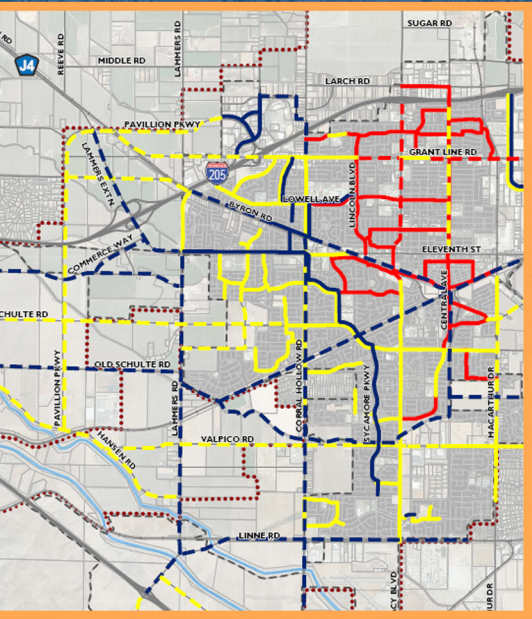
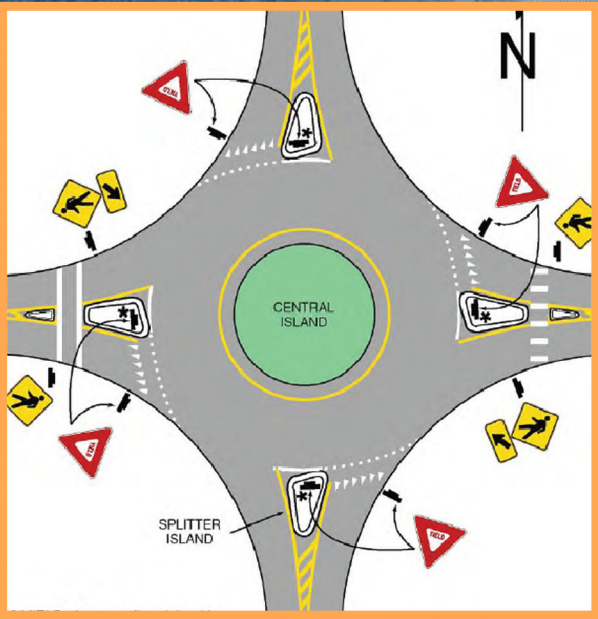
Citywide Transportation Master Plan

Recirculated Draft Environmental Impact Report

(State Clearinghouse No. 2012012032)





Prepared for:
City of Tracy

June 2012

RBF CONSULTING
A Baker Company

CITYWIDE TRANSPORTATION MASTER PLAN

RECIRCULATED
DRAFT ENVIRONMENTAL IMPACT REPORT
(State Clearinghouse No. 2012012032)

June 2012

Prepared for:

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TABLE OF CONTENTS

PAGE NO.

1.0 INTRODUCTION

1.1 Background 1-1
1.2 History 1-4
1.3 Purpose of the EIR 1-6
1.4 Intended Uses of the EIR 1-6
1.5 Scope of the EIR 1-7
1.6 Content of the EIR 1-7
1.7 Terminology Used in the EIR 1-8
1.8 Effects Found Not to Be Significant 1-8
1.9 Other Agencies that May Use the EIR 1-9
1.10 Environmental Review Process 1-10

2.0 EXECUTIVE SUMMARY

2.1 Project Under Review 2-1
2.2 Summary of Potential Impacts 2-1
2.3 Growth Inducing and Cumulative Impacts 2-2
2.4 Summary of Alternatives Evaluated 2-3
2.5 Other CEQA Considerations 2-4
2.6 Areas of Controversy and Issues To Be Resolved 2-4
2.7 Mitigation Monitoring and Reporting 2-4
2.8 Summary Table 2-4

3.0 PROJECT DESCRIPTION

3.1 Project Summary 3-1
3.2 Project Location/Surrounding Land Uses 3-2
3.3 Project Setting 3-5
3.4 Project Characteristics 3-8
3.5 Project Objectives 3-27

4.0 ENVIRONMENTAL ANALYSIS

4.1 Introduction 4.1-1
4.2 Air Quality 4.2-1
4.3 Greenhouse Gas Emissions 4.3-1

5.0 GROWTH INDUCING AND CUMULATIVE IMPACTS

5.1 Growth-Inducing Impacts 5-1
5.2 Cumulative Impacts 5-3

6.0 ALTERNATIVES

6.1 Introduction 6-1
6.2 Project Summary 6-1

6.3 Project Alternatives 6-4
6.4 Environmentally Superior Alternative 6-4

7.0 OTHER CEQA CONSIDERATIONS

7.1 Significant and Unavoidable Impacts 7-1
7.2 Significant Irreversible Changes 7-1

8.0 REPORT PREPARATION PERSONNEL 8-1

9.0 REFERENCES 9-1

LIST OF TABLES

2-1 Summary of Impacts and Mitigation 2-5
3-1 Transportation Master Plan Land Use Assumptions within Tracy SOI 3-10
3-2 Peak Hour Vehicle Trip Generation 3-11
3-3 Trip Reductions Due to SAP Measures –Year 2035 3-11
3-4 Estimated Peak Hour Vehicle Trip Generation for Future Service Areas 3-12
3-5 Citywide Trip Distribution 3-13
3-6 Year 2035 Intersection Level of Service 3-18
3-7 TMP Goals, Objectives, and Recommended Actions 3-21
3-8 TMP Smart Growth Design Elements 3-24
3-9 Recommended Cross Section Characteristics 3-26
4.2-1 Local Air Quality Levels 4.2-3
4.2-2 National and California Ambient Air Quality Standards 4.2-6
4.2-3 Long-Term Operational Project Emissions 4.2-14
4.2-4 Project Buildout Carbon Monoxide Concentrations 4.2-17
4.2-5 TMP and General Plan Consistency 4.2-20
4.3-1 Greenhouse Gas Emissions 4.3-12
5-1 Transportation Master Plan Cumulative Development Land Use Assumptions within Tracy SOI 5-4
6-1 Comparison of Alternative Project Impacts to the Proposed Project 6-9

LIST OF FIGURES

3-1 Regional Location Map 3-3
3-2 Tracy Future Service Areas 3-4
3-3 TMP Study Intersection Locations 3-14
3-4a Year 2035 AM(PM) Peak Hour Traffic Volumes 3-15
3-4b Year 2035 AM(PM) Peak Hour Traffic Volumes 3-16
3-5 Year 2035 AM(PM) Level of Service 3-17
6-1 Alternative 3 6-8

APPENDICES

A Notice of Preparation (NOP), Draft Initial Study/CEQA Guidelines Section 15183 Analysis, and Public Comments
B Air Quality and Greenhouse Gas Emissions Data

1.0 INTRODUCTION

1.1 BACKGROUND

This Recirculated Draft Environmental Impact Report (EIR) has been prepared to analyze the potential environmental effects that may result from the proposed Citywide Transportation Master Plan (Project) in the City of Tracy, San Joaquin County, California, pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.), and the *CEQA Guidelines* (California Code of Regulations [CCR] Title 14, Section 15000 et seq.).

CEQA requires California public agencies to consider the environmental consequences of projects for which they have discretionary authority. The public agency with the principal responsibility for carrying out or approving a project is the "lead agency." The City of Tracy (City) is the lead agency for the proposed Project. CEQA requires the lead agency to prepare an EIR if there is substantial evidence, in light of the whole record, that a project may have a significant effect on the environment. A significant effect is defined in CEQA as a substantial adverse physical change in the environment.

The proposed Citywide Roadway and Transportation Master Plan (TMP) is a comprehensive update of the 1994 City of Tracy TMP in fulfillment of Objective CIR-1.1, Action A1 of the Circulation Element of the City of Tracy General Plan (General Plan), which states, "Update the Roadway Master Plan upon adoption of the General Plan." The proposed TMP builds upon the goals and objectives contained in the Circulation Element of the General Plan and the City of Tracy Sustainability Action Plan (SAP). The TMP provides a comprehensive review of the City's transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan up to the year 2035. Many improvements and expansions to the City's existing transportation system were identified during the preparation of the General Plan and its associated EIR, as noted in the Circulation Element of the General Plan EIR, Objective CIR-1.1, Action A1 ensures the City's TMP is updated to include a comprehensive inventory of roadway expansions and improvements necessary to accommodate the growth envisioned by the General Plan, as well as to maintain circulation continuity throughout the roadway network.

The TMP models and analyzes the effects of an additional five years of growth beyond the horizon year modeled and analyzed by the General Plan EIR to establish consistency with the most recent San Joaquin Council of Governments (SJCOG) land use development assumptions, employment forecasts, and travel demand model. Due to the City's regionally important geographic location, a location that experiences a variety of daily transportation travel modes to, from, and through the City, utilizing the most recent SJCOG model facilitates a consistent identification of uniform improvements between the regional agencies that are responsible for freeways, Congestion Management Agency (CMA) roads, local roads, and transit services.

The improvements and expansions to the City's transportation system identified by the TMP would be necessary to accommodate growth in the City based on the development densities and intensities allowed by the General Plan up to a specific point in time (2035). While the TMP does identify "buildout plan lines," only the recommended fundamental or core facilities necessary to accommodate growth beyond 2035 levels widening certain roadways where feasible primarily in the western and northern development areas are addressed. However, the "buildout plan lines" do not provide sufficient capacity to serve the buildout condition of the General Plan land use plan; many additional connecting roadways and roadway widening would be needed to serve the traffic generated by the additional residential development and employment opportunities that are expected at buildout of the General Plan. Given the long-range horizon for the buildout of the General Plan, and the corresponding unknowns as to how certain planning areas

will ultimately wish to develop, a complete and adequate buildout transportation network cannot be designed. Further study will be necessary to plan for the buildout condition.

Tracy is located within San Joaquin County (County). The City occupies a central location in the San Joaquin Valley, 60 miles east of San Francisco and 68 miles south of Sacramento. Improvements and expansions proposed for the City's existing transportation system would occur at various locations throughout the City and its Sphere of Influence (SOI), generally within existing right-of-way owned by the City; however, a substantial number of the identified improvements may require additional right-of-way. The City's SOI includes the current City limits, plus the area immediately outside of the City that the City expects to annex and urbanize in the future. Land uses surrounding the proposed improvements and expansions vary depending on the location and could consist of either commercial, residential, industrial, agricultural, recreational, and open space uses, water courses, or freeways.

Due to various amendments to the General Plan and the City's development preparation of a Sustainability Action Plan, the General Plan EIR has been revised and updated on several occasions as discussed below.

The original 2005 General Plan EIR evaluated the following 15 topics:

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

An amendment to the General Plan in 2006 required the preparation of an Amendment to the General Plan Draft EIR. The 2006 General Plan Draft EIR contains a variety of amendments to the 2005 Draft EIR. In particular, it was modified to include detailed discussions of impacts that would result from total buildout of the City limits and SOI under the proposed General Plan, in addition to the discussion of impacts during the initial 20-year planning horizon. As such, for the following topics identified and evaluated in the 2005 EIR were reanalyzed in the 2006 EIR as follows:

- Land Use,
- Population, Employment and Housing,
- Visual Quality,
- Biological Resources,

- Agricultural Resources,
- Community Services, and
- Infrastructure.

The following other topical areas evaluated in the 2005 General Plan EIR were evaluated under both a 20-year development scenario and at total buildout and thus, did not need to be updated in the 2006 EIR as they remained valid: cultural resources, mineral resources, geology, soils, and seismic hazards, and hydrology and flooding. It should be noted that the detailed, quantitative analysis of potential impacts to traffic, noise and air quality were based on the development projections for a 20-year period (2025) in both the 2005 and 2006 EIRs. The traffic analysis was limited to the 20-year planning horizon in part because significant speculation regarding regional growth and funding for transportation improvements would be required to model the total buildout year under the proposed General Plan. The noise and air quality analysis is also limited to the 20-year planning horizon because they are based on the modeling results of the traffic analysis.

In 2010, the City prepared a Draft Supplemental EIR in response to another General Plan amendment and the preparation of its Sustainability Action Plan. The 2010 General Plan EIR contains only those environmental analysis chapters for which the findings of the 2006 General Plan Draft EIR would change as a result of the General Plan Amendment. As a result, the issues addressed in that EIR include the following:

- Land Use
- Population, Employment and Housing
- Traffic and Circulation
- Noise
- Air Quality
- GHG Emissions

In the 2010 Supplemental General Plan EIR, the traffic, noise, and air quality analyses extend to a 2030 horizon because the traffic modeling, which also affects the air quality and noise analyses, is based on the SJCOG regional travel demand model, which at that time had been updated to 2030. The land use, population, employment, and housing analyses were evaluated under a 20-year development scenario and at total buildout in the 2010 General Plan EIR.

Thus, the various General Plan EIRs (2005, 2006, and 2010) have each evaluated the "buildout" condition for specific issue areas, as described above, but none have evaluated the buildout condition for traffic, noise, and air quality as it is generally held that modeling of traffic and associated air quality, GHG, and noise impacts much beyond a 20-year time period is inaccurate and unreliable.

1.2 HISTORY

Following its preliminary review of the proposed Project (pursuant to Section 15060 of the *CEQA Guidelines*), the City of Tracy prepared a draft Initial Study according to Section 15063 of the *CEQA Guidelines* (January 2012 IS) to determine if the Project would have a significant effect on the environment. The January 2012 IS was released with the Notice of Preparation (NOP) on January 12, 2012. The purpose of the draft Initial Study is to assist in the preparation of an EIR by focusing the EIR on the effects determined to be significant, identifying the effects determined not to be significant, and explaining why such potentially significant effects would not be significant. An NOP is a document that is sent by the lead agency to notify public agencies and interested parties that the lead agency plans to prepare an EIR for a project. The purpose of the NOP is to solicit comments from public agencies and interested parties, and to identify issues that should be considered in the EIR.

The January 2012 IS and NOP for the proposed Project were sent to trustee and responsible agencies, members of the public, other interested parties, and the California Office of Planning and Research, State Clearinghouse (SCH) on January 12, 2012. The SCH received the document on January 13, 2012. This began the 30-day public review period, which ended on February, 13, 2012. During the review period, public agencies and members of the public had the opportunity to respond to the NOP to identify issues of special concern to them and to suggest additional issues to be considered in the EIR.

The original January 2012 IS published in January 2012 and circulated with the TMP EIR from March through early May 2012 found that the Project would have the a number of potentially significant impacts. Due to clarification of information regarding the TMP, as well as minor modifications to the Draft TMP as a result of evolving City and stakeholder input, a number of the impact conclusions in the original January 2012 IS have been modified. Changes that have been identified and thus, trigger the need to recirculate the Draft TMP EIR are described in greater detail below.

In accordance with *CEQA Guidelines* Section 15063 (b)(1)(A), the City concluded that, based on the results of the January 2012 IS, there was substantial evidence that the Project would have potentially significant air quality and greenhouse gas (GHG) emission impacts, requiring the preparation of an EIR, as mitigation measures for these impacts were not readily or practicably feasible at the time the January 2012 IS was prepared. All other impacts identified in the January 2012 IS were mitigated with measures reviewed by and acceptable to City. Thus, City determined that only two topical environmental issues, Air Quality and GHG, required evaluation in the EIR.

Subsequently, the City circulated a Draft EIR for the proposed Project from March 30 to May 14, 2012 for public review (March 2012 EIR). All interested persons and organizations had an opportunity during this time to submit their written comments on the March 2012 Draft EIR to the City of Tracy. Since circulation of the March 2012 Draft EIR, significant new information has been added to the January 2012 IS and March 2012 EIR. This new information provides clarification regarding the purpose and intent of the TMP and the scope and nature of its potential impacts. This information includes the following:

1. The TMP does not propose any new growth and its implementation would not result in any new growth.

2. The improvements and expansions to the City's transportation system identified by the TMP would be necessary to accommodate growth in the City based on the development densities and intensities allowed by the General Plan up to a specific point in time (2035). While the TMP does identify "buildout plan lines," only the recommended fundamental or core facilities necessary to accommodate growth beyond 2035 levels widening certain roadways where feasible primarily in the

western and northern development areas are addressed. However, the "buildout plan lines" do not provide sufficient capacity to serve the buildout condition of the General Plan land use plan; many additional connecting roadways and roadway widening would be needed to serve the traffic generated by the additional residential development and employment opportunities that are expected at buildout of the General Plan. Given the long-range horizon for the buildout of the General Plan, and the corresponding unknowns as to how certain planning areas will ultimately wish to develop, a complete and adequate buildout transportation network cannot be designed. Further study will be necessary to plan for the buildout condition.

3. The TMP is a policy document and does not propose the construction or operation of specific improvements and expansions at this time.

4. Because specific project details are not currently available, additional future environmental review would be required on a project by project basis, as specific improvement and expansion projects identified by the TMP come forward. This future environmental review would be necessary to analyze and disclose any site specific impacts triggered by construction of the improvements and expansions identified by the TMP.

Due to the introduction of this new and/or clarified information in the January 2012 IS and March 2012 EIR, the City has decided to recirculate a revised Draft Initial Study (Recirculated IS/CEQA Guidelines Section 15183 Analysis) and Draft EIR (Recirculated EIR) for the TMP. Upon completion of the circulation period for the Recirculated IS/CEQA Guidelines Section 15183 Analysis and Recirculated EIR, the City will respond to: (i) comments received during the initial circulation period that relate to chapters or portions of the documents that were not revised and recirculated and (ii) comments received during the recirculation period that relate to the chapters or portions of the documents that were revised and recirculated. This Draft Recirculated EIR and its appended Recirculated IS/CEQA Guidelines Section 15183 Analysis are intended to fully replace the January 2012 IS and March 2012 EIR.

It should be noted that the General Plan EIR determined that GHG emissions under the SAP would not meet San Joaquin Valley Air Pollution Control District (SJVAPCD) criteria, and impacts would be significant and unavoidable. Thus, the City adopted a Statement of Overriding Considerations due to significant and unavoidable impacts. As described in greater detail below under Section 1.5, the GHG analysis for the proposed Project tiers off of the General Plan EIR and incorporates it by reference.

As noted in Section 1.1 above, the proposed TMP has been prepared in fulfillment of Action A-1 of the City's General Plan. A comprehensive analysis of the environmental effects associated with implementation of the General Plan was addressed in the General Plan EIR certified February 2011. According to Public Resources Code Section 21094(a)(1), (2) Division 13, Chapter 2.6, a subsequent project that is consistent with a program, plan, policy, or ordinance for which an EIR was prepared and certified; and, applicable local land use plans and zoning may rely on the analysis contained within the previously certified EIR prepared for the program, plan, policy, or ordinance and need not conduct new or additional analysis for those effects that were either: avoided or mitigated by the certified EIR; or, were sufficiently examined by the certified EIR to enable those effects to be mitigated or avoided by site-specific revisions; the imposition of conditions; or, by other means in connection with approval of the subsequent project.

As identified in Article 12, Section 15183(a) of the State CEQA Guidelines, …"projects which are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the

project or its site. This streamlines the review of such projects and reduces the need to prepare repetitive environmental studies". As such, this EIR's primary focus is on those impacts associated with implementation of the TMP that were not previously contemplated by the City's General Plan EIR. As provided for in Section 15183(b)(4), this Recirculated EIR limits its examination of environmental effects to those significant effects, which as a result of substantial new information, were not known at the time that the General Plan EIR was certified and these include significant air quality and GHG emission impacts.

1.3 PURPOSE OF THE EIR

An EIR is an informational document that is written to inform public agency decision-makers and the public of the significant environmental effects of a proposed project. The purpose of an EIR is to:

- Analyze the environmental effects of a proposed project;
- Indicate mitigation measures to avoid or minimize the potentially significant environmental effects of a proposed project; and,
- Identify alternatives to the project that would avoid or substantially lessen the significant effects of the project.

Environmental effects that are addressed in an EIR consist of potentially significant, adverse effects of the project across a full spectrum of environmental topics; growth-inducing effects of the project; and, significant cumulative effects of past, present, and reasonably anticipated future projects.

It is not the purpose of an EIR to recommend either approval or denial of a project. Rather, EIRs provide relevant information that will assist decision-makers in their decision to approve or deny a project. If significant environmental impacts that cannot be reduced to a less than significant level are identified for the Project, the lead agency must prepare a Statement of Overriding Considerations, pursuant to Section 15093 of the *State CEQA Guidelines.*

1.4 INTENDED USES OF THE EIR

This Recirculated EIR has been prepared at the program-level under CEQA Guidelines Section 15168 to assess and document the environmental impacts of the Citywide Roadway and Transportation Master Plan. Therefore, subsequent activities undertaken pursuant to the Master Plan would be examined in the light of this Recirculated EIR to determine whether any additional environmental documentation must be prepared. (14 CCR § 15168(c).) The Program EIR approach is appropriate for the TMP because it allows comprehensive consideration of the reasonably anticipated scope of the TMP and will serve as the base document for any future environmental review necessary for development of improvements identified in the TMP.

This Recirculated EIR provides the foundational CEQA compliance documentation upon which the City's, responsible agencies', and all other applicable agencies' consideration of and action on all necessary and/or desirous permits, approvals and other grants of authority (collectively, "approvals") shall be based. This includes without limitation all those approvals set forth in this Recirculated EIR, as well as any additional approvals necessary and/or desirous to implement the proposed Project.

State CEQA Guidelines Section 15168(c) states that subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared. Subsequent project-specific activities undertaken pursuant to the TMP would be

evaluated in light of this Program EIR to determine whether additional environmental documentation is required (State *CEQA Guidelines* Sections 15168(b) and (c)). Section 15168(c)(2) states that if the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required. Section 15168(c)(4) says that the agency should use a written checklist or similar device to document the evaluation of the activity to determine whether the environmental effects of the operation are covered in the program EIR. If a subsequent activity undertaken pursuant to the TMP would have effects not within the scope of this Program EIR, the Lead Agency must prepare a new Initial Study leading to either a Negative Declaration, a Mitigated Negative Declaration, or project level EIR. In this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis.

1.5 SCOPE OF THE EIR

As provided for in Sections 15063 and 15126 of the *CEQA Guidelines*, the focus of this Recirculated EIR is limited to specific issues and concerns identified by the City as causing potentially significant effects on the environment. As described previously, to determine the scope of this previously circulated March 2012 EIR, the City prepared a January 2012 IS, as described above under Section 1.2 (History), which was circulated for public review with the NOP, during which time, the public had the opportunity to identify issues of special concern to be considered in the March 2012 EIR.

As noted above, under Section 1.2 (History), the January 2012 IS identified many potentially significant environmental effects that could occur as a result of the Project, but all of the potentially significant impacts were mitigated with the exception of certain air quality and greenhouse gas (GHG) emission impacts. Thus, a Draft EIR that evaluated only two topical environmental issues, Air Quality and GHG Emissions, was circulated for a 45-day period from March 30 to May 14, 2012. Subsequent to the circulation of the March 2012 Draft EIR, the City decided to recirculate a revised IS/CEQA Guidelines Section 15183 Analysis and Draft EIR for the TMP based on new and/or clarified information that was added to the January 2012 IS and March 2012 EIR after public notice was given of the availability of the March 2012 Draft EIR for public review under Section 15087 but before certification (CEQA Guidelines Section 15088.5). Refer above under Section 1.2 (History) for the new information that was added to the January 2012 IS and March 2012 EIR.

The Recirculated EIR and IS/CEQA Guidelines Section 15183 Analysis contain revisions to the environmental analysis of the previously circulated January 2012 IS and March 2012 EIR for the TMP. Both previously circulated documents were revised in their entirety as necessary in response to the new additional information identified by City staff.

1.6 CONTENT OF THE EIR

As noted above, under Section 1.5, Scope of the EIR, this Recirculated EIR and appended Recirculated IS/CEQA Guidelines Section 15183 Analysis contain revisions to the environmental analysis of the previously circulated January 2012 IS and March 2012 EIR for the TMP. Both previously circulated documents were revised in their entirety as necessary in response to the new additional and/or clarified information identified since release of the March 2012 Draft EIR. Pursuant to Sections 15148 and 15150 of the *State CEQA Guidelines*, the Project's GHG analysis tiers off of the General Plan EIR and incorporates it by reference. This Draft Recirculated EIR also incorporates issues identified during the public review period. For each environmental issue, the Recirculated EIR first describes the environmental setting (existing conditions), then discusses and analyzes the potential related physical impacts that could occur as a result of Project implementation.

For each potentially significant impact, the Recirculated EIR specifies ways to mitigate the impact, including one or a combination of the following measures:

- Relevant standards and regulations of agencies with jurisdiction over this Project; and/or,
- Project-specific mitigation designed to mitigate one or more Project impacts.

1.7 TERMINOLOGY USED IN THE EIR

This Recirculated EIR uses the following terminology to describe the significance of the proposed Project's environmental impacts:

- An "environmental impact" is a direct or indirect effect that would be caused by the Project that constitutes a physical change to the existing natural or man-made conditions within the area affected by the Project.
- "No impact" is the lack of any environmental impact, and no mitigation is required.
- A "less than significant" impact or an impact that is "not significant" is an environmental impact that would cause no substantial adverse change in the environment and, as such, requires no mitigation.
- A "potentially significant" or "significant" impact is an environmental impact that could or would cause a substantial adverse change in the environment. In such a case, an impact has been identified that, although potentially significant, can be avoided or reduced to less than significant levels through mitigation. Such mitigation may include Project design features that have been incorporated into the Project or existing requirements, such as municipal code or ordinance, engineering and design requirements (e.g., California Building Code), and standard regulations set by regional, state and federal agencies. A further description of mitigation measures is provided below.
- A "significant and unavoidable" impact is an environmental impact that could or would cause a substantial adverse change in the environment and cannot be avoided if the Project is implemented; mitigation may be recommended, but would not reduce the impact to a less than significant level.
- "Mitigation measures" are defined in *CEQA Guidelines* Section 15370 as:
  - Avoiding the impact altogether by not taking a certain action or parts of an action
  - Minimizing the impact by limiting the degree or magnitude of the action and its implementation
  - Rectifying the impact by repairing, rehabilitating or restoring the affected environment
  - Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
  - Compensating for the impact by replacing or providing substitute resources or environments

1.8 EFFECTS FOUND NOT TO BE SIGNIFICANT

As noted above under Section 1.2 (History), the City prepared a draft Initial Study in January 2012 following its preliminary review of the Project. The January 2012 IS has been revised and is being recirculated along with this Recirculated EIR. The previously prepared January 2012 IS identified potential Project impacts on several environmental resources and determined that the majority of these

impacts could be mitigated to less than significant levels with the exception of certain air quality and GHG emissions impacts. However, based on clarified information as contained herein, the conclusions of the January 2012 IS have changed with the exception of the conclusions regarding certain air quality and GHG emissions impacts, which remain potentially significant. As described in the Recirculated IS/CEQA Guidelines Section 15183 Analysis, the TMP would not result in potentially significant impacts requiring mitigation with the exception of certain GHG and air quality impacts. Refer to the Recirculated IS/CEQA Guidelines Section 15183 Analysis, which is included as Appendix A to this Recirculated EIR, for detailed descriptions regarding why the Project would have less than significant impacts associated with the following environmental topical areas:

- Aesthetics
- Agriculture and Forest Resources
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

1.9 OTHER AGENCIES THAT MAY USE THE EIR

1.9.1 RESPONSIBLE AND TRUSTEE AGENCIES

This Recirculated EIR is intended to be used by trustee and responsible agencies (as defined by Sections 15381 and 15386 of the *CEQA Guidelines*) that may have review or discretionary authority over the Project or some component thereof. Based on Section 15381, there are no trustee agencies with discretionary authority over the proposed Project. However, agencies that also may use this Recirculated Draft EIR in their review of the Project or that may have responsibility for approval of certain Project elements include, but are not limited to, the following:

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- California Office of Planning and Research
- San Joaquin Valley Air Pollution Control District (SJVAPCD)

1.9.2 OTHER AGENCIES, ORGANIZATIONS, AND GROUPS

Other agencies, organizations, and/or special interest groups not formally identified as a trustee or responsible agency, but otherwise anticipated to be participants in the local review process for the Project, include, but are not limited to, the following:

- California Department of Fish and Game (CDFG)
- California Regional Water Quality Control Board (RWQCB)
- California Public Utilities Commission (PUC)
- California Department of Transportation (Caltrans)
- California Department of Water Resources (DWR)
- Pacific Gas and Electric (PG&E)
- San Joaquin Council of Governments (SJCOG)
- San Joaquin County
- San Joaquin Regional Rail Commission (SJRRC)
- San Joaquin Regional Transit District (SJRTD)
- San Luis and Delta-Mendota Water Authority (SLDMWA)
- Union Pacific Railroad Corporation (UPRR)
- United States Bureau of Reclamation (USBR)
- United States Fish and Wildlife Service (USFWS)

1.10 ENVIRONMENTAL REVIEW PROCESS

1.10.1 PUBLIC REVIEW OF DRAFT EIR

In accordance with CEQA, a good faith effort has been made during the preparation of this Recirculated EIR to contact affected agencies, organizations, and persons who may have an interest in this Project. This Draft Recirculated EIR, with an accompanying Notice of Completion (NOC), will circulate to the State Clearinghouse, trustee agencies, responsible agencies, and other government agencies, and interested members of the public for a 45-day review period, as required by CEQA. The review period is June 14, 2012 through July 30, 2012. During this review period, public agencies and members of the public may provide written comments on the analysis and content of the Recirculated EIR. In reviewing a Draft EIR, readers should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and on ways in which the significant effects of the Project might be avoided or mitigated.

All written comments on this Draft Recirculated EIR must be mailed (i.e., postmarked), faxed, e-mailed, or delivered by 5:00 pm on July 30, 2012, and addressed as follows:

Mail or Delivery: City of Tracy
Development and Engineering Services Department
333 Civic Center Plaza
Tracy, CA 95376
Attention: William Dean, Assistant Director,
Development and Engineering Services Department

Fax: William Dean, Assistant Director,
Development and Engineering Services Department
City of Tracy
(209) 831-6400

Email: William.Dean@ci.tracy.ca.us

All comments received on the Recirculated Draft EIR during the 45-day public review period will be responded to by the City in the Final EIR.

1.10.2 CERTIFICATION OF FINAL EIR AND PROJECT APPROVAL PROCESS

The following elements will collectively compose the Final EIR:

- The Recirculated Draft EIR (including the Appendices);
- A list of persons, organizations, and public agencies that commented on the Recirculated Draft EIR;
- Copies of all comments received; and,
- Written responses to those comments and any supporting documentation.

For a period of at least ten days prior to any public hearing during which the lead agency takes action to certify the Recirculated EIR, the Final EIR will be made available to, at a minimum, the trustee and responsible agencies that provided written comments on the Draft EIR. Pursuant to Section 15090(a) of the *CEQA Guidelines*, the Final EIR must be certified before the lead agency can take action on (approve or deny) the project.

After the Recirculated EIR is certified, the City will begin evaluating the merits of the Project and conduct public hearings to decide whether to approve the proposed Project or not. Before approving (or conditionally approving) the Project, the City of Tracy must prepare Findings, in accordance with Section 15091 of the *CEQA Guidelines*. The findings must briefly explain the rationale behind each finding for each significant environmental impact identified for the Project. If significant environmental impacts that cannot be reduced to a less than significant level are identified for the Project, the lead agency must prepare a Statement of Overriding Considerations, pursuant to Section 15093 of the *CEQA Guidelines*.

Certification of the Final EIR and approval of the CEQA Findings, Mitigation Monitoring and Reporting Program, and the Statement of Overriding Considerations may be considered during one final public hearing. The certification of the Final EIR must be the first in this sequence of approvals.

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2.0 EXECUTIVE SUMMARY

2.1 PROJECT UNDER REVIEW

The proposed Project, the Citywide Roadway and Transportation Master Plan (TMP), is a comprehensive update of the 1994 City of Tracy TMP in fulfillment of Objective CIR-1.1, Action A1 of the Circulation Element of the City of Tracy General Plan (General Plan), which states, "Update the Roadway Master Plan upon adoption of the General Plan." As noted in the Circulation Element of the General Plan EIR, implementation of Objective CIR-1.1, Action A1 ensures the City's TMP is updated to include a comprehensive inventory of roadway expansions and improvements necessary to accommodate the growth envisioned by the General Plan, as well as maintain circulation continuity throughout the roadway network.

The proposed TMP builds upon the goals and objectives contained in the Circulation Element of the General Plan and the City's Sustainability Action Plan (SAP). The proposed TMP provides a comprehensive review of the City's transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan up to the year 2035. The TMP models and analyzes the effects of an additional five years of growth beyond the horizon year modeled and analyzed by the General Plan EIR to establish consistency with the most recent San Joaquin Council of Governments (SJCOG) land use development assumptions, employment forecasts, and travel demand model. Due to the City's regionally important geographic location, a location that experiences a variety of daily transportation travel modes to, from, and through the City, utilizing the most recent SJCOG model facilitates a consistent identification of uniform improvements between the regional agencies that are responsible for freeways, Congestion Management Agency (CMA) roads, local roads, and transit services. Thus, the TMP identifies improvements and expansions to the City's transportation system up to a specific point in time (2035) based on the development densities and intensities allowed by the General Plan, but it does not identify improvements and expansions necessary to accommodate the growth projected for the entire buildout of the General Plan, as buildout is so far in the future that assumptions regarding land use and development are too speculative to rely on for accuracy.

Tracy is located within San Joaquin County (County). The City occupies a central location in the San Joaquin Valley, 60 miles east of San Francisco and 68 miles south of Sacramento. Improvements and expansions proposed for the City's existing transportation system would occur at various locations throughout the City and its Sphere of Influence (SOI), generally within existing right-of-way owned by the City; however, a limited number of the identified improvements may require additional public right-of-way and/or private property and/or easements. The City's SOI includes the current City limits, plus the area immediately outside of the City that the City expects to annex and urbanize in the future. Land uses surrounding the proposed improvements and expansions vary depending on the location and could consist of commercial, residential, industrial, agricultural, recreational, and open space uses, water courses, or freeways.

2.2 SUMMARY OF POTENTIAL IMPACTS

Under the California Environmental Quality Act (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. As identified in Chapter 4 (Environmental Analysis) of this

Draft Recirculated Environmental Impact Report (EIR), the proposed Project has the potential to result in significant environmental impacts as summarized below.

2.2.1 AIR QUALITY

- Project construction would result in potentially significant short-term increases in particulate (fugitive dust) and exhaust emissions that could be reduced to less than significant with implementation of mitigation measures identified in Section 4.2 (Air Quality).
- Due to the amount of growth that is projected to occur by TMP forecast year 2035, impacts associated with long-term mobile source emissions would be considered significant and unavoidable due to exceedances of established thresholds for Reactive Organic Gases (ROG) and particulate matter $(PM)_{10}$.
- The Project would not exceed established thresholds for nitrogen oxides (NO_X), carbon monoxide (CO) hotspots, odors, or toxic air contaminants and related impacts would be less than significant.
- The TMP's anticipated VMT for the year 2035 exceeds the VMT considered in the General Plan for horizon year 2030. As concluded in the General Plan EIR, the General Plan would not be consistent with the San Joaquin Valley Air Pollution Control District's (SJVAPCD) Clean Air Plans. Furthermore, as discussed within the General Plan EIR, the projected growth within the City would lead to an increase in the region's VMT, beyond what has been identified by the San Joaquin Council of Governments (SJCOG) and SJVAPCD. Therefore, as the proposed Project would result in VMT beyond what was anticipated in the General Plan, the proposed Project would also exceed the projected growth beyond what has been identified by the SJCOG and SJVAPCD. Impacts associated with plan consistency would be considered significant and unavoidable for the proposed Project.
- Finally, the Project would result in a significant and unavoidable cumulative impact from increases in criteria air pollutants.

2.2.2 GREENHOUSE GAS EMISSIONS

- As identified in Section 4.3 (Greenhouse Gas Emissions), the VMTs associated with the TMP exceed those forecast for the 2030 General Plan. The General Plan EIR indicated that all feasible mitigation measures for greenhouse gas (GHG) emissions were included in the General Plan and the City's SAP. No additional measures beyond those found in the SAP have been found feasible to reduce GHG emissions associated with the proposed Project. The General Plan EIR determined that GHG emissions under the SAP would not meet SJVAPCD criteria, and impacts would be significant and unavoidable. As the proposed Project contemplates growth beyond the General Plan, and the Project would result in greater impacts than those identified in the General Plan EIR, impacts associated with the proposed Project would be significant and unavoidable.
- In addition, the Project's cumulative impacts associated with GHG emissions would be significant and unavoidable.

2.3 GROWTH INDUCING AND CUMULATIVE IMPACTS

Chapter 5 (Growth Inducing and Cumulative Impacts) of this Draft Recirculated EIR evaluates the cumulative and growth-inducing impacts of the proposed Project. The proposed Project would result in cumulatively considerable air quality and GHG emissions impacts. The Project is not expected to induce unplanned growth or development in the vicinity of the Project site.

2.4 SUMMARY OF ALTERNATIVES EVALUATED

Chapter 6 (Alternatives) of this Recirculated EIR evaluates alternatives to the proposed Project in accordance with *CEQA Guidelines* Section 15126.6. These alternatives include:

- Alternative 1: No Project/No Updated Transportation Master Plan
- Alternative 2: Transportation Master Plan Limited to General Plan 2030 Horizon Year
- Alternative 3: Increased Residential/Reduced Commercial

2.4.1 NO PROJECT/NO BUILD (STATUS QUO)

Under the No Project/No Updated Transportation Master Plan Alternative (Alternative 1), the proposed TMP would not be adopted and the existing (1994) TMP would remain in effect. Thus, none of the improvements or expansions to the City's existing transportation system required to accommodate future growth anticipated by the General Plan would be implemented. The City's transportation system would not benefit from Smart Growth, Context-Sensitive design, and Complete Streets guidelines, strategies, principles, and design elements. Moreover, a variety of techniques designed to help the City meet sustainability and GHG reduction goals would not be undertaken, and various other policies that address bicycle/pedestrian circulation, roadway design/operation, traffic calming, access management, standards/design for park and ride facilities, and Intelligent Transportation Systems (ITS) would not be implemented.

Although roadway locations are primarily the same in the existing and proposed TMPs, the roadway network for the proposed TMP shows better connection between origins and destinations, which would reduce trip lengths, compared to the existing TMP. Additionally, the proposed TMP identifies substantially reduced roadway cross sections. New roadways in the proposed TMP include the Pavilion Parkway Extension to the south, the Hansen Road connection between Schulte Road and Lammers Road, improved collector streets between the arterials, and expressways. The proposed TMP identifies reduced roadways on the south side of I-580 for the Tracy Hills development area. Finally, the proposed TMP would have less overall vehicle miles traveled compared to the existing TMP.

2.4.2 TRANSPORTATION MASTER PLAN LIMITED TO GENERAL PLAN 2030 HORIZON YEAR

Under Alternative 2, the TMP would project growth to the year 2030, the same as the growth projection year identified by the General Plan for Traffic and Circulation. Thus, Alternative 2 would have the same land use assumptions and density as that contemplated by the General Plan, but it would not be consistent with the most recent SJCOG land use development assumptions, employment forecasts, and/or travel demand model. All other elements of the TMP under Alternative 2 would be the same or similar as those identified by the proposed Project. This alternative was selected for its ability to reduce the amount of VMT associated with the proposed TMP, and the corresponding air pollutant and GHG emissions.

2.4.3 INCREASED RESIDENTIAL/REDUCED COMMERCIAL

Both the proposed TMP and Alternative 3 identify improvements and expansions to the City's existing transportation system required to accommodate future growth to the year 2035. However, Alternative 3 assumes different land uses in the year 2035 than the proposed TMP. Alternative 3 assumes a 160-acre area near the I-205 expansion area could reasonably be expected to develop with low density residential uses rather than the commercial uses assumed by the TMP; refer to Figure 6-1 (Alternative 3). This

alternative was selected for its ability to reduce the amount of VMT associated with the proposed TMP, and the corresponding air pollutant and GHG emissions.

2.4.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of the environmentally superior alternative in an EIR, which is an alternative that would result in the fewest or least number of significant environmental impacts. If the "No Project" Alternative is the environmentally superior alternative, *CEQA Guidelines* Section 15126.6 (e)(2) requires that another alternative that could feasibly attain most of the project's basic objectives be chosen as the environmentally superior alternative. Based on the above analysis, summarized in Table 6-1, the environmentally superior alternative is Alternative 2. Construction impacts would be equivalent under Alternative 2 and the proposed Project. However, Alternative 2 projects growth to the year 2030 and the proposed TMP projects growth to the year 2035, which results in substantially less projected housing and employment opportunities than are assumed under the TMP. Thus, Alternative 2 would result in less VMT and associated emissions than the proposed Project and air quality and GHG impacts would be reduced, but would still remain significant and unavoidable due to the total amount of growth projected under Alternative 2.

2.5 OTHER CEQA CONSIDERATIONS

Chapter 7 (Other CEQA Considerations) of this Draft Recirculated EIR provides a discussion of the significant and unavoidable impacts and the significant irreversible changes of the proposed Project. As described in this chapter, the proposed Project would result in significant and unavoidable impacts on air quality and GHG emissions.

2.6 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

CEQA Guidelines Section 15123 requires that EIRs summarize areas of controversy known to the lead agency and issues to be resolved. Issues were identified during the Notice of Preparation (NOP) review period and have been addressed in the Draft Recirculated EIR. No apparent substantial areas of controversy not already addressed in this Draft Recirculated EIR were identified. Comment letters received from organizations and public agencies in response to the NOP are included in Appendix A (Notice of Preparation (NOP), Draft Initial Study, and Public Comments).

2.7 MITIGATION MONITORING AND REPORTING

CEQA requires public agencies to set up mitigation monitoring and reporting programs to ensure compliance with those measures adopted or made as a condition of project approval to mitigate or avoid significant environmental effects identified in an EIR. A mitigation monitoring and reporting program incorporating the mitigation measures set forth in this document will be considered and acted upon by the Tracy City Council for adoption concurrent with the adoption of the findings of this Recirculated EIR and prior to a determination on whether or not to approve the proposed Project.

2.8 SUMMARY TABLE

Table 2-1 (Summary of Impacts and Mitigation) provides a summary of the proposed Project's potentially significant impacts, the level of significance of the impact before mitigation, the mitigation measures proposed to reduce or avoid the potentially significant effects, and the level of significance of the impact after mitigation.

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Air Quality			
4.2-1 - Implementation of the Project would result in temporary construction-related dust and vehicle emissions within the Project site.	Potentially Significant Impact	4.2-1a - Prior to the issuance of any grading, building, or other construction permit, the City shall require future applicants to demonstrate conformance with SJVAPCD Rule VIII. The Development and Engineering Services Department shall require that the grading plans, building plans, and specifications stipulate compliance with the following control measures in SJVAPCD Regulation VIII: • Properly and routinely maintain all construction equipment, as recommended by manufacturer's manuals, to control exhaust emissions. • Shut down equipment when not in use for extended periods of time, to reduce exhaust emissions associated with idling engines. • Encourage ride-sharing and use of transit transportation for construction employees commuting to the Project site. • Use electric equipment for construction whenever possible in lieu of fossil fuel-fired equipment. • Curtail construction during periods of high ambient pollutant concentrations. • Construction equipment shall operate no longer than eight cumulative hours per day. • All construction vehicles shall be equipped with proper emission control equipment and kept in good and proper running order to reduce NO_X emissions. • All construction activities within the Project site shall be discontinued during the first	Less Than Significant Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		stage smog alerts. • Construction and grading activities shall not be allowed during first stage ozone alerts. (First stage ozone alerts are declared when ozone levels exceed 0.20 ppm for the 1-hour average.) 4.2-1b - Prior to the issuance of any grading, building, or other construction permit, the City shall require future applicants to demonstrate conformance with SJVAPCD Rule VIII. The Development and Engineering Services Department shall require that the grading plans, building plans, and specifications stipulate compliance with the following control measures in SJVAPCD Regulation VIII: • Water previously disturbed exposed surfaces (soil) a minimum of three-times/day or whenever visible dust is capable of drifting from the site or approaches 20 percent opacity. • Water all haul roads (unpaved) a minimum of three-times/day or whenever visible dust from such roads is capable of drifting from the site or approaches 20 percent opacity. • All access roads and parking areas shall be covered with asphalt-concrete paving or water sprayed regularly. • Dust from all onsite and offsite unpaved access roads shall be effectively stabilized by applying water or using a chemical stabilizer or suppressant. • Reduce speed on unpaved roads to less than 15 miles per hour. • Install and maintain a trackout control	

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		device that meets the specifications of SJVAPCD Rule 8041 if the site exceeds 150 vehicle trips per day or more than 20 vehicle trips per day by vehicle with three or more axles. • Stabilize all disturbed areas, including storage piles, which are not being actively utilized for construction purposes using water, chemical stabilizers or by covering with a tarp, other suitable cover or vegetative ground cover. • Control fugitive dust emissions during land clearing, grubbing, scraping, excavation, leveling, grading or cut and fill operations with application of water or by presoaking. • When transporting materials offsite, maintain a freeboard limit of at least six inches and cover or effectively wet to limit visible dust emissions. • Limit and remove the accumulation of mud and/or dirt from adjacent public roadways at the end of each workday. (Use of dry rotary brushes is prohibited except when preceded or accompanied by sufficient wetting to limit visible dust emissions and use of blowers is expressly forbidden). • Stabilize the surface of storage piles following the addition or removal of materials using water or chemical stabilizer/suppressants. • Remove visible track-out from the site at the end of each workday. • Cease grading activities during periods of high winds (greater than 20 miles per hour [mph] over a one-hour period). • Asphalt-concrete paving shall comply with	

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		SJVAPCD Rule 4641 and restrict use of cutback, slow-cure, and emulsified asphalt paving materials. • Grading should be conducted in phases. • The Project site shall not be cleared of existing vegetation cover for the preparation of construction until the issuance of grading permits required by construction. • The Project applicant shall revegetate graded areas as soon as it is feasible after construction is completed.	
4.2-2 - The proposed Project would result in an overall increase in the local and regional pollutant load due to direct impacts from vehicle emissions.	Potentially Significant Impact	4.2-2 - Project impacts to air quality would be reduced through implementation of the efficiency measures identified in the TMP related to Smart Growth, Context-Sensitive design, and Complete Streets. Improved access, pedestrian and bicycle facilities, increased transit, and improved traffic flow inherently reduce mobile source air pollutants. However, the Project impacts on regional air quality would be significant as the Project's emissions would contribute to region-wide emissions that cause exceedances of the state and federal standards and no other feasible mitigation measures are available.	Significant and Unavoidable Impact
4.2-3 - Implementation of the proposed Project could conflict with the most recent air quality management plan.	Potentially Significant Impact	Implement the efficiency measures identified in the TMP related to Smart Growth, Context-Sensitive design, and Complete Streets. Improved access, pedestrian and bicycle facilities, increased transit, and improved traffic flow to inherently reduce mobile source air pollutants. However, as concluded in the General Plan EIR, the General Plan would not be consistent with SJVAPCD's Clean Air Plans. Thus, the proposed project would also not be consistent with SJVAPCD's Clean Air Plans. No other feasible mitigation measures are available.	Significant and Unavoidable Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.2-1 - Implementation of the proposed Project could impact regional air quality levels on a cumulatively considerable basis.	Potentially Significant Impact	Implement Mitigation Measures 4.2-1a and 4.2-1b. No other feasible mitigation measures are available.	Significant and Unavoidable Impact
Greenhouse Gas Emissions			
4.3-1 - Greenhouse gas emissions generated by the proposed Project would have a significant impact on the environment.	Potentially Significant Impact	No feasible mitigation beyond measures included in the General Plan, Sustainability Action Plan, and Transportation Master Plan are available.	Significant and Unavoidable Impact
4.3-2 - Implementation of the proposed Project would not conflict with an applicable greenhouse gas reduction plan, policy, or regulation.	Less Than Significant Impact	No mitigation is required	Not applicable
4.3-3 - Greenhouse gas emissions resulting from development associated with implementation of the proposed Project would impact greenhouse gas levels on a cumulatively considerable basis.	Potentially Significant Impact	No feasible mitigation beyond measures included in the General Plan, Sustainability Action Plan, and Transportation Master Plan are available.	Significant and Unavoidable Impact

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3.0 PROJECT DESCRIPTION

3.1 PROJECT SUMMARY

As described in Section 1.0, the Citywide Roadway and Transportation Master Plan (TMP), is a comprehensive update of the 1994 TMP in fulfillment of Objective CIR-1.1, Action A1 of the Circulation Element of the City of Tracy General Plan (General Plan), which states, "Update the Roadway Master Plan upon adoption of the General Plan." Many improvements and expansions to the City's existing transportation system were identified during the preparation of the General Plan and its associated Environmental Impact Report (EIR), As noted in the Circulation Element of the General Plan EIR, General Plan implementation of Objective CIR-1.1, Action A1 ensures the City's TMP is updated to include a comprehensive inventory of roadway expansions and improvements necessary to accommodate the growth envisioned by the General Plan, as well as to maintain circulation continuity throughout the roadway network.

