Furthermore, concentrations are anticipated to decrease substantially in the future, while traffic levels increase. This is due to the substantial reductions in tailpipe emissions that are anticipated with turnover of the fleet to newer and cleaner vehicles. As a result, the impact on

TABLE 4.15-8 **PROJECTED 8-HOUR CARBON MONOXIDE LEVELS**

Carbon Monoxide Concentration		
Location	Existing (2004)	2025 Projected Build-out of 2005 General Plan
Eleventh Street and Tracy Boulevard	5.3 ppm	3.6 ppm
Eleventh Street and Corral Hollow Road	6.1 ppm	3.7 ppm
Grant Line Road and Corral Hollow Road	5.3 ppm	3.7 ppm
Note: California ambient air quality standard for 8-hour carbon monoxide levels is 9.0 ppm. Modeled levels are added to a one-hour background concentration of 4.5 ppm. Source: Illingworth & Rodkin, June 2005.		

local air quality resulting from the project is considered to be less-than-significant, and sensitive receptors would not be significantly impacted by carbon monoxide concentrations.

3. Construction Dust Emissions

Development allowed under the proposed General Plan would generate dust that could affect local and regional air quality. Dust is generated from a variety of project construction activities including grading, import/export of fill material, and vehicle travel on unpaved surfaces. Soil can also be tracked out onto paved roads where it is entrained in the air by passing cars and trucks. The rate of dust emissions is related to the type and size of the disturbance, meteorological conditions, and soil conditions.

Emissions of dust (or PM₁₀) from construction activities are difficult to predict because of the many factors that affect emissions and dispersion. The SJAPCD regulates emissions from construction activities through Regulation IV (Prohibitions of certain activities, such as open burning and visible emissions) and Regulation VIII (Fugitive PM₁₀ Prohibition). The DEIR takes an

approach of specifying the appropriate control measures that are required for construction projects to ensure that emissions effectively controlled. Objective AQ - 1.2, Policies 1 and 2 require Air Quality assessment in accordance with CEQA guidelines prepared by the SJVAPCD. Objective AQ - 1.2, Policy 3 requires a developer to implement best management practices to reduce air pollution during construction and operations of a project. Objective AQ - 1.2, Policies 13 and 14 require dust control measures and all reasonable mitigation measures to be implemented prior to approval.

In addition, the SJVAPCD and CARB have regulations that address the handling of hazardous air pollutants such as asbestos that may be released during demolition activities. SJVAPCD rules and regulations address the both the handling and transport of these contaminants. An air toxic control measure adopted by CARB requires measures to minimize asbestos emissions in areas known to have naturally occurring asbestos. Construction work performed in accordance with SJVAPCD and CARB rules and regulations and that implements construction air pollutant control measures recommended by the SJVAPCD would not be expected to result in significant air quality impacts.

4. Construction Exhaust Emissions

Similar to construction dust, exhaust emissions are difficult to predict. Exhaust from diesel powered construction equipment affects regional ozone levels as well as localized particulate levels. Diesel particulate matter is considered a toxic air contaminant. Diesel fuel will be reformulated over the next several years to reduce particulate emissions. In addition, cleaner diesel powered equipment will replace older construction equipment leading to an overall decrease in emissions of exhaust particulate matter and ozone precursor emissions. However, emission reductions are still needed on individual construction projects to reduce the exposure of sensitive receptors to toxic air contaminants and reduce regional ozone levels. Objective AQ - 1.2, Policies 1 and 2 require Air Quality assessment in accordance with CEQA guidelines prepared by the SJVAPCD. Objective AQ - 1.2, Policy 3 requires a developer to implement best management practices to reduce air pollution during construction and operations of a project. Measures that constitute reasonable

best available control measures would reduce construction exhaust emissions to a less-than-significant impact.

D. Impacts and Mitigation Measures

While policies and other regulations would reduce impacts to air quality to the extent feasible, significant and unavoidable impacts would occur in regards to air quality impacts under the proposed General Plan.

Impact AIR-1: The General Plan would not be consistent with applicable clean air planning efforts of the SJVAPCD, since vehicle miles traveled that could occur under the General Plan would exceed that projected by SJCOG, which are used in projections for air quality planning. The projected growth could lead to an increase in the region's VMT, beyond that anticipated in the SJCOG and SJVAPCD's clean air planning efforts. Development in Tracy and the SOI would contribute to the on-going air quality issues in the San Joaquin Valley Air Basin.

Mitigation Measure AIR-1: The City of Tracy should study adopting an air quality impact mitigation fee program, which would provide for partial mitigation of adverse environmental effects associated with new development and establish a formalized process for air quality standards as growth and development requires. Fees collected could be used to fund transit, rideshare programs, pedestrian and bicycle facilities, or other programs that would offset vehicle trips. The specifics of the program should be developed in coordination with SJCOG and SJVAPCD to ensure that proceeds would effectively fund projects that would reduce air pollutant emissions.

However, these policies and the mitigation measure identified above may not completely mitigate this impact. Therefore, it is considered a significant and unavoidable impact.

Impact AIR-2: The proposed General Plan does not provide adequate buffers between new or existing sources of odors and new or existing residences or sensitive receptors.

Mitigation Measure AIR-2: Policy 11 of Objective AQ-1.2 should be modified to include sources of odors as follows:

Policy 11: Residential developments and other projects with sensitive receptors shall be located an adequate distance from air pollution and odors sources such as freeways, arterial roadways and stationary air pollutant sources.

This would mitigate potentially significant land use conflicts that may result in frequent odor complaints.

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5 ALTERNATIVES TO THE PROPOSED PROJECT

The proposed General Plan has been described and analyzed in the previous sections with an emphasis on potentially significant impacts and recommended mitigation measures to avoid those impacts to the extent feasible. The State CEQA Guidelines require the description and comparative analysis of a range of reasonable alternatives to the proposed project that could feasibly attain the objectives of the project.

The following discussion is intended to inform the public and decision-makers of project alternatives that have been developed and the positive and negative aspects of those alternatives. In accordance with the CEQA Guidelines and procedures, three project alternatives, including the No Project Alternative, are discussed below. CEQA Guidelines also require that the environmentally superior alternative be identified. This information is included at the end of this chapter.

All three of the alternatives, the No Project, the Concentrated Growth and the City Limits Alternatives, are based on the same assumptions as the proposed General Plan with regards to the rate and amount of residential and non-residential growth projected for the 20-year period from 2005 to 2025. The assumptions and methodology of calculating new residential units and new non-residential square footage for the proposed General Plan are described in detail in Chapter 3. Where the three alternatives differ from the proposed General Plan and from each other is the location and distribution of the projected development and the mix of single family and multi-family residential units within the City limits and the proposed Sphere of Influence (SOI).

Specifically, the three alternatives are as follows:

- ◆ **No Project Alternative.** The proposed General Plan would not be adopted and the existing General Plan for the City of Tracy would remain in effect.
- ◆ **Concentrated Growth Alternative.** Under this alternative, the General Plan would include policy direction to ensure that new growth would be concentrated near the existing urbanized area (both within and outside

the City limits) and at a relatively high intensity compared to the other alternatives. The land use designations for the areas selected for anticipated growth during the 2005-2025 General Plan planning period would be the same as the land use designations for the same parcels in the proposed General Plan.

- ◆ **City Limits Alternative.** Under this alternative, the General Plan would include policy direction to ensure that new growth would be restricted to areas within the existing City limits. The land use designations for the areas selected for anticipated growth during the 2005-2025 General Plan planning period would be the same as the land use designations for the same parcels in the proposed General Plan.

Each alternative is analyzed against the impact factors considered for the proposed General Plan, according to whether it would have a mitigating or adverse effect. Table 5-1 summarizes the results of the analysis.

A. The No Project Alternative

This section analyzes the No Project Alternative against the proposed General Plan.

1. Principal Characteristics

Under this alternative, the proposed General Plan would not be adopted and the existing General Plan would remain in effect. Thus, new development would occur according to the existing General Plan land use designations, SOI boundary and the existing policy guidance for the City.

The number of residential units and the amount of non-residential growth is assumed to be the same under the No Project Alternative as the proposed General Plan, based on constraints of the Growth Management Ordinance (GMO) and projected market trends. The No Project Alternative has slight differences in land use designations resulting in corresponding differences in

CITY OF TRACY
GENERAL PLAN DRAFT EIR
 ALTERNATIVES TO THE PROPOSED PROJECT

TABLE 5-1 **COMPARISON OF PROJECT ALTERNATIVES**

Impact Factors	No Project	Concentrated Growth Alter- native	City Limits Al- ternative
Land Use	-	=	=
Population, Employ- ment and Housing	=	=	=
Visual Quality and Community Character	-	=	-
Traffic and Circulation	=	+	=
Biology	=	+	=
Cultural Resources	=	=	=
Agriculture	=	+	+
Mineral Resources	=	=	=
Community Services	=	=	=
Infrastructure	-	+	=
Geologic and Seismic Hazards	=	=	-
Hydrology and Flood- ing	-	=	=
Hazardous Materials and Other Hazards	-	=	-
Noise	=	=	=
Air Quality	=	+	=
++ Substantial improvement compared to the proposed project. + Insubstantial improvement compared to the proposed project. = Same impact as proposed project. - Insubstantial deterioration compared to the proposed project. -- Substantial deterioration compared to the proposed project.			

Note: Competing aspects within some factors would create both improvement and deterioration simultaneously for a single alternative. These trade-offs are discussed in the text.

the location and intensity of growth in the proposed General Plan. Residential growth is assumed to be distributed in a similar pattern to the proposed General Plan, due to similar market conditions; however, there would be a slightly higher percentage of single family units under the No Project Alternative. Non-residential growth would be predominantly spread throughout the City limits and in areas immediately adjacent to existing development. Office uses are concentrated in Tracy Gateway and Tracy Hills since these are the primarily locations with office uses identified in the adopted specific and concept plans. Unlike the proposed General Plan, the No Project Alternative does not propose development in the Cordes Ranch area, which is outside the existing SOI. Commercial uses are concentrated in the Downtown, Tracy Hills, Tracy Gateway, the I-205 area, and along Linne Road in the South Schulte Specific Plan area. Industrial development is concentrated in the Northeast Industrial Area, north of I-205, Tracy Hills and northwest of the Eleventh Street and Lammers Road intersection in the area identified as Urban Reserve 5 in the proposed General Plan.

2. Impact Analysis

The No Project Alternative would have the following impacts relative to adoption of the Proposed General Plan.

a. Land Use

Under the No Project Alternative, the amount and distribution of residential and non-residential growth for the 20-year planning horizon would be similar to the proposed General Plan. Neither the proposed General Plan nor the No Project Alternative would divide existing communities. However, under the existing General Plan, the City would have less of an ability to direct specific development changes to ensure that new development is well-connected and compatible with surrounding uses. The proposed General Plan includes a refinement of land use designations, increased policy direction for the City overall, as well as specific policies for land use in certain areas in the Areas of Special Consideration and Urban Reserves sections of the Land Use Element. Taking into consideration the relative benefits of the proposed General Plan, including more specific land use guidance for key development areas, the No

Project Alternative would be slightly worse than the proposed General Plan with regard to land use.

b. Population, Employment and Housing

As mentioned above, the amount of residential and non-residential development that would occur is the same for the No Project Alternative as the proposed Plan for the 20-year period through 2025. Under the No Project Alternative, the number of single family units would be slightly higher, at 71 percent, versus 64 percent under the proposed General Plan. Neither the proposed General Plan nor the No Project Alternative would result in displacement of substantial numbers of existing housing or people. Thus, the No Project Alternative would be similar to the proposed Plan with regard to population, employment and housing.

c. Visual Quality

The existing General Plan does not have a Community Character Element. It does include some policy guidance with respect to enhancing neighborhood character and sense of place in the Land Use Element. However, the goals, objectives, policies and actions in the proposed General Plan are considerably more comprehensive and detailed than those in the existing General Plan. The Community Character Element in the proposed General Plan includes a description of the City's structure and how these elements should relate to each other in term of connections, building design and layout, streetscape design, among other issues, to enhance Tracy's "small town feel".

As with the proposed General Plan, the No Project Alternative would result in a significant and unavoidable impact because growth would occur over many acres of currently undeveloped land. This, combined with a lack of design guidance, would result in an insubstantial deterioration compared to the proposed project.

d. Traffic and Circulation

Under the No Project Alternative, the level of roadway improvements and extensions required would be similar to that needed to serve the proposed

General Plan. The No Project Alternative also includes a significantly expanded local roadway network, involving extensions, widenings, and construction of new facilities. At least 30 intersection signalizations would also be required. Daily traffic volumes generated would be similar for this alternative as the proposed General Plan. Traffic forecasts indicate that the City's level of service standards would be maintained except for the Eleventh Street/Lammers Road and Eleventh Street/Corral Hollow Road intersections. An urban interchange would also be required at the intersection of Eleventh Street/Lammers Road. The No Project Alternative would be subject to policy guidance under the existing General Plan, which includes actions in the Circulation Element under Policy CI 2.3 to allow LOS C on all streets and intersections, except within ¼-mile of a freeway, where LOS D is acceptable.

These impacts and mitigations are similar to the proposed General Plan. Under the No Project alternative, a majority of the growth in traffic can be attributed to the projected growth in employment, much of which is anticipated to occur in the retail and office sector. Both the No Project Alternative and the Preferred Project alternative have the same level of employment growth, with some difference in the distribution of this growth across the City.

Regional traffic would still be a factor in Tracy under the No Project Alternative, in conjunction with other development in the region and neighboring regions, based on standards established by the County Congestion Management Agency for regional highways. Since the VMT and trip generation associated with the No Project Alternative is very similar to that of the proposed Plan, it can be concluded that the impacts on regional roadways are similar and would result in a significant and unavoidable impact.

In terms of traffic safety, emergency access, parking, transit planning and air traffic patterns, the No Project Alternative is similar to the proposed General Plan.

e. Biology

Both the No Project Alternative and the proposed General Plan would be subject to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJCMMHCP). As discussed in Chapter 4, implementation of the SJCMMSCP for projects provides adequate mitigation to reduce impacts to biological resources to a level acceptable to meet CEQA review and mitigation, except for wetlands impacts. Therefore, the No Project Alternative would be considered equivalent to the proposed General Plan.

f. Cultural Resources

The policy guidance contained in the existing General Plan provides similar protections regarding historic and cultural resources to the proposed General Plan. However, the existing General Plan also includes additional policies and actions to preserve archeological and paleontological resources. This EIR includes mitigation measures, which if implemented during final stages of the proposed General Plan would reduce potentially significant impacts to cultural resources to a less-than-significant level. For this reason, the No Project Alternative would be considered equivalent to the proposed General Plan with regard to cultural resources.

g. Agriculture

Implementation of the No Project alternative would result in slightly less of an impact to agricultural resources compared to the preferred project. This is because a slightly smaller amount of land designated as Prime, Unique or Farmland of Statewide Importance, and Williamson Act land classified as “prime agricultural land in non-renewal”, as identified in Section 4.7, would be developed with urban uses in the No Project Alternative compared to the amount of farmland converted to urban uses in the proposed General Plan. However, since there would be some conversion of important farmland to urbanized uses projected under this alternative, there would still be a significant and unavoidable impact. Thus, the No Project alternatives is similar to the preferred project.

h. Mineral Resources

The same amount and location of land is designated as Aggregate in the proposed General Plan as the existing Plan. Policy guidance in the existing General Plan is similar to that provided in the proposed Plan. Thus, the No Project Alternative is considered equivalent to the proposed General Plan with regard to mineral resources.

i. Community Services

Under the No Project Alternative, the same amount of residential and non-residential growth is projected for the 20-year period from 2005 to 2025 as the proposed General Plan. As mentioned above, the No Project Alternative would have a slightly higher percentage of single family homes to multi-family homes; however, this would not result in a substantial difference in the level of impact related to the provision of community services such as police, fire, schools, solid waste, and parks and recreation. Thus, the No Project Alternative would be considered to be equivalent to the proposed General Plan with regards to community services.

j. Infrastructure

Under the No Project Alternative, the same amount of residential and non-residential growth is projected for the 20-year planning horizon as the proposed General Plan. The No Project Alternative would be subject to the policy guidance for infrastructure provision and energy conservation in the existing General Plan, which includes goals, policies and actions to ensure that adequate water, wastewater and stormwater facilities are provided to meet the needs of future growth, in addition to policy guidance to encourage conservation. Specifically, the existing General Plan includes actions to update the City's *Water Master Plan*, *Wastewater Master Plan* and *Storm Drainage Master Plan* to meet the needs of future development. Thus, as is the case with the proposed General Plan, no significant impact with regard to infrastructure provision would occur for the No Project Alternative.