The TMP is the principal policy document for guiding the provision of adequate and efficient access to the City of Tracy (City) transportation system for all user groups (motorists, pedestrians, bicyclists, and transit users). The proposed TMP provides a comprehensive review of the City's transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the City of Tracy General Plan (General Plan). The proposed TMP builds upon the goals and objectives contained in the Circulation Element of the General Plan and the City's Sustainability Action Plan (SAP) by proposing Smart Growth, Context-Sensitive design, and Complete Streets guidelines, strategies, principles, and design elements. The TMP strives to balance existing and future transportation infrastructure needs with safe access for all user groups.

The TMP models and analyzes the effects of growth on the City's transportation system to the year 2035, an additional five years past the growth projection year modeled and analyzed by the General Plan EIR for Traffic and Circulation[1]. The TMP includes an additional five years beyond the General Plan horizon year to establish consistency with the most recent San Joaquin Council of Governments (SJCOG) land use development assumptions, employment forecasts, and associated travel demand. Due to the City's regionally important geographic location, a location that experiences a variety of daily transportation travel modes to, from, and through the City, utilizing the most recent SJCOG model facilitates a consistent identification of uniform improvements between the regional agencies that are responsible for freeways, Congestion Management Agency (CMA) roads, local roads, and transit services. Regional consistency is also required for grant funding applications.

It should be noted that while the TMP models and analyzes the effects of growth on the City's transportation system five years beyond the General Plan's 2030 Traffic and Circulation Horizon Year, it would not result in any new growth not already identified by the General Plan. The TMP does not propose an increase in the amount of land area that could be developed within the City, nor does it propose an increase in the number of residential or non-residential units that could develop within the City over what is assumed by the General Plan for buildout. Rather it identifies improvements and expansions that would be necessary to accommodate the residential and non-residential growth allowed by the General Plan up to 2035.

[1] The General Plan only has a "horizon year" for Traffic and Circulation. Because Air Quality, Noise, and Greenhouse Gas Emissions rely on the numbers generated by the traffic model output, these environmental topic areas therefore also have the same General Plan horizon year.

The improvements and expansions to the City's transportation system identified by the TMP would be necessary to accommodate growth in the City based on the development densities and intensities allowed by the General Plan up to a specific point in time (2035). While the TMP does identify "buildout plan lines," only the recommended fundamental or core facilities necessary to accommodate growth beyond 2035 levels widening certain roadways where feasible primarily in the western and northern development areas are addressed. However, the "buildout plan lines" do not provide sufficient capacity to serve the buildout condition of the General Plan land use plan; many additional connecting roadways and roadway widening would be needed to serve the traffic generated by the additional residential development and employment opportunities that are expected at buildout of the General Plan. Given the long-range horizon for the buildout of the General Plan, and the corresponding unknowns as to how certain planning areas will ultimately wish to develop, a complete and adequate buildout transportation network cannot be designed. Further study will be necessary to plan for the buildout condition.

Thus, the TMP identifies improvements and expansions to the City's transportation system up to a specific point in time (2035) based on the development densities and intensities allowed by the General Plan. The TMP does not, however, identify specific improvements and expansions necessary to accommodate the growth projected for the entire buildout of the General Plan.

The General Plan EIR defines "total buildout" as a scenario in which all available land within the SOI would be developed according to the land use designations in the proposed General Plan. Total buildout is anticipated to result in more development that would occur beyond 2035. Specifically, the total buildout year under the proposed General Plan is estimated to occur from 2071 for residential growth or as far into the future as 2140 for non-residential growth.

The proposed TMP consists of the following: a description of the existing transportation system and conditions (Chapter 2); a description of the future roadway conditions within the City based on projected growth (Chapter 3); recommended improvements to accommodate future growth; recommended actions to support the goals and objectives of the General Plan's Circulation Element; and, recommended transportation strategies, principles, and design elements intended to meet sustainability and greenhouse gas (GHG) emission reduction goals (Chapter 4); and, finally identification of the preliminary anticipated costs associated with the recommended infrastructure improvements (Chapter 5). (It should be noted that fees required for the recommended infrastructure improvements are identified in a separate document.) Both of these documents are on file with the City of Tracy and can be reviewed both online and/or by request to the City of Tracy Public Works Department, which is located at 520 Tracy Boulevard, Tracy, CA 95376.

3.2 PROJECT LOCATION/SURROUNDING LAND USES

Tracy is located within San Joaquin County (County), east of the Coastal Range that separates the San Joaquin Valley from the San Francisco Bay Area. The City occupies a central location in the San Joaquin Valley, 60 miles east of San Francisco and 68 miles south of Sacramento. The nearest urban areas are the cities of Lathrop and Manteca. Figure 3-1 (Regional Location Map) illustrates the regional location of the City. Figure 3-2 (Tracy Future Service Areas) identifies the future service areas within the City.

Improvements and expansions proposed for the City's existing transportation system would occur at various locations throughout the City and its SOI, generally within existing right-of-way owned by the

Source: City of Tracy General Plan (2005)

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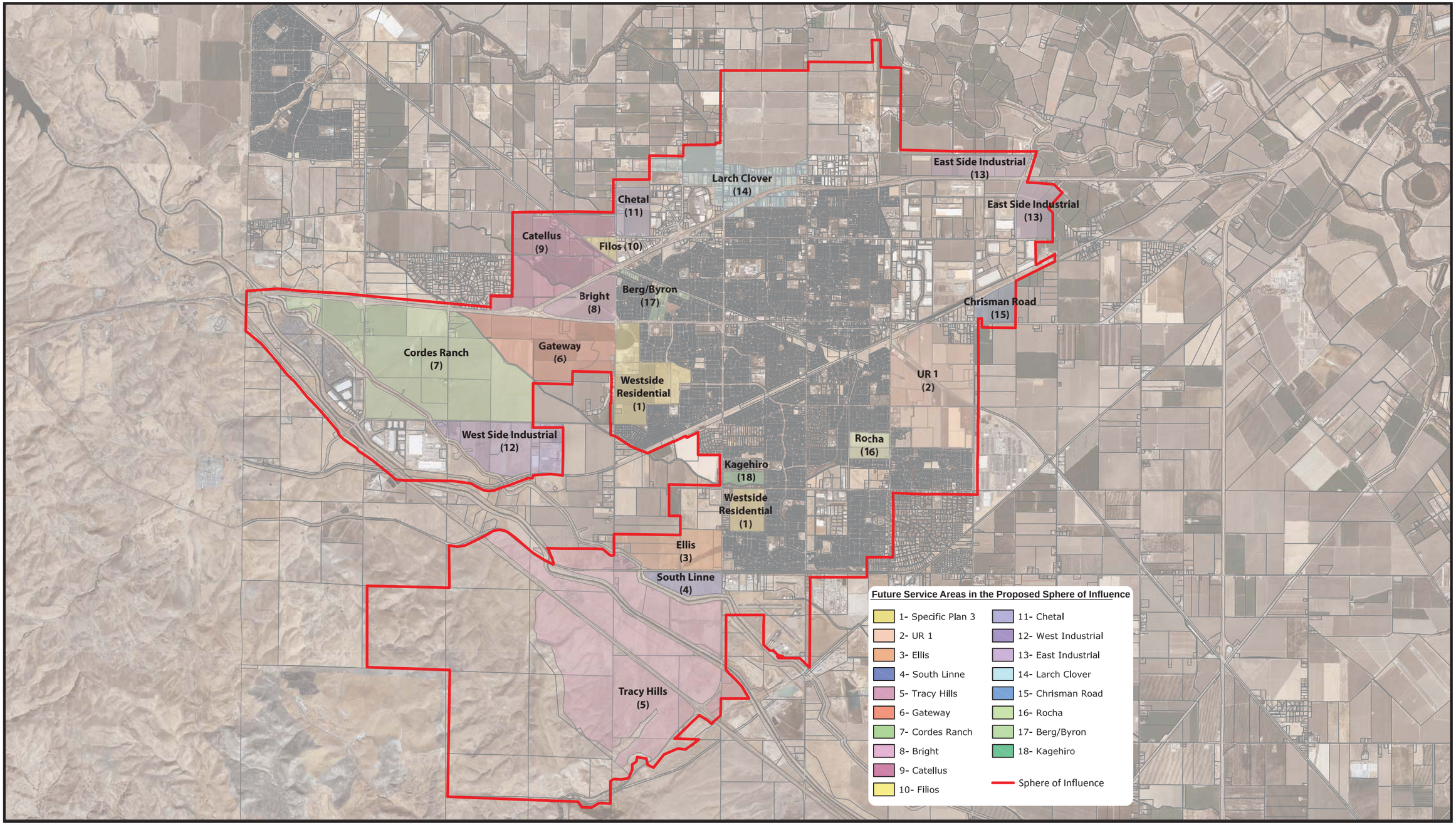
Not to Scale

Tracy Transportation Master Plan EIR

Regional Location Map

Figure 3-1



Source: City of Tracy Infrastructure Master Plan (2012)

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Not to Scale

Tracy Transportation Master Plan EIR

Future Service Areas

Figure 3-2

City; however, a limited number of the identified improvements may require additional public right-of-way and/or private property and/or easements. The alignments of these additional rights-of-way, property, and/or easements at Valpico, Lammers, Schulte, and other local streets were included in the 1994 TMP.

The City's SOI includes the current City limits, plus the area immediately outside of the City that the City expects to annex and urbanize in the future. Land uses surrounding the proposed improvements and expansions vary depending on the location and could consist of commercial, residential, industrial, agricultural, recreational, and open space uses, water courses, or freeways.

3.3 PROJECT SETTING

3.3.1 OVERVIEW

The majority of the City is located on flat land in the center of a triangle that is formed by of several Interstate highways (I-205, I-580 and I-5). This orientation provides multiple access points for regional travel and goods distribution to the west towards the San Francisco Bay Area, to the south towards southern California, and to the north to the Sacramento metropolitan area. As a result, a substantial amount of goods movement occurs within the City with relatively high volumes of truck traffic on Tracy Boulevard and on I-580 adjacent to the City. Personal automobile use is the primary form of transportation utilized by Tracy residents.

3.3.2 TRANSPORTATION INFRASTRUCTURE

Transportation infrastructure within the City includes roadways, bicycle facilities (i.e., bike lanes/parking), sidewalks, parking, park and ride lots, rail lines (freight and commuter), bridges and culverts, traffic control, and intelligent transportation systems (ITS).

ROADWAYS

Roadways within the City's transportation network are part of a hierarchal classification system that is based on function and jurisdictional oversight and range from regional facilities serving high volumes of vehicles (i.e., I-205, I-580 and I-5) to local roadways providing access to low volumes of vehicles, such as neighborhoods streets, with a variety of roadways in between serving varying levels of use.

Truck Routes

Currently there are three types of truck routes within Tracy: "Through Truck Routes," "Local Truck Routes," and Surface Transportation Assistance Act (STAA) truck routes. These routes are indicated throughout the City with the appropriate signage specific to each route. As the names indicate, Through Truck Routes allow trucks to travel through the City without loading or unloading freight and Local Truck Routes are restricted to trucks only delivering freight within the confines of the City. The STAA allows large trucks to operate on the Interstate and certain primary routes called collectively the National Network (NN). Through the City of Tracy, I-205 is a STAA route. I-580 to the south of the City limits is also a designated STAA route. Both routes are designated as STAA routes. The existing truck route network within the City connects truck traffic on I-205 to the industrial areas in the south and northeast via MacArthur Drive, and also the commercial areas in the north and central via Larch Road, Eleventh Street, and Grant Line Road. Truck access to I-580 is provided via a through truck route on Corral Hollow Road via the I-580 interchange to the south.

Truck Stop

There is one designated truck stop within the City located on North Tracy Boulevard ¼ mile to the north of the I-205 / Tracy Boulevard interchange. Services offered at this truck stop include refueling, truck parking, truck permit services, load monitors, driver lounges, showers, and laundry.

BICYCLE FACILITIES

The City has an extensive bicycle network that includes all three bikeway categories as defined by the California Department of Transportation (Caltrans): Class I Bikeways (Bike Paths) – physically separated from roadways; Class II Bikeways (Bike Lanes) – share a portion of the roadway with motorized vehicles and are separated by stripping and are signed and marked for the exclusive use of bicycles; and, Class III Bikeways (Bike Routes) – share the roadway with motorized vehicles. Although the bikeway system is broad, there are critical gaps that limit its effectiveness to serve cyclists, including:

- Three segments along Grant Line Road (between MacArthur Drive and Tracy Boulevard; Tracy Blvd and Lincoln Boulevard; and under the I-205 overpass);
- Tracy Boulevard between West 11th Street and I-205;
- Two segments on MacArthur Drive between Valpico Road and just north of Schulte Road;
- One segment south of Valpico Road; and,
- One segment along Valpico Road between MacArthur Drive and Tracy Boulevard.

The City has several requirements for bicycle parking as outlined in its Municipal Code.

PEDESTRIAN CIRCULATION

The City of Tracy is pedestrian friendly with widespread sidewalk coverage and pedestrian crossing with Americans with Disabilities Act (ADA) ramps along major roadways and in residential neighborhoods. However, similar to bikeway facilities, the City has critical gaps in sidewalk coverage. These gaps include multiple segments along Corral Hollow Road south of Schulte Road, along Byron west of Corral Hollow, along Tracy Boulevard south of Valpico Road, and along Grant Line Road west of Corral Hollow and east of East Street. In addition to the critical gaps, ADA routes have not been established along existing sidewalks to specific destinations in the City.

PARKING

Parking services provided directly by the City include on-street parking and several off-street parking lots. In addition, the City regulates the supply of parking in new developments through the Zoning Code and City Standard Plans.

PARK AND RIDE LOTS

A Park-and-Ride lot is generally used to park vehicles, while the vehicle owner uses a public transport or carpooling to commute. Vehicles are parked in the facility during the day and retrieved when the commuter returns. There are five Park and Ride lots within the City: (1) Naglee Road (Naglee Road /Pavillion Parkway intersection); (2) Prime Outlets (MacArthur Drive /E. Pescadero Avenue); (3) Tracy Transit Station (southeast corner 6th Street /Central Avenue intersection); (4) 6th Street and Central Avenue (northwest corner of the intersection); (5) Altamont Commuter Express (ACE) Train Station (Tracy Boulevard /Linne Road intersection).

RAIL LINES

Three major rail lines run east to west through the City. Each of these lines consists of several spurs that are used to access the industrial areas throughout the City. These lines are currently owned and operated by the Union Pacific Railroad Corporation (UPRR), which also operates freight rail service through the region. The main line runs along the southern border of Tracy along Linne Road. This line is used for both freight and commuter rail service operated by Altamont Commuter Express (ACE). Approximately ten freight trains and six commuter rail trains operate daily on this track. The remaining lines run through the center of Tracy and are primarily used for freight delivery or train car storage.

Railroad Crossings

There are 19 at-grade railroad crossings and one grade separated railroad crossing within the City. These crossing are distributed throughout the City with two crossings on each of these major streets: Corral Hollow Road, Tracy Boulevard, and MacArthur Drive.

BRIDGES AND CULVERTS

The City's bridge system consists of a network of 14 bridges and culverts that provide transportation access over several creeks, canals, and a system of aqueducts that run throughout the City.

TRAFFIC CONTROL SYSTEMS

Traffic control systems in the City are used to direct drivers, pedestrians, and bicyclists in a safe and efficient manner and include, but are not limited to traffic signals, stop signs, pavement markings, and roadway signs.

INTELLIGENT TRANSPORTATION SYSTEMS

Intelligent Transportation Systems (ITS) are transportation networks that include information and communication technologies that are designed to improve the safety and operation of transportation infrastructure. There are numerous types of ITS systems that range from simple variable message signs to more advanced real time vehicle parking guidance systems. There are 65 signalized intersections within the City that are operating via traffic signal controllers located inside cabinets at each local intersection. The traffic signal controllers are managed by Quicknet traffic management control and software system. The City's existing traffic signal communication infrastructure (citywide) primarily consists of twisted pair copper wire signal interconnect cable and conduit that interconnect the existing traffic signals. At designated roadway segments communications are provided over microwave and/or radio communications.

3.3.3 INTERSECTION OPERATIONS

LEVEL OF SERVICE STANDARDS

The operations of roadway intersections are described with the term level of service. Level of Service (LOS) is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, as the best operating conditions, to LOS F, or the worst operating conditions. LOS E represents "at-capacity" operations. When traffic volumes exceed the intersection capacity, stop-and-go conditions result, and operations are designated as LOS F. The City of Tracy has established LOS D, where feasible, as the minimum acceptable LOS for roadway and overall

intersection operations. Intersections operating at LOS D have some congestion and operate with longer delays (greater than 25 – 35 seconds for unsignalized intersections and greater than 35 – 55 seconds for signalized intersections). However, there are certain locations where these standards do not apply. The following lists the exceptions to the LOS D standard:

- Within ¼ mile of any freeway, LOS E shall be allowed on roadways and at intersections to discourage inter-regional traffic from using City streets.
- In the Downtown and Bowtie area of Tracy LOS E, shall be allowed.
- At intersections where construction of improvements is not feasible, the LOS may fall below the City's LOS D standard.
- During construction of intersection improvements or funded but not yet constructed, the LOS may temporarily fall below the City's LOS D standard.

The Caltrans identifies LOS C as acceptable in all cases and LOS D as acceptable on a case-by-case basis. San Joaquin County uses LOS D as the minimum acceptable LOS for roadway and intersection operations.

EXISTING LEVELS OF SERVICE

All intersections operate at an acceptable LOS during the existing weekday AM and PM peak hours except for the following intersections.

- MacArthur Drive/Schulte Road
- Byron Road/Grant Line Road

3.3.4 REGULATORY OVERSIGHT

Multiple agencies govern the transportation infrastructure in and around Tracy:

- Interstate Freeways – Caltrans
- Regional Transportation Planning – San Joaquin County, San Joaquin Council of Governments, and City of Tracy
- Transit – San Joaquin Regional Rail Commission, San Joaquin Regional Transit District, and City of Tracy
- Local Streets – City of Tracy

3.4 PROJECT CHARACTERISTICS

As stated in Section 3.1, the proposed Project is a comprehensive update of the 1994 TMP in fulfillment of Objective CIR-1.1, Action A1 of the Circulation Element of the City of Tracy General Plan (General Plan). The proposed TMP builds upon the goals and objectives contained in the Circulation Element of the General Plan and the City's SAP. The proposed TMP provides a comprehensive review of the City's transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan. The TMP models and analyzes the effects of an additional five years of growth beyond the growth projection year modeled and analyzed by the General Plan EIR for Traffic and Circulation to establish consistency with the most recent SJCOG land

use development assumptions, employment forecasts, and travel demand model. Due to the City's regionally important geographic location, a location that experiences a variety of daily transportation travel modes to, from, and through the City, utilizing the most recent SJCOG model facilitates a consistent identification of uniform improvements between the regional agencies that are responsible for freeways, Congestion Management Agency (CMA) roads, local roads, and transit services.

3.4.1 TRAFFIC FORECASTING

Although the General Plan and EIR forecast traffic conditions to the year 2030, the TMP forecasts future traffic conditions to the year 2035 (referred to as the "Horizon Year" in the TMP), which is consistent with the SJCOG travel demand model and provides for the maximum possible infrastructure planning, as noted above. To determine how traffic from the year 2035 affects the future roadway system, the following steps, which are described in greater detail below, were necessary: (1) develop land use assumptions for the year 2035 and build-out; (2) determine trip generation based on future land use assumptions that incorporate sustainability strategies; and, (3) distribute trips throughout the roadway network. As noted previously in Section 3.1, the TMP's forecasts traffic conditions to the year 2035 based on the development densities and intensities allowed by the General Plan. However, it does not forecast traffic operational conditions at a project level beyond 2035 and up to buildout of the General Plan. As stated in Section 3.1, further study would be required to address traffic operational conditions for full General Plan buildout.

LAND USE ASSUMPTIONS

The year 2035 traffic forecasts were developed by adjusting the General Plan 2030 development assumptions to represent reasonable expectations for development by the year 2035 (Horizon Year) accounting for residential and non-residential growth[2]. City of Tracy staff developed the land use assumptions by allocating growth to SOI areas (refer to Figure 3-2) in the City identified by the General Plan based on a combination of considerations, including:

- How advanced each area is in the entitlement process;
- Existing or expected conditions of approval; and,
- Anticipated environmental or jurisdictional constraints.

City staff also provided build-out development assumptions based on consultations with each of the owners of the major development areas. It should be noted that because City staff consulted with each of the owners of the major development areas for the build-out development assumptions they are slightly different from the build-out scenario in the General Plan, which assumes buildout of the SOI would add between 13,225 and 21,300 new housing units and approximately 193,000 employees. However, it should also be noted that the build-out scenario reflects a time horizon that is far into the future (beyond 2035) that the assumptions regarding land use and development are too speculative to rely on for accuracy and

[2] The City adopted a residential Growth Management Ordinance (GMO) in 1987. 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. Residential growth under the General Plan will be limited by the GMO. In 2012, the GMO will allow for at least 219 building permits, possibly more, based on the permit activity between 2009 and 2012. Between 2013 and 2025, 600 building permits per year (on average) will be allowed under the GMO. Thus, between the years 2008 and 2025, the number of residential units allowed under the City's GMO is 8,419 units.

thus, the TMP does not make any recommendations for the City's transportation roadway system under this scenario (e.g., beyond year 2035).

Compared to the year 2030 land use assumptions that form the basis of the transportation modeling conducted for the General Plan EIR, the land use assumptions developed for the TMP transportation model of the year 2035 show higher amounts of projected housing and employment opportunities. This is due to the five year increase in time in which additional development would be reasonably expected to occur within the City under the direction of the General Plan. The amount of growth assumed for each scenario is depicted in Table 3-1, Transportation Master Plan Land Use Assumptions within Tracy SOI.

Table 3-1
Transportation Master Plan Land Use Assumptions within Tracy SOI

Scenario	Single Family[1]	Multi-Family[1]	Total Residential[1]	Retail[2]	Service[2]	Other[2]	Total Employment[2]
Existing (2006)	20,195	6,594	26,789	3,610	9,644	10,850	24,104
2030 General Plan SOI (2030)	29,068	9,858	38,926	11,500	15,276	21,777	48,553
Horizon Year (2035)	27,229	13,297	40,526	15,091	18,751	30,340	64,182
Build-out	29,214	14,343	43,557	35,189	59,915	88,928	184,033

1. Single and Multi-Family land uses represented by number of dwelling units.
2. Non-residential land uses represented by number of employees.
Source: Draft Citywide Roadway Transportation Master Plan, February 2012

As indicated in Table 3-1, during the year 2035 scenario, housing increases by approximately 1,600 units compared to the General Plan 2030 land use assumptions and the number of jobs increase by approximately 15,600. As noted previously, all development assumed for the year 2035 by the TMP transportation model would occur under the direction of the General Plan and within the growth projections identified for the General Plan. While the build-out scenario developed by City staff includes modest housing growth over year 2035 conditions with an approximate 3,000 unit increase, the employment growth is greater with an approximately 120,000 additional jobs.

TRIP GENERATION

The TMP bases the number of vehicle trips generated by future development assumed for the Horizon and build-out scenarios on local trip generation surveys, which are locally validated vehicle trip rates for Tracy. Sustainability strategies that were developed for the City's SAP and the TMP were applied to the Horizon Year land uses where applicable. The application of these strategies effectively reduced the trip generation rates for the majority of land uses indicated in Table 2, due to increased density/diversity, more connectivity, and/or improved access to regional destinations. Other sustainability strategies identified by the SAP also reduced trip generation and trip lengths, and improve fuel efficiency. Table 3-2, Peak Hour Vehicle Trip Generation, identifies the morning (AM) and evening (PM) peak hour trip generation for the various land uses within the City. Table 3-3, Trip Reductions Due to SAP Measures – Year 2035, presents the trip reductions due to the SAP transportation measures for the Future Service Areas and for Tracy as a whole. The Future Service Areas achieve a greater reduction in trips than Tracy as a whole because many of the SAP transportation measures address only new developments – most of which occur in the SOI.

Table 3-2
Peak Hour Vehicle Trip Generation

Land Use	Units	AM Peak Hour Tracy Model[1]	AM ITE Peak Hour[2]	PM Peak Hour Tracy Model[1]	PM ITE Peak Hour[2]
Single-Family	Dwelling Units	0.55	0.75	1.05	1.01
Multi-Family (Apartment)	Dwelling Units	0.31	0.51	0.59	0.62
Retail (Shopping Center)	Employees	1.90	1.00	3.46	3.73
Office (General Office Building)	Employees	0.22	0.48	0.42	0.46
Other (Warehousing)	Employees	0.17	0.51	0.33	0.59

1. Trip generation rate based on local trip generation surveys.
2. Trip generation rate based on the *Institute of Transportation Engineers*.
Source: Draft Citywide Roadway Transportation Master Plan, February 2012

Table 3-3
Trip Reductions Due to SAP Measures –Year 2035

Location	Percentage of Trip Reduction
Future Service Areas	5.8%
Tracy Citywide (SOI)	4.4%
Source: Draft Citywide Roadway Transportation Master Plan, February 2012	

Table 3-4 shows the morning (AM) and evening (PM) peak hour trip generation for each Future Service Area, at year 2035 and build-out. Year 2035 trip generation for the 18 Future Service Areas represents growth of about 125 percent compared to existing citywide trip generation. Build-out trip generation for the Future Service Areas represents growth of 385 percent compared to existing citywide trip generation. In the year 2035, the Future Service Areas with the highest trip generation growth are Tracy Hills, Cordes Ranch, and Gateway, all with between approximately 7,000 and 10,000 PM peak hour trips. Westside Residential, Bright Triangle, Catellus, and Filios all have between approximately 3,000 and 5,000 PM peak hour trips. At build-out, the Larch-Clover Future Service Area has the highest trip growth, at about 45,000 PM peak hour trips. Tracy Hills and Cordes Ranch have between approximately 22,000 and 26,000 PM peak hour trips, Gateway has about 17,500 PM peak hour trips, and Bright Triangle and Catellus have approximately 9,000 – 10,000 trips.

Table 3-4
Estimated Peak Hour Vehicle Trip Generation for Future Service Areas

Future Service Area	Year 2035		Build-Out	
	AM Trips	PM Trips	AM Trips	PM Trips
Area 1 (Westside Residential)	1,800	3,400	1,800	3,400
Area 2 (Urban Reserve 1)	900	1,700	1,900	3,650
Area 3 (Ellis)	1,150	2,150	1,150	2,150
Area 4 (South Linne)	0	0	450	850
Area 5 (Tracy Hills)	5,250	9,850	14,150	26,150
Area 6 (Gateway)	3,850	7,100	9,300	17,450
Area 7 (Cordes Ranch)	4,800	8,950	11,650	22,100
Area 8 (Bright Triangle)	2,450	4,500	5,600	10,250
Area 9 (Catellus)	1,650	3,100	4,750	8,950
Area 10 (Filios)	1,900	3,450	1,900	3,450
Area 11 (I-205 Expansion)	1,550	2,850	4,500	8,150
Area 12 (West Side Industrial)	0	0	1,800	3,500
Area 13 (East Side Industrial)	0	0	1,350	2,650
Area 14 (Larch Clover)	1,000	1,800	24,750	45,050
Area 15 (Chrisman)	900	1,650	1,950	3,650
Area 16 (Rocha)	50	100	300	550
Area 17 (Berg/Byron)	100	150	200	350
Area 18 (Kagehiro)	150	250	150	250
Future Service Area Totals	27,500	51,000	87,650	162,550
Existing (2006) Citywide Total for Comparison	24,000	45,200	24,000	45,200
Source: Draft Citywide Roadway Transportation Master Plan, February 2012				

TRIP DISTRIBUTION

Table 3-5, Citywide Trip Distribution, shows the City's distribution of vehicular trips during both the existing year (2006) and the year 2035. The addition of jobs in the City increases the internal capture of trips, from 62 percent in 2006 to 78 percent in the year 2035. There is still a substantial trip interaction with San Joaquin County in year 2035 because the anticipated increase in jobs in the City would attract residents from the County. However, trips between Tracy and the San Francisco Bay Area drop from 23 percent in 2006 to four percent in the year 2035.

The Tracy Travel Demand Model was developed by Fehr & Peers, Transportation Consultants and has been updated and re-validated several times. In late 2009, the model was validated to 2006 conditions to support the development of baseline transportation information (vehicle trips and vehicle-miles traveled) for the City's SAP. The year 2006 was chosen for the SAP baseline year because it is the most recent year for which the City has comprehensive input data regarding GHG baseline calculations.

Table 3-5
Citywide Trip Distribution

	Tracy	North Valley	South Valley	San Francisco Bay Area	San Joaquin County
Existing (2006)	62%	8%	3%	13%	14%
Future (Year 2035)	64%	4%	4%	7%	21%%
Source: Draft Citywide Roadway Transportation Master Plan, February 2012					

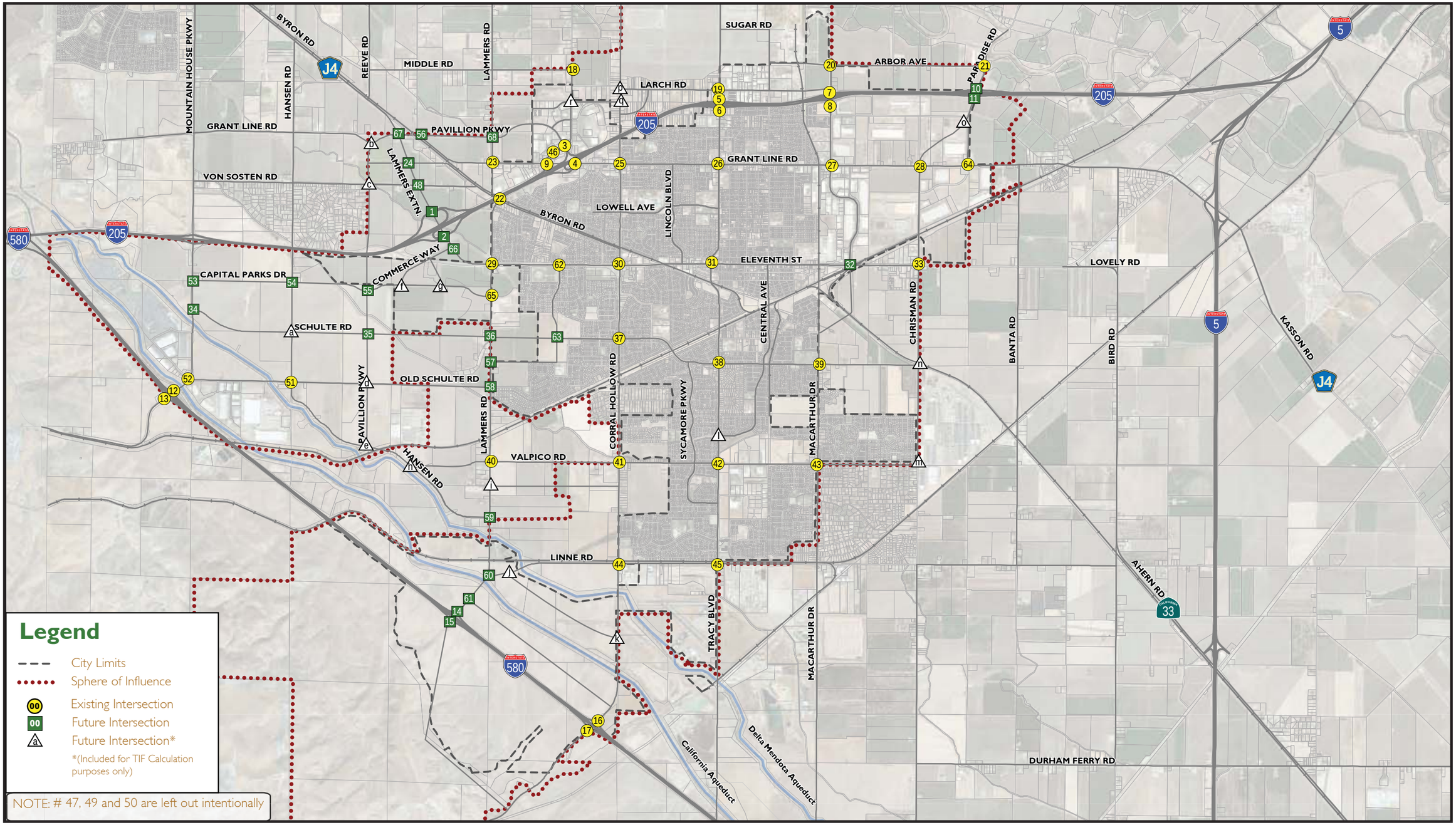
YEAR 2035 FORECASTS

A computer model was run using the trip generation and trip distribution identified above for the year 2035 to determine how traffic from year 2035 traffic forecasts would affect the roadway network of the year 2035. The model was developed in consultation with City staff incorporating SAP strategies. The forecast volumes from the model were post-processed to obtain traffic intersection volumes for year 2035 conditions. Post-processing of the model data to provide peak hour intersection volumes was conducted in accordance with industry standards, which included review of existing traffic volumes for consistency on major corridors within the City. Figure 3-3, TMP Study Intersection Locations, identifies the location of the intersections studied in the TMP. Figures 3-4a and 3-4b, Year 2035 AM(PM) Peak Hour Traffic Volumes, show the forecasted year 2035 AM and PM peak hour intersection traffic volumes for the major study intersections in the City.

Level of service calculations were conducted using the Synchro software program to determine the weekday year 2035 AM and PM peak-hour operations at the study intersections. Figure 3-5, Year 2035 AM(PM) Level of Service, presents the year 2035 AM and PM peak-hour intersection LOS, and Table 3-6, Year 2035 Intersection Level of Service, summarizes the delay and LOS results. As shown in Table 3-6, all of the study intersections are forecast to operate at LOS D or better during the year 2035 weekday AM and PM peak hours except for the following:

- Corral Hollow Road/Eleventh Street
- Tracy Boulevard/Eleventh Street
- Corral Hollow Road/Schulte Road
- Tracy Boulevard/Schulte Road
- Lammers Road/Commerce Way

As stated below, under Section 3.4.3, the TMP incorporates the goals and objectives of the General Plan's Circulation Element and recommends specific actions to meet those goals and objectives. One of the recommended actions in the TMP is to identify locations or areas where the LOS can fall below the standard due to infeasible mitigation measures or where improvements would have an adverse impact to pedestrians or bicycles or other users. The TMP identifies the five intersections listed above as those which can fall below the LOS D standard. This is consistent with General Plan Policy P.2, found under Objective CIR-1.3. Policy P.2 (under Objective CIR-1.3) states 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, including pedestrian mobility, crossing times, and comfort/convenience. More specifically, the TMP states that the deficient LOS rating is the LOS standard. Thus, these five intersections do not require further analysis as



Source: City of Tracy Infrastructure Master Plan (2012)

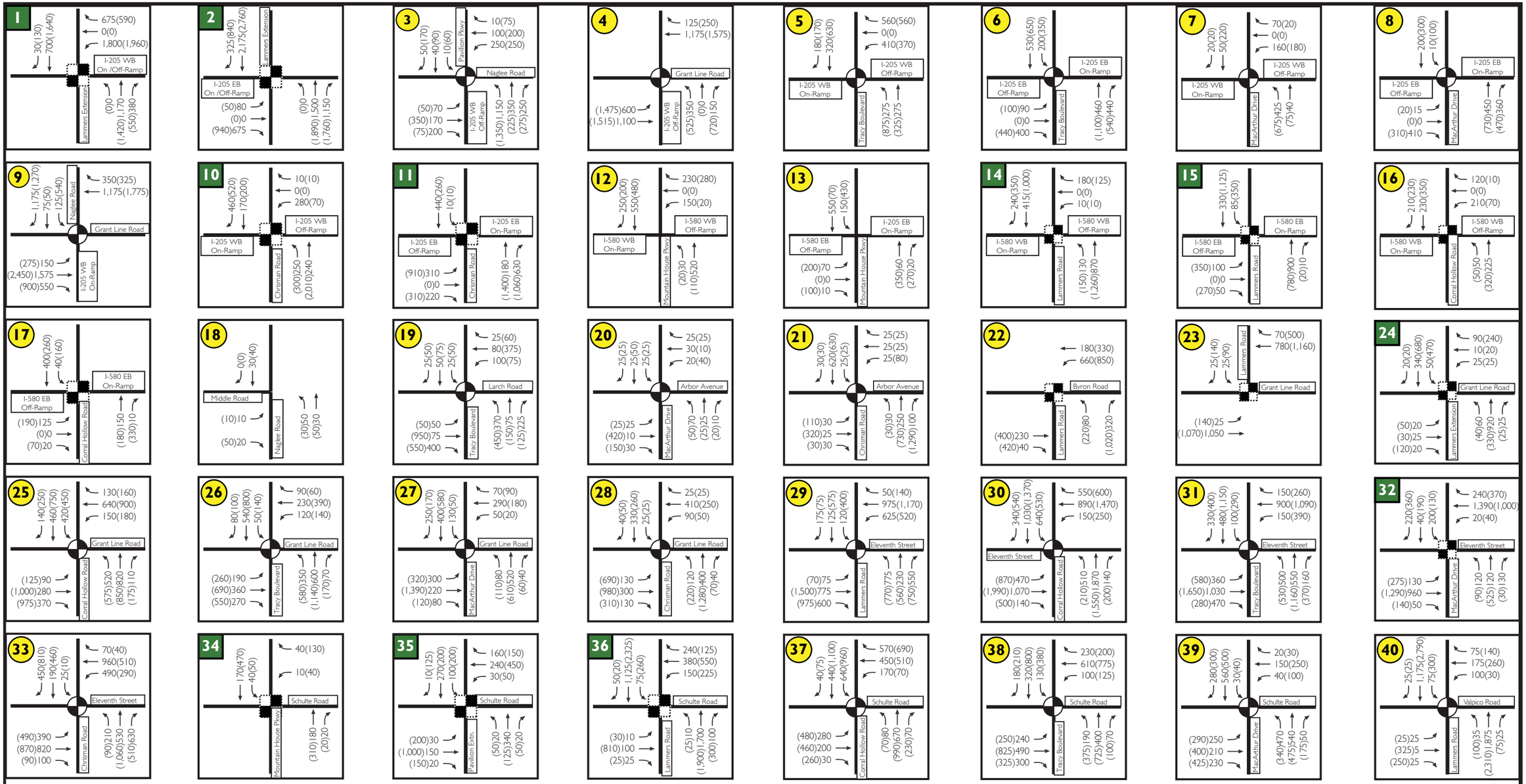
RBF CONSULTING
A Baker Company

Not to Scale

Tracy Transportation Master Plan EIR

TMP Study Intersection Locations

Figure 3-3



Source: City of Tracy Infrastructure Master Plan (2012)

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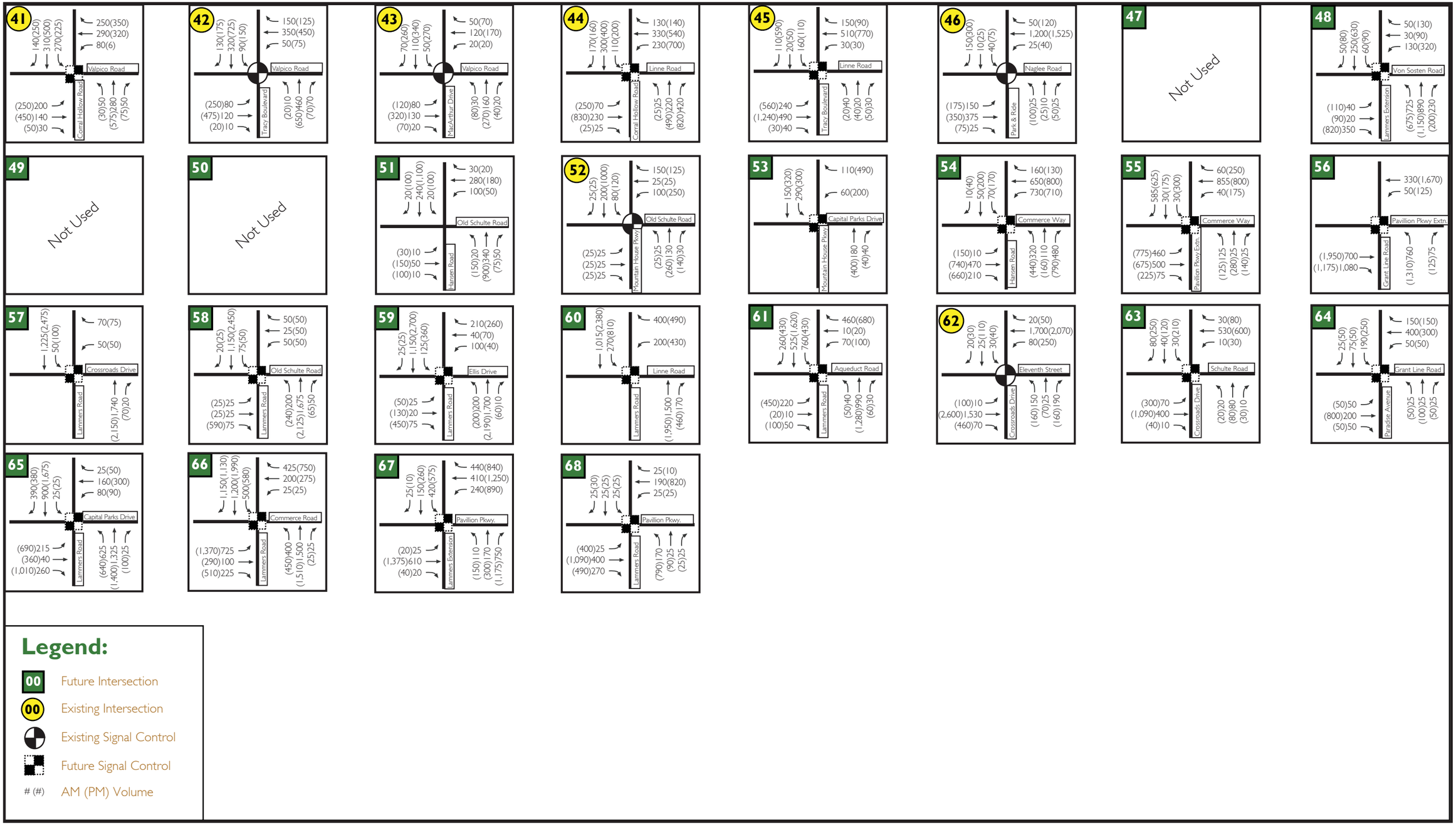
Tracy Transportation Master Plan EIR

Year 2035 AM (PM) Peak Hour Traffic Volumes

Figure 3-4a



Source: City of Tracy Infrastructure Master Plan (2012)

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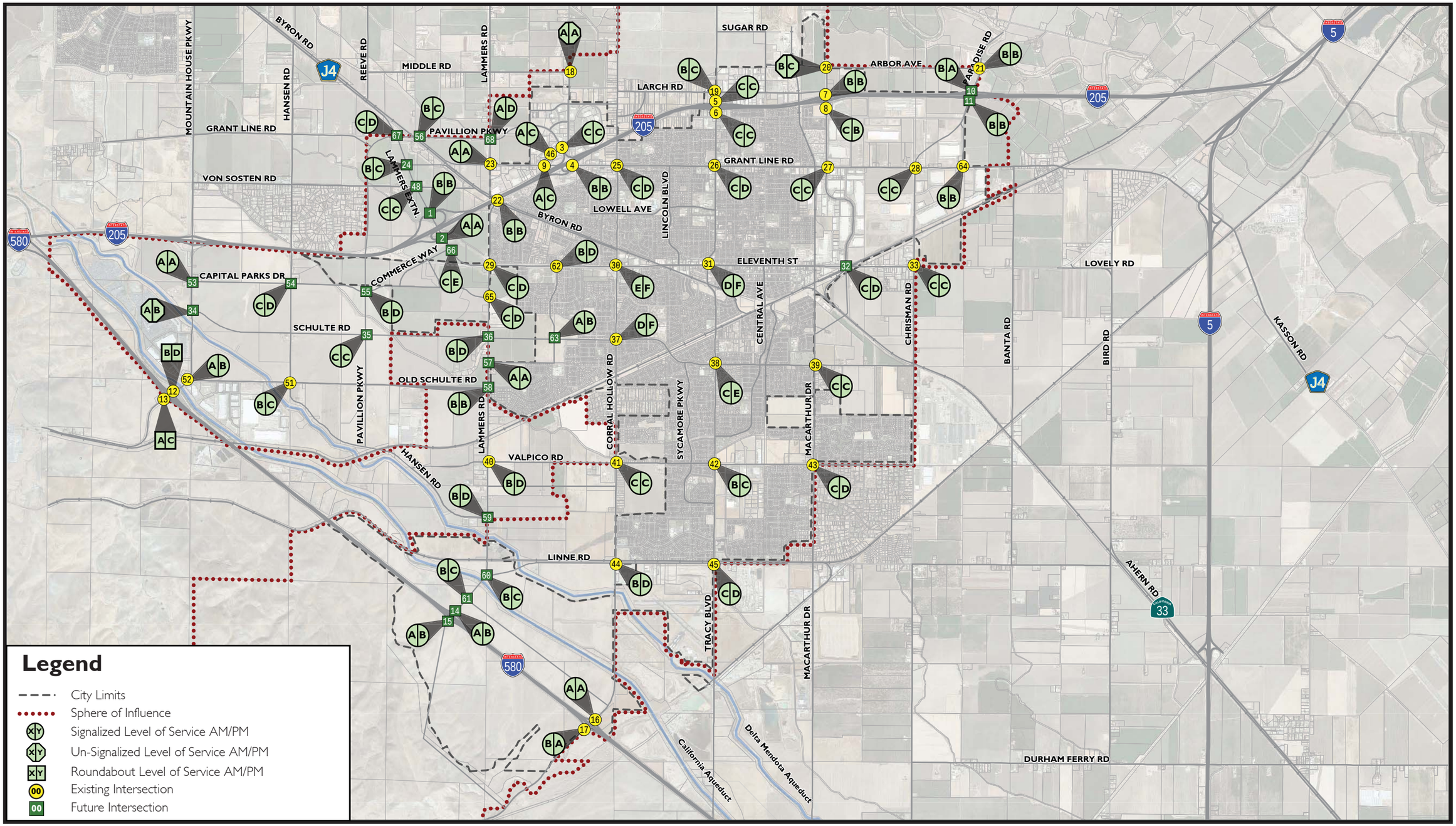
Tracy Transportation Master Plan EIR

Year 2035 AM (PM) Peak Hour Traffic Volumes

Figure 3-4b



Source: City of Tracy Infrastructure Master Plan (2012)

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Not to Scale

Tracy Transportation Master Plan EIR

Year 2035 AM (PM) Level of Service

Figure 3-5

part of this Recirculated EIR, given General Plan Policy P.2 under Objective CIR-1.3, which allows individual intersections to fall below the City's LOS standards due to certain overriding circumstances.

In addition, the TMP studied a connection (extension) from Grant Line Road along a Lammers Road alignment to Byron Road via a new railroad over-crossing immediately north of the Byron Road under crossing of the I-205. This connection is dependent on the approval of a relocated railway crossing. The construction of the link would alleviate traffic conditions at all the intersections to the north and the west of the link, since trips will be diverted from those streets to the Byron connector. The intersections of Byron Road/Lammers Road, Byron Road /Grant Line Road and Lammers Road /Eleventh Street are expected to increase in delay. This improvement is different than what was identified in the General Plan. The General Plan identified a signal controlled interchange for the intersection of Byron and Lammers Road. However, no additional impacts were identified as a result of the proposed extension; refer to Table 3-6, below for the LOS results.