However, the proposed General Plan includes additional detailed policy guidance to promote energy conservation not included in the existing General

Plan, including promoting the development of alternative energy systems, requiring consideration of a number of energy-efficient criteria in the review of any future development project, encouraging the replacement of diesel vehicles with less-polluting alternatives, and developing public education programs about energy efficiency, among other policies. Thus, the No Project Alternative would be considered to be insubstantially worse than the proposed General Plan with regards to impacts to infrastructure, including energy.

k. Geologic and Seismic Hazards

The No Project Alternative proposes development that is distributed in a similar manner to the proposed General Plan. Current State and federal regulations require specific mitigations to avoid impacts related to geologic and seismic hazards, which would apply to both the No Project Alternative and the proposed General Plan. For this reason, the No Project Alternative is considered to be equivalent to the proposed General Plan.

l. Hydrology and Flooding

The No Project Alternative proposes development in areas that are in the 100-year floodplain in a similar manner to the proposed General Plan. There is slightly more residential and non-residential development projected in the No Project Alternative, however, this is not considered to be a substantial difference. Therefore, the No Project Alternative is considered to be insubstantially worse with regard to hydrology and flooding.

m. Hazardous Materials and Other Hazards

The No Project Alternative would result in similar amounts of non-residential development that could increase the use, storage and transport of hazardous materials. In addition, this alternative would allow for a similar level of housing and population growth, creating a similar level of household hazardous waste. Additionally, this alternative would allow similar patterns of land uses, including non-residential, industrial uses directly adjacent to the airport, and residential and commercial development.

The No Project Alternative would not include the additional hazardous materials and public safety policies and actions contained in the proposed General Plan. However, hazardous materials generation, storage and clean-up are heavily regulated by federal, State and local regulations that would reduce the potential for hazards and hazardous materials to a less-than-significant level. As a result, the No Project Alternative would be an insubstantial deterioration to the proposed General Plan with regard to hazardous materials and other hazards.

n. Noise

As noted above, under the No Project Alternative contains the same amount of residential and non-residential growth for the 20-year period from 2005 to 2025. The residential growth projected is distributed in a similar pattern as the proposed General Plan with respect to proximity to significant sources of noise. Moreover, due to increases in regional traffic, noise levels would worsen during the 20-year planning horizon. Since these changes in regional traffic are generally independent of any land use changes called for in the proposed General Plan and would also occur under the No Project Alternative, the No Project Alternative is considered equivalent to the proposed General Plan with regard to noise impacts.

o. Air Quality

As noted above, under the No Project Alternative contains the same amount of residential and non-residential growth in relatively the same locations for the 20-year period from 2005 to 2025. The No Project Alternative would be subject to the existing General Plan land use map which has slightly fewer sensitive receptor uses in proximity to the significant sources of air quality. Due to increases in regional traffic, air quality would worsen during the horizon of the proposed General Plan. Since these changes in regional traffic are generally independent of any land use changes called for in the proposed General Plan and would also occur under the No Project Alternative, the No Project Alternative is considered equivalent to the proposed General Plan with regard to air quality. Under the No Project Alternative, there would

still be a significant and unavoidable impact with regard to air quality and thus would be considered equivalent to the proposed General Plan.

B. Concentrated Growth Alternative

This section analyzes the Concentrated Growth Alternative against the proposed General Plan.

1. Principal Characteristics

Under this alternative, the proposed land use designations within the City limits and the SOI would be the same as the proposed General Plan; however, policies would be included to ensure that new growth would be concentrated near the existing urbanized area and at relatively higher intensities compared to the proposed General Plan and other alternatives.

Under the Concentrated Growth Alternative, residential uses would be located both inside and outside of the City limits but are predominantly concentrated north of Linne Road, east of Lammers Road, south of I-205 and west of MacArthur Drive. This alternative assumes that the majority of residential growth would be multifamily. Following the policy direction of locating growth immediately adjacent to existing urbanized areas to the greatest extent possible, it also assumes that no growth would occur in the Tracy Hills Specific Plan area during the 20-year development period. The only low density development would be located in Urban Reserve 10. Thus, the average density of this alternative would be higher than the proposed General Plan and the other alternatives.

To the greatest extent possible, non-residential uses would also be concentrated near the existing urbanized area. Industrial development would be concentrated in the Northeast Industrial Area with pockets near the airport and north of I-205. Commercial development would be concentrated in the Downtown, the I-205 area, Urban Reserves 9 and 10, and Larch Clover, with additional growth as infill development in existing commercial districts. Of-

office uses would be concentrated in Tracy Gateway, the Downtown and on Tracy Boulevard south of Valpico Road.

2. Impact Analysis

The Concentrated Growth Alternative would have the following impacts relative to adoption of the Proposed General Plan.

a. Land Use

The Concentrated Growth Alternative would result in the same number of residential units and non-residential square footage as the proposed General Plan for the 20-year planning horizon. However, this alternative would result in a significantly higher percentage of multi-family units at 72 percent, compared to 36 percent of the housing units projected in the proposed General Plan. Moreover, by definition, this alternative would include increased policy direction for the City to ensure a more compact development pattern than in the proposed General Plan. Neither the proposed General Plan nor the Concentrated Growth Alternative would divide existing communities. They would both be subject to the same policy direction with regards to ensuring land use compatibility with surrounding uses. With these considerations, the relative benefits of the proposed General Plan, including more specific land use guidance for key development areas, the Concentrated Growth Alternative would be similar to the proposed General Plan with regard to land use.

b. Population, Employment and Housing

The Concentrated Growth Alternative would result in the same number of housing units and non-residential square footage as the proposed General Plan; thus both scenarios would induce the same planned population growth as the proposed General Plan. As with the proposed General Plan, this alternative would not require displacement of housing or people. As a result, the Concentrated Growth Alternative would be equivalent to the proposed General Plan with regards to impacts to population, employment and housing.

c. Visual Quality

The Concentrated Growth Alternative includes predominantly multi-family development for residential growth during the General Plan period. This high-density development would result in a deterioration of the small-town character of Tracy. On the other hand, since the growth would be concentrated, this alternative would preserve undeveloped land around the city from urban development. This concentration of development would have a positive impact on visual quality of the city. As a result, this alternative would have a similar overall impact to the visual quality compared to the proposed project.

d. Traffic and Circulation

The level of physical roadway network improvements required for the Concentrated Growth Alternative would be similar to that needed to serve the proposed General Plan. The Concentrated Growth Alternative would also require an expanded local roadway network, which would involve extending and widening existing roadways and the construction of new roadways. Additional traffic signals would be required at locations throughout the City including the intersections that are currently unsignalized and other future intersections.

The Concentrated Growth Alternative would be subject to similar policy guidance as the proposed General Plan. This includes actions in the Circulation Element under Objective CIR1.3, P1 which allows LOS C on all streets and intersections, except within ¼-mile of a freeway, where LOS D is acceptable; and allows LOS E in the Downtown and Bowtie areas of Tracy. Objective CIR-1.3, P2 indicates that the City may allow individual locations to fall below the City's LOS standards in instances where the construction of physical improvements would be infeasible, prohibitively expensive, significantly impact adjacent properties or the environment, or have a significant adverse effect on the character of the community. The traffic forecast for the Concentrated Growth Alternative indicates that the City's level of service standards would be maintained except for the Eleventh Street/Lammers Road and Eleventh Street/Corral Hollow Road intersections. An urban interchange

would also be required at the intersection of Eleventh Street/Lammers Road. The Eleventh Street/Corral Hollow Road intersection would require exemption, as there are no physical mitigation measures that could be developed to bring this intersection to LOS C or better. Under this alternative, a majority of the traffic growth can be attributed to the projected growth in employment, much of which is anticipated to occur in the retail and office sector. Both the Concentric Growth Alternative and the Preferred Project alternative have the same level of employment growth, with some difference in the distribution of this growth across the City.

Regional traffic would still be a factor in Tracy under the Concentrated Growth Alternative, in conjunction with other development in the region and neighboring regions, based on standards established by the County Congestion Management Agency for regional highways. Since the vehicle miles traveled (VMT) and trip generation associated with the Concentrated Growth Alternative is very similar to that of the proposed General Plan, it can be concluded that the impacts on regional roadways are similar. It should be noted that a large number of the trips using these regional roadways are not associated with the City of Tracy. With these considerations, the Concentrated Growth Alternative would be equivalent to the proposed General Plan and would have a significant and unavoidable impact.

In terms of traffic safety, emergency access, parking and air traffic patterns, the Concentrated Growth Alternative is essentially similar to the proposed General Plan and would not result in a significant impact.