Table 3-6
Year 2035 Intersection Level of Service

Number	Intersection	Control Type	Delay		LOS	
1	I-205 WB Ramps/Lammers Extension	Signal	15	18	B	B
2	I-205 EB Ramps/Lammers Extension	Signal	3	5	A	A
3	I-205 WB Ramps/Naglee Road	Signal	23	28	C	C
4	I-205 EB Ramps/Grant Line Road	Signal	10	14	B	B
5	I-205 WB Ramps/Tracy Boulevard	Signal	25	23	C	C
6	I-205 EB Ramps/Tracy Boulevard	Signal	28	23	C	C
7	I-205 WB Ramps/MacArthur Drive	Signal	15	15	B	B
8	I-205 EB Ramps/MacArthur Drive	Signal	21	19	C	B
9	Naglee Road (I-205 WB Ramps) /Grant Line Road	Signal	7	20	A	B
10	I-205 WB Ramps/Chrisman	Signal	16	8	B	A
11	I-205 EB Ramps/Chrisman	Signal	11	16	B	B
12	I-580 WB Ramps/Mountain House Parkway	RAB	0.58	0.77	*	*
13	I-580 EB Ramps/Patterson Pass Road	RAB	0.55	0.67	*	*
14	I-580 WB Ramps/Lammers Road	Signal	7	14	A	B
15	I-580 EB Ramps/Lammers Road	Signal	9	18	A	B
16	I-580 WB Ramps/Corral Hollow Road	Signal	9	7	A	A
17	I-580 EB Ramps/Corral Hollow Road	Signal	8	14	A	B
18	Naglee Road/Middle Road	SSS	9	9	A	A
19	Larch Road/Tracy Boulevard	Signal	19	23	B	C
20	MacArthur Drive/Arbor Avenue	SSS	11	19	B	C
21	Paradise Road/Arbor Avenue	Signal	12	16	B	B
22	Lammers Road/Byron Road	Signal	15	17	B	B
23	Lammers Road/Grant Line Road	Signal	7	10	A	B
24	Byron Extension/Lammers Extension	Signal	12	20	B	B
25	Corral Hollow Road/Grant Line Road	Signal	33	40	C	D

Table 3-6
Year 2035 Intersection Level of Service

Number	Intersection	Control Type	Delay		LOS	
26	Tracy Boulevard/Grant Line Road	Signal	27	47	C	D
27	MacArthur Drive/Grant Line Road	Signal	27	35	C	C
28	Chrisman Avenue/Grant Line Road	Signal	21	32	C	C
29	Lammers Road/Eleventh Street	Signal	33	45	C	D
30	Corral Hollow Road/Eleventh Street	Signal	59	82	E	F
31	Tracy Boulevard/Eleventh Street	Signal	39	108	D	F
32	MacArthur Drive/Eleventh Street (North)	Signal	28	31	C	C
33	Chrisman Avenue/Eleventh Street (South)	Signal	33	30	C	C
34	Mountain House Parkway/Schulte Road	SSS	10	13	A	B
35	Pavillion Extension/Schulte Road	Signal	21	28	C	C
36	Lammers Road/Schulte Road	Signal	19	54	B	D
37	Corral Hollow Road/Schulte Road	Signal	38	88	D	F
38	Tracy Boulevard/Schulte Road	Signal	29	63	C	E
39	MacArthur Drive/Schulte Road	Signal	34	34	C	C
40	Lammers Road/Valpico Road	Signal	19	36	B	D
41	Corral Hollow Road//Valpico Road	Signal	25	32	C	C
42	Tracy Boulevard/Valpico Road	Signal	19	27	B	C
43	MacArthur Drive/Valpico Road	Signal	33	51	B	D
44	Corral Hollow Road/Linne Road	Signal	18	50	B	D
45	Tracy Boulevard/Linne Road	Signal	27	38	C	D
46	Naglee Road/Park and Ride	Signal	5	21	A	C
48	Lammers Extension/Van Sosten	Signal	23	31	C	C
51	Hansen Road/Old Schulte Road	Signal	14	22	B	C
52	Mountain House Parkway/Schulte Road	Signal	14	14	B	B
53	Mountain House Parkway/Capital Parks Drive	Signal	5	10	A	A
54	Hansen Road/Capital Parks Drive	Signal	24	45	C	D
55	Pavillion Extension/Capital Parks Drive	Signal	17	42	B	D
56	Pavillion Extension/Grant Line Extension	Signal	12	29	B	C
57	Lammers Road/Crossroads Drive	Signal	5	6	A	A
58	Lammers Road/Schulte Road	Signal	13	15	B	B
59	Lammers Road/Ellis Drive	Signal	20	44	B	D
60	Lammers Road/Linne Road	Signal	13	24	B	C
61	Lammers Road/South Aqueduct Road	Signal	19	34	B	C
62	Crossroads Drive/Eleventh Street	Signal	16	44	B	D
63	Crossroads Drive/Schulte Road	Signal	9	16	A	B

Table 3-6
Year 2035 Intersection Level of Service

Number	Intersection	Control Type	Delay		LOS	
64	Paradise Road/Grant Line Road	Signal	17	20	B	B
65	Lammers Road/Capital Parks Drive	Signal	23	55	C	D
66	Lammers Road/Commerce Way	Signal	28	60	C	E
67	Pavillion Parkway/Lammers Extension	Signal	24	45	C	D
68	Pavillion Parkway/Lammers Road	Signal	22	42	C	D
Conditions with Planned Lammers-Byron Connector						
	Lammers Road / Byron Road (S) (City)	Signal	23	48	C	D
	Lammers Road / Grant Line Road (County)	Signal	22	33	C	C
	Lammers Road / Byron Road (N) (City)	Signal	21	51	C	D
Note: (*) Intersection analyzed as roundabout; operates acceptably since V/C ratio less than 0.86.						
Source: Draft Citywide Roadway Transportation Master Plan, February 2012						

3.4.2 RECOMMENDED IMPROVEMENTS TO YEAR 2035 ROADWAY NETWORK

The roadway network forms the backbone of the City's transportation system. The land uses in Tracy in the year 2035 necessitate extensive improvements to the existing transportation system. These improvements extend beyond those identified in the City's General Plan. Tracy's transportation network is envisioned as a multi-modal network of roads, bicycle lanes and paths, transit services, and pedestrian facilities that will support the planned land uses in the City by providing mobility to residents and visitors alike. By implementing an improved transportation network the City would be able to proactively enhance the system, accommodate future growth projected to the year 2035, and maintain the quality of life in Tracy. Improvements required for the 2035 roadway network are identified in the TMP. For a full description of the TMP, readers should review the document itself, which is being published separately and is available on the City's website, www.ci.tracy.ca.us.

3.4.3 RECOMMENDED ACTIONS TO SUPPORT GENERAL PLAN CIRCULATION ELEMENT GOALS

The TMP incorporates and implements the goals and objectives of the General Plan's Circulation Element and recommends specific actions to meet those goals and objectives. Table 3-7, TMP Goals, Objectives, and Recommended Actions, lists the General Plan Circulation Element Goals and Objectives and the actions recommended by the TMP to implement those goals and objectives.

Table 3-7
TMP Goals, Objectives, and Recommended Actions

Goal 1: A roadway system that provides access and mobility for all of Tracy's residents and businesses while maintaining the quality of life in the community.
Objective Cir-1.1: Implement a hierarchical street system in which each street serves a specific, primary function and is sensitive to the context of the land uses served.
Recommended Action: Implement a complete streets policy for new and retrofitted roads that ensures that adequate right-of-way is provided to enable safe access for all users (motorists, pedestrians, bicyclists, transit vehicles and users). Include flexibility in the policy to balance the function and users for various roadway classifications. Include amenities such as street lighting, landscaping, and transit stops that contribute to the complete street concept. Incorporate context sensitive design features to improve mobility for all users. Refer to the cross sections presented in Section 4.7 (of the TMP) for details on travel lane widths, median widths, shoulders, bicycle and pedestrian facilities, and landscaping and public utility easements.
Objective Cir-1.2: Provide a high level of street connectivity.
Recommended Action: Utilize access management techniques to provide appropriate spacing of access points on parkways, arterials, and collectors. Utilize context sensitive design principles from Designing Walkable Urban Thoroughfares: A Context Sensitive Approach (Institute of Transportation Engineers, 2010) such as: • Building network capacity and redundancy through a dense, connected network rather than through an emphasis on high levels of vehicle capacity on individual arterial facilities • Minimizing direct property access onto parkways, arterials through design of a connected network of closely spaced arterial and collector thoroughfares and local street connections. • Providing closer spacing of roadways and shorter blocks for areas with higher pedestrian and bicycle activity. • Provide a well connected road system that encourages walking and cycling and maintains a quality of life for all Tracy residents.
Objective Cir-1.3: Adopt and enforce LOS standards that provide a high level of mobility and accessibility, for all modes, for residents and workers.

Recommended Action: Identify locations or areas where the LOS can fall below the standard due to infeasible mitigation measures or where improvements would have an adverse impact to pedestrians or bicycles or other users. The following locations are exempt from t he City's LOS D standard:
 	
• Any intersections or roadways within ¼ mile of any freeway where LOS E is allowed to discourage interregional traffic from using City streets.
• Any intersections or roadways located in the Downtown and Bowtie area where LOS E shall be allowed.
• At intersections where construction of improvements is not feasible, the LOS may fall below the City's LOS C standard.
• During construction of intersection improvements, the LOS may temporarily fall below the City's LOS C standard.
• The following five intersections that are projected to operate at LOS E or F under Horizon Year Conditions (for these locations, these deficient LOS ratings is the LOS standard):
  • Corral Hollow Road/Eleventh Street (LOS E – AM Peak Hour, LOS F - PM Peak Hour)
  • Tracy Boulevard/Eleventh Street (LOS F – PM Peak Hour)
  • Corral Hollow Road/Schulte Road (LOS F – PM Peak Hour)
  • Tracy Boulevard/Schulte Road (LOS E - PM Peak Hour)
  • Lammers Road/Commerce Way (LOS E – PM Peak Hour)
• Caltrans facilities where Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on all State Highway facilities (i.e., freeway segments, signalized intersections, on- or off-ramps, etc.), however, Caltrans recognizes that it may not always be feasible. For Caltrans intersections, City of Tracy impact criteria applies. For freeway segments, LOS D or better is considered acceptable.
• County of San Joaquin facilities where LOS D is the minimum acceptable LOS for roadway and intersection operations.
• Develop multi-modal LOS analysis procedures and standards to evaluate other facilities (bicycle, pedestrian, and transit) in addition to roads.

Table 3-7
TMP Goals, Objectives, and Recommended Actions

Objective Cir-1.4: Protect residential areas from commercial truck traffic.
Recommended Action: Erect signs providing notice of adopted truck routes (see Section 4.10 [of the TMP] for map of existing and future truck routes) and enforce the use of designated truck routes except for the purpose of pick-up or delivery of materials or merchandise. Provide the heavy vehicle roadway system to encourage commercial growth.
Objective CIR-1.5: Protect residential areas from through traffic and high travel speeds by facilitating free flow of traffic on major streets.
Recommended Action: Utilize sustainable transportation system operation elements (see the sustainability matrix Tables 4.1 and 4.2 [in the TMP]) to improve system efficiency. For example, implementation of ITS technologies such as corridor signal timing plans and traffic signal interconnect can enhance the flow of traffic.
Objective CIR-1.6: Maximize traffic safety for automobile, transit, bicycle users, and pedestrians.
Recommended Action: Implement traffic calming on residential or collector streets as appropriate in accordance with the city's traffic calming program. Construct roadways to discourage speeding.
Objective CIR-1.7: Minimize traffic-related impacts such as noise and emissions on adjacent land uses.
Recommended Action: Utilize rubberized asphalt in roadway projects to reduce roadway noise. Implement ITS technologies, such as signal coordination, to manage traffic progression and to lower speeds. Consider implementation of roundabouts, instead of traffic signals or stop-control, to reduce delays and emissions.
Objective CIR-1.8: Minimize transportation-related energy use and impacts on the environment.
Recommended Action: As indicated in Table 4.2 [of the TMP], utilize sustainable materials such as recycled materials, permeable surfaces, non-toxic, and biodegradable materials for roadway projects. Utilize LED (light emitting diodes) or solar panels for traffic signals and street lights to lower operating and maintenance costs and to decrease energy consumption.
Goal 2: Adequate interregional access.
Objective CIR-2.1: Support regional planning and implementation efforts to improve interregional highways and interregional travel efficiency.
Recommended Action: Coordinate between adjacent municipalities and jurisdictions along arterials, crossing borders and at interchanges with freeways.
Objective CIR-2.2: Discourage interregional travel from diverting from freeways onto Tracy streets.
Recommended Action: In conjunction with actions under Objective Cir-1.5, utilize ITS technologies to manage the flow of traffic onto city streets.
Goal 3: Safe and convenient bicycle and pedestrian travel as alternative modes of transportation in and around the city.
Objective CIR-3.1: Achieve a comprehensive system of citywide bikeways and pedestrian facilities.
Recommended Actions: Consistent with the cross sections standards in Section 4.7 [of the TMP], provide Class I bike trails on parkways and arterials and Class II bike lanes on collectors. Class III bike routes shall be considered on roadways where sufficient width for a dedicated lane is not provided. Implement a comprehensive Safe Routes to School Program. Seek funding opportunities at all levels to implement pedestrian improvements and projects. Provide pedestrian enhancements at intersections, where feasible. Enhancements include high visibility crosswalks, pedestrian countdown timers, and adequate crossing times, median refuge islands for wide streets, smaller curb radii, and shorter cycle lengths. Consider preparation of a streetscape plan to define & coordinate design elements (street furniture, lighting, landscaping, width of pedestrian path, and buffer zones) when planning a walkable thoroughfare. Create a pedestrian and bicycle safety action plan to identify steps to reducing the number of pedestrian and bicycle crashes. The plan will present existing deficiencies, identify appropriate improvements to address these deficiencies, and include implementation strategies. This plan should include public education programs to educate pedestrians, bicyclists, and motorists.

Table 3-7
TMP Goals, Objectives, and Recommended Actions

Goal 4: A balanced transportation system that encourages the use of public transit and high occupancy vehicles.
Objective CIR-4.1: Promote public transit as an alternative to the automobile.
Actions: Utilize sustainable transportation system operation elements (see Tables 4.1 and 4.2 [in the TMP]) to encourage and improve transit usage. For example, implementation of measures such as transit signal priority, queue jump lanes, dedicated bus lanes, and improved shelter facilities will provide faster service, increased rider satisfaction and ridership. Require new employment centers to participate in trip reducing strategies such as Transportation Demand Management program and to provide incentives for their participation. Provide transit service/connections to major pedestrian generators such as major employment and retail centers and transit-oriented developments. Consider changes to the Zoning Ordinance to allow a reduced parking supply that is less than code requirements thus encouraging use of alternative modes of transportation.
Objective CIR-4.2: Work to achieve connectivity between all modes of transportation.
Recommended Actions: Seek reconstruction opportunities on thoroughfares to provide and improve multi-modal access and circulation. Measure T-5 of the City's Sustainable Action Plan - February 1, 2011 (SAP) lists several smart growth, urban design and planning measures including amendments to the zoning ordinance to require adequate pedestrian access, closure of sidewalk gaps, establishment of walkability standards, and amendment or creation of subdivision design standards to address spacing and connectivity. These goals must be implemented in the development of all specific plans in the city and where roads and intersections are reconstructed.
Source: Draft Citywide Roadway Transportation Master Plan, March 2012

3.4.4 SUSTAINABILITY POLCIES, STANDARDS, AND PERFORMANCE MEASURES/SMART GROWTH DESIGN ELEMENTS/COMPLETE STREETS PRINCIPLES/CONTEXT SENSITVE DESIGN

The TMP identifies various techniques to help the City meet sustainability and GHG reduction goals. These techniques range from specific roadway design measures to shifts in City policy. The complete list of these methods and the corresponding benefits is included in TMP, which is being published separately and is available on the City's website, www.ci.tracy.ca.us. In addition to the methods to meet sustainability and GHG reduction goals, the TMP also identifies smart growth design elements for various aspects of the City's transportation system. Table 3-8, TMP Smart Growth Design Elements, lists the smart growth design elements identified in the TMP for the City's Horizon Year transportation system.

The Tracy TMP includes extensive use of Complete Streets and Smart Growth principles through the development of a transportation system that will address all future transportation needs:

- Transit (bus, and rail)
- Cycling
- Walking
- Private vehicle movement
- Good vehicle movement

Table 3-8
TMP Smart Growth Design Elements

Transportation System Feature	Smart Growth Design Element
Railroads	Provide safe and efficient crossings for all modes across railroads to enhance connectivity between land uses and amenities.
Bicycle and Pedestrian Circulation	• Width of on-street bike lanes is recommended at five feet with a desired width of six feet. However, wider bike lanes also encourage vehicular speeding when cyclists are not present. The TMP recommends five foot bicycle lanes where the lane is adjacent to a curb and four feet where the travel lane is adjacent to on-street parking. Off-street bicycle paths can be eight feet for bicycle only facilities and ten feet for shared (multi-use) facilities accommodating both cyclists and pedestrians. • Driveway access management varies by roadway type with frequent driveways on lower speed roadways and residential streets, and infrequent driveways on motorist thoroughfares. • Limit bicycle use on sidewalks to avoid conflicts with streetscape and pedestrians. • Provide bicycle detection traffic control devices consistent with the California Manual on Uniform Traffic Control Devices (MUTCD) for Class II facilities. • Provide shared roadway bicycle marking consistent with the California MUTCD for Class III facilities. • Incorporate bicycle facilities for new and retrofitted roads to meet complete streets design principles which ensure adequate right-of-way is provided to enable safe access for all users (motorists, pedestrians, bicyclists, transit vehicles and users).
Bridges and Culverts	• Provide safe and efficient crossings for all modes across bridges to enhance connectivity between land uses and amenities. • Since bridges, culverts, and over/underpasses often are spanning major obstacles within the community, when planning right-of-way, planning and design of facilities, consider opportunities to incorporate trails and bikeways within crossings.
Roadways	• The recommended cross sections incorporate context sensitive and smart growth design principles to improve mobility for all users (bicyclists, pedestrians, transit vehicles, and motorists) and to achieve several other purposes including reduced maintenance costs, reduced environmental impacts, slower vehicle speeds, and improved pedestrian safety. These cross sections include narrower street widths (ten and 11 feet versus 12 feet), which reduces the amount of right-of-way required and reduces the cost of construction. Narrower roads also help to reduce vehicle speeds and reduce the crossing distances for pedestrians at intersections. Furthermore, Highway Capacity Manual 2010 indicates that a narrow lane has no reduction in saturation flow rate and thus the level of service has no effect. Narrower lanes reduce the capacity of certain roads and care was taken as to minimize the reduction of capacity below acceptable standards. The reduction in right-

Table 3-8
TMP Smart Growth Design Elements

Transportation System Feature	Smart Growth Design Element
	of-way provides more space for other uses such as additional landscaping for beautification and for water treatment, wider sidewalks to promote walkability, and room for utility corridors. • Allow implementation of roundabouts, which provide superior benefits to all-way stop and signalized intersections in terms of reducing delay, noise sustainability, and greenhouse gas emissions.
Park and Ride Facilities	• Continue to consider opportunities to share parking facilities for Park and Ride use where parking operations provide complimentary peak demands. Examples of opportunities to utilize parking facilities for dual purpose include theater or shopping center uses that have peak parking demands during the evening or weekend when a Park and Ride facility would otherwise be in low demand. • Provide a high level of connectivity, beyond typical design expectations for a land use to connect to alternative transportation systems such as transit, bicycle, and park and ride facilities. With enhanced efforts to strengthen connectivity, a higher quality of life is provided through provision of multiple transportation options.
Truck Facilities	• Maximum lane widths are 11 feet for all new roadway cross sections. • Minimize the truck route designation in areas where high levels of pedestrian, bicycle, and transit usage are desired, since truck routes require increased curb returns at intersections increasing crossing distances for pedestrians and bicyclists. • Where heavy trucking activity is proposed, consider the provision of parallel Class I bicycle routes over the designation in the road hierarchy and consider the accommodation of pedestrians and bicyclists concurrent with truck turn analysis during design review.
Source: Draft Citywide Roadway Transportation Master Plan, March 2012	

Every transportation element of the TMP includes implementation of Smart Growth and Complete Streets principles. Complete streets are roadways designed to safely and comfortably provide for the needs of all users, including, but not limited to, motorists, cyclists, pedestrians, transit and school bus riders, movers of commercial goods, persons with disabilities, seniors, and emergency users. Sustainable complete streets are complete streets which simultaneously aim to minimize adverse environmental effects, including, but not limited to, issues concerning drainage and stormwater runoff. Sustainable complete streets also form a comprehensive, integrated network supporting sustainable and transit-oriented development, and complementing sustainable land use patterns. Thus, the implementing principles in the TMP involve a road network system that is designed to provide a comprehensive grid system of hierarchal streets that provides for a well-connected City, reduces trip lengths, promotes non-motorized travel, and reduces the per capita emission of greenhouse gasses. Additional, comprehensive information is included in the TMP that further identifies guidelines for use in the detail design and implementation of the TMP.

In addition to Smart Growth and Complete Streets principles, the TMP promotes Context-Sensitive design, which as generally defined applies to all highways and streets whose adjacent land uses require accommodation of pedestrians and bicyclists, serious consideration of street aesthetics, and a degree of traffic calming. Context sensitive design recognizes placemaking and pedestrian comfort as legitimate goals for road projects.

3.4.5 OTHER POLICY RECOMMENDATIONS

The TMP establishes many other policies that are intended to be comprehensive, but also dynamic, and can be revised as needed to adapt to the changing needs of the region. City officials and staff will use these policies in the TMP to guide ongoing development, use of City resources, and implementation of projects and programs. These policies address, among other things, bicycle/pedestrian circulation, roadway design/operation, traffic calming, access management, standards/design for park and ride facilities, and ITS.

BICYCLE/PEDESTRIAN CIRCULATION

As noted above, in Table 3-8, one of the Smart Growth Design Elements of the TMP is the required incorporation of bicycle facilities on new and retrofitted roads. Specifically, the TMP requires that every proposed parkway (expressway), arterial, and collector road network segment in the TMP incorporate bicycle facilities. The TMP also expects that every new commercial and office development provide bicycle facilities onsite according to new zoning standards. In addition, the TMP states that every structure constructed in the City in the future that crosses a barrier, such as a freeway, river, channel, or railroad will include pedestrian and bicycle facilities in order to improve connectivity for these modes of travel. If the approaching roadway segments do not include pedestrian and bicycle facilities, the TMP recommends that they still be provided on the structure, to provide for safe and efficient crossings where no other crossing options exist. The TMP also recommends that the City's next update of its Bicycle Master Plan include a Bicycle Transportation Plan.

ROADWAY DESIGN/OPERATION

The TMP documents the road hierarchy, its functionality, and operations and identifies typical cross sections for the various types of roadways in the City. Table 3-9, Recommended Cross Section Characteristics, summarizes key recommended cross section characteristics for the types of streets in the City.

Table 3-9
Recommended Cross Section Characteristics

Street Type	Right-of-Way	Lanes	Bike Facility	Sidewalk
Parkway	115 feet to 159 feet	4 to 8	Yes (Class I Bike Path)	Yes
Arterial	74 feet to 121 feet	2 to 6	Yes (Class I Bike Path)	Yes
Collector	52 feet to 66 feet	2	Yes (Class II Bike Lane)	Yes
Residential/Alley	18 feet to 56 feet	1 to 2	No	Yes (2 lanes only)
Industrial	60 feet to 62 feet	2	No	Yes
Source: Draft Citywide Roadway Transportation Master Plan, February 2012				

Sufficient right-of-way may not be provided in these recommended cross sections to accommodate a bus stop or pull-out where the bus moves completely out of the traveled way. For those locations, additional right-of-way must be provided to meet San Joaquin Regional Transit standards for a bus stop or turnout. In locations where utility cabinets or other obstructions (e.g. poles, signs, etc.) may be placed within the right-of-way designated for sidewalks and Class I bikeways, the sidewalks and bikeway are to meander around the obstructions. Additional right-of-way may also be required to implement these meandering paths per the utility company standards. Additional right-of-way is required should light-rail or streetcar systems be planned.

TRAFFIC CALMING

The TMP identifies traffic calming measures to reduce vehicle speeds, alter driver behavior, and improve safety for all users. The TMP requires future specific plans in the City to incorporate planning level traffic calming measures. The exact traffic calming measures are to be determined at the design phase in conjunction with the procedures outlined in the City's traffic calming program. Moreover, the TMP states that all residential streets must include traffic calming measures, as appropriate and that collector streets may include traffic calming measures on a case by case basis, which would also be determined at the design phase.

TRAFFIC CIRCLES/ROUNDABOUTS

The TMP identifies traffic circles and roundabouts as an alternative form of traffic control to standard intersection layouts. According to the TMP, traffic circles (mini-roundabouts) are typically provided on residential street and commercial properties as a way to calm traffic and reduce speeds, while roundabouts are typically located on larger streets and can be used to accommodate heavy merge and weaving maneuvers.

ACCESS MANAGEMENT

As stated in the TMP, access spacing (spacing of roadways, spacing of signals and driveways, type of median openings, turn lanes, and right-of-way management) can affect the efficient movement of goods and traffic. The TMP stipulates that existing or future roadway networks in specific plan areas need to consider the impacts of these design variables on reducing congestion, preserving capacity on key roadways, and allowing safe and efficient access to local properties.

STANDARDS/DESIGN FOR PARK AND RIDE FACILITIES

The TMP recommends that during large land use planning efforts, such as the General Plan Update, Specific Plan preparation, and community planning efforts there be consideration of the opportunity and the applicability of Park and Ride facilities. Additionally, the TMP states that consideration of Park and Ride facilities should be coordinated with bicycle route planning, transit planning, and roadway circulation system planning to provide convenient, efficient, and safe linkages and interoperability between transportation modes. Moreover, the TMP states that during the design of Park and Ride facilities environmental concepts should be considered to illustrate the City's dedication to sustainability and minimizing resource use. Design measures with co-benefits for consideration include canopy structures with photovoltaics to provide shade and generate energy on-site, native and drought tolerant landscaping to reduce water demand, bioswales to provide landscaping while reducing pollutant discharge. Utilization of decomposed granite (DG), or recycled asphalt cement concrete (ACC) are examples of recycling materials to exemplify a reduced environmental burden at the facility. In addition, the TMP encourages the provision of incentives for vehicles with reduced pollution or non-polluting

engines, such as electric charging stations, sheltered parking, premium location parking, provision of wider parking spaces than typical, and bicycle amenities such as lockers and parking racks. Finally, the TMP states that the quality of services at each Park and Ride facility should be considered to determine how to increase comfort for users with amenities such as, enclosed and safe shelters, information panels, carpooling networking, restrooms, showers, seating, park like landscaping, etc.

INTELLINGENT TRANSPORTATION SYSTEMS

The TMP identifies a vision for the City's ITS system, as well as recommendations for the City's ITS infrastructure. According to the TMP, the City's ITS vision is to bring the benefits of an enhanced multi-modal transportation system that collects and disseminates traffic information from various modes of transportation in order to provide operational effectiveness along the signalized intersections and Project corridors and thereby increasing mobility and reducing travel times for motorists. It is envisioned that the City will have a citywide state-of the-art reliable and consistent ITS infrastructure that uses the latest technology that will accomplish the following: assist the City in managing the traffic at intersections and roadway segments; enhance staff efficiency through remote monitoring; provide troubleshooting capabilities system adjustments; and, compliment the City's existing traffic signal surveillance, control, and monitoring program. It is also envisioned that the City will participate in regional transportation management and share travel information with adjacent local agencies including Caltrans and San Joaquin County in order to enhance mobility throughout the region.

3.4.6 COST ESTIMATES FOR RECOMMENDED IMPROVEMENTS

The Final chapter of the TMP presents an opinion of anticipated cost estimates for the proposed Horizon Year roadway network improvements as recommended in the TMP. The cost estimates are based upon initial planning and would require further refinement at a later date when additional studies and design of the improvements commence. As indicated previously, a separate, but companion document to the TMP identifies the fees required of new development for transportation infrastructure improvements recommended by the TMP. Both the TMP and its associated fee document are on file with the City of Tracy and can be reviewed both online and/or by request to the City of Tracy Public Works Department, which is located at 520 Tracy Boulevard, Tracy, CA 95376.

3.5 PROJECT OBJECTIVES

Following are the Project objectives:

- Provide an Implementation Plan for the Circulation Element of the City of Tracy General Plan (2011).
- Serve as a comprehensive planning document or blueprint that identifies and requires improvements to the existing transportation system and expands upon the system to accommodate future development consistent with the General Plan. The system includes transit passenger movement, goods movement, pedestrian movement, bicycle movement, and private vehicular movement.
- Establish a framework of goals, policies, and implementation methodology that outlines improvement projects and programs, identifies financial resources and allocates funding, and sets project priorities to provide a safe and efficient transportation system that meets the community's needs.
- Guide the development of transportation infrastructure and services as growth occurs under the General Plan.

- Facilitate a transportation system that is a multi-modal network of roads, bicycle lanes and paths, transit services, and pedestrian facilities that will support the planned land uses in the City by providing mobility to residents and visitors alike.
- Balance existing and future transportation infrastructure needs with safe access for all user groups (motorists, pedestrians, bicyclists, and transit users) by incorporating strategies, principles, and design elements such as Smart Growth design elements, Context-Sensitive Design, and Complete Street guidelines.
- Facilitate the provision of an improved transportation system that enhances mobility, accommodates future growth, and maintains the quality of life in Tracy.
- Establish policies and priorities to maintain and improve the transportation system.
- Maintain consistency with the San Joaquin County Expressways Study,
- Preserve four-lane maximum arterial widths where possible to promote a more walkable, bikeable environment, particularly in new areas of future development where sustainable practices can be applied in an equitable manner.
- Decrease right-of-way and vehicular lane widths to implement Complete Street principles.
- Maintain consistency with the roadway plans in entitled project areas (Ellis Specific Plan and Gateway).
- Provide maximum roadway v/c ratios of 0.8 – 0.9 (roughly corresponding to a LOS D - E operation on a link-volume basis) to the greatest extent possible.
- Ensure the provision of bicycle and pedestrian facilities that connect people and places.
- Develop a comprehensive bicycle and pedestrian system that ensures a multi-modal infrastructure network.
- Develop a comprehensive circulation system that identifies bridge and culvert crossings to minimize traffic conflicts and preserve open space and preservation areas.
- Develop a comprehensive Park and Ride system that supports resident transit usage or carpooling to commute from the City.
- Provide a nexus for a Traffic Impact Fee Program that will fund the development of the planned transportation system through payment of impact fees by all future development.
- Develop Travel Demand Management (TDM) principles that reduce private vehicle trips and build on the regional TDM programs developed by the SJCOG.
- Provide for a comprehensive transit system on all new collector, arterial, and expressway roadways and provide the opportunity to expand transit services on existing roadways.

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4.0 ENVIRONMENTAL ANALYSIS

4.1 INTRODUCTION

This chapter discusses the potential environmental impacts and presents the findings of the environmental analysis conducted for this Recirculated Draft Environmental Impact Report (Recirculated Draft EIR), as required by the California Environmental Quality Act (CEQA). The following environmental issues are evaluated in Section 4.2 and Section 4.3, respectively, Air Quality and Greenhouse Gas Emissions.

4.1.1 ORGANIZATION OF CHAPTER

Each of the sections in this chapter are organized as follows:

- **Existing Conditions** are on-site and surrounding environmental conditions in existence at the time of publication of the Notice of Preparation (NOP), as well as relevant regulatory standards and requirements.
- **Environmental Analysis** first specifies the applicable significance thresholds (i.e., criteria by which the level of significance of each potential impact is evaluated), and then describes changes that would result in the existing physical environment should the proposed project be implemented. The analysis focuses on the changes that might be significant impacts if the project is implemented.

Project impacts are identified within each section. A summary of the potential impact is presented first, its level of significance is specified second, environmental analysis is provided third, and any required mitigation is identified last. If mitigation is required, the section concludes with the residual level of significance after mitigation.

4.1.2 MITIGATION MEASURES

Potentially feasible mitigation measures must be identified when significant impacts are identified. Adopted mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments. Each mitigation measure is numbered sequentially so that it directly correlates to the impact it addresses.

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4.2 AIR QUALITY

This section evaluates potential short- and long-term air quality impacts that would result from buildout of the City of Tracy *Citywide Roadway and Transportation Master Plan* (TMP). Information in this section is based primarily on the California Environmental Quality Act (CEQA); the *2007 Ozone Plan*, *2007 PM_{10} Plan*, and the *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI), prepared by the San Joaquin Valley Air Pollution Control District (SJVAPCD); Air Quality Data (California Air Resources Board 2008 through 2010); *City of Tracy General Plan, Draft and Final Recirculated Supplemental EIR* (dated February 1, 2011), the *City of Tracy Sustainability Action Plan* (dated February 1, 2011), and the *Citywide Roadway and Transportation Master Plan*, prepared by RBF Consulting (dated February 2012).

4.2.1 ENVIRONMENTAL SETTING

The Project site is located in the San Joaquin Valley Air Basin (Basin), which is characterized as having an "inland Mediterranean" climate (a semi-arid environment with cool winters, dry summers, and moderate rainfall). The Basin is approximately 250 miles long and averages 35 miles wide. The Basin is the second largest in the state and is defined by the Sierra Nevada Mountains to the east (8,000 to 14,000 feet in elevation), the Coastal Range to the west (averaging 3,000 feet in elevation), and the Tehachapi Mountains to the south (6,000 to 8,000 feet in elevation). The Basin is considered a "bowl" since it has generally flat topography with a slight downward gradient to the northwest.

CLIMATE

The climate within the Basin is characterized by moderate temperatures and comfortable humidities with precipitation limited to a few storms during the winter season (November through April). The average annual temperature varies little throughout the Basin, and the summer high averages 90 degrees Fahrenheit. All portions of the Basin have had recorded temperatures of over 100 degrees in recent years. January is usually the coldest month at all locations while July and August are usually the hottest months of the year. Periods of heavy fog are frequent and low stratus clouds, occasionally referred to as "high fog" are a characteristic climatic feature. Precipitation is typically 9.25 inches annually in the San Joaquin Valley floor.

WIND

One of the most important climatic factors is the direction and intensity of the prevailing winds. During the summer months, the wind usually originates at the northern end of the San Joaquin Valley and flows in a south-southeasterly direction into the Mojave Desert Air Basin. In the winter, the wind originates from the southern end of the San Joaquin Valley and flows in a northeasterly direction. With very light average wind speeds (less than 10 miles per hour), the Basin has a limited capability to disperse air contaminants horizontally. Whether there is air movement or stagnation during the morning and evening hours (before these dominant patterns take effect) is one of the critical factors in determining the smog condition on any given day.

SUNLIGHT

The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain original, or "primary" pollutants (mainly reactive hydrocarbons and oxides of nitrogen) react to form "secondary" pollutants (primarily oxidants). Since this process is time-dependent, secondary pollutants can be formed many miles

downwind from the emission sources. Because of the prevailing daytime winds and time-delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of the San Joaquin Valley.

TEMPERATURE INVERSIONS

A temperature inversion is a reversal in the normal decrease of temperature as altitude increases. In most parts of the country, air near ground level is warmer than the air above it. Semi-permanent systems of high barometric pressure fronts establish themselves over the Basin, deflecting low-pressure systems that might otherwise bring cleansing rain and winds. The height of the base of the inversion is known as the "mixing height" and controls the volume of air available for the mixing and dispersion of air pollutants.

The interrelationship of air pollutants and climatic factors are most critical on days of greatly reduced atmospheric ventilation. On days such as these, air pollutants accumulate because of the simultaneous occurrence of three unfavorable factors: low inversions, low maximum mixing heights, and low wind speeds. Although these conditions may occur throughout the year, the months of July, August, and September generally account for more than 40 percent of these occurrences.

The potential for high contaminant levels varies seasonally for many contaminants. During late spring, summer, and early fall, light winds, low mixing heights and sunshine combine to produce conditions favorable for the maximum production of oxidants, mainly ozone. When strong surface inversions are formed on winter nights, especially during the hours before sunrise, coupled with near-calm winds, carbon monoxide from automobile exhausts becomes highly concentrated. The highest yearly concentrations of carbon monoxide and oxides of nitrogen are measured during November, December, and January.

LOCAL AMBIENT AIR QUALITY

The SJVAPCD and California Air Resources Board (CARB) monitor ambient air quality at approximately 250 air-monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The following air quality information briefly describes the various types of pollutants monitored at the Tracy-Airport Monitoring Station and the Stockton-Hazelton Monitoring Station. Air quality data from 2008 through 2010 is provided in Table 4.2-1 (Local Air Quality Levels).

Carbon Monoxide. Carbon monoxide (CO) is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency, as seen in high altitudes) are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of CO. Exposure to high levels of CO can slow reflexes and cause drowsiness, as well as result in death in confined spaces at very high concentrations.

Nitrogen Dioxide. Nitrogen oxides (NO_X) are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone (O_3), and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (i.e., motor vehicle engines, power plants, refineries, and other industrial operations).

Table 4.2-1
Local Air Quality Levels

Pollutant	Primary Standard		Year	Maximum[1] Concentration	Number of Days State/Federal Std. Exceeded
	California	Federal			
Carbon Monoxide (CO)[2] (1-Hour)	20 ppm for 1 hour	35 ppm for 1 hour	2008 2009 2010	3.40 ppm 3.40 2.80	0/0 0/0 0/0
Carbon Monoxide (CO)[2] (8-Hour)	9 ppm for 8 hours	9 ppm for 8 hours	2008 2009 2010	1.86 ppm 2.29 1.60	0/0 0/0 0/0
Ozone (O_3) (1-Hour)[3]	0.09 ppm for 1 hour	NA[4]	2008 2009 2010	0.123 ppm 0.104 0.113	11/0 2/0 1/0
Ozone (O_3) (8-Hour)[3]	0.070 ppm for 8 hours	0.075 ppm for 8 hours	2008 2009 2010	0.104 ppm 0.087 0.92	26/16 20/8 8/3
Nitrogen Dioxide (NO_2)[3]	0.18 ppm for 1 hour	0.100 ppm for 1 hour	2008 2009 2010	0.048 ppm 0.043 0.040	0/NM 0/NM 0/NM
Particulate Matter (PM_{10})[3,5,6]	50 µg/m^3 for 24 hours	150 µg/m^3 for 24 hours	2008 2009 2010	126.8 µg/m^3 55.3 22.4	NM/0 NM/0 NM/0
Fine Particulate Matter ($PM_{2.5}$)[3,6]	No Separate State Standard	35 µg/m^3 for 24 hours	2008 2009 2010	85.3 µg/m^3 41.6 42.3	NM/NM NM/NM NM/NM

PM_{10} = particulate matter 10 microns in diameter or less
$PM_{2.5}$ = particulate matter 2.5 microns in diameter or less
CO = carbon monoxide
NO_X = nitrogen oxides
ppm = parts per million
µg/m^3 = micrograms per cubic meter
O_3 = ozone
NM = Not Measured (there was insufficient [or no] data available to determine the value from the ADAM database)

Notes:
1 – Maximum concentration is measured over the same period as the California Standard.
2 – Measurements taken at the Stockton-Hazelton Street Monitoring Station (located at 1593 East Hazelton Street, Stockton, California 95205).
3 – Measurements taken at the Tracy-Airport Monitoring Station (located at 5749 South Tracy Boulevard, Tracy, California 95376).
4 – The United States Environmental Protection Agency revoked the Federal 1-hour Standard in June of 2005.
5 – PM_{10} exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
6 – PM_{10} and $PM_{2.5}$ exceedances are derived from the number of samples exceeded, not days.

Source: California Air Resources Board, *Aerometric Data Analysis and Measurement System (ADAM) Air Quality Data Statistics*, http://www.arb.ca.gov/adam/welcome.html, accessed on December 1, 2011.

NO_2 can irritate and damage the lungs, and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air, may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes as well as cause pulmonary dysfunction.

Ozone. O_3 occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" O_3 layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays.

The "Bad" O_3 is a photochemical pollutant, and needs reactive organic gases (ROGs), NO_X and sunlight to form; therefore, ROGs and NO_X are O_3 precursors. To reduce O_3 concentrations, it is necessary to control the emissions of these O_3 precursors. Significant O_3 formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High O_3 concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O_3 in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level O_3 (in the troposphere) can adversely affect the human respiratory system and other tissues. O_3 is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O_3. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in San Joaquin Valley can result in aggravated respiratory diseases such as emphysema, bronchitis, and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Coarse Particulate Matter (PM_{10}). Coarse particulate matter (PM_{10}) refers to suspended particulate matter, which is smaller than 10 microns or 10 one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, CARB adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both state and federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the U.S. Supreme Court reversed this decision and upheld the EPA's new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current state standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide SO_2. Sulfur dioxide (SO_2) is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. Sulfur dioxide is often used interchangeably with sulfur oxides (SO_X) and lead (Pb). Exposure of a few minutes to low levels of SO_2 can result in airway constriction and reduction in breathing capacity in some asthmatics.

Reactive Organic Gases (ROGs) and Volatile Organic Compounds (VOCs). Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including reactive organic gases (ROGs) and volatile organic compounds (VOCs). Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources

of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Toxic Air Contaminants (TACs). Toxic air contaminants (TACs) (also referred to as hazardous air pollutants [HAPs]), are pollutants that result in an increase in mortality, a serious illness, or pose a present or potential hazard to human health. Health effects of TACs may include cancer, birth defects, and immune system and neurological damage.

TACs can be separated into carcinogens and noncarcinogens based on the nature of the physiological degradation associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which heath impacts would not occur. Noncarcinogenic TACs differ in that there is a safe level in which it is generally assumed that no negative health impacts would occur. These levels are determined on a pollutant-by-pollutant basis.

TACs are not considered criteria air pollutants and thus are not specifically addressed through the setting of ambient air quality standards. Instead, the EPA and CARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology (MACT or BACT) to limit emissions.

SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than is the general population. The following types of people are most likely to be adversely affected by air pollution, as identified by CARB: children under 14, elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high concentration of these sensitive population groups are called sensitive receptors and include residential areas, hospitals, day-care facilities, elder-care facilities, elementary schools and parks. Sensitive receptors are located throughout the City and include residential uses, schools, parks, hospitals, and places of worship.

4.2.2 REGULATORY SETTING

FEDERAL FRAMEWORK

U.S. Environmental Protection Agency

The EPA is responsible for implementing the Federal Clean Air Act (FCAA), which was first enacted in 1955 and amended numerous times after. The FCAA established federal air quality standards known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants are O_3, CO, NO_2 (which is a form of NO_X), SO_2 (which is a form of SO_x), particulate matter less than 10 and 2.5 microns in diameter (PM_{10} and $PM_{2.5}$, respectively), and lead (Pb). Refer to Table 4.2-2 (National and California Ambient Air Quality Standards).

Table 4.2-2
National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California[1]		Federal[2]	
		Standard[3]	Attainment Status	Standards[4]	Attainment Status
Ozone (O_3)	1 Hour	0.09 ppm (180 μg/m³)	**Nonattainment**	NA[5]	NA[5]
	8 Hours	0.07 ppm (137 μg/m³)	**Nonattainment**	0.075 ppm (147 μg/m³)	**Nonattainment**
Particulate Matter (PM_{10})	24 Hours	50 μg/m³	**Nonattainment**	150 μg/m³	Attainment
	Annual Arithmetic Mean	20 μg/m³	**Nonattainment**	N/A[6]	Attainment
Fine Particulate Matter ($PM_{2.5}$)	24 Hours	No Separate State Standard		35 μg/m³	**Nonattainment**
	Annual Arithmetic Mean	12 μg/m³	**Nonattainment**	15.0 μg/m³	**Nonattainment**
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m³)	Attainment	9 ppm (10 mg/m³)	Attainment
	1 Hour	20 ppm (23 mg/m³)	Attainment	35 ppm (40 mg/m³)	Attainment
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	N/A	53 ppb (100 μg/m³)	Attainment
	1 Hour	0.18 ppm (339 μg/m³)	Attainment	100 ppb (188 μg/m³)	N/A
Lead (Pb)	30 days average	1.5 μg/m³	Attainment	N/A	N/A
	Calendar Quarter	N/A	N/A	1.5 μg/m³	Attainment
Sulfur Dioxide (SO_2)	24 Hours	0.04 ppm (105 μg/m³)	Attainment	N/A	N/A
	3 Hours	N/A	N/A	N/A	N/A
	1 Hour	0.25 ppm (655 μg/m³)	Attainment	75 ppb (196 μg/m³)	Unclassified
Visibility-Reducing Particles	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	**No Federal Standards**	
Sulfates	24 Hour	25 μg/m³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m³)	Unclassified		
Vinyl Chloride	24 Hour	0.01 ppm (26 μg/m³)	Unclassified		

μg/m³ = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable.

Notes:

1 – California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, suspended particulate matter-PM_{10} and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. In 1990, CARB identified vinyl chloride as a toxic air contaminant, but determined that there was not sufficient available scientific evidence to support the identification of a threshold exposure level. This action allows the implementation of health-protective control measures at levels below the 0.010 ppm ambient concentration specified in the 1978 standard.

2 – National standards (other than ozone, particulate matter and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. EPA also may designate an area as *attainment/unclassifiable*, if: (1) it has monitored air quality data that show that the area has not violated the ozone standard over a three-year period; or (2) there is not enough information to determine the air quality in the area. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m³ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

3 – Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

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

5 – The Federal 1-hour ozone standard was revoked on June 15, 2005 in all areas except the 14 8-hour ozone nonattainment Early Action Compact (EAC) areas.

6 – The Environmental Protection Agency revoked the annual PM_{10} standard in 2006 (effective December 16, 2006).

Source: California Air Resources Board and U.S. Environmental Protection Agency, September 8, 2010.

STATE FRAMEWORK

California Air Resources Board

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 4.2-2, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide and sulfates. The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMP's also serve as the basis for preparation of the State Implementation Plan (SIP) for California.

Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data show that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard, and are not used as a basis for designating areas as nonattainment.

LOCAL FRAMEWORK

San Joaquin Valley Air Pollution Control District (SJVAPCD)

Regional Air Quality Management Districts (AQMD) or Air Pollution Control Districts (APCD) throughout the state are the regulatory authority for each of the air basins within California. These districts have the primary responsibility to control air pollution from all sources other than those directly emitted from motor vehicles, which are the responsibility of the CARB and the EPA, and are required to adopt and enforce rules and regulations (produce attainment plans) that include air pollution control programs designed to achieve the NAAQS and CAAQS within their air basin and enforce applicable state and federal law.

State law recognized that air pollution does not respect political boundaries and, therefore, required CARB to divide the state into separate air basins that each has similar geographical and meteorological conditions. Additionally, many county agencies began to realize that air quality problems are best managed on a regional basis and began to combine their regulatory agencies into regional agencies. This was the case for the Basin, where until 1991 each county operated a local air pollution control district.

The SJVAPCD is one of 35 air quality management districts in the state that have prepared AQMPs to accomplish a five-percent annual reduction in emissions. The SJVAPCD has prepared the *2007 Ozone Plan* to achieve federal and state standards for improved air quality in the Basin regarding ozone. The *2007 Ozone Plan* provides a comprehensive list of regulatory and incentive-based measures to reduce emissions of ozone and particulate matter precursors throughout the Basin. The *2007 Ozone Plan* calls for major advancements in pollution control technologies for mobile and stationary sources of air pollution. The *2007 Ozone Plan* call for a 75 percent reduction in ozone-forming oxides of nitrogen emissions.

The SJVAPCD has also prepared the *2007 PM_{10} Maintenance Plan and Request for Redesignation* (*2007 PM_{10} Plan*). On April 24, 2006, the SJVAPCD submitted a Request for Determination of PM_{10} Attainment for the Basin to CARB. CARB concurred with the request and submitted the request to the

EPA on May 8, 2006. On October 30, 2006, the EPA issued a Final Rule determining that the Basin had attained the NAAQS for PM_{10}. However, the EPA noted that the Final Rule did not constitute a redesignation to attainment until all of the FCAA requirements under Section 107(d)(3) were met.

Section 107(d)(3) of the FCAA states that a nonattainment area can be redesignated to attainment if it meets the following criteria:

1. EPA has determined that the NAAQS have been attained.
2. EPA has fully approved the applicable implementation plan under section 110(k) of the FCAA.
3. EPA has determined that the improvement in air quality is due to permanent and enforceable emission reductions.
4. The state has met all applicable requirements for the area under Section 110 and Part D.
5. EPA has fully approved a maintenance plan, including a contingency plan, for the area under Section 175(A) of the FCAA.

The Basin has met criteria 1, 2 and 4 of Section 103(d)(3). The *2007 PM_{10} Plan* was developed to comply with criteria 3 and 5 and to proceed with the redesignation process for PM_{10} for the Basin. For the purposes of the *2007 PM_{10} Plan*, the SJVAPCD has assumed that the EPA's action on the redesignation request would be complete in 2009.[1] The maintenance plan must provide for continued attainment 10 years after designation. Therefore, the SJVAPCD has targeted 2020 as the maintenance year. Additional maintenance plans will be submitted to demonstrate attainment through Year 2030.

In addition to the *2007 Ozone Plan* and the *2007 PM_{10} Plan*, the SJVAPCD prepared the *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI). The GAMAQI provides lead agencies, consultants, and project applicants with analysis guidance and uniform procedures for addressing air quality in environmental documents. Local jurisdictions are not required to utilize the methodology outlined therein. This document describes the criteria that the SJVAPCD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for determining whether or not projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts. An update of the GAMAQI was approved on January 10, 2002, and has been used as a guidance document for this analysis.

City of Tracy

The City of Tracy Development and Engineering Services Department provides dust control measures within the Engineering Design Construction Standards document (dated December 2009). Specifically, Section 102 (Responsibilities of the Contractor) prohibits contractors from discharging smoke, dust, or any other air contaminant into the atmosphere in such quantity that would violate the regulations of any legally constituted authority.

[1] On September 25, 2008, the EPA redesignated the Basin to attainment for the PM_{10} NAAQS and approved the PM_{10} Maintenance Plan.

4.2.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

California Environmental Quality Act

According to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant air quality impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people

San Joaquin Valley Air Pollution Control District

For the purposes of this air quality analysis, actions that violate federal standards for criteria pollutants (i.e., primary standards designed to safeguard the health of people considered to be sensitive receptors while outdoors and secondary standards designed to safeguard human welfare) are considered significant impacts. Additionally, actions that violate state standards developed by CARB or criteria developed by the SJVAPCD, including thresholds for criteria pollutants, are considered significant impacts. Projects that would generate 10 tons per year of either ROG or NO_x are considered to have a potentially significant air quality impact. The SJVAPCD has also established a threshold of 15 tons per year for PM_{10}. As previously mentioned, the Basin is classified as a nonattainment area for ozone. In order to achieve the federal and state standards for ozone, it is necessary to regulate ROG and NO_X, which contribute to the formation of ozone. This includes both direct and indirect emissions.