In addition, due to the higher densities that would support transit use and bicycle and pedestrian transportation (and thus reduce driving), the Concentrated Growth Alternative is considered an improvement compared to the proposed General Plan.

e. Biology

The goals, objectives, policies and actions contained in the proposed General Plan regarding biological resources would also be implemented under the

Concentrated Growth Alternative. Thus, the City would continue to implement the SJMHCP, which provides adequate mitigation to reduce impacts to biological resources to a level acceptable to meet CEQA review and mitigation except for wetlands impacts; and additional goals, objectives and policies would mitigate potential impacts to wetlands to less-than-significant levels. The policy emphasis in this alternative that requires that new growth be located adjacent to existing urbanized areas and at relatively higher intensities would likely result in less conversion of land to urban uses. Thus, the Concentrated Growth Alternative would have slightly less of an impact to biological resources than the proposed General Plan. However, as discussed in Section 4.6, no unavoidable significant impacts were found under the proposed General Plan.

f. Cultural Resources

The policy guidance contained in the proposed General Plan regarding cultural resources would also be implemented under the Concentrated Growth Alternative. Thus, the potentially significant impact identified in Section 4.5 to archeological and paleontological resources would be the same for both this alternative and proposed General Plan.

g. Agriculture

Compared to the proposed General Plan, implementation of this alternative would result in slightly less of an impact to agricultural resources since a smaller amount of important farmland, as identified in Section 4.7, would be developed with urban uses. The difference in the amount of important farmland to be converted in the 20-year development period from 2005 through 2025 would be due to the policy emphasized in the Concentrated Growth Alternative that requires that development occur in a concentrated manner adjacent to existing urbanized areas. This would result in an insubstantial improvement compared to the proposed project. However, since there would be some conversion of important farmland to urbanized uses projected under this alternative, there would still be a significant unavoidable impact, as there would be for the proposed General Plan.

h. Mineral Resources

The Concentrated Growth Alternative proposes the same land use designations as the proposed General Plan. The policy guidance contained in the proposed General Plan regarding mineral resources would also be implemented under this alternative. Thus, the Concentrated Growth Alternative is considered equivalent to the proposed General Plan with regard to mineral resources.

i. Community Services

Community service provisions are largely based on population and household figures. Development under the Concentrated Growth Alternative would result in no change in housing and population when compared to the proposed General Plan at full buildout or during the 20-year development period between 2005 and 2025. For this reason, the Concentrated Growth Alternative would be considered equivalent to the proposed General Plan with regard to community services.

j. Infrastructure

The infrastructure analysis in Section 4.10 of this EIR did not identify any capacity shortfalls for water supply, sewer service and drainage capacity for the proposed General Plan. The Concentrated Growth Alternative would be subject to the same policy direction as the proposed General Plan. Thus, goals, objectives, policies and actions ensuring that infrastructure plans be updated regularly to accommodate future planned growth would also apply under this alternative. While the Concentrated Growth Alternative does not present any increase in households, it does have a substantially greater percentage of multi-family units than the proposed General Plan, which would result in a slightly lower impact in infrastructure. In addition, the Concentrated Growth Alternative requires that new development be located adjacent to existing developed areas, which would result in efficiencies such as using upon existing infrastructure. Therefore, the Concentrated Growth Alternative would be considered better than to the proposed General Plan.

k. Geologic and Seismic Hazards

Because of the policy emphasis in this alternative, the 20-year projection for new growth results in slightly less development in areas where risk is identified from potentially active faults in the southwestern portion of the Tracy Planning Area in Section 4.11. However, since policies are in place in the proposed General Plan that mitigate any potential impacts from geologic and seismic hazards to a less-than-significant level, the Concentrated Growth Alternative would be considered to be equivalent to the proposed General Plan.

l. Hydrology and Flooding

The Concentrated Growth Alternative proposes development that is distributed in a similar manner to the proposed General Plan. Thus, the Concentrated Growth Alternative is considered to be equivalent with regard to hydrology and flooding.

m. Hazardous Materials and Other Hazards

The Concentrated Growth Alternative and the proposed General Plan propose the same overall amount of residential and non-residential development likely to be generators of hazardous materials. For this reason, the Concentrated Growth Alternative would be considered similar to the proposed General Plan with regards to hazardous materials and other hazards.

n. Noise

The Concentrated Growth Alternative would result in the same number of housing units and non-residential square footage as the proposed General Plan. As is the case with the proposed General Plan, significant noise level increases (3 dBA L_{dn} or greater) associated with increased traffic would occur adjacent to existing noise sensitive uses during the 20-year planning horizon of the General Plan. Since these noise level increases are related to regional traffic and are generally independent of any land use changes called for in both the proposed General Plan or the Concentrated Growth Alternative, the two are considered equivalent with regard to noise impacts.

o. Air Quality

The Concentrated Growth Alternative and the proposed General Plan would result in the same number of housing units and non-residential square footage so they would generate a similar number of vehicle trips. However, this alternative would concentrate development in a more compact manner. This could result in a slight decrease in vehicle trips generated by residents compared to the proposed General Plan if more residents choose to use alternative means of transportation to reach their destinations resulting in a corresponding (insubstantial) improvement in air quality. Nonetheless, this would not avoid a significant, unavoidable impact since population growth would still exceed that assumed in the adopted regional Clean Air Plan. Moreover, due to increases in regional traffic, air quality would worsen during the 20-year planning horizon. These changes are generally independent of any land use changes called for in the proposed General Plan and would also occur under the Concentrated Growth Alternative, and therefore would result in a significant unavoidable impact. Overall, the increased densities would result in an insubstantial increase compared to the proposed project.

C. City Limits Alternative

This section analyzes the City Limits Alternative against the proposed General Plan.

1. Principal Characteristics

Under this alternative, the proposed land use designations would be the same as the proposed General Plan; however, growth for the 20-year period is located within the existing City limits.

A large percentage of residential growth would be allocated in the Tracy Hills Specific Plan area with concentrations in the Bowtie and near Downtown, along Valpico Road, Byron Road and in Urban Reserve 14, Urban Reserve 15 and the area known as the Kagehiro subdivision. Most of the future industrial uses are allocated to the Northeast Industrial Area and the Tracy Hills Spe-

cific Plan area with small amounts north of I-205 and near the Tracy Municipal Airport. Office uses would be concentrated in Tracy Gateway and along Tracy Boulevard south of Valpico Road. Commercial uses would be spread throughout the City but concentrated in the Downtown, Bowtie, Tracy Hills, Tracy Gateway, along existing commercial corridors (Eleventh Street and Grant Line Road) and in the I-205 area.

2. Impact Analysis

The City Limits Alternative would have the following impacts relative to adoption of the Proposed General Plan.

a. Land Use

The City Limits Alternative would result in the same amount of residential and non-residential growth in Tracy as the proposed General Plan. This alternative would also result similar percentages of multi-family to single-family units when compared to the housing units projected in the proposed General Plan for the 20-year planning horizon. Neither the proposed General Plan nor the City Limits Alternative would divide existing communities. They would both be subject to the same policy direction regarding to ensuring land use compatibility with surrounding uses. For this reason, this alternative is considered to be equivalent to the proposed General Plan with regards to land use.

b. Population, Employment and Housing

As stated above, the amount of residential and non-residential growth assumed for the 20-year time horizon for the proposed General Plan is assumed to be the same for the City Limits Alternative. Neither the proposed General Plan nor the City Limits Alternative would result in displacement of substantial numbers of existing housing or people. Thus, the City Limits Alternative would be similar to the proposed Plan with regard to population, employment and housing.

c. Visual Quality

The policy guidance contained in the proposed General Plan regarding visual quality and community character would also be implemented under the City Limits Alternative and thus would improve the City's "hometown feel." However, under this alternative, residential development would be located on hillsides in the Tracy Hills Specific Plan Area. This could result in a slight deterioration of views from the State-designated scenic corridor along I-205 and the County-designated scenic road along Corral Hollow Road, southwest from I-580. Further, as with the proposed project, this alternative would result in a significant impact to the existing overall visual identity and character to the City due to the conversion of agricultural and other undeveloped lands to urban uses. Thus, in terms of visual quality, the City Limits Alternative would result in an insubstantial deterioration compared to the proposed project.

d. Traffic and Circulation

As under the proposed General Plan, the City Limits Alternative would require an expanded local roadway network, which would involve extending and widening existing roadways and the construction of new roadways. Additional traffic signals would be required at locations throughout the City including the 17 unsignalized intersections and other locations. The level of physical improvements required would be substantially similar to that needed to serve the proposed General Plan.

The City Limits Alternative would be subject to similar policy guidance as the proposed General Plan. This includes actions in the Circulation Element under Objective CIR1.3, P1, which allows LOS C on all streets and intersections except within ¼-mile of a freeway, where LOS D is acceptable; and allows LOS E in the Downtown and Bowtie areas of Tracy. Objective CIR-1.3, P2 indicates that the City may allow individual locations to fall below the City's LOS standards in instances where the construction of physical improvements would be infeasible, prohibitively expensive, significantly impact adjacent properties or the environment, or have a significant adverse effect on the character of the community. The traffic forecast for the City Limits Al-

ternative indicates that the City's LOS standards would be maintained except at the following three intersections, one more than the proposed General Plan:

- ◆ Eleventh Street/Corral Hollow Road
- ◆ Eleventh Street/Lammers Road
- ◆ New Schulte Road/Lammers Road.

Mitigating these impacts would require an urban interchange at the intersection of Eleventh Street/Lammers Road. As allowed under the policy guidance in effect under both the proposed General Plan and City Limits Alternative, an exemption to the City's LOS policy would be required at the intersection of Eleventh Street/Corral Hollow Road. Similarly, the intersection of New Schulte Road/Lammers Road would require either an urban interchange or an exemption from the City's LOS policy. Under this alternative, a majority of the traffic growth can be attributed to the projected growth in employment, much of which is anticipated to occur in the retail and office sector. Both the City Limits Alternative and the Preferred Project alternative have the same level of employment growth, with some difference in the distribution of this growth across the City.

Regional traffic would still be a factor in Tracy under the City Limits Alternative. Since the VMT and trip generation associated with the City Limits Alternative would be about one to two percent higher than the proposed General Plan, which is not considered to be a substantial difference, it can be concluded that the impacts on regional roadways are similar. With these considerations, the City Limits Alternative would be equivalent to the proposed General Plan and would result in a significant and unavoidable impact.

In terms of traffic safety, emergency access, parking, transit planning and air traffic patterns, the No Project Alternative is similar to the proposed General Plan.

e. Biology

The goals, objectives, policies and actions contained in the proposed General Plan regarding biological resources would also be implemented under the City Limits Alternative. Thus, the City would continue to implement the SJCMHCP, which provides adequate mitigation to reduce impacts to biological resources to a level acceptable to meet CEQA review and mitigation except for wetlands impacts; and additional goals, objectives and policies would mitigate potential impacts to wetlands to less-than-significant levels. For this reason, the City Limits Alternative would be considered equivalent to the proposed General Plan with regard to biological resources.

f. Cultural Resources

The policy guidance contained in the proposed General Plan regarding cultural resources would also be implemented under the City Limits Alternative. Thus, the potentially significant impact identified in Section 4.5 to archeological and paleontological resources would be the same for both the this alternative and the proposed General Plan. For this reason, the City Limits Alternative would be considered equivalent to the proposed General Plan with regard to cultural resources.

g. Agriculture

Implementation of this alternative would result in slightly less of an impact to agricultural resources since a slightly smaller amount of farmland overall, as identified in Chapter 4, would be developed with urban uses as is projected in the 20-year period from 2005 to 2025 under the proposed General Plan. However, since there would be some conversion of farmland to urbanized uses projected under this alternative, there would still be a significant unavoidable impact, as there would be for the proposed General Plan.

h. Mineral Resources

The City Limits Alternative proposes the same land use designations as the proposed General Plan. The policy guidance contained in the proposed General Plan regarding mineral resources would also be implemented under this

Alternative. Thus, the City Limits Alternative is considered as equivalent to the proposed General Plan with regard to mineral resources.

i. Community Services

Community service provisions are largely based on population and household figures. Development under the City Limits Alternative would result in no change in housing and population when compared to the proposed General Plan during the 20-year planning horizon. For this reason, the City Limits Alternative would be considered equivalent to the proposed General Plan with regard to community services.

j. Infrastructure

The infrastructure analysis in Section 4.10 of this EIR did not identify any capacity shortfalls for water supply, sewer service and drainage capacity for the proposed General Plan. The City Limits Alternative would be subject to the same policy direction as the proposed General Plan. Thus, goals, objectives, policies and actions ensuring that infrastructure plans be updated regularly to accommodate future planned growth would also apply to this alternative. Moreover, since the City Limits Alternative does not present any increase in households as compared to the proposed General Plan and has a similar ratio of single family to multi-family units, there would be no additional demand for infrastructure under the City Limits Alternative. Therefore, the City Limits Alternative would be considered equivalent to the proposed General Plan.

k. Geologic and Seismic Hazards

The City Limits Alternative proposes development that is distributed throughout the City limits with a large amount of growth projected in the Tracy Hills Specific Plan area compared to the proposed General Plan. This area is near known fault locations and thus the alternative would result in an insubstantial deterioration compared to the proposed project. However, current State and federal regulations require specific mitigations to avoid impacts related to geologic and seismic hazards, which would apply to both the City

Limits Alternative and the proposed General Plan. For this reason, the City Limits Alternative would not result in a significant and unavoidable impact.

l. Hydrology and Flooding

The City Limits Alternative proposes development that is distributed in a similar manner to the proposed General Plan with respect to areas that are in the 100-year floodplain, which is shown in Section 4.12. Therefore, the City Limits Alternative is considered to be equivalent with regard to hydrology and flooding.

m. Hazardous Materials and Other Hazards

The City Limits Alternative and the proposed General Plan propose the same overall amount of residential and non-residential development likely to be generators of hazardous materials. This alternative would allow similar patterns of land uses as the proposed General Plan. However, relative to the proposed General Plan, the City Limits Alternative projects approximately twice as much residential development and 100 more acres of industrial development in the Tracy Hills Specific Plan area, which is identified in Section 4.13 as an area with Moderate Fire Hazard Severity. For this reason, the City Limits Alternative would be considered slightly worse than the proposed General Plan with regards to hazardous materials and other hazards.

n. Noise

The City Limits Alternative would result in the same number of housing units and non-residential square footage as the proposed General Plan. As is the case with the proposed General Plan, significant noise level increases (3 dBA L_{dn} or greater) associated with increased traffic would occur adjacent to existing noise sensitive uses. Since these noise level increases are related to regional traffic and are generally independent of any land use changes called for in either the proposed General Plan or the City Limits Alternative, the two are considered equivalent with regard to noise impacts.

o. Air Quality

The City Limits Alternative and the proposed General Plan would result in the same number of housing units and non-residential square footage and thus would generate a similar number of vehicle trips. Due to increases in regional traffic, air quality would worsen during the 20-year planning horizon under both scenarios. Since these changes are generally independent of any land use changes called for in the proposed General Plan and would also occur under the City Limits Alternative, it is considered equivalent to the proposed General Plan with regard to air quality. As with the proposed General Plan, this alternative would not avoid a significant and unavoidable impact since population growth would still exceed that assumed in the adopted regional Clean Air Plan.

D. Environmentally Superior Alternative

CEQA requires the identification of the environmentally superior alternative in an EIR. Based upon the above analysis, which is summarized in Table 5-1, the Concentrated Growth Alternative is marginally better than the proposed General Plan and thus is the Environmentally Superior Alternative. This alternative would be an insubstantial improvement with respect to potential negative impacts to traffic and circulation, biology, agriculture and air quality. Hence, overall, it is environmentally superior to the proposed General Plan.

However, the Concentrated Growth Alternative would not satisfy several of the City's overall goals of the General Plan. First, since the majority of the new residential growth would be multi-family housing, it would not achieve a diversity of housing types. Second, the multi-family housing would result in a deterioration of the hometown feel due to the higher densities even though it could slightly improve the visual quality due to the reduced amount of undeveloped land converted to urban uses. Third, because growth would be concentrated, the Concentrated Development Alternative would not satisfy the City's desire to have a large land supply for industrial and commercial

uses. This could harm the City's economic development goals. Finally, the Concentrated Development Alternative does not mitigate any of the significant and unavoidable impacts of the proposed General Plan to a less-than-significant level. For these reasons, the City of Tracy is moving forward with the proposed General Plan.

6 CEQA-REQUIRED ASSESSMENT CONCLUSIONS

As required by CEQA, this chapter provides an overview of the impacts of the proposed General Plan based on the technical analyses presented in this EIR. The topics covered in this chapter include growth inducement; cumulative impacts; unavoidable significant effects; and expected significant irreversible environmental changes. A more detailed analysis of the project level effects of the proposed General Plan on the environment is provided in Chapter 4 of this report.

A. Growth Inducement

A project is typically considered to be growth-inducing if it fosters economic or population growth. Typical growth inducements might be the extension of urban services or transportation infrastructure to a previously unserved or under-served area, or the removal of major barriers to development. Not all growth inducement is necessarily negative. Negative impacts associated with growth inducement occur only where the projected growth would cause adverse environmental impacts.

Growth-inducing impacts fall into two general categories: direct and indirect. Direct growth-inducing impacts are generally associated with the provision of urban services to an undeveloped area. The provision of these services to a site, and the subsequent development, can serve to induce other landowners in the vicinity to convert their property to urban uses. Indirect, or secondary growth-inducing impacts consist of growth induced in the region by the additional demands for housing, goods and services associated with the population increase caused by, or attracted to, a new project.