In addition to the thresholds cited above, the SJVAPCD has thresholds applicable to CO emissions that require projects to perform localized CO modeling. These thresholds include the following:

- Project traffic would impact intersections or roadway links operating at level of service (LOS) D, E or F or would cause LOS to decline to D, E or F
- Project traffic would increase traffic volumes on nearby roadways by 10 percent or more
- Project would contribute to CO concentrations exceeding CAAQS of 9 parts per million (ppm) averaged over 8 hours and 20 ppm for one hour

<u>Construction Specific Thresholds</u>

The SJVAPCD's approach to analysis of construction impacts is to require implementation of effective and comprehensive control measures rather than to require detailed quantification of emission concentrations for modeling of direct impacts. PM_{10} emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions and other factors, making quantification difficult. Despite this variability in emissions, experience has shown that there are a number of feasible control measures that can be reasonably implemented to significantly reduce PM_{10} emissions from construction activities. The

SJVAPCD has determined that compliance with Regulation VIII for all sites and implementation of all other control measures indicated in Tables 6-2 and 6-3 of the GAMAQI would constitute sufficient mitigation to reduce PM_{10} impacts to a level considered less than significant.

Odor-Based Thresholds

Projects that would potentially generate objectionable odorous emissions that would be located near existing sensitive receptors or other land uses where people may congregate could constitute a significant air quality impact to existing uses. Also, residential or other sensitive receptor projects built for the intent of attracting people locating near existing odor sources could also cause a significant air quality impact for the proposed uses. The SJVAPCD suggests a threshold based on the distance of the odor source from people and complaint records for a facility or similar facility. The threshold would be more than one confirmed complaint per year averaged over a three-year period, or three unconfirmed complaints per year averaged over a three-year period.

4.2.4 IMPACTS AND MITIGATION MEASURES

Short-Term (Construction) Emissions

4.2-1 IMPLEMENTATION OF THE PROJECT WOULD RESULT IN TEMPORARY CONSTRUCTION-RELATED DUST AND VEHICLE EMISSIONS WITHIN THE PROJECT SITE.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Project implementation would facilitate the construction of future transportation-related infrastructure improvements throughout the City. Short-term air quality impacts are predicted to occur during grading and construction operations associated with implementation of the proposed Project. Temporary air emissions would result from the following activities:

- Particulate (fugitive dust) emissions from grading and building construction
- Exhaust emissions from the construction equipment and the motor vehicles of the construction crew

Potential odors could arise from the diesel construction equipment used onsite, as well as from architectural coatings and asphalt off-gassing. Odors generated during construction activities would be temporary and are not considered to be a significant impact. Emissions produced during grading and construction activities are short-term, as they would exist only during construction.

The SJVAPCD's approach to CEQA analyses of construction impacts is to require implementation of effective and comprehensive control measures rather than to require detailed quantification of emissions. The Project proposes a plan that would result in the construction of improvements to the roadway system, including new bicycle and pedestrian facilities. The SJVAPCD has developed control measures that can be reasonably implemented to significantly reduce emissions from construction. Compliance with Regulation VIII and implementation of control measures are included in Mitigation Measures 4.2-1a and 4.2-1b. The SJVAPCD considers construction-related emissions from all projects in this region to be mitigated to a less-than significant level if SJVAPCD-recommended equipment exhaust emission controls (collectively called Regulation VIII and included as Mitigation Measure 4.2-1a) and PM_{10} fugitive dust

rules (outlined in Mitigation Measures 4.2-1b) are implemented. With implementation of the proposed mitigation measures, fugitive dust impacts to sensitive land uses throughout the City would be considered less than significant.

Naturally Occurring Asbestos

Pursuant to guidance issued by the Governor's Office of Planning and Research, State Clearinghouse, lead agencies are encouraged to analyze potential impacts related to naturally occurring asbestos. Naturally occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations.

Serpentinite and/or ultramafic rock are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in the counties of the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. According to the *General Location Guide for Ultramafic Rock in California – Areas More Likely to Contain Naturally Occurring Asbestos* serpentinite and ultramafic rocks are not known to occur within the City and thus there is no potential that the proposed Project would disturb naturally occurring asbestos.

Odors

Potential odors generated during construction operations would be temporary in nature and are concluded to result in less than significant impacts. It should be noted that emissions produced during grading and construction activities are "short-term" in nature as they occur only for the duration of construction.

Mitigation Measures:

4.2-1a Prior to the issuance of any grading, building, or other construction permit, the City shall require all future applicants to demonstrate conformance with SJVAPCD Rule VIII. The Development and Engineering Services Department shall require that the grading plans, building plans, and specifications stipulate compliance with the following control measures in SJVAPCD Regulation VIII:

- Properly and routinely maintain all construction equipment, as recommended by manufacturer's manuals, to control exhaust emissions.
- Shut down equipment when not in use for extended periods of time, to reduce exhaust emissions associated with idling engines.
- Encourage ride-sharing and use of transit transportation for construction employees commuting to the Project site.
- Use electric equipment for construction whenever possible in lieu of fossil fuel-fired equipment.
- Curtail construction during periods of high ambient pollutant concentrations.
- Construction equipment shall operate no longer than eight cumulative hours per day.
- All construction vehicles shall be equipped with proper emission control equipment and kept in good and proper running order to reduce NO_X emissions.

- All construction activities within the Project site shall be discontinued during the first stage smog alerts.
- Construction and grading activities shall not be allowed during first stage ozone alerts. (First stage ozone alerts are declared when ozone levels exceed 0.20 ppm for the 1-hour average.)

4.2-1b Prior to the issuance of any grading, building, or other construction permit, the City shall require all future applicants to demonstrate conformance with SJVAPCD Rule VIII. The Development and Engineering Services Department shall require that the grading plans, building plans, and specifications stipulate compliance with the following fugitive dust control measures in SJVAPCD Regulation VIII. The mitigation could include the following or may include other measures as determined by the SJVAPCD:

- Water previously disturbed exposed surfaces (soil) a minimum of three-times/day or whenever visible dust is capable of drifting from the site or approaches 20 percent opacity.
- Water all haul roads (unpaved) a minimum of three-times/day or whenever visible dust from such roads is capable of drifting from the site or approaches 20 percent opacity.
- All access roads and parking areas shall be covered with asphalt-concrete paving or water sprayed regularly.
- Dust from all onsite and offsite unpaved access roads shall be effectively stabilized by applying water or using a chemical stabilizer or suppressant.
- Reduce speed on unpaved roads to less than 15 miles per hour.
- Install and maintain a trackout control device that meets the specifications of SJVAPCD Rule 8041 if the site exceeds 150 vehicle trips per day or more than 20 vehicle trips per day by vehicle with three or more axles.
- Stabilize all disturbed areas, including storage piles, which are not being actively utilized for construction purposes using water, chemical stabilizers or by covering with a tarp, other suitable cover or vegetative ground cover.
- Control fugitive dust emissions during land clearing, grubbing, scraping, excavation, leveling, grading or cut and fill operations with application of water or by presoaking.
- When transporting materials offsite, maintain a freeboard limit of at least six inches and cover or effectively wet to limit visible dust emissions.
- Limit and remove the accumulation of mud and/or dirt from adjacent public roadways at the end of each workday. (Use of dry rotary brushes is prohibited except when preceded or accompanied by sufficient wetting to limit visible dust emissions and use of blowers is expressly forbidden).
- Stabilize the surface of storage piles following the addition or removal of materials using water or chemical stabilizer/suppressants.
- Remove visible track-out from the site at the end of each workday.
- Cease grading activities during periods of high winds (greater than 20 miles per hour [mph] over a one-hour period).
- Asphalt-concrete paving shall comply with SJVAPCD Rule 4641 and restrict use of cutback, slow-cure, and emulsified asphalt paving materials.
- Grading should be conducted in phases.

- The Project site shall not be cleared of existing vegetation cover for the preparation of construction until the issuance of grading permits required by construction.
- The Project applicant shall revegetate graded areas as soon as it is feasible after construction is completed.

Level of Significance After Mitigation: Less Than Significant Impact.

Long-Term (Operational) Emissions

4.2-2 THE PROPOSED PROJECT WOULD RESULT IN AN OVERALL INCREASE IN THE LOCAL AND REGIONAL POLLUTANT LOAD DUE TO DIRECT IMPACTS FROM VEHICLE EMISSIONS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

The Project proposes a plan that builds upon the goals and objectives of the General Plan Circulation Element and the Draft Sustainability Action Plan (SAP). The Project identifies improvements and expansions to the existing system required to accommodate the City's future growth. The Project aims to increase transit usage and opportunities, improve traffic flow in the City, and support the development of new bicycle and pedestrian facilities.

Mobile Source Emissions

According to the SAP, mobile sources are the largest contributor of emissions in the City. The SAP indicates that Tracy residents currently use automobiles more than any other mode of travel. The total daily vehicle miles traveled (VMT) in the City was 3.3 million in 2006. The City's General Plan EIR projected the daily VMT to be 4.78 million at the General Plan horizon year of 2030. The proposed TMP projects the daily VMT to be 6.9 million at the horizon year of 2035. Therefore, implementation of the proposed Project would result in greater VMT than projected in the City's General Plan. While the General Plan EIR forecasts traffic conditions to the year 2030, the TMP looks out another five years, to establish consistency with the most recent San Joaquin Council of Governments (SJCOG) land use development assumptions, employment forecasts, and travel demand model. It is noted that this is due to the growth that has been applied in the TMP to account for the five-year horizon year difference.

As the Project does not proposed any new development that would result in the generation of new traffic trips, the proposed Project would not directly result in an increase in mobile source emissions. However, the proposed Project anticipates an increase in VMT beyond what was forecast in the General Plan EIR. It should be noted that the General Plan does not have a horizon year. The General Plan utilized the year 2030 for traffic modeling purposes because this was the planning year that SJCOG was using at the time. Since completion of the General Plan, SJCOG has updated their planning year to 2035. As a result, the TMP utilizes 2035 to be consistent with the SJCOG traffic forecasts. Neither the 2030 nor the 2035 forecasts represent full build-out of all the development capacity in the General Plan, but rather the residential and non-residential growth that is expected under the growth management ordinance (for residential uses) and based on market trends (for non-residential uses).

The TMP's proposed improvements to the existing transportation system would result in increased efficiency which would result in shorter trips and reduced VMT per person than assumed in the City's General Plan. Although reduced VMT typically results in reduced emissions, the proposed TMP's VMT

and associated emissions are greater than what was assumed in the General Plan solely as a result of the projected growth between 2030 and 2035.

Mobile source emissions resulting from Project implementation were quantified using EMFAC 2007. This model is a transportation based computer model designed to estimate regional air emissions. EMFAC 2007 accounts for specific meteorological conditions and topography that characterize each specific air basin in California. Input into the model was obtained from traffic data within the TMP. The results are presented in Table 4.2-3 (Long-Term Operational Project Emissions). For reference, Table 4.2-3 shows the mobile source emissions associated with the TMP Horizon Year, as well as for Existing Conditions and General Plan Buildout.

Table 4.2-3
Long-Term Operational Project Emissions

Emissions	Pollutant (Tons/Year)		
	ROG	NO_X	PM_{10}
Existing Conditions (2006)			
Area Source[1]	523.50	31.76	295.49
Energy Source[1]	5.80	50.27	4.01
Mobile Source[2]	843.10	3,994.73	168.39
Total Existing Emissions	*1,372.40*	*4,076.76*	*467.89*
General Plan Buildout (2030)			
Area Source[1]	723.80	33.70	308.69
Energy Source[1]	9.18	79.97	6.35
Mobile Source[2]	483.90	1,659.67	129.91
Total 2030 Emissions	*1,216.88*	*1,773.34*	*444.95*
TMP Horizon Year (2035)			
Area Source[1]	775.69	32.69	297.36
Energy Source[1]	10.08	88.17	6.96
Mobile Source[2]	698.92	2,397.13	187.64
Total 2035 Emissions	*1,484.69*	*2,517.99*	*491.96*
Net Increase Over Existing	**112.29**	**-1,558.77**	**24.07**
SJVAPCD Threshold	*10*	*10*	*15*
Is Threshold Exceeded? (Significant Impact?)	**YES**	**NO**	**YES**

ROG = reactive organic gases NO_X = nitrogen oxides PM_{10} = particulate matter 10 microns in diameter or less

Notes:
1. Area and energy source emissions are based on CalEEMod modeling results (worst-case seasonal emissions). Land use assumptions are based on Table 3-1 in Section 3.0 (Project Description).
2. Mobile source emissions are based on EMFAC2007 modeling results, and trip rate/vehicle miles traveled data provided in the *Citywide Roadway Transportation Master Plan* (dated December 2011). Refer to Appendix B (Air Quality and Greenhouse Gas Emissions Data), for detailed model input/output data. NO_X emissions would decrease in future years due to improvements in vehicle emissions and newer on-road vehicle fleet mixes.

Project related vehicle trips would emit criteria pollutants including NO_X and ROG, which are considered ozone precursors. The Project area is a non-attainment area for federal air quality standards for ozone and particulates. NO_X and ROG are regulated as ozone precursors. A precursor is defined by the SJVAPCD as "a directly emitted air contaminant that, when released into the atmosphere forms or causes to be formed or contributes to the formation of a secondary air contaminant for which an ambient air quality standard has been adopted…".

The predicted emissions associated with vehicular traffic (mobile sources) are not subject to the SJVAPCD permit requirements. However, the SJVAPCD is responsible for overseeing efforts to improve air quality within the San Joaquin Valley. The SJVAPCD has prepared an AQMP to bring the San Joaquin Valley into compliance with the CAAQS for ozone. The SJVAPCD reviews land use changes to evaluate the potential impact on air quality. The SJVAPCD has established a significance level for ROG and NO_X of 10 tons per year each and 15 tons per year for PM_{10}.

As shown in Table 4.2-3, Project-related mobile source emissions for ROG, NO_X and PM_{10} attributable to Project implementation would result in exceedances of the SJVAPCD thresholds. As previously stated, the Basin is currently designated as a non-attainment area for ozone and particulates. Emissions of criteria pollutant would further lead to the degradation of ambient air quality. The proposed Project would result in significant exceedances of the SJVAPCD thresholds for ROG and PM_{10}. NO_X emissions would decrease in future years from existing conditions due to improvements in vehicle emissions and newer on-road vehicle fleet mixes.

Table 4.2-3 provides a conservative comparison between the existing conditions and a 2035 scenario. The TMP would implement various measures identified within the SAP and the General Plan EIR that would reduce 2035 emissions from a business as usual scenario. Table 3.7 (Trip Reductions Due to SAP Measures – Horizon Year) of the TMP indicates that the SAP measures that would be implemented through the TMP would result in a 5.8 percent trip reduction in the Future Service Areas, and a 4.4 percent trip reduction Citywide; also refer to Table 3-3 in Section 3.0 (Project Description). These trip reductions would occur from the following TMP benefits:

- Implementation plan of Complete Streets, Sustainable Development, and Smart Growth principles.
- Reduction of right-of-way widths for all street classifications.
- Reduction of travel lane widths.
- Inclusion of sidewalks, Class-I or Class-II bike paths on all collector, arterials, expressways / parkways.
- Elimination of previously proposed grade separated interchanges within the City of Tracy resulting in a savings of approximately $50 million.
- A reduction in trip lengths for 2035 through approximately 2018 levels.
- A forecasted reduction of 6 percent in VMT due implementation of sustainable transportation strategies.
- The provision of transit facilities on all roadway types.

Measures proposed as part of the TMP would result in trip reduction, reduced trip lengths, and fuel efficiency improvements. The proposed Project enhances the City's General Plan goals, objectives, policies, and actions. Emissions reductions from TMP trip reduction features and implementation of the SAP Strategies include efficiency measures related to Smart Growth, Context-Sensitive design, and Complete Streets. Improved access, pedestrian and bicycle facilities, increased transit, and improved traffic flow inherently reduce mobile source emissions. The TMP describes future roadway conditions within the City and recommended improvements to accommodate future growth. The TMP also includes recommended actions to support the goals and objectives of the General Plan's Circulation Element and recommended transportation strategies, principles, and design elements that would reduce criteria air pollutants. However, as the proposed Project contemplates growth beyond what was modeled in the General Plan,the Project would result in greater impacts than those identified in the General Plan EIR. Due to the amount of growth that is projected to occur by TMP horizon year 2035, impacts associated with long-term mobile source emissions would be considered significant and unavoidable due to the exceedances in ROG and PM_{10}.

Area Source Emissions

Area source emissions associated with the TMP would be generated due to an increased demand for electrical energy and natural gas with the development of the proposed Project. This assumption is based on the supposition that those power plants supplying electricity to the site are utilizing fossil fuels. Electric power generating plants are distributed throughout the Basin and western United States, and their emissions contribute to the total regional pollutant burden. The primary use of natural gas by the proposed land uses would be for combustion to produce space heating, water heating, other miscellaneous heating, or air conditioning, consumer products, and landscaping.

Emissions resulting from operation of land uses in the TMP Future Service Areas were quantified using the California Emissions Estimator Model (CalEEMod). Land use assumptions are based on Table 3-1 in Section 3.0 (Project Description). While the General Plan EIR forecasts traffic conditions to the year 2030, the TMP looks out another five years to provide the maximum possible infrastructure planning. Neither the 2030 nor the 2035 forecasts represent full build-out of all the development capacity in the General Plan, but rather the residential and non-residential growth that is expected under the growth management ordinance (for residential uses) and based on market trends (for non-residential uses). Compared to the 2030 General Plan, the amount of projected housing and employment opportunities increase under the land use assumptions developed for the TMP 2035 Horizon Year and build-out scenarios. This increase is due to the temporal increase between the two scenarios. As indicated in Table 4.2-3, due to the amount of growth that is projected to occur by TMP horizon year 2035, stationary source emissions from the proposed project would exceed SJVAPCD thresholds.

Indirect Source Rule

Due to the exceedances of SJVACPD thresholds for ROG and PM_{10}, individual development projects may be subject to SJVAPCD Rule 9510 (Indirect Source Rule [ISR]). It should be noted that the TMP is consistent with the growth projects of the 2030 General Plan, but looks out another five years to establish consistency with the most recent SJCOG land use development assumptions, employment forecasts, and travel demand model. The amount of projected housing and employment opportunities increase under the land use assumptions developed for the TMP 2035 Horizon Year due to the temporal increase between the two scenarios. Although the proposed Project anticipates growth beyond the 2030 General Plan horizon, it does not change the land uses in the General Plan. The General Plan requires participation in the ISR program. As a result, future development under the proposed project would be required to comply with SJVAPCD Rule 9510 (ISR).

Localized CO Emissions

CO emissions are a function of vehicle idling time, meteorological conditions and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (e.g., adversely affect residents, school children, hospital patients, the elderly, etc.). The SJVAPCD requires CO "hotspot" modeling for projects that reduce the LOS on surrounding roadways to an E or an F, or worsens traffic along roadways that are already operating at an LOS F.

Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersections. Table 4.2-4 (Project Buildout Carbon Monoxide Concentrations) provides the list of intersections within the Project area that required a CO hotspot analysis.

Table 4.2-4
Project Buildout Carbon Monoxide Concentrations

Intersection[1]	1-Hour CO (ppm)[2]		8-Hour CO (ppm)[1]	
	1-Hour Standard	Future + Project	8-Hour Standard	Future + Project
#30: Corral Hollow Road/11th Street	20 ppm	3.80	9 ppm	2.55
#31: Tracy Boulevard/11th Street	20 ppm	3.80	9 ppm	2.55
#37: Corral Hollow Road/Schulte Road	20 ppm	3.70	9 ppm	2.48
#38: Tracy Boulevard/Schulte Road	20 ppm	3.60	9 ppm	2.41
#66: Lammers Road/Commerce Way	20 ppm	3.80	9 ppm	2.55

Notes:
1. The intersection numbering corresponds to the intersection ID numbers as noted in the *Citywide Roadway Transportation Master Plan* (dated February 2012).
2. As measured at a distance of 10 feet from the corner of the intersection predicting the highest value. Presented one-hour CO concentrations include a background concentration of 3.40 ppm. Eight-hour concentrations are based on a persistence of 0.67 of the one-hour concentration.

The projected traffic volumes were modeled using the BREEZE ROADS dispersion model. The resultant values were then added to an ambient concentration. A receptor height of 1.8 meters was used in accordance with the EPA's recommendations. The calculations assume a meteorological condition of almost no wind (0.5 meters/second), a flat topological condition between the source and the receptor, and a mixing height of 1,000 meters. A standard deviation of five degrees was used for the deviation of wind direction. The suburban land classification was used for the aerodynamic roughness coefficient. This follows the BREEZE ROADS user's manual definition of suburban as "regular coverage with large obstacles, open spaces roughly equal to obstacle heights, villages, mature forests." All of the above parameters are based on the standards stated in the *Transportation Project-Level Carbon Monoxide (CO Protocol)*, December 1997.

For the purposes of this analysis, the ambient concentration used in the modeling was the highest one-hour measurement from 2009 (the latest year data was available) of SJVAPCD monitoring data at the Stockton-Hazelton Monitoring Station. Actual future ambient CO levels may be lower due to emissions control strategies that would be implemented between now and Project buildout. Due to changing meteorological conditions over an eight-hour period which diffuses the local CO concentrations, the eight-hour CO level concentrations have been found to be typically proportional and lower than the one-hour concentrations, where it is possible to have stable atmospheric conditions last for the entire hour. Therefore, eight-hour CO levels were calculated using the locally derived persistence factor as stated in the CO protocol. The local persistence factor is derived by calculating the highest ratio of eight-hour to one-hour maximum locally measured CO concentrations from the most recent three years of data. Table 4.2-1 shows that of the most recent three years of data, year 2009 has the highest eight-hour to one-hour ratio of 0.67.

The intersections in the study area currently operate at an LOS ranging from LOS A to LOS F for peak hour activities. At proposed Project buildout, five of these intersections would be reduced to LOS to E or F in an unmitigated condition, requiring CO hotspot analyses. As indicated in Table 4.2-5, CO concentrations would be well below the federal and state standards. The modeling results are compared to the CAAQS for CO of 9 ppm on an eight-hour average and 20 ppm on a one-hour average. Neither the one-hour average nor the eight-hour average would be equaled or exceeded. Impacts in regards to CO hotspots would be less than significant.

Odors

The Project would facilitate future transportation system improvements and would not result in any new land uses that generate odors. The generation of odors and hazardous air pollutants is generally associated with certain types of industrial and agricultural activities. Therefore, the Project is not expected to result in the generation of odors or hazardous air pollutants. The odor impacts are, therefore, considered less than significant.

Toxic Air Contaminants

Implementation of the proposed Project would not result in the long-term operation of any stationary sources of TACs. The General Plan EIR analyzed the maximum individual cancer risks and determined that health risks could occur from exposure to Diesel Particulate Matter (DPM) at distances beyond 500 feet from the edge of Interstate 205 (I-205) and out to almost 500 feet for Interstate 580 (I-580). The proposed Project does not include specific development projects and assumes the same rate of growth and land uses as the General Plan.

The General Plan includes policies under Objective AQ-1.2 that minimize the impact of potential sources of toxic air contaminants. Policies 11 and 12 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 and other stationary sources. Under Objective AQ-1.2, Policy 13 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, Policy 1 under Objective AQ-1.2 requires that the City assess air quality impacts using the latest version of CEQA Guidelines and those prepared by the SJVAPCD. Future development projects would be subject to the policies and mitigation measures within the General Plan. Therefore, impacts would be less than significant in this regard.

Conclusion

As indicated in the analysis above, development under the TMP would result in exceedances of the SJVAPCD thresholds of significance for ROG, NO_X, and PM_{10} from mobile source emissions. Project impacts to air quality would be reduced through implementation of the efficiency measures identified in the TMP related to Smart Growth, Context-Sensitive design, and Complete Streets. Improved access, pedestrian and bicycle facilities, increased transit, and improved traffic flow inherently reduce mobile source air pollutants. However, the Project impacts on regional air quality would be significant as the Project's emissions would contribute to region-wide emissions that cause exceedances of the state and federal standards.

Mitigation Measure: No feasible mitigation measures are available.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

Plan Consistency

4.2-3 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CONFLICT WITH THE MOST RECENT AIR QUALITY MANAGEMENT PLAN.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Air quality conformity refers to the process whereby transportation plans, programs and projects conform to the requirements of applicable general plans and regional plans. Regional plans that apply to the proposed Project include the SJVAPCD Air Quality Attainment Plans (AQAPs) for ozone and PM_{10}, which are part of the State Implementation Plan (SIP).

The California Clean Air Act (CCAA) requires non-attainment districts with severe to extreme air quality problems to provide for a five percent reduction with non-attainment emissions per year. The AQAPs for ozone and PM_{10} prepared for the Basin by the SJVAPCD fulfills this requirement. Banked emission reduction credits are included in the emissions inventories for the AQAP and provide an additional means to attaining the required five percent reduction in these inventories per year.

Air quality conformity to an implementation plan as required in the CCAA Section 176(c) is defined as: "Conformity to the plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards; and that such activities would not (i) cause or contribute to any new violation of any standard in any area; (ii) increase the frequency or severity of any existing violation of any standard in any area; or (iii) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area." The Air Quality Conformity document adopted July 22, 2010, demonstrates that the federally approved Regional Transportation Plan (RTP) and the Federal Transportation Improvement Program (FTIP) conform to the SIP for controlling air pollution sources.

If a project is found to interfere with the region's ability to comply with federal and state air quality standards, local governments then need to consider project modifications or provide mitigation measures to eliminate the inconsistency of the project plans. In order for a project to be considered "consistent" with the latest AQAP, the project must be consistent with the goals, objectives and assumptions in the respective plan to achieve the federal and state air quality standards. As indicated in Impact 4.2-2, above, the proposed Project would result in exceedances of SJVAPCD thresholds for criteria pollutants. As a result, the proposed Project would be inconsistent with the *2007 Ozone Plan* in this regard.

The City's General Plan provides the foundation for the goals, objectives, policies and actions for the TMP. The proposed Project is intended to enhance the City's General Plan goals, objectives, policies, and actions and would ensure adequate and efficient access for all transportation modes. The TMP brings overlap with policies and goals regarding a "complete streets" policy, context-sensitive design, mode split targets, VMT and per capita reduction goals. The TMP provides further clarification on specific policies and actions to meet the goals and objectives of the City's General Plan. As depicted in Table 4.2-5 (TMP and General Plan Consistency), recommended actions for future transportation planning, design and implementation, supplements each objective and are provided to meet the goals, objectives, and policies. As noted in Table 4.2-5, the proposed TMP is consistent with the City's General Plan.

Table 4.2-5
TMP and General Plan Consistency

General Plan	Transportation Management Plan
Circulation Element	
Goal CIR-1: A roadway system that provides access and mobility for all of Tracy's residents and businesses while maintaining the quality of life in the community.	**Consistent.** The proposed TMP would be consistent with, and help implement Goal CIR-1. Refer to the discussions below.
Objective CIR-1.1: Implement a hierarchical street system in which each street serves a specific, primary function and is sensitive to the context of the land uses served. **Policies P1 through P6:** General Plan Policies P1 through P6, which support Objective CIR-1.1, state that the City should develop context-based street designs, preserve rights-of-way needed for future roadway and interchange improvements, continue to apply traffic mitigation fee programs to fund transportation infrastructure, continue to pursue regional, County and State funding to fund roadway projects, shall continue to participate in regional transportation funding decisions, and identify necessary improvements to various intersections on I-205 and I-580 based on land use designations.	**Consistent.** The TMP recommends the following actions to meet Goal CIR-1, Objective CIR-1.1, and Policies P1 through P6: • Implement a complete streets policy for new and retrofitted roads that ensures that adequate right-of-way is provided to enable safe access for all users (motorists, pedestrians, bicyclists, transit vehicles and users). Include flexibility in the policy to balance the function and users for various roadway classifications. Include amenities such as street lighting, landscaping, and transit stops that contribute to the complete street concept. • Incorporate context sensitive design features to improve mobility for all users. The TMP would be consistent with Goal CIR-1, Objective CIR-1.1, and Policies P1 through P6, as implementing complete streets would result in improved access for all transportation modes. These context-based street designs would vary based upon location and function of the areas within the City. These recommended actions would result in a more efficient transportation system.

Objective CIR-1.2: Provide a high level of street connectivity.
 	
Policies P1 through P6: General Plan Policies P1 through P6, which support Objective CIR-1.2, state that the City shall ensure that the street system results in a high level of connectivity, implement a connected street pattern with multiple route options for vehicles, bikes, and pedestrians, provide vehicular, bicycle, and pedestrian connections in new development, develop residential street alignments and designs that provide connectivity while discouraging highspeed cut-through traffic, design new development with a grid or modified grid pattern to facilitate traffic flows, and minimize grading impacts in hillside areas.
	Consistent. The TMP recommends the following actions to meet Goal CIR-1, Objective CIR-1.2, and Policies P1 through P6:
	
	• Utilize access management techniques to provide appropriate spacing of access points on parkways, arterials, and collectors. Utilize context sensitive design principles from Designing Walkable Urban Thoroughfares: A Context Sensitive Approach (Institute of Transportation Engineers, 2010) such as:
	  • Building network capacity and redundancy through a dense, connected network rather than through an emphasis on high levels of vehicle capacity on individual arterial facilities
	  • Minimizing direct property access onto parkways, arterials through design of a connected network of closely spaced arterial and collector thoroughfares and local street connections.
	  • Providing closer spacing of roadways and shorter blocks for areas with higher pedestrian and bicycle activity.
	  • Provide a well connected road system that encourages walking and cycling and maintains a quality of life for all Tracy residents.
	
	The TMP would be consistent with Goal CIR-1, Objective CIR-1.2, and Policies P1 through P6, as implementing access management techniques would result in improved access for all transportation modes throughout the City. These design principles would result in higher street

	connectivity, and would be applied appropriately to the context of the area.

Objective CIR-1.3: Adopt and enforce LOS standards that provide a high level of mobility and accessibility, for all modes, for residents and workers.
 	
Policies P1 through P10: General Plan Policies P1 through P10, which support Objective CIR-1.3, state that the City shall strive for LOS D on all streets and intersections, allow individual locations to fall below the City's LOS standards in instances where the construction of physical improvements would be infeasible, ensure roadways and freeways conform to the operational service requirements of the applicable agency, determine the LOS of major streets based on an estimation of peak hour conditions using future average daily traffic forecasts, determine the LOS for project-specific development approvals based on the direct estimation of peak hour conditions, allow the preparation of traffic studies for new developments to determine the project's impacts, consider access control and minimization of median openings, and encourage the use of right-turn-in/rightturn-out only turning movements where local and collector streets intersect arterial streets with medians.
	Consistent. The TMP recommends the following actions to meet Goal CIR-1, Objective CIR-1.3, and Policies P1 through P10:
	
	• Identify locations or areas where the LOS can fall below the standard due to infeasible mitigation measures or where improvements would have an adverse impact to pedestrians or bicycles or other users. The following locations are exempt from the City's LOS D standard:
	  • Any intersections or roadways within ¼ mile of any freeway where LOS E is allowed to discourage inter-regional traffic from using City streets.
	  • Any intersections or roadways located in the Downtown and Bowtie area where LOS E shall be allowed.
	  • At intersections where construction of improvements is not feasible, the LOS may fall below the City's LOS C standard.
	  • During construction of intersection improvements, the LOS may temporarily fall below the City's LOS C standard.
	  • The following five intersections are projected to operate at LOS E or F under Horizon Year Conditions (for these locations, these deficient LOS ratings is the LOS standard):
	  • Corral Hollow Road/Eleventh Street (LOS E - AM Peak Hour, LOS F - PM Peak Hour)
	  • Tracy Boulevard/Eleventh Street (LOS F - PM Peak Hour)
	  • Corral Hollow Road/Schulte Road (LOS F - PM Peak Hour)
	  • Tracy Boulevard/Schulte Road (LOS E - PM Peak Hour)
	  • Lammers Road/Commerce Way (LOS E - PM Peak Hour)
	  • Caltrans facilities where Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on all State Highway facilities (i.e., freeway segments, signalized intersections, on- or off-ramps, etc.), however, Caltrans recognizes that it may not always be feasible. For Caltrans intersections, City of Tracy impact criteria applies. For freeway segments, LOS D or better is considered acceptable.
	  • County of San Joaquin facilities where LOS D is the minimum acceptable LOS for roadway and intersection operations.
	  • Develop multi-modal LOS analysis procedures and standards to evaluate other facilities (bicycle, pedestrian, and transit) in addition to roads.
	
	The TMP would be consistent with Goal CIR-1, Objective CIR-1.3, and Policies P1 through P10, as identifying the locations and areas where the LOS or improvements would negatively affect pedestrians and bicycles would allow improvement in mobility and access. This would improve the efficiency and functionality of the City's transportation system and would enhance the quality of life in the community.

Objective CIR-1.4: Protect residential areas from commercial truck traffic. **Policies P1 and P2:** General Plan Policies P1 and P2, which support Objective CIR-1.4, state that significant new truck traffic generating uses shall be limited to locations along designated truck routes, in industrial areas or within ¼-mile of freeways, and that the City shall enforce designated truck routes based on the existing City ordinance.	**Consistent.** The TMP recommends the following action to meet Goal CIR-1, Objective CIR-1.4, and Policies P1 and P2: • Erect signs providing notice of adopted truck routes and enforce the use of designated truck routes except for the purpose of pick-up or delivery of materials or merchandise. Provide the heavy vehicle roadway system to encourage commercial growth. The TMP would be consistent with Goal CIR-1, Objective CIR-1.4, and Policies P1 and P2, as this recommended action would inform the community of designated truck routes. Designated truck routes would also increase mobility throughout the City and improve the quality of life by separating truck traffic from sensitive uses.
Objective CIR-1.5: Protect residential areas from through traffic and high travel speeds by facilitating free flow of traffic on major streets. **Policies P1 and P2:** General Plan Policies P1 and P2, which support Objective CIR-1.5, state that the use of local residential streets by non-local and commercial traffic shall be discouraged, and the City shall coordinate the timing of traffic signals on arterials to facilitate traffic movement.	**Consistent.** The TMP recommends the following action to meet Goal CIR-1, Objective CIR-1.5, and Policies P1 and P2: • Utilize sustainable transportation system operation elements to improve system efficiency. For example, implementation of ITS technologies such as corridor signal timing plans, and traffic signal interconnect can enhance the flow of traffic. The TMP would be consistent with Goal CIR-1, Objective CIR-1.5, and Policies P1 and P2, as implementing this action would result in improved efficiency in the transportation system. An improved transportation system would encourage travel on major streets as opposed to cut-through travel in residential areas. Enhanced traffic flow as a result of this action would increase mobility within the City.
Objective CIR-1.6: Maximize traffic safety for automobile, transit, bicycle users, and pedestrians. **Policies P1 and P2:** General Plan Policies P1 and P2, which support Objective CIR-1.6, state that the City shall design streets using context-sensitive design principles, and that new development shall implement traffic calming measures where necessary.	**Consistent.** The TMP recommends the following action to meet Goal CIR-1, Objective CIR-1.6, and Policies P1 and P2: • Implement traffic calming on residential or collector streets as appropriate in accordance with the city's traffic calming program. Construct roadways to discourage speeding. The TMP would be consistent with Goal CIR-1, Objective CIR-1.6, and Policies P1 and P2, as the implementation of traffic calming measures increases safety for all transportation modes and would, therefore, result in improved quality of life within the community.
Objective CIR-1.7: Minimize traffic-related impacts such as noise and emissions on adjacent land uses. **Policies P1 and P2:** General Plan Policies P1 and P2, which support Objective CIR-1.7, state that appropriate buffers and screening mechanisms shall be incorporated into projects to limit traffic impacts, and soundwalls shall only be used next to major arterials and high-volume facilities.	**Consistent.** The TMP recommends the following actions to meet Goal CIR-1, Objective CIR-1.7, and Policies P1 and P2: • Utilize rubberized asphalt in roadway projects to reduce roadway noise. Implement ITS technologies, such as signal coordination, to manage traffic progression and to lower speeds. • Consider implementation of roundabouts, instead of traffic signals or stop-control, to reduce delays and emissions. The TMP would be consistent with Goal CIR-1, Objective CIR-1.7, and Policies P1 and P2, as implementing these actions would reduce traffic noise and delays. Mobility throughout the City's transportation system would be improved with implementation of these actions.
Objective CIR-1.8: Minimize transportation-related energy use and impacts on the environment.	**Consistent.** The TMP recommends the following actions to meet Goal CIR-1, Objective CIR-1.8, and Policies P1 and P2:

Policies P1 and P2: General Plan Policies P1 and P2, which support Objective CIR-1.8, state that transportation project shall avoid disrupting sensitive environmental resources, and when possible, road construction projects shall use sustainable materials.	• Utilize sustainable materials such as recycled materials, permeable surfaces, non-toxic, and bio-degradable materials for roadway projects. • Utilize LED (light emitting diodes) or solar panels for traffic signals and street lights to lower operating and maintenance costs and to decrease energy consumption. The TMP would be consistent with Goal CIR-1, Objective CIR-1.8, and Policies P1 and P2, as the use of sustainable materials and alternative energy sources for traffic signals and street lights would minimize transportation-related energy use within the City.
Goal 2: Adequate interregional access.	**Consistent.** The proposed TMP would be consistent with, and help implement Goal CIR-2. Refer to the discussions below.
Objective CIR-2.1: Support regional planning and implementation efforts to improve interregional highways and interregional travel efficiency. **Policies P1 through P4:** General Plan Policies P1 through P4, which support Objective CIR-2.1, state that the City shall continue to cooperate with regional and State agencies regarding the transportation system, ensure land needed for park-and-ride facilities is conserved, work with other agencies to develop alternative transportation routes and preserve right-of-way north of the I-205 for a future parallel regional roadway.	**Consistent.** The TMP recommends the following actions to meet Goal CIR-2, Objective CIR-2.1, and Policies P1 through P4: • Coordinate between adjacent municipalities and jurisdictions along arterials, crossing borders and at interchanges with freeways. The TMP would be consistent with Goal CIR-2, Objective CIR-2.1, and Policies P1 through P4, as the recommended action would result in increased coordination between agencies regarding the regional transportation system which would consequently improve regional mobility.
Objective CIR-2.2: Discourage interregional travel from diverting from freeways onto Tracy streets. **Policy P1:** General Plan Policy P1, which supports Objective CIR-2.2, states that the City shall consider techniques such as freeway ramp metering or signal timing changes to discourage inter-regional travel from traveling onto Tracy streets.	**Consistent.** The TMP recommends the following action to meet Goal CIR-2, Objective CIR-2.2, and Policy 1: • In conjunction with actions under Objective Cir-1.5, utilize ITS technologies to manage the flow of traffic onto city streets. The TMP would be consistent with Goal CIR-2, Objective CIR-2.1, and Policy 1, as this recommended action would manage the flow onto City streets and improve access and mobility.
Goal 3: Safe and convenient bicycle and pedestrian travel as alternative modes of transportation in and around the city.	**Consistent.** The proposed TMP would be consistent with, and help implement Goal CIR-3. Refer to the discussions below.
Objective CIR-3.1: Achieve a comprehensive system of citywide bikeways and pedestrian facilities. **Policies P1 through P7:** General Plan Policies P1 through P7, which support Objective CIR-3.1, state that the City shall incorporate bicycle and pedestrian facilities on all roadways, separate vehicular from bicycle and pedestrian traffic where possible, ensure a high level of connectivity within the bicycle and pedestrian e bicycle and pedestrian system, establish a ½ mile walkability standard, require new development to include bicycle and pedestrian facilities, and require new commercial developments to provide bicycle parking and/or storage facilities.	**Consistent.** The TMP recommends the following action to meet Goal CIR-3, Objective CIR-3.1, and Policies P1 through P7: • Provide Class I bike trails on parkways and arterials and Class II bike lanes on collectors. Class III bike routes shall be considered on roadways where sufficient width for a dedicated lane is not provided. • Implement a comprehensive Safe Routes to School Program. • Seek funding opportunities at all levels to implement pedestrian improvements and projects. • Provide pedestrian enhancements at intersections, where feasible. Enhancements include high visibility crosswalks, pedestrian countdown timers, and adequate crossing times, median refuge islands for wide streets, smaller curb radii, and shorter cycle lengths. • Consider preparation of a streetscape plan to define &

	coordinate design elements (street furniture, lighting, landscaping, width of pedestrian path, and buffer zones) when planning a walkable thoroughfare. • Create a pedestrian and bicycle safety action plan to identify steps to reducing the number of pedestrian and bicycle crashes. The plan will present existing deficiencies, identify appropriate improvements to address these deficiencies, and include implementation strategies. This plan should include public education programs to educate pedestrians, bicyclists, and motorists. The TMP would be consistent with Goal CIR-3, Objective CIR-3.1, and Policies P1 through P7, as these recommended actions would result in enhanced pedestrian and bicycle travel throughout the City which would encourage residents to consider alternative transportation modes.
Goal 4: A balanced transportation system that encourages the use of public transit and high occupancy vehicles.	**Consistent.** The proposed TMP would be consistent with, and help implement Goal CIR-4. Refer to the discussions below.
Objective CIR-4.1: Promote public transit as an alternative to the automobile. **Policies P1 through P6:** General Plan Policies P1 through P6, which support Objective CIR-4.1, state that the City shall promote efficient and affordable public transportation, continue to partner with regional agencies regarding transit facilities, continue to operate the Tracey fixed-route and paratransit systems, seek funding for additional transit service expansion, require developments to provide transit-related opportunities, and encourage efforts for additional regional transit service.	**Consistent.** The TMP recommends the following actions to meet Goal CIR-4, Objective CIR-4.1, and Policies P1 through P6: • Utilize sustainable transportation system operation elements to encourage and improve transit usage. For example, implementation of measures such as transit signal priority, queue jump lanes, dedicated bus lanes, and improved shelter facilities will provide faster service, increased rider satisfaction and ridership. • Require new employment centers to participate in trip reducing strategies such as Transportation Demand Management program and to provide incentives for their participation. • Provide transit service/connections to major pedestrian generators such as major employment and retail centers and transit-oriented developments. • Consider changes to the Zoning Ordinance to allow a reduced parking supply that is less than code requirements thus encouraging use of alternative modes of transportation. The TMP would be consistent with Goal CIR-4, Objective CIR-4.1, and Policies P1 through P6, as these recommended actions allow for additional transit opportunities throughout the City which would encourage residents to increase transit ridership.
Objective CIR-4.2: Work to achieve connectivity between all modes of transportation. **Policies P1 through P6:** General Plan Policies P1 through P6, which support Objective CIR-4.2, state that the City shall complete the Multi Modal Transit Center, continue to implement arterial street standards, encourage the expansion of transit services, develop a fully integrated multi-modal transportation system, provide an efficient, effective, and coordinated transit system, and encourage transit use, walking, bicycling, and other	The TMP recommends the following action to meet Goal CIR-4, Objective CIR-4.2, and Policies P1 through P6: • Seek reconstruction opportunities on thoroughfares to provide and improve multi-modal access and circulation. • Measure T-5 of the City's Draft Sustainability Action Plan - February 2011 (SAP) lists several smart growth, urban design and planning measures including amendments to the zoning ordinance to require adequate pedestrian access, closure of sidewalk gaps, establishment of walkability standards, and amendment or creation of subdivision design standards to address spacing and connectivity. These goals must be

non-motorized forms of transportation.	implemented in the development of all specific plans in the city and where roads and intersections are reconstructed. The TMP would be consistent with Goal CIR-4, Objective CIR-4.2, and Policies P1 through P6, as these recommended actions would result in increased transit and alternative transportation options. Multi-modal access would encourage residents to become less dependent on automobile travel.

The Project would not result in new development within the City. However, as previously noted, the Project's VMT anticipated for 2035 exceeds the VMT considered in the General Plan and corresponding General Plan EIR for 2030. As described above, the General Plan does not have a horizon year, but utilized the year 2030 for traffic modeling purposes to be consistent with the SJCOG model. Since completion of the General Plan, SJCOG has updated their planning year to 2035. As a result, the TMP utilizes 2035 to be consistent with the SJCOG traffic forecasts. As concluded in the General Plan EIR, the General Plan would not be consistent with SJVAPCD's *Clean Air Plans.* Furthermore, as discussed within the General Plan EIR, the projected growth within the City would lead to an increase in the region's VMT, beyond what has been identified by the anticipated SJCOG and the SJVAPCD. Therefore, the proposed Project would result in estimated VMT beyond what was anticipated in the General Plan and what has been identified by the SJCOG and SJVAPCD. Impacts associated with plan consistency with the SJVAPCD *Clean Air Plans* would also be considered significant and unavoidable for the proposed Project.

Mitigation Measure: No feasible mitigation measures are available.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

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4.3 GREENHOUSE GAS EMISSIONS

This section evaluates greenhouse gas (GHG) emissions associated with the proposed Project and analyzes Project compliance with applicable regulations. Consideration of the Project's consistency with applicable plans, policies and regulations, as well as the introduction of new sources of GHGs, is included in this section.

4.3.1 ENVIRONMENTAL SETTING

The natural process through which heat is retained in the troposphere is called the "greenhouse effect."[1] The greenhouse effect traps heat in the troposphere through a threefold process as follows: short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit it into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

GLOBAL CLIMATE CHANGE GASES

The most abundant GHGs are water vapor and carbon dioxide (CO_2). Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of GHGs, scientists have established a Global Warming Potential (GWP) for each GHG based on its ability to absorb and re-radiate long wave radiation.

GHGs normally associated with the proposed Project include the following:[2]

- *Water Vapor (H_2O)*. Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively.

  The primary human-related source of water vapor comes from fuel combustion in motor vehicles; however, this is not believed to contribute a significant amount (less than one percent) to atmospheric concentrations of water vapor. The Intergovernmental Panel on Climate Change (IPCC) has not determined a GWP for water vapor.

- *Carbon Dioxide (CO_2)*. Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, the concentration of carbon dioxide in the atmosphere has increased 36 percent.[3] Carbon dioxide is the most widely emitted GHG and is the reference gas (GWP of 1) for determining GWPs for other GHGs.

[1] The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

[2] All GWPs are given as 100 year GWP. Unless noted otherwise, all GWPs were obtained from the Intergovernmental Panel on Climate Change. Climate Change (Intergovernmental Panel on Climate Change, *Climate Change, The Science of Climate Change – Contribution of Working Group I to the Second Assessment Report of the IPCC*, 1996).

[3] U.S. Environmental Protection Agency, *Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2009*, April 2011.

- *Methane (CH_4).* Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the U.S., the top three sources of methane are landfills, natural gas systems and enteric fermentation. Methane is the primary component of natural gas, which is used for space and water heating, steam production and power generation. The GWP of methane is 21.

- *Nitrous Oxide (N_2O).* Nitrous oxide is produced by both natural and human related sources. Primary human related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production and nitric acid production. The GWP of nitrous oxide is 310.

- *Hydrofluorocarbons (HFCs).* HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is growing, as the continued phase out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The GWP of HFCs range from 140 for HFC-152a to 11,700 for HFC-23.[4]

- *Perfluorocarbons (PFCs).* Perfluorocarbons are compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semi conductor manufacturing. Perfluorocarbons are potent GHGs with a GWP several thousand times that of carbon dioxide, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years).[5] The GWP of PFCs range from 6,500 to 9,200.

- *Sulfur hexafluoride (SF_6).* Sulfur hexafluoride is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. Sulfur hexafluoride is the most potent GHG that has been evaluated by the IPCC with a GWP of 23,900. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio compared to carbon dioxide (four parts per trillion [ppt] in 1990 versus 365 parts per million [ppm], respectively).[6]

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric ozone (O_3) depletors; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

- *Hydrochlorofluorocarbons (HCFCs).* HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The U.S. is scheduled to achieve a 100 percent reduction to the cap by 2030. The GWPs of HCFCs range from 93 for HCFC-123 to 2,000 for HCFC-142b.[7]

[4] U.S. Environmental Protection Agency, *High GWP Gases and Climate Change*, June 22, 2010. http://www.epa.gov/highgwp/scientific.html

[5] Ibid.

[6] Ibid.

[7] U.S. Environmental Protection Agency, *Protection of Stratospheric Ozone: Listing of Global Warming Potential for Ozone Depleting Substances*, dated October 29, 2009. http://www.epa.gov/EPA-AIR/1996/January/Day-19/pr-372.html

- *1,1,1 trichloroethane*. 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The GWP of methyl chloroform is 110 times that of carbon dioxide.[8]

- *Chlorofluorocarbons (CFCs)*. CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the EPA's Final Rule (57 FR 3374) for the phase out of O_3 depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs remain suspended in the atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with GWPs ranging from 4,600 for CFC 11 to 14,000 for CFC 13.[9]

4.3.2 REGULATORY SETTING

FEDERAL FRAMEWORK

The Federal Clean Air Act (FCAA) requires the U.S. Environmental Protection Agency (EPA) to define national ambient air quality standards (national standards) to protect public health and welfare in the U.S. The FCAA does not specifically regulate GHG emissions; however, on April 2, 2007, the U.S. Supreme Court in *Massachusetts v. U.S. Environmental Protection Agency*, determined that GHGs are pollutants that can be regulated under the FCAA. The EPA adopted an endangerment finding and cause or contribute finding for GHGs on December 7, 2009. The final rule was effective January 14, 2010.