1. Direct Impacts

As discussed in Chapter 3, during the next 20 years, based on land use designations, available acres and existing building allotment regulations, 10,341 new housing units will be built in Tracy, the population is estimated to reach 109,000 and the number of employees will increase to 55,000. Implementation of the proposed General Plan would induce some the population and

housing growth in Tracy, in part because it increases intensity of uses and densities in established urban centers, close to transportation nodes. This type of residential growth can be beneficial in that it would help preserve open space and agricultural lands on the periphery, and because higher density, multi-family housing would allow the City to meet its fair share housing allocation requirements. While growth would be allowed under the proposed General Plan, the market indicates that growth would occur in Tracy whether or not the General Plan is adopted at a similar rate controlled by the City's Growth Management Ordinance.

The General Plan provides goals and policies to maintain the character of Tracy and minimize the environmental impacts of the anticipated growth. Proposed policies are intended to be obtainable and as such, take into account market conditions and realistic growth assumptions that are consistent with the Growth Management Ordinance and discourage undesirable development in areas with sensitive natural resources, critical habitats and important scenic resources. The impact on agricultural land in the Tracy area is also incorporated, especially as it affects Prime Farmland and Farmland of Statewide Importance. The Plan encourages new development to occur in areas adjacent to existing urban uses and requires developers to provide service extensions. The San Joaquin Multi-Species Habitat Conservation and Open Space Plan also requires dedications of agriculture and open space at a one-to-one acre ratio for non-urbanized land that is converted to urban uses.

Finally, the proposed General Plan also includes policies specifically designed to discourage urbanization in unincorporated County areas outside the SOI (Goal LU-8). For example, Objective LU-8.1, P1 states that the City will not support development within the SOI until the property is annexed. P3 and P4 state that the City will support the maintenance of existing County land use designations in the Planning Area and encourage the County to preserve significant agricultural lands outside the SOI. Finally, P2 states that the City will not make new commitments to provide water and wastewater outside the City limits until the property is subject to an approved annexation agreement.

As a result, while the proposed General Plan would result in an increase of growth locally, the policies included in the Plan reduce the potential for negative impacts associated with directly induced growth to a less-than-significant level.

2. Indirect Impacts

While the proposed General Plan does allow additional growth, it also includes specific policies that limit that growth to the City limits and SOI, as mentioned above. For example, policies under Objective LU-8.1 work to discourage development outside the defined City limits and SOI. The land use plan also provides a mixture of housing, shopping and employment opportunities so that as the number of residents increase they do not pressure adjacent communities to provide new commercial and employment opportunities. Also, as previously stated, commitments to provide water and sewer infrastructure would be limited to areas within the City limits, or that have pre-annexation agreements. As result, the proposed General Plan policies would result in a less-than-significant indirect growth inducing impact.

B. Cumulative Impacts

CEQA Guidelines require consideration of the potential cumulative impacts that could result from a proposed project in conjunction with other projects in the vicinity. Such impacts can occur when two or more individual effects create a considerable environmental impact or compound other environmental consequences. In the case of a City-wide planning document such as the proposed General Plan, cumulative effects are effects that combine impacts from the project's development in the City with effects of development in other portions of the region. By definition, no development within the City limits and SOI would be considered part of the cumulative impacts; instead, development inside the City and SOI is part of the project itself.

The cumulative impacts of a General Plan take into account growth projected by the Plan, in combination with impacts from projected growth in other

cities in the region. The following sections, the cumulative impact analysis examines cumulative effects of the proposed General Plan, in combination with San Joaquin County Council of Governments (SJCOG)-projected growth for the other cities in San Joaquin County.

SJCOG is responsible for estimating regional growth for San Joaquin County. In 2000, SJCOG estimated future anticipated growth for the county as a whole, and individual jurisdictions. The 2025 population for San Joaquin County, as projected by SJCOG, is 900,338.¹ SJCOG's projected 2025 population for Tracy is 137,341. Table 6-1 depicts the projected growth for San Joaquin County. The projections do not reflect actual 2000 Census data, but ended up closely in line with the real data.

For the purposes of this cumulative analysis, a county-level cumulative analysis is used for the impact analyses. The potential cumulative effects of the proposed General Plan are summarized in each of the following subsections.

The following sections summarizes the potential cumulative impacts of the proposed General Plan at the regional level, by topics outlined in Chapter 4 of this report.

1. Land Use

As the primary planning document for Tracy, the proposed General Plan would have a less-than-significant impact in relation to potential conflicts with other applicable plans, policies and regulations, including the County's General Plan and LAFCo's SOI. In addition, potential land use incompatibility problems resulting from implementation of the proposed General Plan would be mitigated by policies contained in the Land Use and Open Space Elements. Specific policies in these Elements work to prevent conflicts between various land uses, such as residential and the airport or agriculture, and avoid environmental impacts at the project level. The proposed General Plan

¹ http://www.sjcog.org/sections/departments/planning/research/projections?table_id=140§ion_id=36&historic=0. Accessed on 6/30/05.

TABLE 6.1 **SJCOG PROJECTIONS FOR SAN JOAQUIN COUNTY IN 2025
COMPARED TO 2004 AND 2000 CENSUS**

Area	2000 Census ^{1, 2} (SJCOG #s)	2004 ³	2025
San Joaquin County	563,598 (566,600)	630,577	900,338
Escalon	5,963 (5,825)	6,706	9,883
Lathrop	10,445 (9,975)	12,427	23,902
Lodi	56,999 (57,900)	60,769	72,617
Manteca	49,258 (49,500)	59,705	86,370
Ripon	10,146 (10,400)	12,275	23,637
Stockton	243,771 (247,400)	269,147	406,482
Tracy	56,929 (54,200)	74,070	137,341
Unincorporated	130,087 (131,400)	135,478	140,103

Sources:

¹ SJCOG population projections as of 2000. ² US Census, 2000. ³ California Department of Finance estimates for January, 2004.

also upholds additional guidelines from the County and State in regards to open space, such as the SJMSCP, which requires the preservation of open space and agriculture acres according to the amount of land converted to urban uses. Therefore, implementation of the General Plan will not result in significant and unavoidable cumulative impacts at the project or regional level.

2. Population, Employment and Housing

As discussed in Section 4.2, the proposed General Plan includes policies to control and direct growth in a well planned manner and does not result in the division of existing communities. As a result there would not be a significant, unavoidable project-level impact. Growth would also occur in other com-

munities throughout the County. San Joaquin County and other incorporated jurisdictions are required by State law to use the General Plan process, as well as other planning processes, such as utility master plans, to plan for and control future growth. As a result, there would not be a cumulative impact associated with unplanned growth. As a result, no significant population, employment and housing cumulative impact would occur.

3. Visual Quality

The proposed General Plan would result in changes to the visual character of the Tracy Planning Area from a more rural setting to one that is more characterized by urban uses, with increased light and glare sources. As outlined in Section 4.3, despite the proposed General Plan's policies and actions, in conjunction with adopted State, County and City regulations to enhance "home-town feel" and preserve open space, development permitted under the proposed General Plan would result in a significant impact to the existing visual identity and character of the City due to the amount of growth allowed. Similarly, development associated with the anticipated regional growth would result in a substantial change to the visual character of San Joaquin County. Continual urbanization of existing agriculture and open space land has the potential to permanently alter the character of the area. State and local regulations, such as the State Scenic Highway guidelines and the San Joaquin County Multi-Species Critical Habitat Plan mitigate some potential impacts along scenic corridors by preserving views and open space land.

Therefore, the proposed General Plan, combined with the overall growth trends in San Joaquin County would contribute to the cumulative conversion of the County's visual character from a rural, agricultural character to a more urban feel and thus, would result in a cumulative significant, unavoidable aesthetics impact.

4. Traffic and Circulation

The project-level traffic analysis included in Section 4.4 also addresses cumulative impacts to the regional transportation system since the traffic model used analyzed the cumulative impacts of the proposed General Plan along with

projected regional growth for San Joaquin County. While the proposed General Plan incorporates a range of features that work to help reduce the potential impact of future growth in Tracy to regional roadways, traffic levels along regional roadways will increase, creating a significant and unavoidable impact to I-205, I-580, I-5, Altamont Pass Road, Patterson Pass Road and Tesla Road. As a result, there would be a significant unavoidable impact to the regional transportation system.