Under the endangerment finding, the EPA Administrator found that the current and projected atmospheric concentrations of the six key GHGs (CO_2, CH_4, N_2O, HFCs, PFCs and SF_6) threaten the public health and welfare of current and future generations. Under the cause of contribute finding, the EPA Administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

Based on these findings, on April 1, 2010, the EPA finalized the light-duty vehicle rule controlling GHG emissions. This rule confirmed that January 2, 2011, is the earliest date that a 2012 model year vehicle meeting these rule requirements may be sold in the U.S. On May 13, 2010, the EPA issued the final GHG Tailoring Rule. This rule set thresholds for GHG emissions that define when permits under the Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. Implementation of the Federal rules is expected to reduce the level of emissions from new motor vehicles and large stationary sources.

STATE FRAMEWORK

Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is occurring, and that there is a real potential for severe adverse environmental, social and economic effects in the long term. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

[8] Ibid.
[9] U.S. Environmental Protection Agency, *Class I Ozone Depleting Substances*, August 19, 2010. http://www.epa.gov/ozone/ods.html

There are currently no state regulations in California that establish ambient air quality standards for GHGs. However, California has passed laws directing the California Air Resources Board (CARB) to develop actions to reduce GHG emissions, and several state legislative actions related to climate change and GHG emissions have come into play in the past decade.

Assembly Bill 1493 (AB 1493). AB 1493 required CARB to develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State."

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR Section 1900, 1961), and adoption of Section 1961.1 (13 CCR Section 1961.1), require automobile manufacturers, beginning with the 2009 model year, to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily for the transportation of persons). The regulations would reduce GHG emissions from California passenger vehicles by about 22 percent by 2012 and about 30 percent by 2016.[10]

In December 2004, a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against CARB to prevent enforcement of 13 CCR Sections 1900 and 1961, as amended by AB 1493 and 13 CCR 1961.1 (*Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in Her Official Capacity as Executive Director of the California Air Resources Board, et al*. [456 F.Supp.2d 1150, 1172, E.D. Cal. 2006]). The suit in the U.S. District Court for the Eastern District of California contended that California's implementation of regulations that regulate vehicle fuel economy would violate various federal laws, regulations, and policies.

In January 2007, the judge hearing the case accepted a request from the California Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the U.S. Supreme Court case, *Massachusetts v. U.S. Environmental Protection Agency*, the primary issue in question was whether the FCAA authorizes the EPA to regulate CO_2 emissions. The EPA contended that the FCAA does not authorize regulation of CO_2 emissions, whereas Massachusetts and ten other states, including California, sued the EPA to begin regulating CO_2. As mentioned above, the U.S. Supreme Court ruled on April 2, 2007, that GHGs are "air pollutants" as defined under the FCAA and that the EPA is granted authority to regulate CO_2 (*Massachusetts v. U.S. Environmental Protection Agency* [2007] 549 U.S. 05-1120).

On December 12, 2007, the U.S. District Court for the Eastern District of California rejected the automakers' claim by finding that if California receives appropriate authorization from the EPA (the last remaining factor in enforcing the standard), these regulations would be consistent with and have the force of federal law. This authorization to implement more stringent standards in California was requested in the form of a FCAA Section 209(b) waiver in 2005. Since that time, the EPA has failed to act in granting California authorization to implement the standards. California filed a suit against the EPA for the delay. The EPA denied California's request for the waiver to implement AB 1493 in late December 2007. California filed a suit against the EPA for its decision to deny the FCAA waiver. On January 21, 2009,

[10] California Air Resources Board, *Fact Sheet, Climate Change Emission Control Regulations*, http://www.arb.ca.gov/cc/ccms/factsheets/cc_newfs.pdf, accessed on September 21, 2010.

CARB submitted a letter to EPA Administrator Jackson regarding California's request to reconsider the waiver denial. [11] The EPA approved the waiver on June 30, 2009.[12]

Assembly Bill 32 (AB 32). California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished by enforcing a statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state reduces GHG emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions to ensure that businesses and consumers are not unfairly affected by the reductions. Using these criteria to reduce statewide GHG emissions to 1990 levels by 2020 would represent an approximate 25 to 30 percent reduction in current emissions levels. However, CARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels
- By 2020, reduce GHG emissions to 1990 levels
- By 2050, reduce GHG emissions to 80 percent below 1990 levels

The executive order directed the secretary of the Cal/EPA to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through state incentive and regulatory programs.

Executive Order S-1-07. Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least ten percent by 2020. This order also directs CARB to determine whether this Low Carbon Fuel Standard

[11] California Air Resources Board, http://www.arb.ca.gov/newsrel/arbwaiverrequest.pdf, accessed on September 21, 2010.

[12] U.S. Environmental Protection Agency, http://www.epa.gov/otaq/climate/ca-waiver.htm, accessed on September 21, 2010.

(LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009, CARB approved the proposed regulation to implement the LCFS. The LCFS will reduce GHG emissions from the transportation sector in California by about 16 million metric tons (MMT) in 2020. The LCFS is designed to reduce California's dependence on petroleum, create a lasting market for clean transportation technology, and stimulate the production and use of alternative, low-carbon fuels in California. The LCFS is designed to provide a durable framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. One standard is established for gasoline and the alternative fuels that can replace it. A second similar standard is set for diesel fuel and its replacements.

The standards are "back-loaded"; that is, there are more reductions required in the last five years, than the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the LCFS will be based on a combination of strategies involving lower carbon fuels and more efficient, advanced-technology vehicles.

Senate Bill 1368 (SB 1368). SB 1368 required the California Public Utilities Commission (CPUC) to establish a performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007. SB 1368 also required California Energy Commission (CEC) to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the GHG emissions rate from a baseload combined-cycle, natural gas–fired plant. Furthermore, the legislation states that all electricity provided to California, including imported electricity, must be generated by plants that meet the standards set by CPUC and CEC.

Senate Bill 97 (SB 97). SB 97, signed August 2007 (Chapter 185, Statutes of 2007; PRC Sections 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the Governor's Office of Planning and Research (OPR), which is part of the state Resources Agency, to prepare, develop and transmit to CARB guidelines for the feasible mitigation of GHG emissions (or the effects of GHG emissions). SB 97 also removes, both retroactively and prospectively, the legitimacy of litigation alleging inadequate CEQA analysis of effects of GHG emissions in the environmental review of projects funded by the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006 or the Disaster Preparedness and Flood Protection Bond Act of 2006 (Proposition 1B or 1E). This provision was repealed by operation of law on January 1, 2010; at that time, any such projects that remain unapproved will no longer be protected against litigation claims of failure to adequately address climate change issues. In the future, this bill will only protect a handful of public agencies from CEQA challenges on certain types of projects, and only for a few years time.

As set forth more fully below, in June 2008, OPR published a technical advisory recommending that CEQA lead agencies make a good-faith effort to estimate the quantity of GHG emissions that would be generated by a proposed project. Specifically, based on available information, CEQA lead agencies should estimate the emissions associated with project-related vehicular traffic, energy consumption, water usage, and construction activities to determine whether project-level or cumulative impacts could occur, and should mitigate the impacts where feasible.[13] OPR requested CARB technical staff to recommend a method for setting CEQA thresholds of significance as described in Section 15064.7 of the *CEQA*

[13] Governor's Office of Planning and Research (OPR), *CEQA AND CLIMATE CHANGE: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, June 19, 2008.

Guidelines that will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state.

On December 30, 2009, the Resources Agency adopted the *CEQA Guidelines* Amendments prepared by OPR, as directed by SB 97. On February 16, 2010, the Office of Administration Law approved the *CEQA Guidelines* Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The *CEQA Guidelines* Amendments became effective on March 18, 2010.

Senate Bills 1078 and 107 and Executive Order S-14-08. SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. Executive Order S-14-08 was November 2008 and expands the state's Renewable Energy Standard to 33 percent renewable power by 2020.[14] Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the state come from renewable energy by 2020. CARB adopted the "Renewable Electricity Standard" on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Senate Bill 375 (SB 375). SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding programmed after January 1, 2012.

This law also extends the minimum time period for the regional housing needs allocation cycle from five years to eight years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

CARB Scoping Plan

On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations.[15] CARB's Scoping Plan contains the main strategies California will implement to reduce carbon dioxide equivalent (CO_2eq[16]) emissions by 174 million metric tons (MMT), or approximately 30 percent, from the state's projected 2020 emissions level of 596 MMT of CO_2eq under a business as usual (BAU)[17] scenario

[14] Office of the Governor, *Press Release: Governor Schwarzenegger Advances State's Renewable Energy Development*, http://gov.ca.gov/press-release/11073/, accessed on September 21, 2010.

[15] California Air Resources Board, *Climate Change Scoping Plan, A Framework for Change*, December 2008.

[16] Carbon Dioxide Equivalent (CO_2eq) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

[17] "Business as Usual" refers to emissions that would be expected to occur in the absence of GHG reductions. See http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Note that there is significant controversy as to what BAU means. In

(This is a reduction of 42 MMT CO_2eq, or almost ten percent, from 2002 to 2004 average emissions, but requires the reductions in the face of population and economic growth through 2020).

CARB's Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. At the time CARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in CARB's Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32.

In *Association of Irritated Residents, et al. v. California Air Resources Board, et al.*, the Superior Court of California for the County of San Francisco (Superior Court) issued a Final Order on May 20, 2011 that prevents CARB from implementing a statewide GHG regulatory program. Although the court upheld the impact analysis contained in the environmental document for the Scoping Plan, the court found that the analysis of project alternatives was not sufficient for informed decision-making and public review under CEQA. The court found that CARB violated CEQA by failing to fully evaluate possible alternatives to the measures described in the Scoping Plan, and focused specifically on the cap and trade program. The court noted that CEQA requires that CARB undertake a similar analysis of the impacts of each alternative so that the public may know not only why cap and trade was chosen, but also why the alternatives were not.

It should be noted that the Superior Court held in the favor of CARB on all substantive challenges to the State's compliance with AB 32 mandates. The Court stated that "as the agency with technical expertise and the responsibility for the protection of California's air resources, CARB has substantial discretion to determine the mix of measures needed to 'facilitate' the achievement of GHG reductions."[18]

On June 1, 2011, CARB filed a notice of appeal with the Court of Appeal, First Appellate District and followed up its appeal with a Petition for a Writ of Supersedeas, asking the First Appellate District to stay the Superior Court's decision. CARB's intent was to clarify the scope of the order, which enjoins CARB's implementation of all measures in the Scoping Plan, including programs like improved energy efficiency, clean car standards, and low-carbon fuel regulations. The First Appellate District granted CARB's Petition for Writ of Supersedeas, staying the Superior Court's injunction and allowing CARB to move forward with Scoping Plan implementation until the Court of Appeal renders a decision or issues another order. As a result of the lawsuit, CARB has adjusted the implementation schedule for the cap and trade program and compliance obligations have been pushed back.

CARB also released a *Supplement to the AB 32 Scoping Plan Functional Equivalent Document* on June 13, 2011, which is designed to address the CEQA flaws first identified by Superior Court. The Supplement provides an expanded analysis of the five alternatives to the Scoping Plan, including a no project alternative, a variation of the proposed combination of reduction measures proposed in the Scoping Plan, and three alternatives based on specific programs including cap-and-trade, source-specific regulatory requirements, and a carbon fee or tax.

determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.

[18] Superior Court of California, County of San Francisco, *Statement of Decision: Association of Irritated Residents, et al v. California Air Resources Board*, March 18, 2011.

LOCAL FRAMEWORK

City of Tracy Sustainability Action Plan

On February 1, 2011, the City adopted a Sustainability Action Plan (SAP) in response to AB 32. Consistent with the recommendations of the CARB Scoping Plan, the City's SAP establishes a GHG reduction goal of 29 percent of community and municipal GHG emissions from 2020 BAU projected levels. To achieve the reduction goal, the SAP provides various goals and best practices that focus on energy, transportation and land use, solid waste, water use, agriculture and open space, biological resources, air quality, public health, and economic development. The SAP reduction targets are based on the following objectives:

- 20 percent increase in the percentage of City employees who participate in travel demand management programs from 2006 levels.
- 20 percent increase in the percentage of non-City employees who participate in travel demand management programs from 2006 levels.
- 20 percent reduction in the municipal VMT from 2006 levels.
- 20 percent reduction in the community VMT per capita from 2006 levels.

To make sure objectives are reached, the action plan measures were established from ideas that were developed during community workshops. Some of the ideas that are applicable to transportation planning are:

- Installing parking, shower and dressing facilities, and creating a bicycle sharing program to promote bicycle usage;
- Increasing transit route coverage to be within ½ mile of all residents and ¼ mile of 75 percent of residents in new developments;
- Filling the gaps in sidewalks along key pedestrian routes; and
- Develop a bottleneck improvement program to execute improvements along the City's key corridors.

4.3.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

CEQA Thresholds

According to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant adverse environmental impact if it causes one or more of the following to occur:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs

San Joaquin Valley Air Pollution Control District Thresholds

Under CEQA, the SJVAPCD is an expert commenting agency on air quality and GHG emissions within its jurisdiction or impacting its jurisdiction. The SJVAPCD adopted the *Climate Change Action Plan* in

August 2008. The *Climate Change Action Plan* was developed to assist local land use agencies and businesses in complying with state requirements.

In December 2009, the SJVAPCD adopted their *Guidance for Valley Land-Use Agencies in Addressing GHG Emissions Impacts for New Projects Under CEQA* (GHG Guidance) to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the San Joaquin Valley Air Basin. This document provides SJVAPCD-recommended procedures for evaluating potential air quality and GHG impacts during the environmental review process consistent with CEQA requirements. The SJVAPCD GHG Guidance establishes standards that require projects to reduce their GHG emissions by at least 29 percent from BAU levels, through the application of Best Performance Standards (BPS) or other mitigation measures, to achieve a less than cumulatively significant impact under CEQA. To have a less than significant individual and cumulative impact on global climate change, projects must be determined to have reduced or mitigated GHG emissions by 29 percent, consistent with the GHG emission reduction targets established in CARB's AB 32 Scoping Plan.

Process for Evaluating GHG Significance

- Projects determined to be exempt from the requirements of CEQA would have a less than significant individual and cumulative impact for GHG emissions and would not require further environmental review, including analysis of project-specific GHG emissions. Projects exempt under CEQA would be evaluated consistent with established rules and regulations governing project approval and would not be required to implement BPS.
- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS.
- Projects implementing BPS would not require quantification of project-specific GHG emissions. Consistent with *CEQA Guidelines*, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.
- Projects not implementing BPS would require quantification of project-specific GHG emissions and demonstration that project-specific GHG emissions would be reduced or mitigated by at least 29 percent, including GHG emission reductions achieved since the 2002-2004 baseline period. Projects achieving at least a 29 percent GHG emission reduction would be determined to have a less than significant individual and cumulative impact for GHG.
- Notwithstanding any of the above provisions, projects requiring the preparation of an EIR for any other reason would require quantification of project-specific GHG emissions. Projects implementing BPS or achieving at least a 29 percent GHG emission reduction would be determined to have a less than significant individual and cumulative impact for GHG.

The use of BPS streamlines the significance determination process by pre-quantifying the emission reductions that would be achieved by a specific GHG emission reduction measure and pre-approving the use of such a measure to reduce project-related GHG emissions. Establishing BPS also streamlines the CEQA review process by providing project proponents, lead agencies and the public with clear guidance on how to reduce GHG emissions impacts. Thus, project proponents would be able to incorporate project-specific GHG reduction measures during the initial project design phase, which could reduce project-specific GHG impacts to less than significant levels.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Greenhouse Gas Emissions Impacts

4.3-1 GREENHOUSE GAS EMISSIONS GENERATED BY THE PROPOSED PROJECT WOULD HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

In addition to proposing Smart Growth, Context-Sensitive Design, and Complete Streets guidelines, strategies, principles, and design elements, the City of Tracy Transportation Master Plan (TMP) builds upon the goals and objectives contained in the Circulation Element of the General Plan and the City's Sustainability Action Plan (SAP). The TMP includes an additional five years of growth past the year identified by the General Plan to provide the maximum possible infrastructure planning and to be consistent with the San Joaquin Council of Governments (SJCOG) travel demand model. Direct Project-related GHG emissions include emissions from area sources and mobile sources. Table 4.3-1 (Greenhouse Gas Emissions) presents the estimated CO_2, N_2O and CH_4 emissions associated with General Plan and TMP.

Mobile source emissions resulting from Project implementation were quantified using EMFAC 2007 and the vehicle miles traveled (VMT) associated with the TMP. Emissions resulting from operation of land uses in the SOI area studied in the TMP, including Future Service Areas, were quantified using the California Emissions Estimator Model (CalEEMod). Land use assumptions are based on Table 3-1 in Section 3.0 (Project Description). Note that neither the 2030 nor the TMP 2035 forecasts represent full build-out of all the development capacity in the General Plan, but rather the residential and non-residential growth that is expected under the growth management ordinance (for residential uses) and based on market trends (for non-residential uses). The CalEEMod computer model outputs contained within the Appendix B (Air Quality and Greenhouse Gas Emissions Data) outline the assumptions used to calculate mobile source and area source GHG emissions. Operational GHG estimations are based on energy emissions from natural gas usage, water transport, as well as automobile emissions. Total GHG emissions during operations of the 2035 TMP would be 2,881,730.04 $MTCO_2eq$/year. The net increase of Project-related GHG emissions over existing conditions would total 1,516,238.56 $MTCO_2eq$/year, an increase of approximately 11 percent.

Table 4.3-1
Greenhouse Gas Emissions

Source	CO_2 Metric Tons/year	N_2O Metric Tons of CO_2eq[3]	CH_4 Metric Tons of CO_2eq[3]	Total Metric Tons of CO_2eq
EXISTING GHG EMISSIONS				
Direct Emissions				
▪ Area Source[1]	74,243.95	198.40	3,860.85	78,302.69
▪ Mobile Source[2]	857,924.96	54,744.64	1,082.04	913,751.65
Total Direct Emissions[5]	932,168.91	54,943.04	4,942.89	992,054.34
Indirect Emissions				
▪ Electricity Consumption[1]	158,170.46	861.80	118.86	159,151.27
▪ Water[1]	90,021.16	13,568.70	35,853.09	139,443.96
▪ Waste[1]	33,395.70	0.00	41,446.23	74,841.91
Total Indirect Emissions[4]	281,587.32	14,430.50	77,418.18	373,437.14
Total Existing Emissions	***1,213,756.23***	***69,373.54***	***82,361.07***	***1,365,491.48***
GENERAL PLAN 2030 GHG EMISSIONS				
Direct Emissions				
▪ Area Source[1]	91,711.27	288.30	4,020.03	96,018.80
▪ Mobile Source[2]	1,285,392.52	22,744.44	587.39	1,308,724.35
Total Direct Emissions[5]	1,377,103.79	23,032.74	4,607.42	1,404,743.15
Indirect Emissions				
▪ Electricity Consumption[1]	270,180.14	1,469.40	206.85	217.856.80
▪ Water[1]	178,333.29	26,976.20	71,282.19	276,591.26
▪ Waste[1]	64,248.10	0.00	79,735.95	143,984.14
Total Indirect Emissions[4]	512,761.53	28,445.60	151,224.99	692,432.20
Total General Plan 2030 Emissions	***1,889,865.32***	***51,478.34***	***155,832.41***	***2,097,175.35***
TRANSPORTATION MASTER PLAN 2035 GHG EMISSIONS				
Direct Emissions				
▪ Area Source[1]	92,265.36	300.70	3,869.67	96,434.27
▪ Mobile Source[2]	1,856,545.31	32,850.72	848.40	1,890,244.43
Total Direct Emissions[5]	1,948,810.67	33,151.42	4,718.07	1,986,678.70
Indirect Emissions				
▪ Electricity Consumption[1]	318,017.15	1,726.70	247.38	319,991.98
▪ Water[1]	246,070.63	37,317.80	98,621.46	382,010.82
▪ Waste[1]	86,141.45	0.00	106,907.01	193,048.54
Total Indirect Emissions[4]	650,229.23	39,044.50	205,775.85	895,051.34
Total Transportation Master Plan Emissions	***2,599,039.90***	***72,195.92***	***210,493.92***	***2,881,730.04***
TOTAL NET GHG EMISSIONS (2035 Emissions Beyond Existing Conditions)	***1,385,283.67***	***2,822.38***	***128,132.85***	***1,516,238.56***

Notes:
1. Emissions calculated using CalEEMod computer model. Land use assumptions are based on Table 3-1 in Section 3.0 (Project Description).
2. Mobile source emissions are based on EMFAC2007 modeling results, and trip rate/vehicle miles traveled data provided in the *Citywide Roadway Transportation Master Plan* (dated February 2012).
3. CO_2 Equivalent values calculated using the U.S. Environmental Protection Agency Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/cleanenergy/energy-resources/calculator.html, accessed December 2010.
4. Totals may be slightly off due to rounding.

Refer to Appendix B (Air Quality and Greenhouse Gas Emissions Data), for detailed model input/output data.

Conclusion

As shown in Table 4.3-1, total Project-related emissions would be 2,881,730.04 $MTCO_2eq$/year. It should be noted that the proposed Project would achieve a reduction in trips with implementation of the TMP and SAP transportation measures. Emissions reductions from TMP trip reduction features and implementation of the SAP Strategies include efficiency measures related to Smart Growth, Context-Sensitive design, and Complete Streets. Improved access, pedestrian and bicycle facilities, increased transit, and improved traffic flow inherently reduce mobile source emissions. The TMP describes future roadway conditions within the City and recommended improvements to accommodate future growth. The TMP also includes recommended actions to support the goals and objectives of the General Plan's Circulation Element and recommended transportation strategies, principles, and design elements intended to meet sustainability and GHG emission reduction goals.

The TMP traffic forecasts were developed by adjusting the General Plan 2030 development assumptions to represent reasonable expectations for development by the year 2035 (Horizon Year). City of Tracy staff developed the land use assumptions by allocating growth to various areas in the City identified by the General Plan based on a combination of considerations, including how advanced each area is in the entitlement process; existing or expected conditions of approval; and, anticipated environmental or jurisdictional constraints.

Compared to the 2030 General Plan, the amount of projected housing and employment opportunities increase under the land use assumptions developed for the TMP year 2035 and build-out scenarios. This increase is due to the temporal increase between the two scenarios. As indicated in Section 3.0 (Project Description), during the 2035 year scenario, housing increases by approximately 1,600 units compared to the General Plan 2030 land use assumptions, and the number of jobs increases by approximately 15,600. The TMP anticipates a greater increase of jobs than housing units based on the allocation of projected growth based on the City's growth management ordinance (for residential uses) and based on market trends (for non-residential uses). The increase in jobs anticipated under the TMP 2035 scenario is a result of the sustainability goals of the TMP and would achieve an increased jobs/housing balance. The jobs/housing balance would support of a diverse range of business activities, incentives to attract new businesses and industries, and increased development in the City.

Table 3.7 (Trip Reductions Due to SAP Measures – Horizon Year) of the TMP indicates that the SAP measures that would be implemented through the TMP would result in a 5.8 percent trip reduction in the Future Development Areas, and a 4.4 percent trip reduction Citywide; also refer to Table 3-3 in Section 3.0 (Project Description). Implementation of the SAP measures would balance land uses within the City by promoting more efficient future land use patterns as well as implementing complete streets smart growth design elements.

As discussed in the General Plan EIR, implementation of the SAP would achieve a 22 to 28 percent reduction in GHG emissions from BAU conditions throughout the City. The SJVAPCD requires a 29 percent reduction from BAU projected emissions for GHG impacts to be considered less than significant. As the SAP would not achieve the SJVAPCD reduction requirement, the City's General Plan EIR determined that GHG emissions reductions would be significant and unavoidable and a Statement of Overriding Considerations was adopted. The CEQA analysis for the proposed Project tiers off of the General Plan EIR pursuant to CEQA Guidelines Sections 15148 and 15150 and incorporates it by reference. However, the TMP projects growth to the year 2035, an additional five years past the growth projection year identified by the General Plan for Traffic and Circulation[19]. The TMP includes an

[19] The General Plan only has a "horizon year" for Traffic and Circulation; all other elements of the General Plan do not expire.

additional five years of growth beyond the General Plan horizon year to establish consistency with the most recent San Joaquin Council of Governments (SJCOG) land use development assumptions, employment forecasts, and travel demand model. Consequently, the VMTs associated with the TMP exceed those forecast for the 2030 General Plan analysis. The General Plan EIR indicated that all feasible mitigation measures for GHG emissions were included in the General Plan and SAP. No additional measures beyond those found in the SAP have been found feasible to reduce GHG emissions associated with the proposed Project. The General Plan EIR determined that GHG emissions under the SAP would not meet SJVAPCD criteria, and impacts would be significant and unavoidable. As the proposed Project contemplates growth beyond what was modeled in the General Plan, and the Project would result in greater impacts than those identified in the General Plan EIR, impacts associated with the proposed Project would be significant and unavoidable.

Mitigation Measure: No feasible mitigation beyond measures included in the General Plan, Sustainability Action Plan, and Transportation Master Plan are available.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

Consistency with Applicable GHG Plans, Policies, or Regulations

4.3-2 IMPLEMENTATION OF THE PROPOSED PROJECT WOULD NOT CONFLICT WITH AN APPLICABLE GREENHOUSE GAS REDUCTION PLAN, POLICY OR REGULATION.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

The City SAP establishes a GHG emission reduction target that is based on SJVACPD threshold of a 29 percent reduction from BAU emissions. The City's target was also developed following a review of sustainability targets set by other entities, such as the Attorney General's Office, and have been refined iteratively and concurrently with the sustainability measures.

The City has developed a variety of policies and measures as part of the SAP that are intended to meet applicable policies and regulations to reduce GHG emissions. The SAP includes 39 measures in the energy, transportation and land use, solid waste and water sectors that would reduce GHG emissions. The City General Plan also includes various policies that are applicable to the proposed Project. For example, the following describes the relevant policies that would reduce GHG emissions:

- The Community Character Element policies encourage the development of urban green spaces, promote the incorporation of pedestrian and bicycle access into site design, and discourage new strip commercial development.
- The Economic Development Element includes policies encouraging green businesses, local procurement of green products, and employment opportunities that reduce the need for vehicle trips.
- The Circulation Element provides policies to encourage the use of non-motorized transportation, transit, and low-emission vehicles; avoid disrupting sensitive environmental resources during transportation projects; and use sustainable materials in road construction and repair projects.

- The Open Space and Conservation Element incorporates resource conservation through construction and development practices, expanding the urban forest, and using water efficient landscaping techniques.
- The Public Facilities Element includes policies that require standards to reduce water and wastewater treatment demand in new development and redevelopment.
- The Air Quality Element policies encourage green building standards for new development, encourage solar panels on new development, encourage use of light emitting diodes (LED) for outdoor lighting, and reduce GHG emissions from municipal operations and new development.

Consistent with the SAP, the TMP includes policies and measures to increase transit usage and opportunities, to improving traffic flow in the city, to support development of new bicycle and pedestrian facilities, and other land use policies.

The General Plan and SAP measures would increase the percentage of jobs in Tracy that are filled by residents of Tracy to 72 percent, an increase of 32 percent from the conditions in 2000.[20] According to the General Plan EIR, this increase in worker capture would significantly decrease commute trips for Tracy residents, a major component of Tracy's GHG emissions inventory. As described above, the TMP builds upon the goals and objectives in the General Plan and SAP, and anticipates additional jobs beyond the General Plan 2030 horizon. It should be noted that the number of added jobs anticipated in 2035 outweigh the number of anticipated dwelling units by approximately 10 to 1. This would further contribute to a jobs/housing balance within the City, thereby building upon the General Plan.

In total, the General Plan and SAP would reduce 2020 BAU GHG emissions by between 382,422 and 486,115 $MTCO_2eq$. As indicated in the General Plan EIR, an additional reduction of between 21,086 and 124,779 $MTCO_2eq$ is needed in order to fully achieve a 29 percent reduction from BAU projected emissions. As part of the process to develop the General Plan and SAP, many potential measures were considered. Some of the potential measures were not included in the SAP due to the lack of data or examples and political and/or economic constraints. As the remaining reductions are needed in order to reach the GHG target, the General Plan EIR determined that GHG emissions reductions would not achieve the SJVAPCD threshold of 29 percent. The proposed Project would be consistent with SAP as it builds upon the goals and objectives contained in the Circulation Element of the General Plan and the SAP by proposing Smart Growth, Context-Sensitive design, and Complete Streets guidelines, strategies, principles, and design elements. As the proposed Project would be consistent with the City's SAP, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

[20] City of Tracy, *General Plan Draft Recirculated Supplemental EIR*, February 1, 2011.

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5.0 GROWTH INDUCING AND CUMULATIVE IMPACTS

5.1 GROWTH INDUCING IMPACTS

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) evaluate the "growth-inducing" effects of a proposed project. According to Section 15126.2(d) of the *CEQA Guidelines*, growth-inducing effects include:

- Fostering economic or population growth, or the construction of additional housing;
- Removing obstacles to population growth;
- Taxing existing community services or facilities, requiring the construction of new facilities that could cause significant environmental effects; and,
- Encouraging and facilitating other activities that could significantly affect the environment, either individually or cumulatively.

A project can directly or indirectly induce growth. Construction of new housing would directly induce growth. However, if a project creates substantial new permanent employment opportunities, it could indirectly induce growth by stimulating the need for additional housing and services to support the new employment demand. It could also indirectly induce growth by removing infrastructure limitations or regulatory constraints on a required public service, such as roads or water service.

Section 15126.2(d) also states that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment. However, it should be noted that growth can be detrimental if it is not consistent with land use plans and growth management policies established to ensure orderly growth and development that is supported by adequate public services. Should a proposed project induce growth beyond planned levels or rates or exceed reliable population projections, it could indirectly cause additional adverse impacts on the environment and public services beyond those identified, mitigated, or acknowledged in local planning documents. Therefore, this growth inducement analysis evaluates the consistency of the growth caused or induced by the proposed Project (Citywide Transportation Master Plan [TMP]) with the growth envisioned for the City of Tracy (City) in the City of Tracy General Plan (General Plan).

It should be noted that the Project identifies improvements and expansions to the City's existing transportation system that are necessary to accommodate future growth anticipated by the General Plan up to the year 2035. The General Plan 2030 development assumptions were adjusted to represent reasonable expectations for development by the year 2035. The TMP includes an additional five years of growth beyond the General Plan horizon year to establish consistency with the most recent San Joaquin Council of Governments (SJCOG) land use development assumptions, employment forecasts, and travel demand model. In addition, establishing consistency with the SJCOG model makes it possible to consistently identify improvements that are uniform between the regional agencies that are responsible for freeways, Congestion Management Agency (CMA) roads, local roads, and transit services.

The improvements and expansions proposed by the TMP would not serve the full build-out of all the development capacity in the General Plan, but rather the residential and non-residential growth that is expected under the Growth Management Ordinance[1] (GMO) (for residential uses) and based on market trends (for non-residential uses) up to the year 2035. The proposed improvements would facilitate the provision of adequate and efficient access to the City transportation system for all user groups and maintain the quality of life in the City up to the year 2035.

5.1.1 FOSTER ECONOMIC GROWTH

The TMP identifies improvements and expansions to the City's existing transportation system, which would generate temporary construction-related jobs. However, the Project does not propose to add any new, long-term employment opportunities in the City beyond what is established in the General Plan. Thus, the Project would have a temporary, direct growth inducing effect on employment in the City, but it would not foster long-term economic growth beyond that identified in the General Plan. The TMP would facilitate the provision of an adequate and efficient transportation system that maintains the quality of life in the City. However, it is unlikely that this would attract new businesses and result in an indirect generation of new employment opportunities beyond that identified in the General Plan. Nonetheless, an efficient transportation system would facilitate the movement of goods, which could indirectly foster economic growth.

5.1.2 POPULATION AND HOUSING GROWTH

No housing is proposed as part of this Project; and, therefore Project implementation would not directly induce population growth. As described above, projects that do not directly induce population growth still have the potential to result in indirect population growth through the creation of jobs or the extension of infrastructure into areas that were not previously served. The construction of improvements identified by the TMP would create temporary construction-related jobs, but these jobs are not likely to generate population or housing growth. The TMP identifies road extension into areas planned for growth by the General Plan.

5.1.3 REMOVE OBSTACLES TO GROWTH

The TMP identifies improvements and expansions to the City's transportation system. The increase in infrastructure capacity facilitated by the TMP would serve residential growth expected under the City's General Plan and limited by the GMO and non-residential growth based on market trends, and would also provide an adequate and efficient transportation system that maintains the quality of life in the City and consistency between the regional agencies that are responsible for freeways, CMA roads, local roads, and transit services. Thus, while the TMP identifies improvements and expansions that would increase infrastructure capacity, this would be necessary to serve previously identified growth, to maintain the quality of life in the City, and to ensure consistency between the City's transportation model and the SJCOG regional model.

[1] The City adopted a residential Growth Management Ordinance (GMO) in 1987. 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. Residential growth under the General Plan will be limited by the GMO. In 2012, the GMO will allow for at least 219 building permits, possibly more, based on the permit activity between 2009 and 2012. Between 2013 and 2025, 600 building permits per year (on average) will be allowed under the GMO. Thus, between the years 2008 and 2025, the number of residential units allowed under the City's GMO is 8,419 units

5.1.4 TAX EXISTING COMMUNITY SERVICES OR FACILITIES

Substantial increases in population growth may tax existing community services and facilities, thus requiring the construction of new facilities that could cause significant environmental effects. The construction of new facilities may also result in the need to expand service capacity, which would then allow future population growth. The proposed Project recommends improvements and expansion to the City's existing transportation system to provide an adequate and efficient transportation system that maintains the quality of life in the City and maintains consistency between the regional agencies that are responsible for freeways, CMA roads, local roads, and transit services. The proposed Project would serve growth identified by the General Plan, plus an additional five years beyond what was modeled in the General Plan EIR for Traffic and Circulation. While the service capacity of the City's transportation system would increase, the increase would not result in future population growth that could substantially tax existing public services and facilities, as this growth would be constrained by the City's GMO. Moreover, the improvements and expansions recommended by the TMP would not tax the City's transportation system, but rather would facilitate the provision of an adequate and efficient transportation system that maintains the quality of life in the City.

5.2 CUMULATIVE IMPACTS

Section 15130 of the *CEQA Guidelines* requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Where the incremental effect of a project is not "cumulatively considerable," a lead agency need not consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. A cumulative impact is created as a result of the combination of the project evaluated in the EIR together with other reasonably foreseeable projects causing related impacts.

Unless otherwise specified, the cumulative setting is the City Planning Area, which includes the City, its Sphere of Influence (SOI), and the surrounding Planning Area. Under CEQA, the discussion of cumulative impacts should focus on the severity of the impacts and the likelihood of their occurrence. This cumulative scenario includes all development envisioned through 2030, with a development pattern consistent with the "Preferred" alternative of the City General Plan EIR, plus an additional five years of growth to establish consistency with the with the most recent SJCOG land use development assumptions, employment forecasts, and travel demand model. As noted above, the TMP does not assume full build-out of all the development capacity in the General Plan areas, but rather the residential growth that is expected under the GMO and non-residential growth that is based on market trends. More specifically, the General Plan 2030 development assumptions were adjusted to represent reasonable expectations for development by the year 2035 (Horizon Year). City of Tracy staff developed the land use assumptions by allocating growth to areas in the City identified by the General Plan based on a combination of considerations, including:

- How advanced each area is in the entitlement process;
- Existing or expected conditions of approval; and,
- Anticipated environmental or jurisdictional constraints.

Table 5-1 (Transportation Master Plan Cumulative Development Land Use Assumptions) identifies the existing and projected number of residential units and employment opportunities in the City.

Table 5-1
Transportation Master Plan Cumulative Development
Land Use Assumptions within Tracy SOI

Scenario	Single Family[1]	Multi-Family[1]	Single and Multi-Family[1]	Retail[2]	Service[2]	Other[2]	Total Employment
Existing (2006)	20,195	6,594	26,789	3,610	9,644	10,850	24,104
2030 General Plan SOI (2030)	29,068	9,858	38,926	11,500	15,276	21,777	48,553
Horizon Year (2035)	27,229	13,297	40,526	15,091	18,751	30,340	64,182
Build-out	29,214	14,343	43,557	35,189	59,915	88,928	184,033

1. Single and Multi-Family land uses represented by number of dwelling units.
2. Non-residential land uses represented by number of employees.
Source: Draft Citywide Roadway Transportation Master Plan, February 2012

There are two approaches to identifying cumulative projects and the associated impacts. The projection approach uses a summary of projections in adopted General Plans or related planning documents to identify potential cumulative impacts. The list approach identifies individual projects known to be occurring or proposed in the surrounding area in order to identify potential cumulative impacts. This Recirculated EIR uses the projection approach for the cumulative analysis and considers the development anticipated to occur in the General Plan areas by the Year 2035 based on the GMO for residential growth and market trends for non-residential growth.

5.2.1 AIR QUALITY

5.2-1 IMPLEMENTATION OF THE PROPOSED PROJECT COULD IMPACT REGIONAL AIR QUALITY LEVELS ON A CUMULATIVELY CONSIDERABLE BASIS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

The San Joaquin Valley Air Pollution Control District (SJVAPCD) *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI) defines cumulative impacts as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The document also states "any project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact." Impacts of local criteria pollutants are cumulatively significant when modeling shows that the combined emissions from the proposed Project and other existing and planned projects would exceed air quality standards.

The GAMAQI states that cumulative carbon monoxide (CO) impacts are accounted for in the CO hotspot analysis. As discussed in Impact 4.2-2, under Long-Term (Operational) Emissions, CO impacts would be less than significant; however, mobile sources would be significant and unavoidable (refer to Table 4.2-4). As the Project would result in mobile source emissions in exceedance of the SJVAPCD regional thresholds, the Project would also result in significant and unavoidable cumulative impacts.

The proposed Project would be consistent with and would enhance the City's *General Plan*. The *General Plan EIR* analyzed the long-term development of the City and found that buildout under the *General Plan* is projected to lead to substantial increases in vehicle travel and contribute to existing air quality issues in the Basin. As the proposed Project anticipates greater vehicle miles traveled (VMT) than the *General Plan*, the Project would also result in a cumulatively significant impact. As a result, the proposed Project would have significant air quality impacts at both the Project and the cumulative level.

Mitigation Measure: Implement Mitigation Measures 4.2-1a and 4.2-1b. No other feasible mitigation measures are available.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

5.2.2 GREENHOUSE GAS EMISSIONS

5.2-2 GREENHOUSE GAS EMISSIONS RESULTING FROM DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT WOULD IMPACT GREENHOUSE GAS LEVELS ON A CUMULATIVELY CONSIDERABLE BASIS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis: Although the proposed TMP would be consistent with the City's General Plan and Sustainability Action Plan (SAP) and would incorporate relevant measures within the SAP, Project greenhouse gas (GHG) emissions would not meet SJVAPCD criteria and impacts would be significant and unavoidable. Project-generated GHGs in combination with GHG emissions from other known and reasonably foreseeable projects would result in a much greater amount of GHG emissions.

On December 30, 2009, the Natural Resources Agency adopted the *CEQA Guideline*s Amendments prepared by Office of Planning and Research, as directed by SB 97. On February 16, 2010, the Office of Administration Law approved the *CEQA Guidelines* Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The *CEQA Guidelines* Amendments became effective on March 18, 2010. The Natural Resources Agency originally proposed to add subdivision (f) to Section 15130 to clarify that Sections 21083 and 21083.05 of the Public Resources Code do not require a detailed analysis of GHG emissions solely due to the emissions of other projects (i.e., State *CEQA Guidelines*, § 15130(a)(1); *Santa Monica Chamber of Commerce v. City of Santa Monica* (2002) 101 Cal.App.4th 786, 799). Rather, the proposed subdivision (f) would have provided that a detailed analysis is required when evidence shows that the incremental contribution of the Project's GHG emissions is cumulatively considerable when added to other cumulative projects (i.e., *Communities for a Better Environment v. California Resources Agency* (2002), supra, 103 Cal.App.4th at 119-120). In essence, the proposed addition would be a restatement of law as applied to GHG emissions. Analysis of GHG emissions as a cumulative impact is consistent with case law arising under the National Environmental Policy Act (e.g., *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172, 1215-1217 [9th Cir. 2008]). Other portions of the *CEQA Guidelines* Amendments address how lead agencies may determine whether a project's emissions are cumulatively considerable (e.g., Proposed Sections 1506(h)(3) and 15064.4). However, public comments noted that the new subdivision merely restated the law, and was capable of misinterpretation. The Natural Resources Agency, therefore, determined that because other provisions of the *CEQA Guidelines* Amendments address the analysis of GHG emissions as a cumulative impact, and because the reasoning of those is fully explained in the Initial Statement of Reasons, subdivision (f) should not be added

to the *CEQA Guidelines*. The deletion was reflected in the revisions that were made available for further public review and comment on October 23, 2009.

It is generally the case that individual projects are of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory.[2] GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.[3] The TMP is a City-wide planning document and encompasses various potential development projects that would result from the growth anticipated in the General Plan. The TMP builds upon the goals and objectives contained in the Circulation Element of the General Plan and the SAP. The TMP takes the growth projections an additional five years past the year identified by the General Plan to provide the maximum possible infrastructure planning and to be consistent with the SJCOG travel demand model. However, because the Project's impacts associated with GHG emissions would be significant and unavoidable, the Project's cumulative-related GHG emissions would also be significant and unavoidable.

Mitigation Measure: No feasible mitigation beyond measures included in the General Plan, Sustainability Action Plan, and Transportation Master Plan are available.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

[2] California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, 2008.
[3] Ibid.

6.0 ALTERNATIVES

6.1 INTRODUCTION

Section 15126.6 of the California Environmental Quality Act Guidelines (*CEQA Guidelines*) requires an Environmental Impact Report (EIR) to describe and evaluate a reasonable range of alternatives to a proposed project. The purpose of the evaluation is to identify ways to mitigate or avoid the significant effects that a project may have on the environment. The range of alternatives required in an EIR is governed by a "rule of reason" that requires an EIR to select and evaluate only those alternatives necessary to permit a reasoned choice (*CEQA Guidelines* Section 15126.6[f]). An EIR does not need to consider every conceivable alternative to a proposed project, nor is it required that an EIR consider alternatives that are infeasible. Rather, it must consider alternatives that could feasibly attain most of the project's basic objectives, while avoiding or substantially lessening any significant adverse environmental effects of the project. The EIR must evaluate the comparative merits of the alternatives and provide sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project to foster informed decision-making and public participation. In addition, *CEQA Guidelines* Section 15126.6(e) requires that an EIR specifically evaluate the impacts associated with the alternative of "no project" to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.

This chapter provides a brief description of the proposed Project, Project goals and objectives, and potentially significant Project impacts, followed by a description and evaluation of each alternative selected for inclusion in the EIR. Finally, this chapter concludes with a comparison of the alternatives and identification of the environmentally superior alternative.

6.2 PROJECT SUMMARY

6.2.1 PROJECT CHARACTERISTICS

As described in Chapter 3 (Project Description), the proposed Project, the Citywide Roadway and Transportation Master Plan (TMP), is a comprehensive update to the City of Tracy's 1994 TMP in fulfillment of Objective CIR-1.1, Action A1 of the Circulation Element of the City of Tracy General Plan (General Plan), which states, "Update the Roadway Master Plan upon adoption of the General Plan." Many improvements and expansions to the City's existing transportation system were identified during the preparation of the General Plan and its associated Environmental Impact Report (EIR), As noted in the Circulation Element of the General Plan EIR, implementation of General Plan Objective CIR-1.1, Action A1 ensures the City's TMP is updated to include a comprehensive inventory of roadway expansions and improvements necessary to accommodate the growth envisioned by the General Plan, as well as maintain circulation continuity throughout the roadway network.

The TMP is the principal policy document for guiding the provision of adequate and efficient access to the City of Tracy (City) transportation system for all user groups (motorists, pedestrians, bicyclists, and transit users). The proposed TMP provides a comprehensive review of the City's transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan up to the year 2035. The proposed TMP builds upon the goals and objectives contained in the Circulation Element of the General Plan and the City's Sustainability Action Plan (SAP) by proposing Smart Growth, Context-Sensitive design, and Complete Streets guidelines, strategies, principles, and design elements. The TMP strives to balance existing and future transportation infrastructure needs with safe access for all user groups.

The TMP models and analyzes the effects of growth on the City's transportation system to the year 2035, an additional five years past the growth projection year modeled and analyzed by the General Plan for Traffic and Circulation. The TMP includes an additional five years beyond the General Plan horizon year to establish consistency with the most recent San Joaquin Council of Governments (SJCOG) land use development assumptions, employment forecasts, and travel demand model. Due to the City's regionally important geographic location, a location that experiences a variety of daily transportation travel modes to, from, and through the City, utilizing the most recent SJCOG model facilitates a consistent identification of uniform improvements between the regional agencies that are responsible for freeways, Congestion Management Agency (CMA) roads, local roads, and transit services.

6.2.2 PROJECT OBJECTIVES

As stated in Section 3.5, the TMP Project objectives are as follows:

- Provide an Implementation Plan for the Circulation Element of the City of Tracy General Plan (2011).
- Serve as a comprehensive planning document or blueprint that identifies and requires improvements to the existing transportation system and expands upon the system to accommodate future development consistent with the General Plan. The system includes transit passenger movement, goods movement, pedestrian movement, bicycle movement, and private vehicular movement.
- Establish a framework of goals, policies, and implementation methodology that outlines improvement projects and programs, identifies financial resources and allocates funding, and sets project priorities to provide a safe and efficient transportation system that meets the community's needs.
- Guide the development of transportation infrastructure and services as growth occurs under the General Plan.
- Facilitate a transportation system that is a multi-modal network of roads, bicycle lanes and paths, transit services, and pedestrian facilities that will support the planned land uses in the City by providing mobility to residents and visitors alike.
- Balance existing and future transportation infrastructure needs with safe access for all user groups (motorists, pedestrians, bicyclists, and transit users) by incorporating strategies, principles, and design elements such as Smart Growth design elements, Context-Sensitive Design, and Complete Street guidelines.
- Facilitate the provision of an improved transportation system that enhances mobility, accommodates future growth, and maintains the quality of life in Tracy.
- Establish policies and priorities to maintain and improve the transportation system.
- Maintain consistency with the San Joaquin County Expressways Study,
- Preserve four-lane maximum arterial widths where possible to promote a more walkable, bikeable environment, particularly in new areas of future development where sustainable practices can be applied in an equitable manner.
- Decrease right-of-way and vehicular lane widths to implement Complete Street principles.
- Maintain consistency with the roadway plans in entitled project areas (Ellis Specific Plan and Gateway).
- Provide maximum roadway v/c ratios of 0.8 – 0.9 (roughly corresponding to a LOS D - E operation on a link-volume basis) to the greatest extent possible.

- Ensure the provision of bicycle and pedestrian facilities that connect people and places.
- Develop a comprehensive bicycle and pedestrian system that ensures a multi-modal infrastructure network.
- Develop a comprehensive circulation system that identifies bridge and culvert crossings to minimize traffic conflicts and preserve open space and preservation areas.
- Develop a comprehensive Park and Ride system that supports resident transit usage or carpooling to commute from the City.
- Provide a nexus for a Traffic Impact Fee Program that will fund the development of the planned transportation system through payment of impact fees by all future development.
- Develop Travel Demand Management (TDM) principles that reduce private vehicle trips and build on the regional TDM programs developed by the SJCOG.
- Provide for a comprehensive transit system on all new collector, arterial, and expressway roadways and provide the opportunity to expand transit services on existing roadways.

6.2.3 POTENTIALLY SIGNIFICANT PROJECT IMPACTS

Chapter 4 (Environmental Analysis) of this Recirculated EIR describes the potential impacts of the proposed Project. As identified in that chapter, the Project would result in potentially significant environmental impacts, some of which could be mitigated to less than significant levels. The following summarizes the proposed Project's impacts:

AIR QUALITY

- Project construction would result in potentially significant short-term increases in particulate (fugitive dust) and exhaust emissions that could be reduced to less than significant with implementation of mitigation measures identified in Section 4.2 (Air Quality).
- Due to the amount of growth that is projected to occur by TMP forecast year 2035, impacts associated with long-term mobile source emissions would be considered significant and unavoidable due to exceedances of established thresholds for Reactive Organic Gases (ROG) and particulate matter $(PM)_{10}$.
- The Project would not exceed established thresholds for nitrogen oxides (NO_X), carbon monoxide (CO) hotspots, odors, or toxic air contaminants and related impacts would be less than significant.
- The TMP's anticipated VMT for the year 2035 exceeds the VMT considered in the General Plan for horizon year 2030. As concluded in the General Plan EIR, the General Plan would not be consistent with the San Joaquin Valley Air Pollution Control District's (SJVAPCD) Clean Air Plans. Furthermore, as discussed within the General Plan EIR, the projected growth within the City would lead to an increase in the region's VMT, beyond what has been identified by the San Joaquin Council of Governments (SJCOG) and SJVAPCD. Therefore, as the proposed Project would result in VMT beyond what was anticipated in the General Plan, the proposed Project would also exceed the projected growth beyond what has been identified by the SJCOG and SJVAPCD. Impacts associated with plan consistency would be considered significant and unavoidable for the proposed Project.
- Finally, the Project would result in a significant and unavoidable cumulative impact from increases in criteria air pollutants.

GREENHOUSE GAS EMISSIONS

- As identified in Section 4.3 (Greenhouse Gas Emissions), the VMTs associated with the TMP exceed those forecast for the 2030 General Plan. The General Plan EIR indicated that all feasible mitigation measures for greenhouse gas (GHG) emissions were included in the General Plan and the City's SAP. No additional measures beyond those found in the SAP have been found feasible to reduce GHG emissions associated with the proposed Project. The General Plan EIR determined that GHG emissions under the SAP would not meet SJVAPCD criteria, and impacts would be significant and unavoidable. As the proposed Project contemplates growth beyond the General Plan, and the Project would result in greater impacts than those identified in the General Plan EIR, impacts associated with the proposed Project would be significant and unavoidable.
- In addition, the Project's cumulative impacts associated with GHG emissions would be significant and unavoidable.

6.3 PROJECT ALTERNATIVES

6.3.1 SELECTION OF ALTERNATIVES

In accordance with the State CEQA Guidelines, appropriate project alternatives are those that meet most of the project's basic objectives and avoid or substantially lessen the significant environmental impacts of the proposed project. The alternatives analyzed in this chapter were selected for their potential to eliminate or reduce Project impacts, or for their potential to generate fewer impacts, or require lesser levels of mitigation. These alternatives include:

- Alternative 1: No Project/No Updated Transportation Master Plan
- Alternative 2: Transportation Master Plan Limited to General Plan 2030 Horizon Year
- Alternative 3: Increased Residential/Reduced Commercial

The Recirculated Draft EIR does not analyze an alternative site for the proposed Project because the TMP addresses the transportation network in the City of Tracy and could not realistically be expected to be implemented anywhere else but Tracy.

6.3.2 COMPARISON OF ALTERNATIVES

CEQA does not specify the methodology for comparing alternatives. However, the issues and impacts that are most germane to a particular project must be evaluated when comparing an alternative to a proposed project. As such, the issues and impacts analyzed in project alternatives vary depending on the project type and the environmental setting. Long-term impacts (e.g., visual impacts and permanent loss of habitat or land use conflicts) are those that are generally given more weight in comparing alternatives. Impacts associated with construction (i.e., temporary or short-term) or those that are easily mitigable to less than significant levels are considered to be less important.

The alternatives analysis below compares each alternative to the proposed Project according to whether it would have a mitigating or adverse effect for each of the environmental resource areas analyzed in this Recirculated EIR.

6.3.3 ALTERNATIVES ANALYSIS

ALTERNATIVE 1: NO PROJECT/NO UPDATED TRANSPORTATION MASTER PLAN

Description of Alternative

Under the No Project/No Updated Transportation Master Plan Alternative (Alternative 1), the proposed TMP would not be adopted and the existing (1994) TMP would remain in effect. Thus, none of the improvements or expansions to the City's existing transportation system required to accommodate future growth anticipated by the General Plan would be implemented. The City's transportation system would not benefit from Smart Growth, Context-Sensitive design, and Complete Streets guidelines, strategies, principles, and design elements. Moreover, a variety of techniques designed to help the City meet sustainability and GHG reduction goals would not be undertaken, and various other policies that address bicycle/pedestrian circulation, roadway design/operation, traffic calming, access management, standards/design for park and ride facilities, and Intelligent Transportation Systems (ITS) would not be implemented.

Although roadway locations are primarily the same in the existing and proposed TMPs, the roadway network for the proposed TMP shows better connection between origins and destinations, which would reduce trip lengths, compared to the existing TMP. Additionally, the proposed TMP identifies substantially reduced roadway cross sections. New roadways in the proposed TMP include the Pavilion Parkway Extension to the south, the Hansen Road connection between Schulte Road and Lammers Road, improved collector streets between the arterials, and expressways. The proposed TMP identifies reduced roadways on the south side of I-580 for the Tracy Hills development area. Finally, the proposed TMP would have less overall vehicle miles traveled compared to the existing TMP.

Environmental Impacts Compared to the Project

Air Quality

Alternative 1 would result in greater air quality impacts than the proposed Project. The proposed TMP would increase the amount of vehicle miles traveled (VMT) and result in an associated increase in air pollutant emissions beyond what was analyzed in the General Plan as a result of the additional five years of growth assumed by the TMP. However, due to the policies, improvements, and expansions proposed by the TMP, trip lengths would decrease and other operational benefits resulting in a more efficient transportation system would be provided. In addition, it should be noted that the TMP's trip generation rates were reduced by 5.8 percent due to the application of smart growth characteristics (increased density/diversity, more connectivity, or improved access to regional destinations), as well as the other sustainability strategies identified by the SAP that reduce trip generation and trip lengths, and improve fuel efficiency. Compared to the proposed Project, Alternative 1 would not implement the various improvements to the City's transportation system or implement Smart Growth and Complete Street strategies. As a result, Alternative 1 would result in greater VMT than the proposed Project. Moreover, under Alternative 1, the City's transportation system would become congested and experience increased delays without the proposed improvements and expansions, which in turn would result in increased air pollutant emissions. Furthermore, like the proposed TMP, Alternative 1 would not be consistent with the with the applicable air quality management plan. However, the proposed TMP would implement all applicable goals and policies of the City's General Plan and SAP and Alternative 1 would not. Consequently, Alternative 1 would have greater air quality impacts than the proposed Project.

Greenhouse Gas Emissions

Alternative 1 would result in greater GHG emissions than the proposed Project since the policies, improvements, and expansions proposed by the TMP, would not be provided, trip lengths would not decrease and other operationalbenefits that wouldresult in a more efficient transportation system would not be provided. In addition, congestion and vehicle delays would increase compared to the proposed Project, as none of the proposed improvements and expansions would be implemented. Alternative 1 could potentially produce excessive GHG emissions that could have a significant impact on the environment, and would it conflict with the City's General Plan and SAP, and thus would conflict with the applicable GHG reduction plan, policies, and regulations. Therefore, Alternative 1 would result in greater GHG impacts compared to the proposed Project.

ALTERNATIVE 2: TRANSPORTATION MASTER PLAN LIMITED TO GENERAL PLAN 2030 HORIZON YEAR

Description of Alternative

Under Alternative 2, the TMP would project growth to the year 2030, the same as the growth projection year identified by the General Plan for Traffic and Circulation. Thus, Alternative 2 would have the same land use assumptions and density as that contemplated by the General Plan, but it would not be consistent with the most recent SJCOG land use development assumptions, employment forecasts, and/or travel demand model. All other elements of the TMP under Alternative 2 would be the same or similar as those identified by the proposed Project. This alternative was selected for its ability to reduce the amount of VMT associated with the proposed TMP, and the corresponding air pollutant and GHG emissions.

Environmental Impacts Compared to the Project

Air Quality

Alternative 2 would result in less VMT and associated emissions than the proposed Project because of the temporal difference between the two scenarios. Given that Alternative 2 projects growth to the year 2030 and the proposed TMP projects growth to the year 2035, the amount of projected housing and employment opportunities are reduced under Alternative 2, resulting in a reduction in VMT compared to the proposed TMP. Both Alternative 2 and the proposed TMP would recommend similar improvements to the existing transportation system. As such, each scenario would increase efficiency which would result in shorter trips and reduced VMT per person. Regardless, Alternative 2 would have less VMT and associated emissions overall compared to the proposed TMP due to solely to its reduced density. Because both Alternative 2 and the Project and would result in the construction of similar improvements, potentially significant construction impacts and associated mitigation would be expected to be similar. Alternative 2 projects growth to the year 2030 and would result in a substantial increase in VMT, like the proposed Project. This is because even though the amount of projected housing and employment opportunities are reduced under Alternative 2, resulting in a reduction in VMT compared to the proposed TMP, the VMT reduction would not be enough to avoid exceeding established thresholds for criteria pollutants, thus conflicting with the applicable air quality attainment plan. Therefore, Alternative 2 would still result in significant and unavoidable Project level and cumulative impacts. However, given that Alternative 2 projects growth to the year 2030 and the proposed TMP projects growth to the year 2035, Alternative 2 would result in less projected growth, fewer VMT, and associated emissions compared to the scenario studied for the proposed TMP. Thus, Alternative 2 would result in reduced air quality impacts compared to the proposed Project.

Greenhouse Gas Emissions

The proposed Project would have greater GHG emissions than Alternative 2 because of the additional density associated with its additional five years of projected growth within the Tracy SOI. Although Alternative 2 would have less GHG emissions than the proposed Project, it would still result in significant and unavoidable increases in GHGs due to the amount of growth contemplated and as stated in the General Plan. Alternative 2 would, however, result in reduced impacts associated with GHG emissions compared to the Project.

ALTERNATIVE 3: INCREASED RESIDENTIAL/REDUCED COMMERCIAL

Description of Alternative

Both the proposed TMP and Alternative 3 identify improvements and expansions to the City's existing transportation system required to accommodate future growth to the year 2035. However, Alternative 3 assumes different land uses in the year 2035 than the proposed TMP. Alternative 3 assumes a 160-acre area near the I-205 expansion area could reasonably be expected to develop with low density residential uses rather than the commercial uses assumed by the TMP; refer to Figure 6-1 (Alternative 3). This alternative was selected for its ability to reduce the amount of VMT associated with the proposed TMP, and the corresponding air pollutant and GHG emissions.

Environmental Impacts Compared to the Project

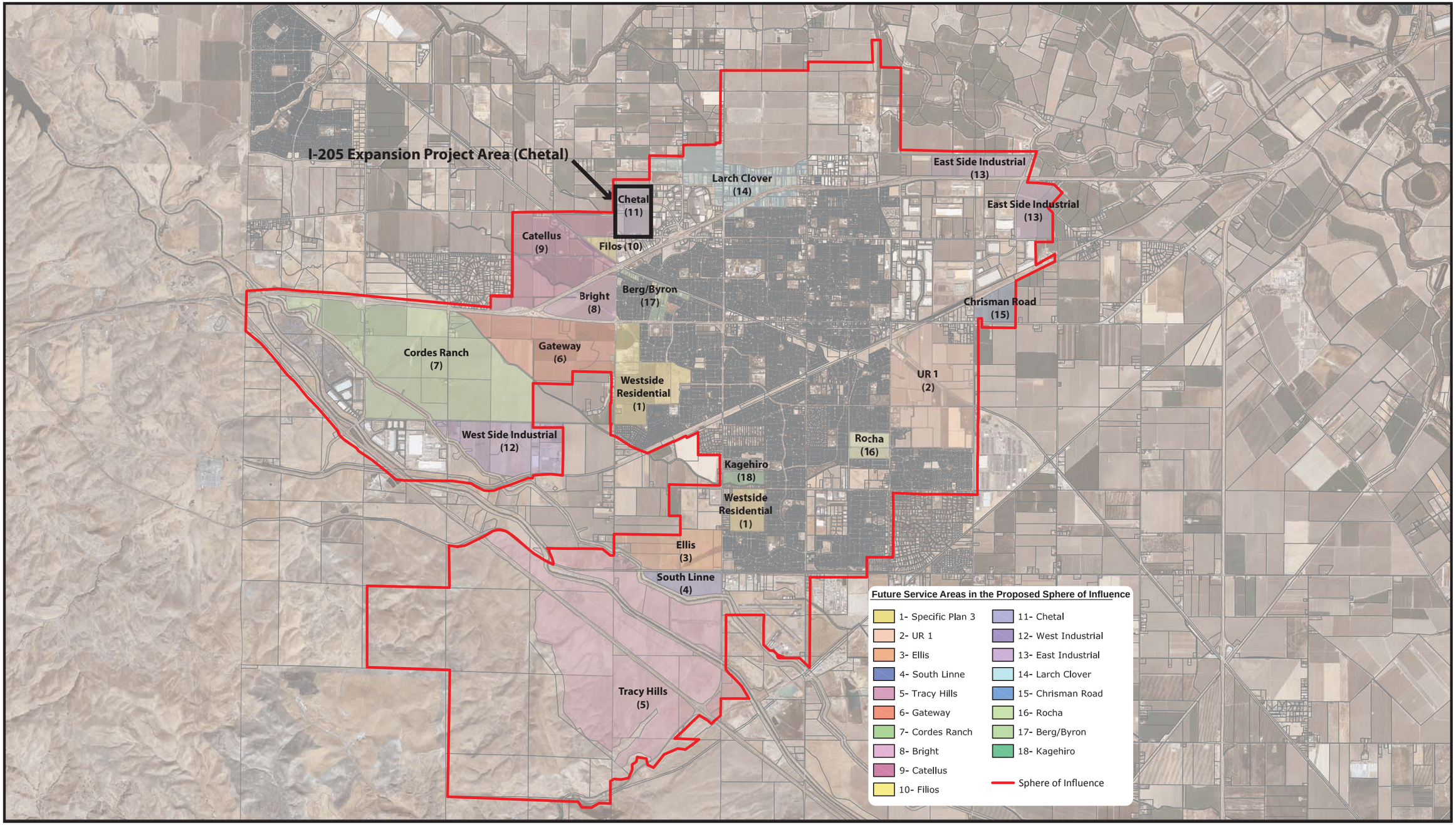
Air Quality

Under Alternative 3, a 160-acre area near the I-205 expansion area would develop with low density residential uses rather than the commercial uses that area assumed under the proposed Project. Currently, this area is primarily developed with commercial uses. The addition of residential uses in this area, as described in Alternative 3, would increase the jobs/housing balance in this area. Additionally, residential uses would generate fewer vehicle trips than commercial uses and peak hour vehicle trips would decrease substantially. The reduction in peak hour trips would improve congestion, but the residential uses allowed under Alternative 3 would result in slightly fewer VMT and associated emissions would be similar to that of the proposed Project. Therefore, impacts would slightly decrease compared to the proposed Project, but would remain significant and unavoidable.

Alternative 3 would require similar improvements and expansions as the proposed TMP. Consequently the construction impacts associated with Alternative 3 would be similar to those under the proposed Project and could be mitigated to less than significant with the same mitigation measures identified for the Project. Due to the amount of growth projected under each scenario, Alternative 3 would exceed established thresholds for criteria pollutants and conflict with the applicable air quality attainment plan, resulting in significant and unavoidable Project-level and cumulative impacts, like the proposed Project. Still, air quality impacts would be reduced compared to the proposed Project.

Greenhouse Gas Emissions

Alternative 3 would produce less GHG emissions than the proposed Project as it would have fewer VMT overall. Although Alternative 3 would reduce GHG emissions, due to the amount of growth assumed by Alternative 3, it would have the same significant and unavoidable impacts. Alternative 3 would, however, result in reduced impacts associated with GHG emissions compared to the Project.



Source: City of Tracy Infrastructure Master Plan (2012)

RBF CONSULTING
A Baker Company

Not to Scale

Tracy Transportation Master Plan EIR

Alternative 3

Figure 6-1

6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 6-1 (Comparison of Alternative Project Impacts to the Proposed Project) presents a comparison of the impacts associated with the alternatives with those of the proposed Project for each of the environmental resource areas analyzed above.

Table 6-1
Comparison of Alternative Project Impacts to the Proposed Project

Topic	Alternative 1 No Project/ No Updated Transportation Master Plan	Alternative 2 Transportation Master Plan Limited to General Plan 2030 Horizon Year	Alternative 3 Increased Residential/ Reduced Commercial
Air Quality	+	-	-
Greenhouse Gas Emissions	+	-	-

Notes:
+ Greater impact than that of the proposed Project
- Decreased impact from that of the proposed Project
+/– Greater impact with regard to some aspects of impact and decreased impact in other aspects
NC No substantial change in impact from that of the proposed Project

CEQA requires the identification of the environmentally superior alternative in an EIR, which is an alternative that would result in the fewest or least number of significant environmental impacts. If the "No Project" Alternative is the environmentally superior alternative, *CEQA Guidelines* Section 15126.6 (e)(2) requires that another alternative that could feasibly attain most of the project's basic objectives be chosen as the environmentally superior alternative. Based on the above analysis, summarized in Table 6-1, the environmentally superior alternative is Alternative 2. Construction impacts would be equivalent under Alternative 2 and the proposed Project. However, Alternative 2 projects growth to the year 2030 and the proposed TMP projects growth to the year 2035, which results in substantially less projected housing and employment opportunities than are assumed under the TMP. Thus, Alternative 2 would result in less VMT and associated emissions than the proposed Project and air quality and GHG impacts would be reduced, but would still remain significant and unavoidable due to the total amount of growth projected under Alternative 2.

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7.0 OTHER CEQA CONSIDERATIONS

7.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15162(b) of the California Environmental Quality Act Guidelines (*CEQA Guidelines*) requires an environmental impact report (EIR) to discuss the significant impacts of a proposed project that cannot be reduced to a less than significant level. These impacts are referred to as "significant and unavoidable impacts" of the project.

7.1.1 AIR QUALITY

As described in Section 4.2 (Air Quality), the proposed Project would result in the following significant and unavoidable impacts:

- Exceedances of established thresholds for Reactive Organic Gases (ROG) and particulate matter $(PM)_{10}$ as a result of long-term mobile source emissions (Project and cumulative level); and,
- Conflicts with applicable air quality plans (Project and cumulative level).

7.1.2 GREENHOUSE GAS EMISSIONS

As described in Section 4.3 (Greenhouse Gas Emissions), the proposed Project would result in the following significant and unavoidable impacts:

- Generation of GHG emissions, either directly or indirectly, that may have a significant impact on the environment (Project and cumulative level).

7.2 SIGNIFICANT IRREVERSIBLE CHANGES

Section 15126.2(c) of the *CEQA Guidelines* requires an EIR to discuss the significant irreversible environmental changes that would result from implementation of a proposed project. Examples include: uses of nonrenewable resources during the initial and continued phases of the project (because a large commitment of such resources make removal or nonuse thereafter unlikely); primary or secondary impacts of the project that would generally commit future generations to similar uses (e.g., highway improvements that would provide access to a previously inaccessible area); and/or, irreversible damage that could result from any potential environmental accidents associated with the project.

Development of the proposed Project would constitute a long-term commitment to transportation infrastructure. It is unlikely that circumstances would arise that would justify the return of the land to its original condition.

A variety of resources, including land, energy, water, construction materials and human resources would be irretrievably committed for the Project's initial construction, infrastructure installation, and connection to existing utilities and its continued maintenance. Construction of the Project would require the commitment of a variety of other non-renewable or slowly renewable natural resources such as sand and gravel, asphalt, petrochemicals, and metals.

Additionally, a variety of resources would be committed to the ongoing maintenance and life of the proposed Project. Fossil fuels are the principal source of energy and the Project would increase

consumption of available supplies, including gasoline. These energy resource demands relate to initial Project construction, Project operation, and maintenance.

8.0 REPORT PREPARATION PERSONNEL

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9.0 REFERENCES

The following is a list of references used in the preparation of this document. Unless included in the Appendices, copies of all reference reports, memorandums and letters are on file with the City of Tracy, Development and Engineering Services Department. References to publications prepared by federal or state agencies may be found with the agency responsible for providing such information.

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U.S. Environmental Protection Agency, *Class I Ozone Depleting Substances*, August 19, 2010.

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APPENDICES

APPENDIX A:

NOTICE OF PREPARATION (NOP), DRAFT INITIAL STUDY/CEQA GUIDELINES SECTION 15183 ANALYSIS, AND PUBLIC COMMENTS

Date of Mailing: January 12, 2012

Notice of Preparation

To: Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 212
Sacramento, CA 95814

From: City of Tracy
Development and Engineering
Services Department
333 Civic Center Plaza
Tracy, CA 95376
Attn.: William Dean, Assistant Director

Responsible and Trustee Agencies,
Utility Providers, Organizations,
Neighboring Property Owners/Occupants,
and Interested Parties

Subject: Notice of Preparation of an Environmental Impact Report

The City of Tracy will be the lead agency and will prepare an environmental impact report (EIR) for the proposed Citywide Transportation Master Plan (TMP). This Notice of Preparation is sent pursuant to Section 15082 of the California Environmental Quality Act (CEQA) Guidelines to announce the initiation of the EIR process and to solicit comments from responsible and trustee agencies, utility providers, organizations, neighboring property owners, and interested parties concerning the scope of issues to be addressed in the EIR. Refer to the Probable Environmental Effects listed below to determine whether your concerns have already been identified. Please focus your comments on the Project's potential environmental impacts and recommendations for methods of avoiding, reducing or otherwise mitigating those impacts. If you are a governmental agency with discretionary authority over initial or subsequent aspects of this Project, describe that authority and provide comments regarding potential environmental effects that are germane to your agency's area of responsibility.

Project Title: Citywide Transportation Master Plan

Project Location: The proposed TMP includes improvements throughout the City and within the City's Sphere of Influence (SOI). Tracy is located in San Joaquin County within the Central Valley region of California approximately 60 miles east of the San Francisco Bay Area (refer to Figure 1 of the Initial Study).

Project Description: The proposed TMP provides a comprehensive review of the City's transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan (February 2011). The TMP builds upon the goals and objectives contained in the Circulation Element of the General Plan and the City's Sustainability Action Plan (February 2011). The traffic analysis contained in the General Plan is based on a future horizon year of 2030. The TMP looks out another five years beyond the General Plan horizon year of 2030 to the year 2035 to provide the maximum possible infrastructure planning and to be consistent with the most recent San Joaquin Council of Governments travel demand model.

The intent of the TMP is to provide the City with a "blueprint" than can be utilized to identify, prioritize and implement required improvements to the current and future roadway network for all modes of

transportation. The TMP balances existing and future transportation infrastructure needs with safe access for all user groups (i.e., motorists, pedestrians, bicyclists and transit users) by incorporating strategies, principles and design elements such as Smart Growth design elements, Context-Sensitive design and Complete Streets guidelines.

In general, new development projects would be required to contribute to the City's transportation impact fee program in order to implement the specific improvements identified in the draft TMP. Modifications and refinements to the TMP may be considered by the City during the Specific Plan and development review process for new development. However, any significant modifications to the elements of the TMP must be approved by the City and will require that a formal amendment be adopted by the City Council.

The proposed TMP includes the following components:

- **Railroad Facilities** – Maintain and improve five existing at-grade railroad crossings, provide five new grade-separated crossings, and close or relocate three crossings.
- **Intersections** – Improve traffic operations at 65 intersections. Future improvements would include signal control, lane reconfiguration, roundabouts, and widening of intersection approaches.
- **Bicycle and Pedestrian Facilities** – Provide bike lanes and pedestrian facilities in future development areas that complement and connect the existing bike and pedestrian system.
- **Over/Underpass Facilities, Bridges and Culverts** – Maintain and improve 13 existing over/underpass facilities, ten existing bridges, and five existing culverts. Provide two new over/underpass facilities, one new bridge and three new culverts. Improvements to existing facilities include widening or replacement.
- **Roadway Classification** – Establish roadway hierarchy, functionality, operations and typical cross sections.
- **Park and Ride Facilities** – Provide new park and ride facilities.
- **Intelligent Transportation System** – Provide Citywide state-of-the-art reliable and consistent Intelligent Transportation System to manage traffic at intersections and along roadway segments.
- **Truck Routes** – Maintain and improve existing truck routes, and provide new truck routes.

Probable Environmental Effects: The purpose of the EIR is to provide full disclosure, in advance, of the potential environmental impacts that would result from implementation of the proposed Project. The EIR will analyze the extent to which the Project would result in significant environmental impacts and will identify appropriate Project modifications or mitigation measures to reduce or eliminate these impacts. Based on an Initial Study prepared for the proposed TMP, issues that will be examined in the EIR include the following:

- Air Quality/Greenhouse Gas Emissions – Short-term construction and long-term-operational impacts to air quality. Global climate change impacts.

Scoping: The City invites written comments on the scope of the EIR and alternatives that should be considered. Due to the time limits mandated by state law, your response must be sent at the earliest possible date, **but no later than 30 days after receipt of this notice**. Written comments should be sent to Bill Dean, Assistant Director, Development and Engineering Services Department, at the mailing address above by **5:00 p.m. on Monday, February 13, 2012**. Copies of the Initial Study prepared for the project can be obtained by calling Elizabeth Silva at 209-831-6421 or from the City's website www.ci.tracy.ca.us.

Comments should focus on identifying specific environmental impacts to be evaluated during the EIR

process and suggesting Project modifications or alternatives that would be less environmentally damaging while achieving similar Project objectives. Scoping comments should focus on issues and alternatives to be studied, not on expressing a preference for a particular alternative.

If you wish to be placed on a mailing list to receive further information as the Project progresses, please contact Bill Dean at (209) 831-6400, william.dean@ci.tracy.ca.us or the mailing address above.

Date: January 12, 2012 Signature:

Title: Bill Dean, Assistant Director, Development and Engineering Services Department

Reference: California Code of Regulations, Title 14, (State CEQA Guidelines) Sections 15082(A), 15103, 15375

ENVIRONMENTAL CHECKLIST

A. SUMMARY INFORMATION

1. Project Title:
City of Tracy Citywide Transportation Master Plan

2. Lead Agency Name and Address:
City of Tracy
Department of Development and Engineering Services
333 Civic Center Drive
Tracy, CA 95376

3. Contact Person and Phone Number:
William Dean, Assistant Director, Development and Engineering Services Department
(209) 831-6000

4. Project Location and Setting:
The City of Tracy (City) is located in San Joaquin County within the Central Valley region of California. Located approximately 60 miles east of the San Francisco Bay Area, the City is separated from the Central Valley by the Coastal Range. The southwestern portion of San Joaquin County is located within the Diablo Range, and generally consists of rolling hills cut by drainage channels. Refer to Exhibit 1, *Regional Location Map.*

The City is regionally connected by three major highways; Interstate 580 (I-580) is less than one mile to the south and west of the City, Interstate 205 (I-205) bisects the northerly portion of the City and Interstate 5 (I-5) is approximately eight miles to the east. The nearest urban areas are the cities of Lathrop and Manteca to the east.

The region is characterized as having an "inland Mediterranean" climate (a semi-arid environment with cool winters, dry summers and moderate rainfall). The climate includes moderate temperatures and comfortable humidity with precipitation limited to a few storms during the winter months (November through April). The average annual temperature varies little throughout the region, and the summer high averages 90 degrees Fahrenheit.

The proposed Transportation Master Plan (TMP) includes improvements located throughout the City boundaries as well as the City's Sphere of Influence (SOI) boundaries. Refer to Exhibit 2, *Study Area Map.*

5. General Plan Designation and Zoning Classification:
Various.

6. Surrounding Land Uses:
Various.

B. STATUARY AUTHORITY AND REQUIREMENTS

According to the California Environmental Quality Act (CEQA), Public Resources Code § 21094(a)(1)(2), a subsequent project that is consistent with the following:

(1) a program, plan, policy, or ordinance for which an Environmental Impact Report (EIR) was prepared and certified; and,

(2) applicable local land use plans and zoning

may rely on the analysis contained within the previously certified EIR prepared for the program, plan, policy, or ordinance and need not conduct new or additional analysis for those effects that were either:

(1) avoided or mitigated by the certified EIR; or,

(2) were sufficiently examined by the certified EIR to enable those effects to be mitigated or avoided by site-specific revisions; the imposition of conditions; or, by other means in connection with approval of the subsequent project.

Section 15183 of the CEQA Guidelines, enables public agencies to streamline the environmental review of subsequent projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified by limiting its examination of environmental effects to those which the agency determines, in an initial study or other analysis:

(1) Are peculiar to the project or the parcel on which the project would be located;

(2) Were not analyzed as significant effects in a prior EIR on the zoning action, general plan, or community plan, with which the project is consistent;

(3) Are potentially significant off-site impacts and cumulative impacts which were not discussed in the prior EIR prepared for the general plan, community plan or zoning action; or,

(4) Are previously identified significant effects which, as a result of substantial new information which was not known at the time the EIR was certified, are determined to have a more severe adverse impact than discussed in the prior EIR.

As noted below, under the description of the project characteristics, the TMP models and analyzes the effects of growth on the City's transportation system to the year 2035, an additional five years past the growth projection year *modeled and analyzed* by the General Plan EIR for Traffic and Circulation. The TMP includes an additional five years beyond the General Plan horizon year to establish consistency with the most recent San Joaquin Council of Governments (SJCOG) land use development assumptions, employment forecasts, and associated travel demand. Due to the City's regionally important geographic location, a location that experiences a variety of daily transportation travel modes to, from, and through the City, utilizing the most recent SJCOG model facilitates a consistent identification of uniform improvements between the regional agencies that are responsible for freeways, Congestion Management Agency (CMA) roads, local roads, and transit services. Consistency with regional objectives and planning efforts are required for acquiring future grant funding to construct transportation infrastructure.

It should be noted that while the TMP models and analyzes the effects of growth on the City's transportation system five years beyond the General Plan's 2030 Traffic and Circulation Horizon Year, it would not result in any new growth not already identified by the General Plan. The TMP does not propose an increase in the amount of land area that could be developed within the City, nor does it propose an increase in the number of residential or non-residential units that could develop within the City over what is assumed by the General Plan for buildout. Rather it identifies improvements and expansions that would be necessary to accommodate the residential and non-residential growth allowed by the General Plan up to 2035.

The improvements and expansions to the City's transportation system identified by the TMP would be necessary to accommodate growth in the City based on the development densities and intensities allowed by the General Plan up to a specific point in time (2035). While the TMP does identify "buildout plan lines," only the recommended fundamental or core facilities necessary to accommodate growth beyond 2035 levels widening certain roadways where feasible primarily in the western and northern development areas are addressed. However, the "buildout plan lines" do not provide sufficient capacity to serve the buildout condition of the General Plan land use plan; many additional connecting roadways and roadway widening would be needed to serve the traffic generated by the additional residential development and employment opportunities that are expected at buildout of the General Plan. Given the long-range horizon for the buildout of the General Plan, and the corresponding unknowns as to how certain planning areas will ultimately wish to develop, a complete and adequate buildout transportation network cannot be designed. Further study will be necessary to plan for the buildout condition.

Thus, the TMP identifies improvements and expansions to the City's transportation system up to a specific point in time (2035) based on the development densities and intensities allowed by the General Plan. The TMP does not, however, identify specific improvements and expansions necessary to accommodate the growth projected for the entire buildout of the General Plan.

The General Plan EIR defines "total buildout" as a scenario in which all available land within the SOI would be developed according to the land use designations in the proposed General Plan. Total buildout is anticipated to result in more development that would occur beyond 2035. Specifically, the total buildout year under the proposed General Plan is estimated to occur from 2071 for residential growth or as far into the future as 2140 for non-residential growth.

Due to various amendments to the General Plan and the City's preparation of a Sustainability Action Plan, the General Plan EIR has been revised and updated on several occasions as discussed below.

The original 2005 General Plan EIR evaluated the following 15 topics:

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

An amendment to the General Plan in 2006 required the preparation of an Amendment to the General Plan Draft EIR. The 2006 General Plan Draft EIR contains a variety of amendments to the 2005 Draft EIR. In particular, it was modified to include detailed discussions of impacts that would result from total buildout of the City limits and SOI under the proposed General Plan, in addition to the discussion of impacts during the initial 20-year planning horizon. As such, for the following topics identified and evaluated in the 2005 EIR were reanalyzed in the 2006 EIR as follows:

- Land Use,
- Population, Employment and Housing,
- Visual Quality,
- Biological Resources,
- Agricultural Resources,
- Community Services, and
- Infrastructure.

The following other topical areas evaluated in the 2005 General Plan EIR were evaluated under both the 20-year development scenario and at total buildout and thus, did not need to be updated in the 2006 EIR as they remained valid: cultural resources, mineral resources, geology, soils, and seismic hazards, and hydrology and flooding. It should be noted that the detailed, quantitative analysis of potential impacts to traffic, noise and air quality were based on the development projections for a 20-year period (2025) in both the 2005 and 2006 EIRs. The traffic analysis was limited to the 20-year planning horizon in part because significant speculation regarding regional growth and funding for transportation improvements would be required to model the total buildout year under the proposed General Plan. The noise and air quality analysis is also limited to the 20-year planning horizon because they are based on the modeling results of the traffic analysis.

In 2010, the City prepared a Draft Supplemental EIR in response to another General Plan amendment and the preparation of its Sustainability Action Plan. The 2010 General Plan EIR contains only those environmental analysis chapters for which the findings of the 2006 General Plan Draft EIR would change as a result of the General Plan Amendment. As a result, the issues addressed in that EIR include the following:

- Land Use
- Population, Employment and Housing
- Traffic and Circulation
- Noise
- Air Quality
- GHG Emissions

In the 2010 Supplemental General Plan EIR, the traffic, noise, and air quality analyses extend to a 2030 horizon because the traffic modeling, which also affects the air quality and noise analyses, is based on the SJCOG regional travel demand model, which at that time had been updated to 2030. The land use,

population, employment, and housing analyses were evaluated under a 20-year development scenario and at total buildout in the 2010 General Plan EIR.

Thus, the various General Plan EIRs (2005, 2006, and 2010) have each evaluated the "buildout" condition for specific issue areas, as described above, but none have evaluated the buildout condition for traffic, noise, and air quality as it is generally held that modeling of traffic and associated air quality, GHG, and noise impacts much beyond a 20-year time period is inaccurate and unreliable.

C. BACKGROUND AND HISTORY

The proposed Citywide Roadway and Transportation Master Plan (TMP) is a comprehensive update of the 1994 City of Tracy TMP in fulfillment of Objective CIR-1.1, Action A1 of the Circulation Element of the City of Tracy General Plan (General Plan), which states, “Update the Roadway Master Plan upon adoption of the General Plan.” Many improvements and expansions to the City’s existing transportation system were identified during the preparation of the General Plan and its associated Environmental Impact Report (EIR), As noted in the Circulation Element of the General Plan EIR, General Plan implementation of Objective CIR-1.1, Action A1 ensures the City’s TMP is updated to include a comprehensive inventory of roadway expansions and improvements necessary to accommodate the growth envisioned by the General Plan, as well as maintain circulation continuity throughout the roadway network.

The City’s transportation system is a key element in maintaining historical growth and accommodating future development. Transportation modes include: 1) three major freeways; 2) several active rail lines; 3) local and regional truck routes; 4) arterial, collector and residential streets; and 5) bicycle, pedestrian and transit facilities. The City is responsible for ensuring that the transportation system provides adequate and efficient access for all modes. The City’s most recent TMP was approved in 1994. Between 1990 and 2000, the City’s population increased by more than 70 percent from approximately 33,558 to 56,929, and is currently 82,107 ((California Department of Finance, 2011). Due to this growth and the City’s recently adopted update to the *General Plan* (February 2011) that identifies new development areas and additional growth, the City determined that an update to the 1994 TMP is required.

D. PROJECT CHARACTERISTICS

Overview

The TMP is the principal policy document for guiding the provision of adequate and efficient access to the City of Tracy (City) transportation system for all user groups (motorists, pedestrians, bicyclists, and transit users). The proposed TMP provides a comprehensive review of the City’s transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the City of Tracy General Plan (General Plan). The proposed TMP builds upon the goals and objectives contained in the Circulation Element of the General Plan and the City’s Sustainability Action Plan (SAP) by proposing Smart Growth, Context-Sensitive design, and Complete Streets guidelines, strategies, principles, and design elements. The TMP strives to balance existing and future transportation infrastructure needs with safe access for all user groups.

The proposed TMP consists of the following: a description of the existing transportation system and conditions (Chapter 2); a description of the future roadway conditions within the City based on

projected growth (Chapter 3); recommended improvements to accommodate future growth; recommended actions to support the goals and objectives of the General Plan's Circulation Element; and, recommended transportation strategies, principles, and design elements intended to meet sustainability and greenhouse gas (GHG) emission reduction goals (Chapter 4); and, finally identification of the preliminary anticipated costs associated with the recommended infrastructure improvements (Chapter 5). (It should be noted that fees required for the recommended infrastructure improvements are identified in a separate document.) Both of these documents are on file with the City of Tracy and can be reviewed both online and/or by request to the City of Tracy Public Works Department, which is located at 520 Tracy Boulevard, Tracy, CA 95376.

Summary of Major Differences Between 1994 TMP and 2012 TMP

The 1994 City of Tracy Transportation Master Plan (1994 TMP) identified required roadway infrastructure to accommodate land use growth for a 20 year interim land use development plan and a 35 year land use development plan. The 1994 TMP refined the growth horizons and developed four potential development patterns and related required roadway infrastructure. Each of the four scenarios assumed concentrated development along corridors or concentric development in specific locations, based on approved and planned developments, known at the time the TMP was compiled. The 1994 TMP identified the following roadway infrastructure improvements:

- Roadways (Expressway and Arterials)
- Freeway Interchanges
- Expressway and Rail Grade Separations (Bridges)
- Right-of-Way Requirements for future roads
- Major Aqueduct Crossings

The "Long Range Roadway and Right-of-Way Master Plan", included in the 1994 TMP, identified the following roadway classification and right-of-way requirements:

- Expressways – 140 feet ROW
- Major Arterials – 110 to 134 feet ROW
- Minor Arterials – 94 to 98 feet ROW
- Rural Highway – 70 feet ROW

The 2012 City of Tracy Transportation Master Plan (2012 TMP) is a comprehensive update to the 1994 TMP based on revised land use development projections through an interim year (2035), which matches the regional planning effort, and falls within the timeframe identified for the City's ultimate General Plan buildout. No area specific scenarios are identified and analyzed in the 2012 TMP due to the uncertainty of when specific development will occur.

Since 1994, substantial changes have occurred to the City SOI boundary line and land use assumptions for population and employment growth. These changes and a recent update of the City's General Plan and Sustainability Action Plan prompted a change to the 1994 Transportation Master Plan.

The 2012 TMP evaluates travel demand and related transportation infrastructure requirements for 2035. For City Buildout, the 2012 TMP indicates the alignment and ROW that would necessary, based on a qualitative assessment only. The interim year analysis includes detailed transportation and traffic analysis. The Buildout year is much further out in the future and thus is more vague and subject to change.

The 2012 TMP added several transportation elements to the Master Plan. These include:

- Comprehensive bicycle and pedestrian infrastructure for interim and ultimate development and provides for an integrated system of Class I, II and III facilities throughout the City
- An Intelligent Transportation System (ITS) that will reduce congestion, improve travel for all modes of transport, and be integrated with improved transit services
- Improved transit facilities along all major roadways, including pull-outs for buses at intersections and entryways to big box commercial development
- Reduced lane and ROW widths to implement Complete Streets principles. The reduced lanes will slow traffic without compromising capacity
- Future Park-and–Ride facilities to promote car-sharing
- Heavy vehicle routes in the City to accommodate freight movement
- Analysis of roadway infrastructure based on reduced LOS standards per the City General Plan.

In addition, the 2012 TMP updates the following roadway elements included in the 1994 TMP:

- A grid system of roadways that reduced vehicle miles traveled
- Freeway interchanges that will provide access for all users to the regional roadway system
- Canal, Aqueduct and Creek crossings with reduced vehicle lane widths, but including access for bicycles and pedestrians
- Rail crossing and rail grade separations that improve railway crossing safety and provides access for vehicles, bicycles and pedestrians.
- Right-of-Way Requirements that provide more area for development, reduce maintenance cost for the City and encompass Complete Street principles.

New ROW requirements included in the 2012 TMP are as follows:

- Parkways (Expressways) – 115 to 159 feet ROW
- Arterials – 74 to 121 feet ROW

Traffic Forecasting Methodology

As described previously, although the General Plan and EIR forecast traffic conditions to the year 2030, the TMP forecasts future traffic conditions to the year 2035 (referred to as the "Horizon Year" in the TMP), which consistent with the SJCOG travel demand model and provides for the maximum possible infrastructure planning, as noted above. To determine how traffic from the year 2035 affects the future roadway system, the following steps were necessary: (1) develop land use assumptions for the year 2035 and buildout; (2) determine trip generation based on future land use assumptions that incorporate sustainability strategies; and, (3) distribute trips throughout the roadway network.

Compared to the year 2030 land use assumptions that form the basis of the transportation modeling conducted for the 2030 General Plan EIR, the land use assumptions developed for the TMP transportation model of the year 2035 show higher amounts of projected housing and employment opportunities. This is due to the five year increase in time in which additional development would be reasonably expected to occur within the City under the direction of the General Plan. The amount of growth assumed for each scenario is depicted in Table 1, Transportation Master Plan Land Use Assumptions within Tracy SOI.

Table 1
Transportation Master Plan Land Use Assumptions within Tracy SOI

Scenario	Single Family[1]	Multi-Family[1]	Total Residential[1]	Retail[2]	Service[2]	Other[2]	Total Employment[2]
Existing (2006)	20,195	6,594	26,789	3,610	9,644	10,850	24,104
2030 General Plan SOI (2030)	29,068	9,858	38,926	11,500	15,276	21,777	48,553
Horizon Year (2035)	27,229	13,297	40,526	15,091	18,751	30,340	64,182
Build-out	29,214	14,343	43,557	35,189	59,915	88,928	184,033

1. Single and Multi-Family land uses represented by number of dwelling units.
2. Non-residential land uses represented by number of employees.
Source: Draft Citywide Roadway Transportation Master Plan, February 2012

The TMP bases the number of vehicle trips generated by future development assumed for the Horizon and build-out scenarios on local trip generation surveys, which are locally validated vehicle trip rates for Tracy. Sustainability strategies that were developed for the City's SAP and the TMP were applied to the Horizon Year land uses where applicable. The application of these strategies effectively reduced the trip generation rates for the majority of land uses as indicated in Table 2, due to increased density/diversity, more connectivity, and/or improved access to regional destinations. Other sustainability strategies identified by the SAP also reduced trip generation and trip lengths, and improve fuel efficiency. Table 2, Peak Hour Vehicle Trip Generation, identifies the morning (AM) and evening (PM) peak hour trip generation for the various land uses within the City.

Table 2
Peak Hour Vehicle Trip Generation

Land Use	Units	AM Peak Hour Tracy Model[1]	AM ITE Peak Hour[2]	PM Peak Hour Tracy Model[1]	PM ITE Peak Hour[2]
Single-Family	Dwelling Units	0.55	0.75	1.05	1.01
Multi-Family (Apartment)	Dwelling Units	0.31	0.51	0.59	0.62
Retail (Shopping Center)	Employees	1.90	1.00	3.46	3.73
Office (General Office Building)	Employees	0.22	0.48	0.42	0.46
Other (Warehousing)	Employees	0.17	0.51	0.33	0.59

1. Trip generation rate based on local trip generation surveys.
2. Trip generation rate based on the *Institute of Transportation Engineers*.
Source: Draft Citywide Roadway Transportation Master Plan, February 2012

Table 3, Citywide Trip Distribution, shows the City's distribution of vehicular trips during both the existing year (2006) and the year 2035. The addition of jobs in the City increases the internal capture of trips, from 62 percent in 2006 to 78 percent in the year 2035. There is still a substantial trip interaction with San Joaquin County in year 2035 because the anticipated increase in jobs in the City would attract residents from the County. However, trips between Tracy and the San Francisco Bay Area drop from 23 percent in 2006 to four percent in the year 2035.

Table 3
Citywide Trip Distribution

	Tracy	North Valley	South Valley	San Francisco Bay Area	San Joaquin County
Existing (2006)	62%	8%	3%	13%	14%
Future (Year 2035)	64%	4%	4%	7%	21%%
Source: Draft Citywide Roadway Transportation Master Plan, February 2012					

A computer model was run using the trip generation and trip distribution identified above for the year 2035 to determine how traffic from year 2035 traffic forecasts would affect the roadway network in the year 2035. The model was developed in consultation with City staff incorporating SAP strategies. The forecast volumes from the model were post-processed to obtain traffic intersection volumes for year 2035 conditions. Post-processing of the model data to provide peak hour intersection volumes was conducted in accordance with industry standards, which included review of existing traffic volumes for consistency on major corridors within the City.

Recommended Improvements to the 2035 Roadway Network

The roadway network forms the backbone of the City's transportation system. The land uses in Tracy in the year 2035 necessitate extensive improvements to the existing transportation system. These improvements extend beyond those identified in the City's General Plan. Tracy's transportation network is envisioned as a multi-modal network of roads, bicycle lanes and paths, transit services, and pedestrian facilities that will support the planned land uses in the City by providing mobility to residents and visitors alike. By implementing an improved transportation network the City would be able to proactively enhance the system, accommodate future growth projected to the year 2035, and maintain the quality of life in Tracy. Improvements required for the 2035 roadway network are identified in the TMP for both local, regional and state road network facilities within the City of Tracy planning area. Both the TMP and its associated fee document are on file with the City of Tracy and can be reviewed both online and/or by request to the City of Tracy Public Works Department, which is located at 520 Tracy Boulevard, Tracy, CA 95376.

Exhibit 3, *Year 2035 Roadway Network,* identifies the improvement proposed as part of the TMP. The proposed TMP includes the following components:

- Railroad Facilities – Maintain and improve five existing at-grade railroad crossings, provide five new grade-separated crossings, and close or relocate three crossings.
- Intersections – Improve traffic operations at 65 intersections. Future improvements would include signal control, lane reconfiguration, roundabouts, and widening of intersection approaches.

- Bicycle and Pedestrian Facilities – Provide bike lanes and pedestrian facilities in future development areas that complement the existing bike and pedestrian system.
- Over/Underpass Facilities, Bridges and Culverts – Maintain and improve 13 existing over/underpass facilities, ten existing bridges, and five existing culverts. Provide two new over/underpass facilities, one new bridge and three new culverts. Improvements to existing facilities include widening or replacement.
- Roadway Classification – Establish roadway hierarchy, functionality, operations and typical cross sections.
- Park and Ride Facilities – Provide new park and ride facilities.
- Intelligent Transportation System – Provide Citywide state-of-the-art reliable and consistent Intelligent Transportation System to manage traffic at intersections and along roadway segments.
- Truck Routes – Maintain and improve existing truck routes, and provide new truck routes to transport freight.

Existing and proposed improvements to the City's transportation system reflects the needs of the City to serve the SOI.

Source: City of Tracy General Plan (2005)

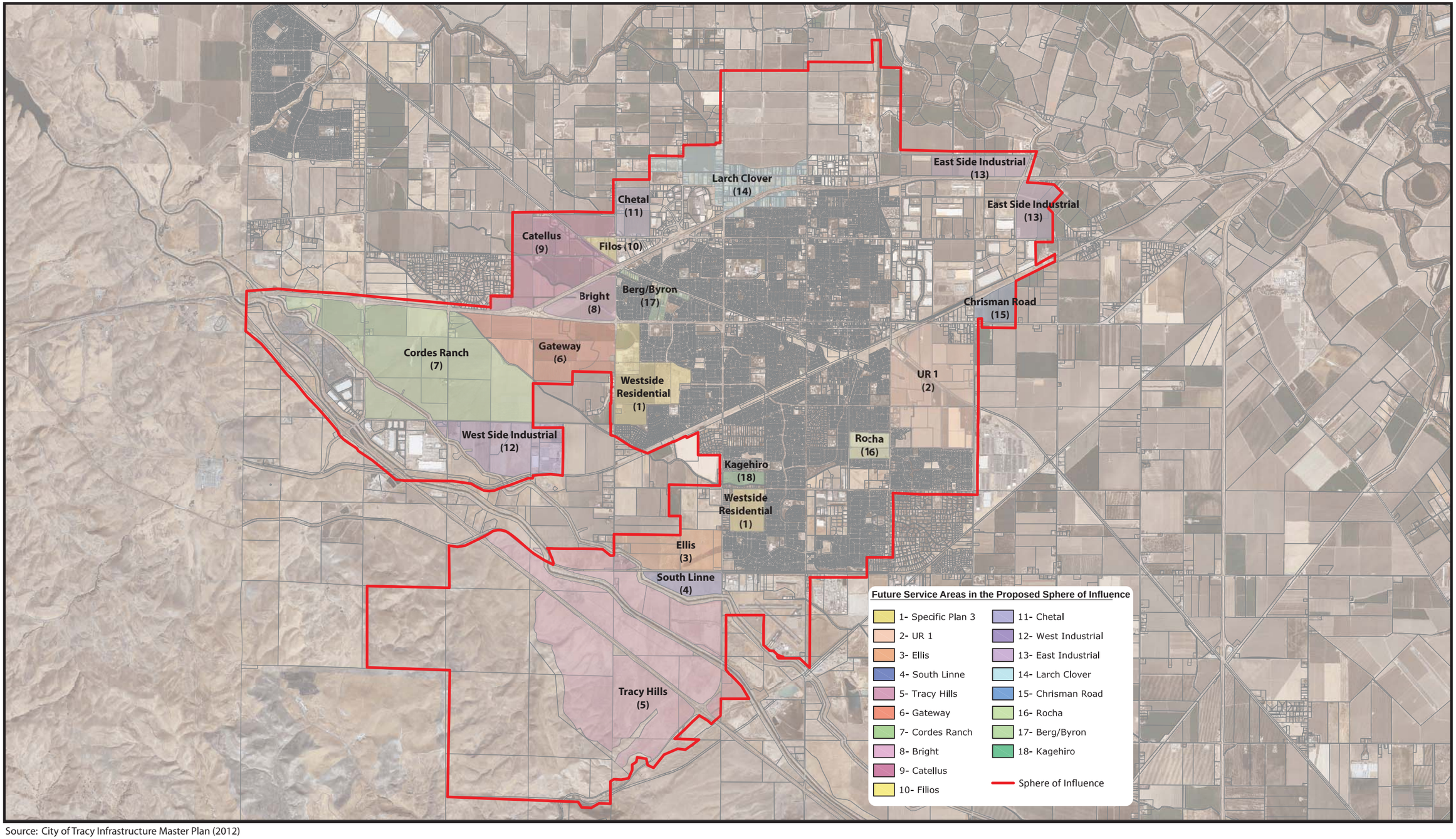
RBF CONSULTING
A Baker Company

Not to Scale

Tracy Transportation Master Plan Initial Study

Regional Location Map

Exhibit 1



Source: City of Tracy Infrastructure Master Plan (2012)

RBF CONSULTING
A Baker Company

Not to Scale

Tracy Transportation Master Plan Initial Study

Study Area Map

Exhibit 2

Not to Scale

LEGEND

- Freeway
- Expressway (City of Tracy)
- County Expressway (San Joaquin)
- County Road
- Arterial
- On-site Arterial
- Collector
- On-site Roads
- Existing Freeway Interchange
- Proposed Freeway Interchange
- (#) No. of Lanes
- Railroad
- City of Tracy SOI

NOTES: This graphic shows the arterial/expressway system. Key new collectors are also shown.