5. Cultural Resources

While grading and other construction activities have the potential to impact cultural resources in the Tracy Planning Area, proposed General Plan policies, mitigation measures contained in this EIR, and compliance with federal and State regulations reduce the project-specific impact to a less-than-significant level. Cultural resources such as, historical, archaeological and paleontological resources, in San Joaquin County could be cumulatively impacted by future development and related construction activities in the region. However, potential impacts would be mitigated at an individual project level by current State and federal regulations, as well as other local and County regulations and mitigations. Such regulations and mitigation would include the monitoring of construction sites in proximity to known resources, immediate cessation of construction activity upon discovery of unidentified human remains and the protection of cultural resources. The combination of the above-mentioned efforts would reduce potential cumulative impact related to cultural resources to a less-than-significant level.

6. Biological Resources

Development associated with implementation of the proposed General Plan would contribute to the ongoing loss of natural and agricultural lands in the Tracy area, which currently provide habitat for a variety of species. Proposed development under the proposed General Plan would result in the conversion of existing agricultural habitat to urban uses. Section 4.6 of this report references policies in the proposed General Plan and regional, State and federal regulations that mitigate impacts to biological resources at a project level. Development outside of Tracy in San Joaquin County, would also be

subject to the same regional, State and federal regulations addressing sensitive species. Implementation of regional, State and federal regulations, such as the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), and the Endangered Species Act would also minimize risks to sensitive populations and reduce cumulative impacts throughout the region to a less-than-significant level.

7. Agricultural Resources

With the implementation of the proposed General Plan there would be a loss of the existing agricultural lands within the City limits and SOI. While the proposed General Plan includes policies to minimize this impact, there would still be a project level significant, unavoidable impact. The loss of agricultural land within Tracy and the SOI as a result of urban development is part of an overall trend within San Joaquin County, with 80 percent (2,037 acres) of new urban acres occurring on formerly irrigated farmland between 1998 and 2000.² According to the FMMP, agricultural land in San Joaquin County will continue to face development pressure in the foreseeable future.

The proposed General Plan does include several policies and actions under Objective OSC-2.1 stating that the City will work at a regional level to control the conversion of agricultural uses. The City also recently adopted an Agricultural Mitigation Fee Ordinance to help mitigate for the loss of farmland; in-lieu fees will be collected for impacts from development on agricultural land, which will eventually be utilized for the purchase of conservation easements on agricultural lands. In addition, the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan works at a regional level to promote the permanent preservation of agricultural lands in San Joaquin County. However, since the County is projected to continue to urbanize at a significant rate, the loss of agricultural lands as a result of the proposed General Plan would contribute to a significant unavoidable cumulative impact to agricultural resources.

² *California Farmland Conversion Report 1998-2000*. California Department of Conservation, Division of Land Resource Protection.

8. Mineral Resources

As discussed in Section 4.8, the proposed General Plan includes land use and design policies to avoid significant impacts to important mineral resources in Tracy. These policies are in compliance with State laws that require local jurisdictions to take into consideration the continued availability of important mineral resources in land use decisions. As a result, the Tracy General Plan would not add to any cumulative impact on mineral resources in San Joaquin County.

9. Community Services

The following provides a cumulative analysis broken down by each community service.

a. Police Service

Future regional growth would result in a need for expanded police service throughout the County. However, only growth within Tracy and its SOI would result in the need for the City to construct additional police facilities to serve its population, resulting in additional environmental impacts. The project-level analysis contained in Section 4.9 for the proposed General Plan took into consideration the potential growth within the area that would be provided police service by Tracy and no significant impact was identified in regards to the construction of new and expanded facilities. Therefore, the project would not contribute to a significant cumulative impact associated with police services.

b. Fire Protection and Emergency Medical Services

Future regional growth would result in increased demand for fire services throughout the County. However, only growth within the Tracy Fire Department service area would result in the need for the Tracy Fire Department to construct additional facilities, resulting in additional environmental impacts. Since Tracy represents the largest concentration of population for the Tracy Fire Department service area, facilities needed to service the proposed General Plan would also be adequate to meet the demand generated by any other growth occurring within the Department's service area. Therefore, the

project would not contribute to a significant cumulative impact associated with fire services.

c. Schools

Future regional growth would result in increased demand for schools throughout the County. However, only growth within the TUSD, JESD, LESD, BUSD, and NJSJ service areas would result in the need for that various districts to construct additional facilities, resulting in additional environmental impacts. For some of the districts, growth within Tracy would be the primary source of demand for additional school facilities. However, the LESD is planning for additional schools to support the Mountain House community and the BESD would need to serve proposed residential development in the River Islands of Lathrop project. As with the proposed General Plan project-level analysis, it is unknown exactly where these school facilities would occur to support the cumulative increase in population resulting from growth outside of Tracy. As specific school facility expansion or improvement projects are identified, additional project-specific, second-tier environmental analysis would be completed. Therefore, the project would not contribute to a significant cumulative impact associated with schools.

d. Solid Waste

Growth within San Joaquin County would contribute to the need for adequate solid waste disposal facilities. As discussed in Section 4.9 for the project-level analysis, the Foothill landfill has capacity until at least 2054. The cumulative population growth within the County was considered when evaluating the lifespan of the facility and planning for future expansions. As a result, it can be concluded that there would be adequate capacity to support regional increases in population, and a significant cumulative impact would not occur.

e. Parks and Recreational Facilities

The California Quimby Act allows a City to require land or in-lieu fees for a minimum of 3 acres per 1,000 residents, with the possibility of increasing the requirement to a maximum of 5 acres per 1,000 residents if the City already

provides more than three acres per 1,000 residents. As discussed in Section 4.9, Tracy's current park dedication ordinance requires a dedication of 4 acres per 1,000 people for all new development projects. Furthermore, the proposed General Plan includes an action for the City to consider increasing its parkland dedication standard to 5 acres per 1,000 residents. San Joaquin County requires 3 acres per 1,000 residents for new development, as do the neighboring communities of Lathrop and Manteca. Through its regulations, Tracy is providing more than the State-defined need for parkland. Given the parkland requirements of Tracy and neighboring communities which will ensure that new development provides adequate parkland for new residents to the extent allowed by State law, the project would not contribute to a significant cumulative impact associated with the demand for new parkland in Tracy or in neighboring areas.

10. Infrastructure

The following provides a cumulative analysis broken down by each infrastructure type.

a. Water Services

Future growth in San Joaquin County would generate an additional demand for water. A portion of this growth would be dependent on the groundwater basin for its primary water source. As mentioned in Section 4.10, a study has been completed for the groundwater basin and users have entered into an agreement to limit their use of the basin to a sustainable level. In addition, new development throughout the County would also be subject to SB 610 and SB 221, which require adequate water supplies be identified prior to approval of the project. As a result of these existing regulations, there would not be a cumulative impact associated with water supplies.

Future regional growth would result in a need for expanded water infrastructure throughout the County. However, only growth within Tracy and its SOI would result in the need for the City to construct additional water facilities to serve its population, resulting in additional environmental impacts. The project-level analysis for the proposed General Plan in Section 4.10 took

into consideration all potential growth within the area that would be provided water service by Tracy and no significant impact was identified in regards to the construction of new and expanded facilities. Therefore, the project would not contribute to a significant cumulative impact associated with water services.

b. Wastewater

Future regional growth would result in increased demand for wastewater services throughout San Joaquin County. However, only growth within Tracy and its SOI would result in the need for the City to construct additional wastewater facilities, resulting in additional environmental impacts. The project-level analysis in Section 4.10 for the proposed General Plan took into consideration all potential growth within the area that would require wastewater service by Tracy and no significant impact was identified. Therefore, the project would not contribute to a significant cumulative impact associated with wastewater services.

c. Stormwater

As development proceeds within Tracy and the SOI, impervious surfaces would increase, as would the amount of pollutants in runoff, thereby increasing stormwater drainage rates and potentially impacting surface and groundwater quality. However, project-level water quality impacts to water resources would be reduced to a less-than-significant level by implementing BMPs in accordance with the NDPES and other applicable regulations, as well as implementation of the water quality policies contained in proposed General Plan. New development within the County would also result in an increase in runoff. Regional development would also be required to comply with regional, State and federal regulations addressing stormwater runoff and water quality. These regulations would reduce the potential for a cumulative water quality impact to a less-than-significant level.

Future regional growth would result in increased demand for additional stormwater drainage infrastructure throughout the County. However, only growth within Tracy and its SOI would result in the need for the City to con-

struct additional stormwater drainage infrastructure, resulting in additional environmental impacts. The project-level analysis for the proposed General Plan in Section 4.10 took into consideration all potential growth within the area that would require stormwater drainage infrastructure in Tracy and the SOI, and no significant impact was identified in regards to the construction of new and expanded facilities. Therefore, the project would not contribute to a significant cumulative impact associated with stormwater drainage infrastructure.

d. Energy

As growth occurs throughout San Joaquin County, there will be an increased demand for electricity and natural gas. As discussed in Section 4.10, Tracy would avoid a significant project-level impact associated with the wasteful use of energy by implementing proposed General Plan policies, as well as complying with State regulations. Similarly, other jurisdictions in San Joaquin County are required to meet State regulations in regards to energy conservation, such as required by Title 24. As a result, there would not be a significant cumulative wasteful, inefficient or unnecessary use of energy.