This graphic does not show additional project level network connections that will be required as part of development approvals.

Source: City of Tracy Infrastructure Master Plan (2012)

RBF CONSULTING A Baker Company

Not to Scale

Tracy Transportation Master Plan Initial Study

Year 2035 Roadway Network

Exhibit 3

E. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture & Forest Resources	☒	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Geology and Soils
☒	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials	☐	Hydrology & Water Quality
☐	Land Use & Planning	☐	Mineral Resources	☐	Noise
☐	Population & Housing	☐	Public Services	☐	Recreation
☐	Transportation/Traffic	☐	1. Utilities & Service Systems	2.	3. Mandatory Findings of Significance

F. Determination

On the basis of this initial evaluation:

☐	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☐	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☒	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Signature

6/12/12

Date

G. EVALUATION OF ENVIRONMENTAL IMPACTS

The environmental issues evaluated in this Initial Study/CEQA Guidelines Section 15183 Analysis include the following:

- Aesthetics
- Agricultural & Forest Resources
- Air Quality
- Biological Resources
- Cultural resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

The environmental analysis in this Initial Study/CEQA Guidelines Section 15183 Analysis is patterned after the Environmental Checklist recommended by the *CEQA Guidelines*. For the preliminary environmental assessment undertaken as part of this Initial Study/CEQA Guidelines Section 15183 Analysis preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

Pursuant to Section 15183(b) of the State CEQA Guidelines, this Initial Study/CEQA Guidelines Section 15183 Analysis process is the methodology by which the City used to determine that the examination of environmental effects to be analyzed in an EIR will be limited. Based on the analysis herein, the environmental effects to be analyzed in an EIR are those previously identified significant effects (air quality and greenhouse gas emissions) which, as a result of substantial new information not known at the time the General Plan EIR was certified, have been determined to have a more severe adverse impact than discussed in the prior EIR. The streamlining provisions of Section 15183 are discussed in further detail (above) in Section B, Statutory Authority and Requirements.

For the evaluation of potential impacts, questions are stated and an answer is provided according to the analysis undertaken as part of the Initial Study/CEQA Guidelines Section 15183 Analysis. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- No Impact. The development will not have any measurable environmental impact on the environment.
- Less Than Significant Impact. The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.
- Less Than Significant With Mitigation Incorporated. The development will have the potential to generate impacts, which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- Potentially Significant Impact. The development could have impacts, which may be considered significant, and therefore additional analysis is required to identify mitigation measures that could reduce potentially significant impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

H. ENVIRONMENTAL ANALYSIS

This section analyzes the potential environmental impacts that may result from the proposed Project. For the evaluation of potential impacts, the questions in the Environmental Checklist are stated and answers are provided according to the analysis undertaken as part of the Initial Study/CEQA Guidelines Section 15183 Analysis. The analysis considers the Project's short-term impacts (construction-related), and long-term impacts (operational-related).

I. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☑	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☑	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☑	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☑	☐

Would the Project:

a) Have a substantial adverse effect on a scenic vista? Determination: Less Than Significant Impact.

Scenic resources within the City and SOI are associated with open space and agricultural lands, and are a valued asset to the community. Farming and grazing lands and the grassy hillsides of the Diablo Range are identified as scenic resources in the *General Plan* and contribute to the area's heritage. Specifically, scenic resources in the Tracy Planning Area include:

- Views of the Diablo Range. Rising from the southwest portion of the Tracy Planning Area, the Diablo 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 are represented by streamside vegetation that provides visual contrast as they run through the relatively flat agricultural lands.
- Expansive Agricultural Lands. The land surrounding the City contains agricultural lands that are used for row crops and grazing.
- Hillside Areas. Hillside areas, located on the south-western side of the City to the west of I-580, including in the Tracy Hills Specific Plan area, are a visual amenity for residents of the City and travelers on I-580.
- Electricity-Generating Windfarms. Located on the ridgetops west of the City and close to the Altamont Pass, windfarms are visible from Tracy on clear days.

In addition to the scenic resources described above, the 2006 General Plan EIR also identifies entry corridors/gateways and scenic routes in the Tracy Planning Area. Entry corridors or gateways provide 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. 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.

The TMP identifies necessary new infrastructure to serve the 2035 roadway network. Construction and operation of these facilities has the potential to impact scenic resources and the overall visual character and quality of some areas within the City and SOI. With the exception of grade-separated railroad crossings, and overpasses and bridges, the majority of improvements identified in the TMP would occur at ground level.

During short-term construction activities, view sheds may be temporarily altered by site disturbance, vegetation removal, and the placement of construction equipment, signage and warning markers. However, construction impacts would be temporary in nature and, therefore, would be less than significant. After construction of the identified improvements, long distance views of scenic resources could be permanently altered. However, other views of these scenic resources would be available from other areas within the City.

The 2006 General Plan EIR contemplated the effects of growth in the City's SOI and Planning Area under a 20-year development scenario and at total buildout for visual quality. Although the TMP addresses growth beyond what was modeled in the General Plan for Traffic and Circulation, Noise, and Air Quality, the improvements and expansions identified by the TMP would accommodate growth envisioned for the City by the General Plan during the total buildout scenario timeframe. Thus, because the improvements and expansions identified by the TMP for the 2035 roadway network would be necessary during the total buildout development scenario timeframe analyzed in the 2006 General Plan EIR for this resource, implementation of the TMP would not be expected to result in any greater impacts on scenic vistas and views than those identified by the 2006 General Plan EIR. As described in the 2006 General Plan EIR, in spite of existing policies and regulations to preserve agricultural and open space lands, development projected for the 20-year development scenario and under total buildout of the City limits and SOI would result in significant and unavoidable impacts on scenic views from regional roadways.

It should be noted that the TMP is a policy document and does not propose any construction or operation of specific improvements and expansions at this time. Consequently, adoption of the TMP would not directly result in the construction and operation of improvements and expansions that could negatively impact scenic vistas. However, its adoption would indirectly facilitate the construction and operation of improvements and expansions that could negatively impact scenic vistas. Nonetheless, because specific project details are not available at this time, additional future environmental review would be required on a project by project basis, as specific improvement and expansion projects come forward. This future environmental review would be necessary to analyze and disclose any site-specific impacts the improvements and expansions identified by the TMP might have on scenic vistas.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? Determination: Less Than Significant Impact.

Interstate 580 (I-580) is a state-designated scenic highway that stretches approximately 15 miles from I-5 to SR-205 within the City. The TMP identifies improvements in the vicinity of I-580, including a new freeway interchange and a park and ride facility. However, the 2006 General Plan EIR did not identify any significant visual resources, including trees, rock outcroppings, or historic buildings within the I-580 corridor and it is unlikely the improvements identified by the TMP could impact scenic resources within the I-580 scenic corridor. Nonetheless, the TMP is a policy document and its adoption would not directly result in the construction or operation of any specific improvements or expansions at this time. If and when specific improvements or expansions identified by the TMP are proposed for construction and operation within the I-580 scenic corridor, a separate environmental review process would be undertaken at the time and any site-specific impacts and mitigation would be determined at that future date.

c) Substantially degrade the existing visual character or quality of the site and its surroundings? Determination: Less Than Significant Impact.

As noted in the 2006 General Plan EIR, accommodating all the growth beyond the 20-year planning horizon of the proposed General Plan, will convert all (or nearly all) of the undeveloped land in the City limits and SOI to urban uses, thereby altering the overall visual and aesthetic resources in the City, resulting in a significant and unavoidable impact on the existing visual identity and character of the City. Because the improvements and expansions proposed by the TMP would accommodate growth envisioned for the City by the General Plan beyond the 20-year planning horizon of the General Plan (during the total buildout scenario timeframe), the TMP would be not be expected to result in any

greater impacts on the existing visual identity and character of the City than those identified by the 2006 General Plan EIR for this resource. Regardless, the TMP does not propose the construction or operation of any specific improvements or expansions at this time. Any proposal to construct or operate the improvements or expansions identified by the TMP would undergo a separate environmental review process at the time of the proposal and potential site-specific negative impacts on visual character and quality and any necessary mitigation would be determined at that future date.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? Determination: Less Than Significant Impact.

Improvements and expansions identified in the TMP would create new sources of light and glare. During construction, job sites would require security lighting and long-term, new street lighting and traffic signals would generate operational light and glare. Both short-term construction and long-term sources of light and glare could adversely affect day or nighttime views in the area.

City Standard Plan #154 establishes minimum requirements for light illumination, but does not have regulations limiting glare. The 2006 General Plan EIR determined that the amount of new development envisioned for the City during the General Plan's 20-year development scenario and total buildout scenario would increase light and glare in the City, but adherence to General Plan Policy P5 under Objective CC-1.1, which requires that lighting on private and public property be designed to provide safe and adequate lighting while minimizing light spillage to adjacent properties, would reduce potential impacts to less than significant. Given that the improvements and expansions identified by the TMP for the 2035 roadway network would be necessary during the total buildout development scenario analyzed in the 2006 General Plan EIR, impacts associated with the TMP would not be expected to be any greater than those identified by the 2006 General Plan EIR. Regardless, the City would address light and glare impacts associated with the construction and operation of improvements and expansions identified by the TMP on a project by project basis at such time future proposals come forward.

II. AGRICULTURE RESOURCES

AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☑	☐

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☑	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☑
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☑	☐

Would the Project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? Determination: Less Than Significant Impact.

According to the General Plan, there are a total of 41,087 acres of land identified as Prime Farmland, Unique Farmland, Farmland of Statewide Importance and Farmland of Local Importance within the Tracy Planning Area, SOI and City limits combined. Of this amount, 29,125 acres are located within the Tracy Planning Area outside the SOI, 7,072 acres are within the SOI outside the City limits, and 4,890 acres are located within the City limits. Farmland along the I-580 corridor and the south side of the City is designated as Farmland of Local Importance, which is defined as land of importance to the local economy.

According to the 2006 General Plan EIR, despite mitigation programs and supportive policies intended to reduce conversions of farmland and curb impacts on agricultural resources on a larger scale, the permanent loss of farmland that would occur as a result of the amount of growth expected by the General Plan at total buildout would result in a significant and unavoidable impact on agricultural resources. The improvements and expansions identified by the TMP for the 2035 roadway network would be necessary during the total buildout development scenario analyzed in the 2006 General Plan EIR and would not be expected to result in any greater loss or conversion of agricultural resources than identified in the 2006 General Plan EIR. Nonetheless, as specific improvements and expansions identified by the TMP are proposed for construction and operation, they would undergo separate environmental review on a project by project basis and any site-specific potential conversion of farmland to non-agricultural use resulting from their implementation would be determined at that time.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? Determination: Less Than Significant Impact.

According to the 2006 General Plan EIR, despite policies in the General Plan to support and encourage preservation of Williamson Act lands and the voluntary nature of the Williamson Act program, total buildout of the City limits and SOI may result in the significant and unavoidable conversion of approximately 3,867 acres of land under Williamson Act contracts to urban uses. The improvements and expansions identified by the TMP for the 2035 roadway network would be necessary during the total buildout development scenario analyzed in the 2006 General Plan EIR and would not be expected to result in any greater conversion of Williamson Act lands than identified in the 2006 General Plan EIR. Nonetheless, as specific improvements and expansions identified by the TMP are proposed for construction and operation, they would undergo separate environmental review on a project by project basis and any site-specific potential conversion of Williamson Act lands to urban use resulting from their construction and operation would be determined at that time.

c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? Determination: No Impact.*

No land located within the SOI or City limits is currently classified as forest land, timberland, or timberland zoned for production. Therefore, improvements proposed as part of the TMP would not conflict with existing zoning or cause rezoning of any such land. Therefore, no impact would result.

d) *Result in the loss of forest land or conversion of forest land to non-forest use? Determination: No Impact.*

Refer to Response II(c), above.

e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? Determination: Less Than Significant Impact.*

As described in the 2006 General Plan EIR, in spite of County and City policies to help minimize conflicts between agricultural and urban uses and reduce pressure for additional conversion of agricultural land to non-agricultural use, development envisioned by the General Plan at total buildout would result in additional and incompatible urban development adjacent to agricultural uses. This is a significant and unavoidable impact of implementation of the General Plan. The 2006 General Plan EIR determined that no additional mitigation is available.

The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. This time period is within the total buildout timeframe analyzed by the 2006 General Plan EIR. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the 2006 General Plan EIR. However, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any site-specific potential for their construction and operation to convert farmland to urban use would be determined at that time.

III. AIR QUALITY

AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☑	☐	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☑	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☑	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☑	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☑	☐	☐	☐

Would the Project:

a) *Conflict with or obstruct implementation of the applicable air quality plan (San Joaquin Valley Air Pollution Control District)? Determination: Potentially Significant Impact.*

The City of Tracy is located within the San Joaquin Valley Air Basin (Basin). The San Joaquin Valley Air Pollution Control District (SJVAPCD) has jurisdiction over most air quality matters in the Basin and is tasked with implementing programs and regulations required by the federal and state Clean Air Acts.

Air Quality Plans (AQPs) applicable to the proposed TMP include SJVAPCD's Ozone Plans (One-Hour and Eight-Hour) and Particulate Matter Plans (PM_{10} and $PM_{2.5}$), which are part of the State Implementation Plan (SIP). The Basin is considered a non-attainment area for ozone and respirable particulate matter (PM_{10} and $PM_{2.5}$).

The California Clean Air Act (CCAA) requires non-attainment areas with severe to extreme air quality problems to provide for a five percent reduction of non-attainment emissions per year. The AQPs for ozone and PM_{10} prepared for the Basin by the SJVAPCD fulfill this requirement. Banked emission reduction credits are included in the emissions inventories and provide an additional means to attaining the required five percent reduction in these inventories per year.

Air quality conformity to an implementation plan as required in CCAA Section 176(c) is defined as: "Conformity to the plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards; and that such activities would not (i) cause or contribute to any new violation of any standard in any area; (ii) increase the frequency or severity of any existing violation of any standard in any area; or (iii) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area." The Air Quality Conformity document adopted July 20, 2006, demonstrates that the federally approved Regional Transportation Plan (RTP) and the Federal Transportation Improvement Program (FTIP) conform to the SIP for controlling air pollution sources.

If a project is found to interfere with the region's ability to comply with federal and state air quality standards, local governments then need to consider project modifications or provide mitigation measures to eliminate the inconsistency of the project plans. In order for a project to be considered "consistent" with the latest AQP, the proposed project must be consistent with the goals, objectives, and assumptions in the respective plan to achieve federal and state air quality standards.

Although the proposed TMP includes plans, policies and programs that would be implemented to provide necessary transportation infrastructure for anticipated population growth at future horizon year 2035, this growth would result in greater vehicle miles traveled (VMT) than studied in the *General Plan EIR*. Thus, the TMP could result in a conflict with SJVAPCD AQPs and a potentially significant air quality impact, which will be studied in an EIR.

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation? Determination: Potentially Significant Impact.*

Refer to Response III(a), above. The proposed TMP could result in potentially significant air quality impacts that will be studied in an EIR.

c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? Determination: Potentially Significant Impact.*

Refer to Response III(a), above. The proposed TMP could result in potentially significant air quality impacts that will be studied in an EIR.

d) *Expose sensitive receptors to substantial pollutant concentrations? Determination: Potentially Significant Impact.*

Refer to Response III(a), above. The proposed TMP could result in potentially significant air quality impacts that will be studied in an EIR.

e) *Create objectionable odors affecting a substantial number of people? Determination: Potentially Significant Impact.*

Refer to Response III(a), above. The proposed TMP could result in potentially significant air quality impacts that will be studied in an EIR.

IV. BIOLOGICAL RESOURCES

BIOLOGICAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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?	☐	☐	☑	☐
b) 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?	☐	☐	☑	☐
c) 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?	☐	☐	☑	☐
d) 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?	☐	☐	☑	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☑	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☑	☐

Would the Project:

a) *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? Determination: Less Than Significant Impact.*

As identified in the 2006 General Plan EIR, future development in the City limits and SOI could result in adverse direct or indirect impacts on sensitive species identified in the area and their habitats. The 2006 General Plan EIR concluded that these impacts could be mitigated to less than significant through compliance with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). Or if development projects choose to not participate in the plan, as it is voluntary, existing local, state, and federal regulations require similar mitigation that could reduce impacts to less than significant.

The improvements and expansions identified by the TMP would be necessary to accommodate development envisioned by the General Plan up to the year 2035. Though this is 5 years beyond the 20-year "horizon" identified by the 2006 General Plan, but it is within the total buildout timeframe analyzed by the 2006 General Plan EIR for this environmental resource. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts to biological resources than identified in the 2006 General Plan EIR. However, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any site-specific potential for their construction and operation to negatively affect sensitive or special status species and their habitats would be determined at that time.

b) *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 U.S. Fish and Wildlife Service? Determination: Less Than Significant Impact.*

Refer to the response above, under Checklist Item IV.a. Total buildout of the General Plan could adversely affect sensitive habitats, which include riparian areas and other natural communities recognized by local, state, or federal agencies. These potential impacts could be adequately mitigated by compliance with the SJMSCP or local, state, and federal regulations, if development projects do not choose to participate in the SJMSCP. The TMP would not result in any greater impacts than identified in the 2006 General Plan EIR, as the improvements and expansions it identifies would be necessary to accommodate growth envisioned by the General Plan within the total buildout timeframe analyzed by the 2006 General Plan EIR for this resource. Nonetheless, the TMP is a policy document and its implementation would not result in direct construction or operation of specific improvements or expansions at this time. Site-specific impacts on riparian habitat or other natural communities resulting from the construction and operation of the improvements and expansions identified by the TMP would be addressed on a project by project basis at such time future proposals come forward.

c) *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? Determination: Less Than Significant Impact.*

The 2006 General Plan EIR determined that implementation of the General Plan could result in the development of lands containing federally-protected wetlands. However, this potentially significant impact of full buildout of the General Plan could be mitigated to less than significant by compliance with the SJMSCP or state and federal regulations. In addition, a development project proposed in a wetland area would be required to undergo additional environmental review to determine if additional mitigation measures are required.

The improvements and expansions identified by the TMP would accommodate growth in the City's SOI and Planning Area during the total buildout timeframe analyzed by the 2006 General Plan EIR for this resources and because of this, they would not be expected to result in any greater wetland impacts than identified in the 2006 General Plan EIR for this resource. Regardless, as individual improvement or expansion projects identified by the TMP come forward, they would require separate environmental review on a project by project basis to analyze and disclose any potentially significant site-specific wetland impacts that could result from their construction and operation.

d) *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? Determination: Less Than Significant Impact.*

Refer to the response to Checklist Item IV.a, above. The 2006 General Plan EIR determined that impacts on wildlife corridors fall under the category of impacts on sensitive species and their habitat. The conclusions of the 2006 General Plan EIR were that full buildout of the City and its SOI could result in potentially adverse impacts on sensitive species and their habitat, including wildlife corridors, that could be mitigated by compliance with the SJMSCP or local, state, or federal regulations (if SJMCP compliance is not sought). The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. This time period is within the total buildout timeframe analyzed by the 2006 General Plan EIR for these resources. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the 2006 General Plan EIR. However, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any site-specific potential for their construction and operation to adversely impact wildlife corridors would be determined at that time.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? Determination: Less Than Significant Impact.

The City has a tree ordinance (Tracy Municipal Code [T.M.C.] (Chapter 7.08) that protects "street trees" planted within rights-of-way or planting easements. Any improvements or expansion projects identified by the TMP would be required to adhere to the rules and regulations set forth in Chapter 7.08 of the T.M.C. Therefore, impacts would be less than significant.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? Determination: Less Than Significant Impact.

The 2006 General Plan EIR determined that development permitted under the proposed General Plan would not adversely impact the purpose and function of the SJMSCP. The improvements and expansions identified by the TMP would accommodate growth envisioned by the General Plan within the total

buildout timeframe analyzed by the 2006 General Plan EIR for this resource. As such, the TMP would not be expected to result in any greater impacts than identified in the 2006 General Plan EIR.

As described above, participation in the SJMSCP is voluntary. However, other existing local, state, and federal regulations require similar mitigation as identified in the SJMSCP that could reduce impacts on biological resources to less than significant. It is anticipated that as improvement or expansion projects identified by the TMP come forward they would participate in the SJMSCP or would be required to implement other existing local, state, and federal regulations to mitigate impacts on biological resources and thus, would not conflict with the SJMSCP. Subsequent environmental review would be required to further analyze potential site-specific impacts on biological resources on a case by case basis and determine compliance with the SJMSCP.

V. CULTURAL RESOURCES

CULTURAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?	☐	☐	☑	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?	☐	☐	☑	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☑	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☑	☐

Would the Project:

a) *Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines § 15064.5? Determination: Less Than Significant Impact.*

Historic resources generally consist of buildings, structures, improvements, and remnants associated with a significant historic event or person(s) and/or represent a historically significant style, design, or achievement. Damage to or demolition of such resources is typically considered a significant impact. Direct Impacts on historic resources can occur through their destruction or removal and indirect impacts can occur from a change in the setting of a historic resource.

According to the 2005 General Plan EIR, policies and guiding mechanisms in the General Plan would reduce potential impacts on cultural resources, including historic resources that could occur as a result of total buildout of the General Plan to less than significant. The improvements and expansions identified by the TMP for the 2035 roadway network would be necessary during the total buildout

development scenario analyzed in the 2005 General Plan EIR for this resource. As such, when specific improvements and expansions identified by the TMP are proposed for construction and operation, they would be expected to result in less than significant impacts on historic resources through the implementation of policies and guiding mechanisms identified in the General Plan. Nonetheless, as specific improvements and expansions identified by the TMP are proposed for construction and operation, they would undergo separate environmental review on a project by project basis and any potential site-specific impacts on historic resources resulting from their construction and operation would be determined at that time.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5? Determination: Less Than Significant Impact.

Archaeological sites are locations that contain resources associated with former human activities, and may contain human skeletal remains, waste from tool manufacture, tool concentrations, and/or discoloration or accumulation of soil or food remains. The Tracy Planning Area contains known archaeological sites and likely contains undiscovered archaeological sites as well, particularly in undeveloped areas.

As described above, the 2005 General Plan EIR concluded that impacts on cultural resources resulting from total buildout of the General Plan would be reduced to less than significant with adherence to policies and guiding mechanisms identified by the General Plan. These policies and guiding mechanisms address potential impacts on archaeological resources. The improvements and expansions identified by the TMP for the 2035 roadway network would be necessary during the total buildout development scenario timeframe analyzed in the 2005 General Plan EIR for this resource. Therefore, implementation of the TMP would not be expected to result in any greater impacts on cultural resources than those identified by the 2005 General Plan EIR. Regardless, the TMP is a policy document that does not propose the construction or operation of any specific expansions or improvements at this time. When specific expansions or improvements identified by the TMP are proposed for construction and operation, separate environmental review would be undertaken and any site-specific impacts on archaeological resources resulting from their construction and operation and necessary mitigation would be determined at that time.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Determination: Less Than Significant Impact.

Paleontological resources are the preserved fossilized remains of plants and animals. Fossils and traces of fossils are preserved in sedimentary rock units, particularly fine- to medium-grained marine, lake, and stream deposits, such as limestone, siltstone, sandstone, or shale, and in ancient soils (paleosols). They are also found in coarse-grained sediments, such as conglomerates or coarse alluvium sediments. Fossils are rarely preserved in igneous or metamorphic rock units. Fossils may occur throughout a sedimentary unit and, in fact, are more likely to be preserved subsurface, where they have not been damaged or destroyed by previous ground disturbance, amateur collecting, or natural causes such as erosion. In contrast, archaeological and historic resources are often recognized by surface evidence of their presence.

The 2005 General Plan EIR determined that potential impacts on cultural resources, including paleontological and unique geologic resources that could occur as a result of total buildout of the General Plan would be reduced to less than significant by adherence to policies and guiding mechanisms

identified in the General Plan. The improvements and expansions identified by the TMP would be necessary during the total buildout development scenario analyzed in the 2005 General Plan EIR for this resource and would be expected to result in no greater impacts than identified in the 2005 General Plan EIR. Nonetheless, as specific improvements and expansions identified by the TMP are proposed for construction and operation, they would undergo separate environmental review on a project by project basis and any potential site-specific impacts on paleontological and unique geologic resources resulting from their construction and operation would be determined at that time.

d) Disturb any human remains, including those interred outside of formal cemeteries? Determination: Less Than Significant Impact.

Ground-disturbing activities, such as grading or excavation, have the potential to disturb human remains. If human remains are found, those remains would require proper treatment, in accordance with applicable laws. The Native American Graves Protection and Repatriation Act (NAGPRA) includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American cultural items on federal and tribal lands, and penalties for noncompliance and illegal trafficking. California Public Resources Health and Safety Code Section 7050.5-7055 describes the general provisions regarding human remains, including the requirements if any human remains are accidentally discovered during excavation of a site. Future proposals to construct the improvements and expansions identified by the TMP would be required to comply with all applicable governmental requirements regarding the treatment of human remains and burial items.

The 2005 General Plan EIR found that compliance with policies and guiding mechanisms identified in the General Plan would reduce any impacts on human remains associated with buildout of the General Plan to less than significant. Given that the improvements and expansions identified in the TMP would occur within the buildout timeframe of the General Plan, the TMP would not be expected to result in any greater impacts on human remains than identified in the 2005 General Plan EIR. Nonetheless, the TMP is a policy document that does not propose the construction or operation of any specific expansions or improvements at this time. If and when specific expansions or improvements identified by the TMP are proposed for construction and operation, separate environmental review would be undertaken at the time and any site-specific impacts and mitigation would be determined at that future date.

VI. GEOLOGY AND SOILS

GEOLOGY AND SOILS -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology	☐	☐	☑	☐

Special Publication 42.				
ii) Strong seismic ground shaking?	☐	☐	☑	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☑	☐
iv) Landslides?	☐	☐	☑	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☑	☐
c) 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?	☐	☐	☑	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2004), creating substantial risks to life or property?	☐	☐	☑	☐
e) 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?	☐	☐	☐	☑

Would the Project:

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

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. Determination: Less Than Significant Impact.

During the buildout timeframe of the General Plan, the 2005 General Plan EIR identified a slight risk of ground rupture for development within the southwest portion of the Tracy Planning Area along the Black Butte fault. Since the improvements and expansions identified by the TMP for the 2035 roadway network would occur during the buildout timeframe analyzed in the 2005 General Plan EIR for this resource, implementation of the TMP would not be expected to result in any greater impacts associated with earthquake fault rupture than identified by the General Plan EIR. In spite of this, no specific improvements and expansions identified by the TMP are proposed for construction and operation at this time. At the time specific improvements and expansions are proposed for construction and operation, they would undergo a separate environmental review process to determine potential site-specific impacts and necessary mitigation associated with fault rupture.

ii) Strong seismic ground shaking? Determination: Less Than Significant Impact.

Major active faults that are closest to, but outside of the Tracy Planning Area, have historically been the source of earthquakes felt in Tracy. These faults include the San Andreas, Calaveras, Hayward, and Greenville faults. According to the General Plan EIR, 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 SOI. The Tracy-Stockton fault passes beneath the City in the deep subsurface and is considered inactive. The five other faults are located in the southwestern portion of the Tracy Planning Area: the Black Butte fault, the Midway fault, the San Joaquin fault, the Carnegie/Corral Hollow fault, and the Elk Ravine fault, and are also considered inactive. The City has a low to moderate seismic history. However, the City has the potential to experience groundshaking caused by seismic activity on nearby faults.

The 2005 General Plan EIR analyzed the seismic groundshaking risks associated with buildout of the General Plan and found risks would be less than significant with compliance with the latest California Uniform Building Code (UBC) standards and policies identified in the General Plan. The improvements and expansions identified by the TMP would be required to comply with the latest UBC, as required by the City Municipal Code 9.04.030, which would reduce risks associated with seismic groundshaking to the maximum extent practicable. Additionally, the improvements and expansions identified by the TMP would be necessary during the buildout timeframe of the General Plan. As such, the improvements and expansions proposed by the TMP would be at no greater risk from seismic groundshaking than what was identified in the 2005 General Plan EIR. Regardless, the TMP is a policy document and does not propose the construction or operation of specific improvements or expansions at this time. When specific improvements or expansions identified by the TMP are proposed for construction and operation they would be required to undergo separate environmental review at the time they are proposed to determine the potential site-specific risk associated with seismic groundshaking and the appropriate measures that would be needed to ensure the minimization of such risk.

iii) Seismic-related ground failure, including liquefaction? Determination: Less Than SignificantImpact.

The northern portion of the City has surficial soils that have low liquefaction potential. However, the underlying soils are relatively clean, water-saturated sands and peats, which have higher liquefaction potential. The southern portion of the City is considered to be moderately susceptible to liquefaction due to loose, coarse-grained deposits.

As described in the 2005 General Plan EIR, the potential risk of liquefaction for development envisioned for the City during the buildout timeframe of the General Plan would be reduced to less than significant through the implementation of General Plan Safety Element Policy Objective SA-1.1, P1, which requires that geotechnical engineering studies be undertaken for any development in areas where potentially serious geologic risks exist. Given that the improvements and expansions identified by the TMP for the 2035 roadway network would be necessary during the total buildout development scenario analyzed in the 2005 General Plan EIR for this resource, impacts associated with the TMP would not be expected to be any greater than those identified by the General Plan EIR. Regardless, the City would address site-specific liquefaction impacts associated with the construction and operation of improvements and expansions identified by the TMP on a project by project basis at such time future proposals come forward.

iv) Landslides? Determination: Less Than Significant Impact.

The 2005 General Plan EIR determined that implementation of the General Plan would not result in significant risk of landslides or ground failure, given the relatively flat nature of the Tracy Planning Area. However, it noted that in the wider Tracy Planning Area, some limited potential for risk exists in the foothills and mountain terrain of the upland areas in the southwest and the potential for small scale slope failures along river banks also exists. The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. This time period is within the timeframe analyzed by the 2005 General Plan EIR for this resource. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the 2005 General Plan EIR. However, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any potential for their construction and operation to result in site-specific landslide or ground failure risks would be determined at that time.

b) Result in substantial soil erosion or the loss of topsoil? Determination: Less Than Significant Impact.

Soil erosion is defined as the detachment and movement of soil particles by the erosive forces of wind or water. As described by the 2005 General Plan EIR, the majority of Tracy is on flat land with little risk of erosion but, there is potential for the loss of topsoil with any development that occurs on hillsides because removal of vegetation can increase erosion. The 2005 General Plan EIR concluded that the implementation of the General Plan would not result in significant topsoil and erosion impacts. The improvements and expansions identified by the TMP would be necessary during the implementation timeframe of the General Plan and as such, would not be expected to result in any greater topsoil and erosion impacts than identified in the 2005 General Plan EIR.

The TMP is a policy document and does not propose any construction or operation of specific improvements and expansions at this time. Consequently, adoption of the TMP would not directly result in the construction and operation of improvements and expansions that could result in substantial soil erosion or loss of topsoil. However, its adoption would indirectly facilitate the construction and operation of improvements and expansions that could result in soil erosion or the loss of topsoil. Nonetheless, because specific project details are not available at this time, additional future environmental review would be required on a project by project basis, as specific improvement and expansion projects come forward. This future environmental review would be necessary to analyze and disclose any site-specific soil erosion impacts or loss of topsoil the improvements and expansions identified by the TMP might have.

c) 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? Determination: Less Than Significant Impact.

Refer to Responses VI(a)(ii) through VI(a)(iv), above.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2004), creating substantial risks to life or property? Determination: Less Than Significant Impact.

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. The 2005 General Plan EIR identified that Tracy has a moderate to high risk for expansive soils, depending on the location and soil type. The 2005 General Plan EIR concluded that the risk for exposure to expansive soils would increase as a result of implementation of the General Plan, but that this risk could be mitigated to less than significant by compliance with General Plan policy Objective SA-1.1, P2, which requires geotechnical reports for all development proposed in areas with risk of geological hazard.

The improvements and expansions identified by the TMP would be necessary during the implementation timeframe analyzed in the 2005 General Plan EIR and would be expected to result in no greater impacts than identified in the 2005 General Plan EIR for this resource, given that individual projects would be required to comply with General Plan policy Objective SA-1.1, P2. However, as specific improvements and expansions identified by the TMP are proposed for construction and operation, they would undergo separate environmental review on a project by project basis and any potential site-specific impacts associated with expansive soils resulting from their construction and operation would be determined at that time.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? Determination: No Impact.

The TMP improvements and expansions identified by the TMP would not use septic tanks or alternative wastewater disposal systems. Therefore, no impacts would result.

VII. GREENHOUSE GAS EMISSIONS

GREENHOUSE GAS EMISSIONS - Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☑	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☑	☐	☐	☐

Would the Project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? Determination: Potentially Significant Impact.

Greenhouse gases (GHGs) are gases in the atmosphere that absorb and emit radiation. The greenhouse effect traps heat in the troposphere through a three-fold process, summarized as follows: short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the

form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect. The main GHGs in the Earth's atmosphere are water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), hydrofluorocarbons (HCFs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Direct GHG emissions include emissions from construction activities, area sources, and mobile (vehicle) sources. Typically, mobile sources make up the majority of direct emissions. Indirect GHG emissions are generated by incremental electricity consumption and waste generation. Electricity consumption is responsible for the majority of indirect emissions.

Regulatory Environment

In June 2005, California established GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050. In 2007, California further solidified its dedication to reducing GHGs by setting a new Low Carbon Fuel Standard for transportation fuels sold within the state with Executive Order S-1-07. Executive Order S-1-07 sets a declining standard for GHG emissions measured in CO_2 equivalent gram per unit of fuel energy sold in California.

In response to the transportation sector accounting for more than half of California's CO_2 emissions, Assembly Bill (AB) 1493 (AB 1493, Pavley) was enacted on July 22, 2002. AB 1493 required the California Air Resources Board (CARB) to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is noncommercial personal transportation in the state. Additionally, the California legislature enacted AB 32 (AB 32, Nuñez) in 2006 to further the goals of Executive Order S-3-05. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major industries, with penalties for noncompliance.

CARB adopted the *AB 32 Climate Change Scoping Plan* (Scoping Plan) in December 2008 to achieve reductions in GHG emissions in California pursuant to the requirements of AB 32. The Scoping Plan contains the main strategies California will use to reduce GHG emissions. AB 32 requires California to reduce its GHG emissions by approximately 28 to 33 percent below business as usual (BAU). CARB has identified reduction measures to achieve this goal as set forth in the Scoping Plan.

The proposed TMP provides a comprehensive review of the City's transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan. As a result, the proposed project could generate GHG emissions that may have a significant impact on the environment. Therefore, this issue will be analyzed in more detail in an EIR.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? Determination: Potentially Significant Impact.

On February 1, 2011, the City adopted a Sustainability Action Plan in response to AB 32. Consistent with the recommendations of the CARB Scoping Plan, the City's Sustainability Action Plan establishes a GHG reduction goal of 29 percent of community and municipal GHG emissions from 2020 BAU projected

levels. To achieve the reduction goal, the Sustainability Action Plan provides various goals and best practices that focus on energy, transportation and land use, solid waste, water use, agriculture and open space, biological resources, air quality, public health, and economic development. The Sustainability Action Plan goals and best practices are incorporated in the General Plan. GHG emissions associated with the TMP will be addressed and reviewed in an EIR in the context of the Sustainability Action Plan and General Plan to determine the significance of potential impacts.

VIII. HAZARDS AND HAZARDOUS MATERIALS

HAZARDS AND HAZARDOUS MATERIALS - Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
b) 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?	☐	☐	☑	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑	☐
d) 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?	☐	☐	☑	☐
e) 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?	☐	☐	☑	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
g) Impair implementation of or physically interfere with an adopted emergency	☐	☐	☑	☐

response plan or emergency evacuation plan?

h) 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? ☐ ☐ ☑ ☐

Would the project:

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? Determination: Less Than Significant Impact.*

The TMP is the principal policy document for guiding the provision of adequate and efficient access to the City's transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan. Therefore, implementation of the TMP would not result in the routine use or generation of hazardous materials that would require routine transport or disposal. However, hazardous materials would likely be transported through the Tracy Planning Area on the City's transportation system on a routine basis.

The 2006 General Plan EIR found that 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 General Plan through buildout, but that several policies and actions identified in the General Plan (Objective SA-4.1, P3 and Objective SA-4.1, A2) would promote the safe transport of hazardous materials through Tracy. 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.

The TMP would not result in any greater impacts than identified in the 2006 General Plan EIR, as the improvements and expansions it identifies would be necessary to accommodate growth envisioned by the General Plan within the total buildout timeframe analyzed by the 2006 General Plan EIR for this resource. Nonetheless, as noted above, the TMP is a policy document and as such it would not result in the construction or operation of specific improvements or expansions at this time. Consequently, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any potential for their construction and operation to create a significant site-specific hazard to the public through the routine transport, use, or disposal of hazardous material would be determined at that time.

b) *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? Determination: Less Than Significant Impact.*

The 2006 General Plan EIR acknowledges two superfund sites in the City of Tracy, in addition to areas in the City that have the potential to contain contamination in the buildings (such as asbestos), soil, or groundwater from past uses. According to the 2006 General Plan EIR, because no growth is planned on either superfund site through the implementation timeframe of the General Plan there would be no

related impact. In addition, the 2006 General Plan EIR concluded that adherence to General Plan policy (Objective SA-4.1, P2), which requires developers to conduct the necessary level of environmental investigation prior to project approval, buildout of the General Plan involving redevelopment of areas with hazardous materials present would not result in significant accidental releases of hazardous materials.

The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. This time period is within the total buildout timeframe analyzed by the 2006 General Plan EIR for this resource. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the 2006 General Plan EIR. However, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any potential for their construction and operation to result in significant accidental releases of hazardous materials would be determined on a site-specific basis at that time.

c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? Determination: Less Than Significant Impact.*

As described above in response to Checklist Item VIII.a, the TMP is a policy document designed to guide the necessary improvements and expansions to the City's transportation system required to accommodate growth envisioned by the General Plan to the year 2035, which is within the total buildout development scenario studied in the 2006 General Plan EIR for this resource. Because of the nature of the TMP, its implementation would not generate, handle, or emit hazardous materials. However, it is likely that improvements and expansions identified by the TMP would be necessary within one-quarter mile of schools throughout the City.

The 2006 General Plan EIR determined that adherence to General Plan policies and actions along with existing federal and state regulation would reduce the potential threat of hazardous materials to human health through buildout of the General Plan to a less than significant level. Given that the improvements and expansions identified by the TMP would accommodate growth in the City's SOI and Planning Area during the total buildout timeframe analyzed by the 2006 General Plan EIR, they would not be expected to result in any greater threat of exposure to hazardous materials than identified in the 2006 General Plan EIR. Regardless, as individual improvement or expansion projects identified by the TMP come forward, they would require separate environmental review on a project by project basis to analyze and disclose any potentially significant site-specific hazardous materials impacts that could result from their construction and operation.

d) *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? Determination: Less Than Significant Impact.*

The Environmental Protection Agency (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. The second is the Lawrence Livermore National Lab, which is located in the southwest corner of the Tracy Planning Area. Both sites currently have human exposure under control, but have not yet mitigated effects to

groundwater migration. The TMP does not identify any improvements or expansions within these two sites. As noted above in the response to Checklist Item VIII.a., the 2006 General Plan EIR found that there would be no significant impact through buildout of the General Plan in regard to either superfund site, as no growth is planned on either site.

The improvements and expansions identified by the TMP would accommodate growth in the City's SOI and Planning Area during the total buildout timeframe analyzed by the 2006 General Plan EIR and because of this, they would not be expected to result in any greater impacts associated with federally listed hazardous materials sites than identified in the 2006 General Plan EIR. Nonetheless, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any potential for their construction and operation to result in site-specific impacts associated with federally listed hazardous materials sites would be determined at that time.

e) 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? Determination: Less Than Significant Impact.

The Tracy Municipal Airport is a general aviation airport owned by the City and managed by the Parks and Community Services Department. It is located in the southern portion of the City. The TMP identifies improvements and expansions within two miles of the Tracy Municipal Airport. According to the 2006 General Plan EIR, implementation of the 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, but implementation of policies and actions identified in the General Plan (Objective LU-6.3, P1 and P2, Objective SA5.1, P1, and Objective SA-5.1, A1) would avoid a significant safety impact with the Tracy Municipal Airport.

The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. This time period is within the timeframe analyzed by the 2006 General Plan EIR under the buildout scenario for this environmental topic. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the General Plan EIR. However, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any potential for their construction and operation to result in a significant site-specific safety impact on the Tracy Municipal Airport would be determined at that time.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? Determination: No Impact.

There are no private airstrips located within the Tracy Planning Area and there would be no related impact.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? Determination: Less Than Significant Impact.

The City has an emergency preparedness plan. According to the 2006 General Plan EIR, the General Plan includes actions for the City to update its emergency preparedness plan in response to changes in land use, population and city boundaries associated with buildout of the General Plan, and to conduct periodic drills using the emergency response systems to test the effectiveness of City procedures (Objective SA-6.1, A1 and A4). The 2006 General Plan EIR found that new development and population growth within the City due to buildout of the General Plan would increase demand for emergency services during disasters, but that General Plan policies and actions, such as Objective SA-6.1, A1 and A4 would reduce any impacts associated with emergency preparedness to a less than significant level.

The improvements and expansions identified by the TMP for the 2035 roadway network would be necessary during the total buildout development scenario analyzed in the 2006 General Plan EIR and would not be expected to result in any greater demand for emergency services during disasters than identified in the 2006 General Plan EIR. Nonetheless, as specific improvements and expansions identified by the TMP are proposed for construction and operation, they would undergo separate environmental review on a project by project basis and any potential for their construction or operation to interfere with the City's adopted emergency preparedness plan or increase demand for emergency services during disasters would be determined on a site-specific basis at the time.

h) 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? Determination: Less Than Significant Impact.

The TMP identifies improvements and expansions to the City's existing transportation system necessary to accommodate growth envisioned by the General Plan to the year 2035, which is within the total buildout development scenario studied in the 2006 General Plan EIR for this environmental topic. Some of these improvements and expansions would be located adjacent to or within wildland fire areas. According to the 2006vGeneral Plan EIR, implementation of General Plan policies would reduce the risk of exposure to wildland fire throughout the buildout of the General Plan to less than significant. Because the TMP identifies improvements and expansions necessary to accommodate growth envisioned by the General Plan within the total buildout timeframe analyzed by the 2006 General Plan EIR for this environmental topic, it would not result in any greater impacts than identified in the General Plan EIR. Nevertheless, the TMP is a policy document and would not result in the construction or operation of specific improvements or expansions at this time. The potential for the construction and operation of the improvements and expansions identified by the TMP to result in significant site-specific exposure of people or structures to wildland fire would be addressed on a project by project basis at such time future proposals come forward.

IX. HYDROLOGY AND WATER QUALITY

HYDROLOGY AND WATER QUALITY -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☑	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☑	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☑	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☑	☐
f) Otherwise substantially degrade water quality?	☐	☐	☑	☐
g) 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?	☐	☐	☐	☑
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☑	☐

i) 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?	☐	☐	☑	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☑	☐

Would the Project:

a) *Violate any water quality standards or waste discharge requirements? Determination: Less Than SignificantImpact.*

As identified in the 2006 General Plan EIR, the City's Storm Water Management Plan establishes Best Management Practices (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 General Plan EIR concludes that implementation of the BMPs identified in the City's Storm Water Management Plan, as well as General Plan policies and other regulatory requirements regarding stormwater management ensure that the buildout of the General Plan would not have a significant impact on storm water quality or waste discharge requirements.

The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. This time period is within the timeframe analyzed by the 2006 General Plan EIR under the buildout scenario for this resource. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the 2006 General Plan EIR. However, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any potential for their construction and operation to violate any water quality standards or waste discharge requirements on a site-specific basis would be determined at the time.

b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? Determination: Less Than Significant Impact.*

As described previously, the TMP is the principal policy document for guiding the provision of adequate and efficient access to the City's transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan. Therefore, by its very nature, implementation of the TMP would not be expected to result in groundwater depletion. The 2006 General Plan EIR found that the City's current use of groundwater can be supported without negatively impacting the aquifer beneath the City. This in combination with adopted City policies and General Plan policies would result in less than significant impacts on groundwater supply due to buildout of the General Plan.

The TMP would not result in any greater impacts than identified in the 2006 General Plan EIR, as the improvements and expansions it identifies would be necessary to accommodate growth envisioned by the General Plan under the total buildout timeframe analyzed by the General Plan EIR for this resource. Nonetheless, as noted above, the TMP is a policy document and as such it would not result in the construction or operation of specific improvements or expansions at this time. Consequently, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any potential for their construction and operation to negatively impact groundwater supply would be determined on a site-specific basis at the time.

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site? Determination: No Impact.*

The 2005 General Plan EIR identified that development proposed under the General Plan during the buildout timeframe is not anticipated to significantly alter existing drainage patterns or stream alignments because no new development would be located adjacent to existing streams or other waterways. However, some of the improvements and expansions identified by the TMP may be located adjacent to existing streams or other waterways. Construction in these areas may alter drainage patterns or alignments, resulting in on or offsite erosion, siltation, or flooding. Regardless, as no specific improvements or expansions identified by the TMP are proposed for construction and operation at this time, their potential to alter drainage patterns or stream alignments and result in substantial on or offsite erosion, siltation, or flooding cannot be determined at this time. At the time specific improvements and expansions are proposed for construction and operation, they would undergo a separate environmental review process to determine potential impacts and necessary mitigation associated with site-specific alteration of drainage patterns.

d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on or off-site? Determination: Less Than Significant Impact.*

Refer to Response IX(c), above.

e) *Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? Determination: Less Than Significant Impact.*

According to the 2006 General Plan EIR, total buildout of 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. The 2006 General Plan EIR found that policies in the General Plan, as well as other regulatory requirements regarding stormwater management ensure that the General Plan would not have a significant impact on storm drainage facilities. The TMP would not result in any greater impacts than identified in the General Plan EIR, as the improvements and expansions it identifies would be necessary to accommodate growth envisioned by the General Plan within the total buildout timeframe analyzed by the 2006 General Plan EIR for this resources. Nonetheless, the TMP is a policy document and would not result in the construction or operation of specific improvements or expansions at this time. Site-specific impacts on storm drainage capacity resulting from the construction and operation of the

improvements and expansions identified by the TMP would be addressed on a project by project basis at such time future proposals come forward.

f) Otherwise substantially degrade water quality? Determination: Less Than Significant Impact.

Refer to Responses IX(a) through (e), above.

g) 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? Determination: No Impact.

Implementation of the proposed TMP would not include the construction of housing. Therefore, no impacts would result.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? Determination: Less Than Significant Impact.

As described in the 2005 General Plan EIR, the majority of the Tracy Planning Area is located outside of a 100-year flood zone. However, portions of the northern planning area are located within a 100-year flood zone. The 2005 General Plan EIR further states that some non-residential development is anticipated within the 100-year floodplain during the 20-year planning horizon and under total buildout of the General Plan, which could result in a significant impact related to flooding. The conclusion of the 2005 General Plan EIR was that implementation of policies identified in the General Plan would reduce the potential impact associated with exposure to the 100-year flood plain to a less than significant level.

Because the improvements and expansions proposed by the TMP would accommodate growth envisioned for the City by the General Plan during the total buildout scenario timeframe, the TMP would be not be expected to result in any greater impacts associated with exposure to the 100-year flood plain than those identified by the 2005 General Plan EIR. Regardless, the TMP does not propose the construction or operation of any specific improvements or expansions at this time. Any proposal to construct or operate the improvements or expansions identified by the TMP would undergo a separate environmental review process at the time of the proposal and potential negative impacts associated with site-specific exposure to the 100-year flood plain and any necessary mitigation would be determined at that future date.

i) 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? Determination: Less Than Significant Impact.

Some areas in the northern portion of the Tracy Planning Area have the potential to be affected by dam failure inundation. The 2005 General Plan EIR states that under total buildout of the General Plan, areas located in the northern portion of the City limits and SOI, including portions of Urban Reserves 2 and 3, the I-205 Specific Plan area, the Holly Sugar area, and the northern part of the Northeast Industrial Area would potentially flood in the event of earthquake induced dam failure. According to the 2005 General Plan EIR, the potential impact of allowing additional development within the dam inundation area would be considered less than significant due to the County's dam maintenance activities, as well as policies in the General Plan that would help to minimize flood risk to development.

The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. This time period is within

the total buildout timeframe analyzed by the 2005 General Plan EIR for this resource. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the General Plan EIR. However, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any potential for their construction and operation to expose people or structures to site-specific risks associated with flooding caused by dam failure would be determined at that time.

j) Inundation by seiche, tsunami, or mudflow? Determination: Less Than Significant Impact.