11. Geology, Soils and Seismic Hazards

Regional development would increase the number of people and structures subject to geologic- and soils-related risks. The policies contained in the proposed General Plan, along with compliance with federal, State and local regulations addressing building construction, run-off and grading, reduce the potential project-level impact associated with geology and soils to a less-than-significant level. Development in other communities in San Joaquin County would also be required to comply with federal, State and local regulations that are designed to protect increases in people and structures from hazards related to such issues as earthquakes, landslides and soil erosion. As a result, conformance with adopted California building codes, and other measures to protect people and structures from geologic hazards, would reduce this impact to a less-than-significant level.

12. Hydrology and Flooding

As development proceeds within Tracy and the SOI, additional population would also be exposed to the risk of flooding and dam inundation. As mentioned in Section 4.12, existing regulations and proposed General Plan policies and actions would reduce the risk to a less-than-significant level. However, new development within the County may locate additional population and structures within areas subject to flooding. Regional development would also be required to comply with regional, State and federal regulations flooding. These regulations would reduce the potential for a cumulative hydrology impact to a less-than-significant level.

13. Hazardous Materials and Other Hazards

As discussed in Section 4.13, the increase in local population and employment under proposed General Plan would result in the increased use of hazardous household, commercial and industrial materials. In addition, there would be an increase in population that would be exposed to potential wildland fires and hazards associated with aircraft operation. Potential project-level impacts associated with hazards and hazardous materials would be reduced to a less-than-significant level due to local, regional, State and federal regulations, such as those that control the production, use and transportation of hazardous materials and waste and control the location of incompatible land uses in airport hazard area. Similarly, as growth occurs in the County, additional people would be exposed risks associated with hazardous materials, wastes, wildland fires and airport operations. However, as would occur within Tracy, regional, State and federal regulations would apply to development county-wide development, thereby reducing the potential for cumulative impacts associated with hazards and hazardous materials to a less-than-significant level.

14. Noise

Cumulative noise impacts are considered as part of the project-level noise analysis since the future traffic projections used for the noise analysis were generated by a traffic model that considered growth under the proposed General Plan in conjunction with the projected regional growth for San Joaquin

County. As discussed in detail in Section 4.14, future noise level increases related to increases in traffic associated with new roadways facilitated by the proposed General Plan would contribute to a significant and unavoidable noise impact at the project-level and cumulative level.

15. Air Quality

Cumulative noise impacts are considered as part of the project-level analysis since the future traffic projections used for the air quality analysis were generated by a cumulative traffic model. The traffic model considered growth under the proposed General Plan in conjunction with projected regional growth for San Joaquin County. As discussed in detail in Section 4.15, due to the existing air quality issues in the San Joaquin Valley Air Basin, the proposed General Plan would contribute to a significant, unavoidable cumulative air quality impact.

C. Unavoidable Significant Effects

While the majority of impacts associated with the proposed General Plan would be reduced to a less-than-significant level, adoption and implementation of the proposed General Plan would result in the following significant and unavoidable impacts:

- ◆ **Impact V-1:** As discussed on pages 4.3-10 through 4.3-11, the proposed General Plan contains policies to preserve open space and agricultural lands and community character, in addition to policies in the SJMSCP and the City's Agricultural Mitigation Fee Ordinance. Despite such policies to enhance "hometown feel" and preserve open space, development permitted under the proposed General Plan will result in a significant impact to the existing visual identity and character of the City due to the amount of growth allowed. No additional mitigation is available.
- ◆ **Impact CIR-1:** The proposed General Plan incorporates a range of features to help reduce the potential impact of future growth on regional roadways. However, traffic levels along regional roadways listed below will increase, creating a significant and unavoidable impact.

- I-205
- I-580
- I-5
- Altamont Pass Road
- Patterson Pass Road
- Tesla Road

- ◆ **Impact AG-1:** As discussed on pages 4.7-10 through 4.7-15, the proposed General Plan contains policies to preserve agricultural lands, in addition to policies in the SJMSCP and the City's Agricultural Mitigation Fee Ordinance. Despite these policies and regulations, development permitted under the proposed General Plan would result in the conversion of Prime Farmland, Unique Farmland and Farmland of Statewide Importance to urban uses. No additional mitigation is available.
- ◆ **Impact AG-2:** The proposed General Plan contains several policies to mitigate impacts to agricultural resources due to the conversion of additional farmland to urban uses. However, implementation of the proposed General Plan would result in additional and incompatible urban development adjacent to agricultural uses to the extent that the conversion of additional farmland to non-agricultural uses.
- ◆ **Impact NOI-1:** As discussed on page 4.14-22, the City's Noise Ordinance and policies in the proposed General Plan serve to control excessive sources of noise in the city and ensure that noise impacts from new projects are evaluated when they are reviewed. Despite these policies and regulations, significant noise levels increases (3 dBA Ldn or greater) associated with increased traffic would occur adjacent to existing noise sensitive uses along portions of Interstate 205, Grant Line Road, Schulte Road, Linne Road, Lammers Road, Corral Hollow Road, Tracy Boulevard, and MacArthur Drive. New roadways facilitated by the General Plan would also increase existing noise levels at receivers in Tracy. This is a significant and unavoidable impact. No additional mitigation is available.
- ◆ **Impact AIR-1:** The General Plan would not be consistent with applicable clean air planning efforts of the SJVAPCD, since vehicle miles traveled that could occur under the General Plan would exceed that projected

by SJCOG, which are used in projections for air quality planning. The projected growth could lead to an increase in the region's VMT, beyond that anticipated in the SJCOG and SJVAPCD's clean air planning efforts. Development in Tracy and the SOI would contribute to the on-going air quality issues in the San Joaquin Valley Air Basin.

Mitigation Measure AIR-1: The City of Tracy should study adopting an air quality impact mitigation fee program, which would provide for partial mitigation of adverse environmental effects associated with new development and establish a formalized process for air quality standards as growth and development requires. Fees collected could be used to fund transit, rideshare programs, pedestrian and bicycle facilities, or other programs that would offset vehicle trips. The specifics of the program should be developed in coordination with SJCOG and SJVAPCD to ensure that proceeds would effectively fund projects that would reduce air pollutant emissions.

However, these policies and the mitigation measure identified above may not completely mitigate this impact. Therefore, it is considered a significant and unavoidable impact.

D. Significant Irreversible Changes

Section 15126.2(c) of the CEQA Guidelines requires a discussion of the extent to which a proposed project will commit nonrenewable resources to uses that future generations would probably be unable to reverse. An example of such an irreversible commitment is the construction of highway improvements that would provide public access to previously inaccessible areas.

A project would generally result in a significant irreversible impact if:

- ◆ Primary and secondary impacts would commit future generations to similar uses.

- ◆ The project would involve a large commitment of nonrenewable resources.
- ◆ The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.

1. Changes in Land Use that Commit Future Generations

Development under the proposed General Plan would result in the conversion of vacant and agricultural lands to industrial, commercial and residential uses, and the intensification of underutilized areas. This development would constitute a long-term commitment to residential, commercial, industrial, parking and other urban uses. The proposed General Plan would result in the commitment of about 1,350 additional acres of land that are not currently designated for development in the 1993 *Urban Management Plan*.

2. Commitment of Resources

Development allowed under the proposed General Plan would irretrievably commit nonrenewable resources to the construction and maintenance of buildings, infrastructure and roadways. These non-renewable resources include mining resources such as sand, gravel, steel, lead, copper and other metals. Buildout of the proposed General Plan also represents a long-term commitment to the consumption of fossil fuels, natural gas and gasoline. Increased energy demands would be used for construction, lighting, heating and cooling of residences, and transportation of people within, to and from the City and SOI. Proposed General Plan policies and actions promoting energy conservation (Objective OSC-5.1 and Objective OSC-5.2 with supporting policies and actions) would result in some savings in non-renewable energy supplies. Implementation of proposed General Plan would also result in an irreversible commitment of limited, renewable resources such as lumber and water. Proposed General Plan policies and actions promoting resource and water conservation and green building (policies and actions under Objective OSC-5.1 and Objective PF-5.1, Objective PF-6.1, P1, and Objective PF-6.5 and supporting policies and actions) would result in some savings of renewable resources.

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REPORT PREPARATION

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