The 2005 General Plan EIR found 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. Additionally, the 2005 General Plan EIR identified some potential seiche risk for the Tracy Planning Area through buildout of the General Plan due to overtopping of the San Luis Reservoir dam or other enclosed body of liquid during a seismic event. However, these risks were determined to be low and implementation of the General Plan was not expected to increase them. Also, the hillsides in the southwest portion of the Tracy Planning Area could be at risk for mudflows as a result of a seiche during the buildout scenario timeframe of the General Plan, but according to the 2005 General Plan EIR no new development is proposed in the hillsides during the buildout scenario timeframe of the General Plan, where there is a risk of mudflow.

The improvements and expansions identified by the TMP would accommodate growth in the City's SOI and Planning Area during the total buildout timeframe analyzed by the 2005 General Plan EIR and because of this, they would not be expected to result in any greater seiche, tsunamis, or mudflow impacts than identified in the 2005 General Plan EIR. Regardless, as individual improvement or expansion projects identified by the TMP come forward, they would require separate environmental review on a project by project basis to analyze and disclose any potentially significant site-specific seiche, tsunamis, or mudflow impacts that could result from their construction and operation.

X. LAND USE AND RELEVANT PLANNING

LAND USE AND PLANNING - Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☑	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☑	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☑	☐

Would the Project:

a) Physically divide an established community? Determination: Less Than Significant Impact.

According to the 2010 General Plan EIR, buildout of the General Plan would not physically divide an established community and no associated impact is anticipated because the majority of development would occur on vacant land where no established community exists, and the General Plan contains several policies that when implemented would preserve the character, identity, and quality of redeveloped neighborhoods. The TMP would not result in any greater impacts than identified in the 2010 General Plan EIR, as the improvements and expansions it identifies would be necessary to accommodate growth envisioned by the General Plan within the total buildout timeframe analyzed by the 2010 General Plan EIR for this resource. Nonetheless, the TMP is a policy document and would not result in the construction or operation of specific improvements or expansions at this time. The potential for the construction and operation of the improvements and expansions identified by the TMP to physically divide an established community would be addressed on a project by project basis at such time future proposals come forward.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? Determination: Less Than Significant Impact.

The TMP is a comprehensive update of the 1994 City of Tracy TMP in fulfillment of Objective CIR-1.1, Action A1 of the Circulation Element of the General Plan, which states, "Update the Roadway Master Plan upon adoption of the General Plan." The proposed TMP builds upon the goals and objectives contained in the Circulation Element of the General Plan and the City of Tracy SAP. The TMP provides a comprehensive review of the City's transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan. Many improvements and expansions to the City's existing transportation system were identified during the preparation of the General Plan and its associated EIR, as noted in the Circulation Element of the General Plan EIR, Objective CIR-1.1, Action A1 ensures the City's TMP is updated to include a comprehensive inventory of roadway expansions and improvements necessary to accommodate the growth envisioned by the General Plan, as well as maintain circulation continuity throughout the roadway network.

It should be noted that while the TMP models and analyzes the effects of growth on the City's transportation system five years beyond the General Plan's 2030 Traffic and Circulation Horizon Year, it would not result in any new growth not already identified by the General Plan. The TMP does not propose an increase in the amount of land area that could be developed within the City, nor does it propose an increase in the number of residential or non-residential units that could develop within the City over what is assumed by the General Plan. Rather it identifies improvements and expansions that would be necessary to accommodate the residential and non-residential growth allowed by the General Plan up to 2035.

Any improvements to the City's transportation system necessary to accommodate growth envisioned by the City's General Plan after 2035 and up to total buildout would need to be addressed by a new transportation master plan that the City would prepare at a future date as warranted since forecasting this far into the future at this time would be too speculative. Thus, the TMP identifies improvements and

expansions to the City's transportation system up to a specific point in time (2035) based on the development densities and intensities allowed by the General Plan, but it does not identify improvements and expansions necessary to accommodate the growth projected for the entire buildout of the General Plan. The General Plan EIR defines "total buildout" as a scenario in which all available land within the SOI would be developed according to the land use designations in the proposed General Plan. Total buildout is anticipated to result in more development that would occur much further in the future than 2035. Specifically, the total buildout year under the proposed General Plan is estimated to occur from 2071 for residential growth or as far into the future as 2140 for non-residential growth. For these reasons, the TMP would not conflict with applicable policies and regulations in the Tracy area.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan? Determination: Less Than Significant Impact.

Refer to Response IV(f), above.

XI. MINERAL RESOURCES

MINERAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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?	☐	☐	☑	☐
b) 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?	☐	☐	☑	☐

a) 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? Determination: Less Than Significant Impact.

The 2005 General Plan EIR found that development of urban uses permitted under the proposed General Plan through buildout could occur on or near land with important mineral resources, which could result in significant loss of mineral resources, and the loss of availability of locally important mineral resource recovery sites. According to the 2005 General Plan EIR, these potentially significant impacts would be less than significant due to policies in the General Plan designed to minimize potential land use conflicts between aggregate resource activities and other uses, and generally ensure that new development would not impact the future availability of mineral resources or mineral resource recovery sites. The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. This time period is within the total buildout timeframe analyzed by the 2005 General Plan EIR for this resource. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the 2005 General Plan EIR. However, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any potential for their construction and operation to

impact the future availability of mineral resources or mineral resource recovery sites on a site-specific basis would be determined at that time.

b) 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? Determination: Less Than Significant Impact.

Refer to Response XI(a), above.

XII. NOISE

NOISE – Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☑	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☑	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☑	☐

Would the Project result in:

a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? Determination: Less Than Significant Impact.*

As discussed in the 2010 General Plan EIR, the City's Noise Ordinance and policies in the 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, the General Plan EIR found that as development proceeds and the city's population increases through buildout, increased traffic would increase noise levels substantially (3 dBA Ldn or greater) along major roadways throughout Tracy, including portions of I-205, I-580, Grant Line Road, Schulte Road, Valpico Road, Linne Road, Lammers Road, Corral Hollow Road, Tracy Boulevard, and MacArthur Drive. Other than Valpico Road and I-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 Ldn or greater. These planned roadways include connections from I-205 to Byron, Lammers, and Grant Line Roads; 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.

As described previously, the TMP addresses growth beyond what was modeled in the General Plan for Traffic and Circulation, Noise, and Air Quality, but the improvements and expansions identified by the TMP would accommodate growth envisioned for the City by the General Plan during the total buildout scenario timeframe. Thus, because the improvements and expansions identified by the TMP for the 2035 roadway network would be necessary during the total buildout development scenario timeframe analyzed in the 2010 General Plan EIR, implementation of the TMP would not be expected to result in any greater impacts associated with noise increases than those identified by the 2010 General Plan EIR. The 2010 General Plan EIR concluded that it is unlikely that likely that all traffic noise impacts resulting from the proposed General Plan will be adequately mitigated given the anticipated growth of the community and expected traffic noise level increases resulting in a significant and unavoidable impact. In addition, the 2010 General Plan EIR found that development under buildout of the General Plan would introduce new noise-generating sources adjacent to existing noise-sensitive areas, but that policies in the General Plan would adequately reduce this impact to less than significant.

It should be noted that the TMP is a policy document and does not propose any construction or operation of specific improvements and expansions at this time. Consequently, adoption of the TMP would not directly result in the construction and operation of improvements and expansions that could result in excessive noise increases. However, its adoption would indirectly facilitate the construction and operation of improvements and expansions that could result in excessive noise increases. Nonetheless, because specific project details are not available at this time, additional future environmental review would be required on a project by project basis, as specific improvement and expansion projects come forward. This future environmental review would be necessary to analyze and disclose any site-specific impacts the improvements and expansions identified by the TMP might have regarding excessive noise increases.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? Determination: Less Than Significant Impact.

The 2010 General Plan EIR found that development under the General Plan would not introduce new sources of groundborne vibration. In addition, General Plan Objective N-1.3, Policy 6 is intended 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. For these reasons, the 2010 General Plan EIR concluded that through buildlout of the General Plan, development allowed under the General Plan would not expose people to excessive groundborne vibration or noise and no significant impact would occur.

The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. This time period is within the total buildout timeframe analyzed by the 2010 General Plan EIR for noise. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the General Plan EIR. However, it is possible that construction of the improvement and expansion projects identified by the TMP for the 2035 roadway network could result in potentially significant groundborne vibration or noise. As no specific improvement and expansion projects identified by the TMP are proposed at this time, the specific environmental impact of groundborne vibration or noise associated with their construction cannot be determined at this time. As specific improvement and expansion projects identified by the TMP are proposed, additional project specific, environmental analysis will be completed on a project by project basis. Any potential for their construction and operation to result in excessive site-specific groundborne vibration or noise would be determined at that time.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? Determination: Less Than Significant Impact.

Refer to response XII(a), above.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? Determination: Less Than Significant Impact.

Construction activities typically increase ambient noise levels on a temporary basis. As indicated in the 2010 General Plan EIR, development allowed during the buildout timeframe of the General Plan would temporarily increase ambient noise during its construction. Potentially significant impacts would occur primarily when construction activities take place during noise-sensitive times of the day near residences or businesses. The 2010 General Plan EIR determined that construction noise would be reduce to a less than significant impact through the implementation of a combination of policies and mitigation (General Plan Objective N-1.2, Policy 4, which requires a variety of construction noise control measures and Mitigation Measure NOI-2.

The improvements and expansions identified by the TMP would accommodate growth in the City's SOI and Planning Area during the total buildout timeframe analyzed by the 2010 General Plan EIR and because of this, they would not be expected to result in any greater temporary construction noise impacts than identified in the 2010 General Plan EIR. Regardless, as individual improvement or expansion projects identified by the TMP come forward, they would require separate environmental

review on a project by project basis to analyze and disclose any potentially significant site-specifc construction noise impacts that could result from their construction.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? Determination: No Impact.

The Tracy Municipal Airport (TMA) is a general aviation airport owned by the City and managed by the Parks and Community Services Department. The General 2010 Plan EIR found that because noise sensitive uses were not proposed within areas that would be exposed to excessive airport noise from the Tracy Municipal Airport, buildout of the General Plan would not result in exposure to excessive airport related noise. The improvements and expansions identified by the TMP would accommodate growth envisioned by the General Plan up to the year 2035, which is within the total buildout timeframe analyzed by the 2010 General Plan EIR for this environmental resource. Consequently, construction and operation of the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the 2010 General Plan EIR. However, some of the improvements and expansions identified by the TMP are within two miles of the Tracy Municipal Airport. Thus, it is possible that construction of these projects could result in exposure to airport related noise for construction workers. Because the TMP is a policy document and does not propose the construction or operation of any specific improvement or expansion projects at this time, the potential for site-specific airport noise exposure impacts to occur would be determined on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? Determination: No Impact.

There are no private airstrips located within the Tracy Planning Area and there would be no related impact.

XIII. POPULATION AND HOUSING

POPULATION AND HOUSING -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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)?	☐	☐	☑	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

Would the Project:

a) *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)? Determination: Less Than Significant Impact.*

The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. This time period is within the total buildout timeframe analyzed by the 2010 General Plan EIR for this environmental topic. Because of this, implementation of the TMP would not induce any additional or new population growth not already identified in the General Plan or studied in the 2010 General Plan EIR.

b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? Determination: No Impact.*

The TMP does not identify any improvements or expansions that would displace existing housing. Regardless, it is a policy document and as such it does not propose any specific improvements or expansion projects at this time. As individual improvement or expansion projects identified by the TMP come forward, they would require separate environmental review on a project by project basis to analyze and disclose any potentially significant site-specific impacts that their construction and/or operation could have in regard to housing displacement.

c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? Determination: No Impact.*

Refer to Response XIII(b), above.

XIV. PUBLIC SERVICES

PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☑	☐
Police protection?	☐	☐	☑	☐

Schools?	☐	☐	☐	☑
Parks?	☐	☐	☐	☑
Other public facilities?	☐	☐	☐	☑

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

1) Fire protection? Determination: Less Than Significant Impact.

The 2006 General Plan EIR found that additional fire services and associated facilities would be needed under the 20-year planning horizon of the General Plan, as well as at total buildout, due to the projected population growth anticipated as a result of General Plan implementation. The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035, which is within the total buildout timeframe analyzed by the 2006 General Plan EIR for this environmental topic. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the General Plan EIR.

The 2006 General Plan EIR concluded that the specific environmental impact of constructing new fire and emergency medical response facilities to support the growth allowed under the General Plan could not be determined for the first-tier level of analysis conducted for the General Plan and that as specific fire and emergency response facility expansion projects are identified, additional second-tier environmental analysis would be completed pursuant to CEQA. As noted previously, the TMP is the principal policy document for guiding the provision of adequate and efficient access to the City's transportation system and it identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan, but it does not propose specific improvement or expansion projects at this time. Thus, similar to the conclusions of the 2006 General Plan EIR, it is not possible at this time to determine the specific environmental impacts that the improvements and expansions identified by the TMP may have on fire protection and emergency response, but as specific improvements and expansions identified by the TMP are proposed for construction and operation separate environmental review would be conducted on a project by project basis and any potential site-specific impact that their construction and operation may have on fire protection and emergency response would be determined at the time.

2) Police protection? Determination: Less Than Significant Impact.

According to the 2006 General Plan EIR, full buildout of the growth envisioned by the General Plan would result in the need for additional police officers, which in turn may require new or expanded police facilities in the City. The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035, which is within the total buildout timeframe analyzed by the 2006 General Plan EIR for this resource. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the 2006 General Plan EIR.

The 2006 General Plan EIR concluded that the specific environmental impact of constructing police facilities to support the growth permitted under the General Plan could not be determined for the first-tier level of analysis conducted for the General Plan and that as specific police facility projects are identified, additional second-tier environmental analysis would be completed pursuant to CEQA. As noted previously, the TMP is the principal policy document for guiding the provision of adequate and efficient access to the City's transportation system and it identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan, but it does not propose specific improvement or expansion projects at this time. Thus, similar to the conclusions of the 2006 General Plan EIR, it is not possible at this time to determine the specific environmental impacts that the improvements and expansions identified by the TMP may have on police protection, but as specific improvements and expansions identified by the TMP are proposed for construction and operation separate environmental review would be conducted on a project by project basis and any potential site-specific impact that their construction and operation may have on police protection would be determined at the time.

3) Schools? Determination: No Impact.

The TMP would not generate new or additional population. The 2006 General Plan EIR found that implementation of the General Plan would increase demand for school facilities during the 20-year planning horizon, as well as under total buildout of the proposed General Plan. The 2006 General Plan EIR concluded that the specific environmental impact of constructing new schools and related facilities to support the growth envisioned by the General Plan could not be determined for the first-tier level of analysis conducted for the General Plan and that as specific school expansion or improvement projects are identified, additional second-tier environmental analysis would be completed pursuant to CEQA.

As described in response to Checklist Item XIII.a., above, the improvements and expansions identified by the TMP would be necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035, which is within the total buildout timeframe analyzed by the General Plan EIR. Because of this, implementation of the TMP would not induce any additional or new population growth not already identified in the General Plan or studied in the General Plan EIR. Moreover, given that the TMP is a policy document and does not propose specific improvement or expansion projects at this time, it is not possible at this time to determine the specific environmental impacts that the improvements and expansions identified by the TMP may have on the provision of schools. However, as specific improvements and expansions identified by the TMP are proposed for construction and operation, separate environmental review would be conducted on a project by project basis and any potential site-specific impact that their construction and operation may have on the provision of schools would be determined at the time.

4) Parks? Determination: No Impact.

According to the 2006 General Plan EIR, new development under the General Plan has the potential to increase the demand for parks and recreational facilities. The 2006 General Plan EIR concluded that the specific environmental impact of constructing new individual park or recreation facilities to support the growth envisioned by the General Plan could not be determined for the first-tier level of analysis conducted for the General Plan and that as specific park and recreation facility expansion projects are identified, additional second-tier environmental analysis would be completed pursuant to CEQA.

As described in response to Checklist Item XIII.a., above, the improvements and expansions identified by the TMP would be necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035, which is within the total buildout timeframe analyzed by the General Plan EIR for this environmental resource. Because of this, implementation of the TMP would not induce any additional or new population growth not already identified in the General Plan or studied in the 2006 General Plan EIR. Moreover, given that the TMP is a policy document and does not propose specific improvement or expansion projects at this time, it is not possible at this time to determine the specific environmental impacts that the improvements and expansions identified by the TMP may have on the provision of park and recreational facilities. However, as specific improvements and expansions identified by the TMP are proposed for construction and operation, separate environmental review would be conducted on a project by project basis and any potential site-specific impact that their construction and operation may have on the provision of park and recreation facilities would be determined at the time.

5) Other public facilities? Determination: No Impact.

No other public facility impacts associated with the TMP were identified.

XV. RECREATION

RECREATION --	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project 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?	☐	☐	☐	☑
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☑

a) Would the proposed project 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? Determination: No Impact.

Refer to Response XIV(a)4, above.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse effect on the environment? Determination: No Impact.

The TMP does not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, no impacts would result.

XVI. TRANSPORTATION/TRAFFIC

TRANSPORTATION/TRAFFIC -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☑	☐
b) Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads and highways?	☐	☐	☑	☐
c) 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?	☐	☐	☐	☑
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
e) Result in inadequate emergency access?	☐	☐	☑	☐
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☑

Would the Project:

a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? Determination: Less Than Significant Impact.*

The proposed TMP builds on the goals and objectives of the General Plan and identifies transportation improvements needed to accommodate future development envisioned by the General Plan to the year 2035 for both local, regional and state road network facilities within the City of Tracy planning area. These improvements include the following:

- Railroad Facilities – Maintain and improve five existing at-grade railroad crossings, provide five new grade-separated crossings, and close or relocate three crossings.
- Intersections – Improve traffic operations at 65 intersections. Future improvements would include signal control, lane reconfiguration, roundabouts, and widening of intersection approaches.
- Bicycle and Pedestrian Facilities – Provide bike lanes and pedestrian facilities in future development areas that complement the existing bike and pedestrian system.
- Over/Underpass Facilities, Bridges and Culverts – Maintain and improve 13 existing over/underpass facilities, ten existing bridges, and five existing culverts. Provide two new over/underpass facilities, one new bridge and three new culverts. Improvements to existing facilities include widening or replacement.
- Roadway Classification – Establish roadway hierarchy, functionality, operations and typical cross sections.
- Park and Ride Facilities – Provide new park and ride facilities.

Traffic analysis prepared for the General Plan was based on a future horizon year of 2030. This was because at the time the General Plan was initiated, the San Joaquin Council of Governments (SJCOG) updated the regional travel demand model to year 2030. As noted in the Project Description, the TMP looks out another five years to future horizon year 2035 to establish consistency with the most recent SJCOG land use development, employment forecasts, and the subsequent update to their travel demand model for the 2035 horizon year. The City of Tracy geographic location emphasizes its regional significance; various modes of transport travel to, from and through the City on a daily basis. Utilizing the most recent SJCOG model for analysis, results in consistency in identifying improvements that are consistent between the regional agencies, who are responsible for the freeways, CMA roads, local roads, and transit services.

The 2030 traffic impacts for the General Plan were assessed through the use of the travel demand model, which provides directional roadway segment traffic forecasts and several level of service analysis techniques. The thresholds of significance used to determine at what level of service the freeways, roadways, and intersections would operate under the General Plan included the following:

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

The General Plan includes a significantly expanded local roadway network designed to support the ultimate buildout of the land use plan. However, due to the City's Growth Management Ordinance (GMO) and market conditions, not all of the Tracy Planning Area would fully develop by 2030. 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 General Plan and General Plan EIR, the improvements that would be needed by 2030 were identified. These improvements include the reclassification of portions of several streets from minor arterial to major arterial status, road widening to serve development in 2030, and Caltrans' planned widening of I-205 to eight lanes. A substantial number of new roads would be required to serve traffic generated by the General Plan. Other improvements, such as signalization of approximately 30 intersections, would also be required to support the General Plan. In addition, the upgrading of Eleventh Street/Lammers Road to an urban interchange would be needed.

It is important to maintain circulation continuity throughout the network of the City and County. Thus, it is imperative for the City to coordinate with San Joaquin County to incorporate the following upgrades and/or widenings into the circulation plan, including sections that are outside the City's SOI.

The General Plan EIR acknowledged that the existing TMP would require updating to ensure that the improvements identified in the General Plan are included in the TMP. Thus, the proposed TMP would further the goals and objectives of the General Plan and would be consistent with it.

The General Plan EIR evaluated the potential impacts that growth associated with the General Plan would have on the City's circulation system. With development resulting from the General Plan, traffic volumes would grow throughout the City and the levels of congestion would increase as well. In 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.

Roadways in other areas of the City are projected to operate at acceptable levels, with the roadway improvements identified in the General Plan. For instance, Lammers Road would be widened from two lanes to four and six 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 that would be widened to provide an acceptable level of service with the development in the City under the General Plan. As a result, there would be a less than significant impact on local roadways. Thus, the General Plan EIR found that impacts to local roadways would be less than significant.

At intersections, the General Plan EIR found that the City's level of service standards would be maintained except at the intersections of Eleventh Street/Corral Hollow Road and Eleventh Street/Lammers Road, assuming that planned improvements identified in the General Plan would be

implemented. General Plan Policy 2 under Objective CIR-1.3 allows individual locations to fall below the City's level of service standards in instances where the construction of physical improvements would be infeasible or would conflict with the character of the community. Since the intersection of Eleventh Street/Corral Hollow Road is constrained to the point of not allowing for adequate at-grade improvements, the General Plan EIR concluded that the resulting level of service would not result in a significant impact. Further improvements at the Eleventh Street/Lammers Road intersection have been discussed. The City has several options, including a grade separated interchange at this location that would be subject to further study pending approval of the final design to be selected for the I-205/Lammers Road interchange.

Additional traffic analysis was conducted for the TMP to determine the level of service at the study intersections for future horizon year 2035. As documented in the proposed TMP, all the study intersections would operate at level of service D or better during the AM and PM peak hours, except the following five intersections:

- Corral Hollow Road/Eleventh Street
- Tracy Boulevard/Eleventh Street
- Corral Hollow Road/Schulte Road
- Tracy Boulevard/Schulte Road
- Lammers Road/Commerce Way

The proposed TMP includes recommended actions to implement goals and objectives identified in the General Plan. Included is the following action for Objective CIR-1.3:

> *Objective CIR-1.3*: Adopt and enforce LOS standards that provide a high level of mobility and accessibility, for all modes, for residents and workers.
>
> Actions: Identify locations or areas where the LOS can fall below the standard due to infeasible mitigation measures or where improvements would have an adverse impact to pedestrians or bicycles or other users. The following locations are exempt from the City's LOS D standard:
>
> - Any intersections or roadways within ¼ mile of any freeway where LOS E is allowed to discourage inter-regional traffic from using City streets.
> - Any intersections or roadways located in the Downtown and Bowtie area where LOS E shall be allowed.
> - At intersections where construction of improvements is not feasible, the LOS may fall below the City's LOS C standard.
> - During construction of intersection improvements, the LOS may temporarily fall below the City's LOS C standard.
> - The following five intersections that are projected to operate at LOS E or F under Horizon Year Conditions (for these locations, the deficient LOS ratings is the LOS standard):
>   - Corral Hollow Road/Eleventh Street (LOS E – AM Peak Hour, LOS F - PM Peak Hour)
>   - Tracy Boulevard/Eleventh Street (LOS F - PM Peak Hour)
>   - Corral Hollow Road/Schulte Road (LOS F - PM Peak Hour)
>   - Tracy Boulevard/Schulte Road (LOS E - PM Peak Hour)

  - Lammers Road/Commerce Way (LOS E - PM Peak Hour)

- Caltrans facilities where Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on all State Highway facilities (i.e., freeway segments, signalized intersections, on- or off-ramps, etc.), however, Caltrans recognizes that it may not always be feasible. For Caltrans intersections, City of Tracy impact criteria applies. For freeway segments, LOS D or better is considered acceptable.
- County of San Joaquin facilities where LOS D is the minimum acceptable LOS for roadway and intersection operations.
- Develop multi-modal LOS analysis procedures and standards to evaluate other facilities (bicycle, pedestrian, and transit) in addition to roads.

As proposed, the TMP would establish policies that would allow the City's level of service standard to be exceeded under certain circumstances. Thus, the resulting level of service under future horizon year 2035 at the five intersections noted above would not result in a significant impact.

b) Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? Determination: Less Than Significant Impact.

As identified in the 2010 General Plan EIR, many of the regional roadway segments near Tracy would operate at a deficient level of service in the year 2030. While the General Plan incorporates a range of features that would work to help reduce the potential impact of future growth in Tracy on regional roadways up to the year 2030, none of these approaches would reduce the potential impact to a less than significant level. Thus, the General Plan EIR concluded that a significant and unavoidable impact on I-205, I-580, I-5, Patterson Pass Road and Tesla Road would occur in the year 2030.

The TMP identifies improvements and expansions necessary for the City's transportation system that would accommodate an additional five years of growth beyond what was studied and analyzed in the 2010 General Plan EIR for Traffic and Circulation. Thus, while the growth modeled and analyzed by the TMP would result in increased traffic on the City's transportation system compared to what was modeled and analyzed in the 2010 General Plan EIR, the TMP identifies an additional five years of improvements and expansions necessary for the City's transportation system beyond what was identified in the 2010 General Plan EIR. Regardless, the TMP is a policy document and does not propose the construction of improvements or expansions at this time. As individual improvement or expansion projects identified by the TMP come forward, they would require separate environmental review on a project by project basis to analyze and disclose any potential site-specific conflicts with an applicable congestion management program that could result from their construction and operation.

c) 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? Determination: Less Than Significant Impact.

Refer to the discussion under Checklist Item VIII.e.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? Determination: Less Than Signifcant Impact.

The TMP is a policy document that identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. However, the TMP does not propose the construction of improvements or expansions at this time. As individual improvement or expansion projects identified by the TMP come forward, they would require separate environmental review on a project by project basis to analyze and disclose any potential for their construction and/or operation to result in site-specific safety hazards.

e) Result in inadequate emergency access? Determination: Less Than Significant Impact.

The TMP is a policy document that identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. However, the TMP does not propose the construction of improvements or expansions at this time. As individual improvement or expansion projects identified by the TMP come forward, they would require separate environmental review on a project by project basis to analyze and disclose any potential for their construction and/or operation to result in site-specific inadequate emergency access.

f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? Determination: No Impact.

The proposed TMP includes policies that encourage alternative transportation. The City's Bicycle and Pedestrian Plan has been integrated into the TMP to ensure a comprehensive bicycle and pedestrian system. The TMP includes discussion relative to current innovations for bicycle facilities such as bicycle detection, colored bicycle lanes, bicycle racks and lockers, and other design elements to enhance the bicycle environment. In addition, the proposed TMP identifies the construction of new Park and Ride facilities and discusses policies regarding planning and design of Park and Ride facilites. Therefore, the proposed TMP would not conflict with adopted policies, plans, or programs, supporting alternative transportation and no impacts would result.

XVII. UTILITIES AND SERVICE SYSTEMS

UTILITIES AND SERVICE SYSTEMS B Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☑	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
c) 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?				
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☑
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☑	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☑	☐

Would the Project:

a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? Determination: No Impact.*

As described in the 2006 General Plan EIR, a major upgrade to the entire wastewater treatment system is underway to increase capacity and meet Regional Water Quality Board requirements. The 2006 General Plan EIR determined that no impact is expected, 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. The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. Implementation of the TMP would not generate wastewater and there would be no related impact.

b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? Determination: No Impact.*

The TMP does not propose the construction of new water or wastewater facilities. As described above, the City's entire wastewater treatment system is in the process of undergoing an upgrade that is under review in a separate EIR and that EIR will identify any significant impacts and necessary mitigation associated with the upgrade. Moreover, the TMP is a policy document that identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. The improvements and expansions identified by the TMP for the

City's transportation system would not require or result in the construction of new water or wastewater treatment facilities. Thus, no impact would result.

c) 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? Determination: Less Than Significant Impact.

Refer to Response IX(e), above.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? Determination: No Impact.

The TMP is a policy document that identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. The improvements and expansions identified by the TMP for the City's transportation system would not require water to be supplied. Thus, no impact would result.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? Determination: No Impact.

The TMP is a policy document that identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. The improvements and expansions identified by the TMP for the City's transportation system would not require wastewater treatment. No impacts would result.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? Determination: Less Than Significant Impact.

According to the 2006 General Plan EIR, Foothill landfill would have enough capacity to accommodate the City's solid waste needs at total buildout. However, the 2006 General Plan EIR further states that since the estimated buildout under the proposed General Plan would occur well beyond 2054, it is reasonable to assume that additional landfill capacity would be needed some time in the future and it is also reasonable to assume that adequate planning for further landfill expansion will occur in the period before the existing landfill reaches capacity.

The TMP identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035. This time period is within the total buildout timeframe analyzed by the 2006 General Plan EIR for this environmental topic. Thus, the improvements and expansions identified by the TMP would not be expected to result in any greater impacts than identified in the General Plan EIR. However, separate environmental review would be required on a project by project basis as specific improvements and expansions identified by the TMP are proposed for construction and operation. Any potential site-specific solid waste impacts resulting from their implementation would be determined at the time.

g) Comply with federal, state, and local statutes and regulations related to solid waste? Determination: Less Than Significant Impact.

Refer to Response XVII(g), above.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

MANDATORY FINDINGS OF SIGNIFICANCE --	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☑	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☑	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑	☐

The following findings have been made, regarding the mandatory findings of significance set forth in Section 15065 of the CEQA Guidelines, based on the results of this environmental assessment:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? Determination: Less Than Significant Impact.

As discussed in Section IV (Biological Resources) and Section V (Cultural Resources) of this Initial Study/CEQA Guidelines Section 15183 Analysis, the proposed TMP would result in any greater biological or cultural resource impacts than those identified in the 2005 and 2006 General Plan EIRs. Moreover, as future specific improvement and expansion projects identified by the TMP come forward, they would be required to conduct separate environmental review on a project by project basis and any potential for them to adversely affect biological or cultural resources on a site-specific basis would be determined at the time.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? Determination: No Impact.

Construction of improvements and expansions identified in the proposed TMP would occur over time and would be dependent on future development. At such time that they are proposed, they would undergo a separate environmental review on a project by project basis and their potential to result in cumulatively considerable impacts would be determined at the time.

c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly? Determination: No Impact.

As stated in various sections of this Initial Study/CEQA Guidelines Section 15183 Analysis, the TMP is a policy document that identifies improvements and expansions necessary for the City's transportation system to accommodate the growth envisioned by the General Plan up to the year 2035 and would not result in direct construction of improvements or expansions at this time. At the time improvements and expansions identified by the TMP are proposed for construction, future environmental review would be required on a project by project basis and potential project specific environmental effects would be determined at that time.

H. REFERENCES

The following references were utilized during preparation of this Initial Study/CEQA Guidelines Section 15183 Analysis.

California Department of Conservation, California Geological Survey website, www.consrv.ca.gov.

California Environmental Quality Act (CEQA) Guidelines, 2008.

City of Tracy, *Amendment to the Draft EIR,* March 2006.

City of Tracy *General Plan EIR*, October 2005.

City of Tracy, *General Plan*, February 2011.

City of Tracy, *General Plan Supplemental EIR*, February 2010.

City of Tracy, *Draft Citywide Transportation Master Plan,* February 2012.

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STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

February 21, 2012

RECEIVED

FEB 2 2 2012

CITY OF TRACY

William Dean
City of Tracy
333 Civic Center Drive
Tracy, CA 95376

Subject: Citywide Transportation Master Plan
SCH#: 2012012032

Dear William Dean:

The enclosed comment (s) on your Notice of Preparation was (were) received by the State Clearinghouse after the end of the state review period, which closed on February 13, 2012. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2012012032) when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682

2/15/12 Lake

RECEIVED
FEB 17 2012
STATE CLEARING HOUSE

February 16, 2012

Mr. William Dean
City of Tracy
333 Civic Center Drive
Tracy, California 95376

Subject: Citywide Transportation Master Plan SCH Number: 2012012032 Notice of Preparation of a Draft Environmental Impact Report

Dear Mr. Dean:

Staff for the Central Valley Flood Protection Board has reviewed the subject document and provides the following comments:

The proposed project is located within the jurisdiction of the Central Valley Flood Protection Board. The Board is required to enforce standards for the construction, maintenance, and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- The placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (CCR Section 6);

- Existing structures that predate permitting or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);

- Vegetation plantings that will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be utilized within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance, inspection and flood fight procedures (Title 23, California Code of Regulations CCR Section 131).

In accordance with CEQA Guidelines Section 15130 "Discussion of Cumulative Impacts. (a) An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in section 15065(a)(3). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," the lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable."

Vegetation requirements in accordance with Title 23, Section 131(c) states, "Vegetation must not interfere with the integrity of the adopted plan of flood control, or interfere with maintenance, inspection, and flood fight procedures."

The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for levee over-topping and flooding. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult as the removal of vegetative growth is subject to federal and state agency requirements for on-site mitigation within the floodway.

Hydraulic impacts – Hydraulic impacts due to encroachments could impede flows, reroute flood flows, and/or increase sediment accumulation. The Draft EIR should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. Off-site mitigation outside of the State Plan of Flood Control should be used when mitigating for vegetation removed within the project location.

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at http://www.cvfpb.ca.gov/. Contact your local, federal and state agencies, as other permits may apply.

Should you have any further questions, please contact me by phone at (916) 574-0651, or via email at jherota@water.ca.gov .

Sincerely,

James Herota
Staff Environmental Scientist
Floodway Projects Improvement Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

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DIRECTOR

RECEIVED
JAN 18 2012
CITY OF TRACY

Notice of Preparation

January 13, 2012

To: Reviewing Agencies

Re: Citywide Transportation Master Plan
SCH# 2012012032

Attached for your review and comment is the Notice of Preparation (NOP) for the Citywide Transportation Master Plan draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

William Dean
City of Tracy
333 Civic Center Drive
Tracy, CA 95376

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2012012032
Project Title Citywide Transportation Master Plan
Lead Agency Tracy, City of

Type NOP Notice of Preparation

Description The proposed TMP provides a comprehensive review of the City's transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan. The TMP builds upon the goals and objectives contained in the Circulation Element of the General Plan and the City's Sustainability Action Plan (February 2011). The traffic analysis contained in the General Plan EIR is based on a future horizon year of 2030. The TMP looks out another five years to 2035 to provide the maximum possible infrastructure planning and to be consistent with the most recent SJCOG travel demand model.

Lead Agency Contact

Name William Dean
Agency City of Tracy
Phone 209 831 6000 **Fax**
email
Address 333 Civic Center Drive
City Tracy **State** CA **Zip** 95376

Project Location

County San Joaquin
City Tracy
Region
Cross Streets Various, Citywide
Lat / Long
Parcel No. Various
Township **Range** **Section** **Base**

Proximity to:

Highways Various
Airports Various
Railways Various
Waterways Various
Schools Various
Land Use Multiple land uses/zoning throughout City

Project Issues Air Quality; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 3; Native American Heritage Commission; Public Utilities Commission; Caltrans, Division of Transportation Planning; California Highway Patrol; Caltrans, District 10; Air Resources Board, Transportation Projects; Regional Water Quality Control Bd., Region 5 (Redding)

Date Received 01/13/2012 **Start of Review** 01/13/2012 **End of Review** 02/13/2012

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: San Joaquin SCH# 2012071032

Resources Agency

- [■] Resources Agency
  Nadell Gayou
- [ ] Dept. of Boating & Waterways
  Nicole Wong
- [ ] California Coastal Commission
  Elizabeth A. Fuchs
- [ ] Colorado River Board
  Gerald R. Zimmerman
- [ ] Dept. of Conservation
  Elizabeth Carpenter
- [ ] California Energy Commission
  Eric Knight
- [ ] Cal Fire
  Allen Robertson
- [ ] Central Valley Flood Protection Board
  James Herota
- [ ] Office of Historic Preservation
  Ron Parsons
- [■] Dept of Parks & Recreation
  Environmental Stewardship Section
- [ ] California Department of Resources, Recycling & Recovery
  Sue O'Leary
- [ ] S.F. Bay Conservation & Dev't. Comm.
  Steve McAdam
- [X] Dept. of Water Resources Resources Agency
  Nadell Gayou

Fish and Game

- [ ] Depart. of Fish & Game
  Scott Flint
  Environmental Services Division
- [ ] Fish & Game Region 1
  Donald Koch
- [ ] Fish & Game Region 1E
  Laurie Harnsberger
- [ ] Fish & Game Region 2
  Jeff Drongesen
- [ ] Fish & Game Region 3
  Charles Armor
- [ ] Fish & Game Region 4
  Julie Vance
- [ ] Fish & Game Region 5
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] Fish & Game Region 6
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] Fish & Game Region 6 I/M
  Brad Henderson
  Inyo/Mono, Habitat Conservation Program
- [ ] Dept. of Fish & Game M
  George Isaac
  Marine Region

Other Departments

- [ ] Food & Agriculture
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] Depart. of General Services
  Public School Construction
- [ ] Dept. of General Services
  Anna Garbeff
  Environmental Services Section
- [ ] Dept. of Public Health
  Bridgette Binning
  Dept. of Health/Drinking Water
- [ ] Delta Stewardship Council
  Kevan Samsam

Independent Commissions,Boards

- [ ] Delta Protection Commission
  Linda Flack
- [ ] Cal EMA (Emergency Management Agency)
  Dennis Castrillo
- [■] Native American Heritage Comm.
  Debbie Treadway
- [X] Public Utilities Commission
  Leo Wong
- [ ] Santa Monica Bay Restoration
  Guangyu Wang
- [ ] State Lands Commission
  Jennifer Deleong
- [ ] Tahoe Regional Planning Agency (TRPA)
  Cherry Jacques

Business, Trans & Housing

- [ ] Caltrans - Division of Aeronautics
  Philip Crimmins
- [X] Caltrans - Planning
  Terri Pencovic
- [X] California Highway Patrol
  Suzann Ikeuchi
  Office of Special Projects
- [ ] Housing & Community Development
  CEQA Coordinator
  Housing Policy Division

Dept. of Transportation

- [ ] Caltrans, District 1
  Rex Jackman
- [ ] Caltrans, District 2
  Marcelino Gonzalez
- [ ] Caltrans, District 3
  Bruce de Terra
- [ ] Caltrans, District 4
  Lisa Carboni
- [ ] Caltrans, District 5
  David Murray
- [ ] Caltrans, District 6
  Michael Navarro
- [ ] Caltrans, District 7
  Elmer Alvarez
- [ ] Caltrans, District 8
  Dan Kopulsky
- [ ] Caltrans, District 9
  Gayle Rosander
- [ ] Caltrans, District 10
  Tom Dumas
- [ ] Caltrans, District 11
  Jacob Armstrong
- [ ] Caltrans, District 12
  Marlon Regisford

Cal EPA

Air Resources Board

- [ ] Airport/Energy Projects
  Jim Lerner
- [X] Transportation Projects
  Douglas Ito
- [ ] Industrial Projects
  Mike Tollstrup
- [ ] State Water Resources Control Board
  Regional Programs Unit
  Division of Financial Assistance
- [ ] State Water Resources Control Board
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] State Water Resouces Control Board
  Phil Crader
  Division of Water Rights
- [ ] Dept. of Toxic Substances Control
  CEQA Tracking Center
- [ ] Department of Pesticide Regulation
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] RWQCB 1
  Cathleen Hudson
  North Coast Region (1)
- [ ] RWQCB 2
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] RWQCB 3
  Central Coast Region (3)
- [ ] RWQCB 4
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] RWQCB 5S
  Central Valley Region (5)
- [ ] RWQCB 5F
  Central Valley Region (5)
  Fresno Branch Office
- [X] RWQCB 5R
  Central Valley Region (5)
  Redding Branch Office
- [ ] RWQCB 6
  Lahontan Region (6)
- [ ] RWQCB 6V
  Lahontan Region (6)
  Victorville Branch Office
- [ ] RWQCB 7
  Colorado River Basin Region (7)
- [ ] RWQCB 8
  Santa Ana Region (8)
- [ ] RWQCB 9
  San Diego Region (9)

- [ ] Other _____
- [ ] _____ Conservancy

Last Updated 12/23/11

SAN JOAQUIN COUNCIL OF GOVERNMENTS

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CITY OF TRACY

February 15, 2012

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TRACY,
AND
THE COUNTY OF
SAN JOAQUIN

Mr. Bill Dean
Development and Engineering Services Dept.
City of Tracy
333 Civic Center Plaza, Tracy CA 95376

Re: SJCOG/CMA REVIEW - City of Tracy Notice of Preparation (NOP) CITYWIDE TRANSPORTATION MASTER PLAN

Dear Mr. Dean:

Thank you for the opportunity to comment on the NOP for the City's Transportation Master Plan. As the County's designated Regional Transportation Planning Agency (RTPA), the Congestion Management Agency (CMA), and the Metropolitan Planning Organization (MPO), the San Joaquin Council of Governments (SJCOG) has reviewed the above-referenced document with respect to consistency with the Regional Congestion Management Program (RCMP).

Background Information:

The Regional Congestion Management Program/Process is required by State Govt. Code, Section 65088 – 65089.10, the County's Measure K Renewal Ordinance, and federal congestion management process planning requirements. Implementation of the State CMP requirements also implements the federal Congestion Management Process planning requirements. The primary objective of the CMP is to ensure that new land uses are developed in tandem with the necessary transportation improvements by coordinating the land use, air quality, and transportation planning processes.

The federal Congestion Management Process stipulates that, in non-attainment areas, for any project that results in a significant increase in the carrying capacity of single occupancy vehicles (SOVs) and is also proposed to be advanced with federal funds, an analysis is required to demonstrate that travel demand reduction and operational management strategies have been implemented to the full extent possible on the subject roadway. If the analysis demonstrates that despite these strategies additional SOV capacity is still required, the identification of all reasonable strategies to manage the SOV facility effectively will be in place. San Joaquin County is designated as a "non-attainment area" of federal air quality standards, and, therefore must conform to these

standards by focusing efforts that emphasis travel demand reduction and system management at both the local and regional level.

Comment on the Initial Study:

Section XV1 TRANSPORTATION/TRAFFIC

1. Page 57, Section b) gives the significance criteria for project impacts to the Congestion Management Program and makes the finding that the full extent of significant impacts were identified and analyzed in the 2010 General Plan EIR and, therefore, the resulting impact from this project would be less than significant and will not be analyzed within the TMP's DEIR. Although the General Plan EIR concluded that a significant and unavoidable impact to the Level of Service would occur and adopted Overriding Considerations, it does not exempt the City of Tracy in complying with local, state, and federal CMP mandates. The LOS standards are only one component of the Regional Congestion Management Program (RCMP). SJCOG staff requests the DEIR analyze impacts to all components of the RCMP and that the Citywide Transportation Master Plan incorporate appropriate objectives and policies to support the EIR's analysis and findings. For example, as stated on Page 1, federal funds will not be advanced for any capacity increasing project without first demonstrating that travel demand reduction and operational management strategies have been implemented to the full extent possible. Another example would be how the TMP will show consistency with the Regional Travel Demand Management Action Plan was adopted in August 2010.

   Additionally, The RCMP is currently going through a comprehensive update and is expected to be completed by June 2012 (draft will be available by April). As part of the Program Update we will be working with all partner agencies to establish and identify "strategic corridors". These corridors will be considered for Complete Street concepts and subject to multi-modal LOS standards versus roadway LOS, thus allowing the roadway to become deficient and also maintain consistency with the RCMP. SJCOG staff encourages the City to incorporate the "strategic corridors" (tbd) and the associated performance measures and multi-modal LOS standard into the TMP.

2. Page 57, Section f) gives the significance criteria for project impacts to conflicts with adopted policies, plans, or programs supporting alternative transportation. SJCOG staff requests that the "Action Items" within Regional Travel Demand Management Plan be integrated into the TMP and that a full discussion also be included within the DEIR. This Plan was adopted by the SJCOG Board in August 2010 and is an important implementing component of the RCMP.

3. Page 56 of the Initial Study gives locations that are exempt from the City's LOS D standard, as identified in the General Plan, Object CIR-1.3. It should be noted that these exemptions are not applicable to roadways that are subject to State and regional agency oversight and/or are candidates for State-funded or federally-funded improvements, per CIR-1.3, P4 of the General Plan. SJCOG requests Policy P4 also be discussed within the

DEIR as it relates to the RCMP and incorporated as part of the implementing goals of the TMP.

4. Lastly, if any roadways will be built, expanded, or reclassified as a principal arterial to serve this planning area, Govt. Code 65089.1, requires that they are designated as part of the state CMP system.

Implementing planning priorities that show consistency with the RCMP will assist SJCOG staff in securing federal, state, and local monies. These funding sources include the following:

Federal Surface Transportation Program (STP) Funds - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

Regional STP funds shall not be programmed for a project within a nonconforming jurisdiction unless the regional agency (SJCOG) finds that the project is of regional significance or included in a CMP deficiency plan (Section 65089.2 (C)(1) California Government Code).

Federal Congestion Mitigation and Air Quality (CMAQ) Funds
Federal SAFETEA-LU CMAQ funds shall not be programmed for a project within a nonconforming jurisdiction unless the regional agency (SJCOG) finds that the project is of regional significance or included in a CMP deficiency plan (Section 65089.2 (C)(1) California Government Code).

State Regional Improvement Program Funds
These funds are programmed through the regional transportation improvement program (RTIP). In developing the regional transportation improvement program, the regional transportation planning agency must be consistent with projects from the CMP capital improvement program.

Local Section 2105 Funds
If local jurisdictions are not in conformance, the new increment of local subvention funds (Proposition 111 – Section 2105) made available through the increased gas tax may be withheld (Section 65089.4).

Thank you for the opportunity to review and comment on this project. If you have any questions please call the RCMP's lead planner, Laura Brunn, at (209) 235-0579. We would be pleased to meet with the city and provide any necessary information, support and guidance relative to these comments and the Regional Congestion Management Program.

Sincerely,

Laura Brunn

LAURA BRUNN
SJCOG Associate Regional Planner

M:\Project Review\RCMP_RTPA Project Reviews\Projects_local jurisdictions\Tracy\CItywide Transportation Master Plan 2012\SJCOG_City Tracy Transportation Master Plan_NOP.docx

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682

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CITY OF TRACY

February 16, 2012

Mr. William Dean
City of Tracy
333 Civic Center Drive
Tracy, California 95376

Subject: Citywide Transportation Master Plan SCH Number: 2012012032 Notice of Preparation of a Draft Environmental Impact Report

Dear Mr. Dean:

Staff for the Central Valley Flood Protection Board has reviewed the subject document and provides the following comments:

The proposed project is located within the jurisdiction of the Central Valley Flood Protection Board. The Board is required to enforce standards for the construction, maintenance, and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- The placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (CCR Section 6);

- Existing structures that predate permitting or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);

- Vegetation plantings that will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be utilized within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance, inspection and flood fight procedures (Title 23, California Code of Regulations CCR Section 131).

In accordance with CEQA Guidelines Section 15130 "Discussion of Cumulative Impacts. (a) An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in section 15065(a)(3). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," the lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable."

Vegetation requirements in accordance with Title 23, Section 131(c) states, "Vegetation must not interfere with the integrity of the adopted plan of flood control, or interfere with maintenance, inspection, and flood fight procedures."

The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for levee over-topping and flooding. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult as the removal of vegetative growth is subject to federal and state agency requirements for on-site mitigation within the floodway.

Hydraulic impacts – Hydraulic impacts due to encroachments could impede flows, reroute flood flows, and/or increase sediment accumulation. The Draft EIR should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. Off-site mitigation outside of the State Plan of Flood Control should be used when mitigating for vegetation removed within the project location.

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at http://www.cvfpb.ca.gov/. Contact your local, federal and state agencies, as other permits may apply.

Should you have any further questions, please contact me by phone at (916) 574-0651, or via email at jherota@water.ca.gov .

Sincerely,

James Herota
Staff Environmental Scientist
Floodway Projects Improvement Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

THOMAS M. GAU
DIRECTOR

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February 10, 2012

William Dean, Assistant Director
Development and Engineering Services Department
City of Tracy
333 Civic Center Plaza
Tracy, California 95376

SUBJECT: NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CITYWIDE TRANSPORTATION MASTER PLAN

Dear Mr. Dean:

The San Joaquin County Department of Public Works has reviewed the Notice of Preparation for the above referenced project and our comments are as follows:

From Flood Management:

1. Depending upon the location of the crossing, a San Joaquin County Watercourse Encroachment Permit or a Central Valley Flood Protection Board Encroachment Permit may be required.

From Transportation Engineering:

2. Truck Routes should focus on establishing STAA routes along the Linne Road area where a concentration of industrial terminals are predominant.

Thank you for the opportunity to review and comment. Should you have questions or need additional information regarding the above comments, please contact me at (209) 468-8494.

Sincerely,

Megan Aguirre

MEGAN AGUIRRE
Associate Planner

MA:to
TE-12B012-T1

c: Alex Chetley, Senior Civil Engineer
John I. Maguire, Engineering Services Manager
Firoz Vohra, Senior Engineer

DEPARTMENT OF TRANSPORTATION
P.O. BOX 2048 STOCKTON, CA 95201
(1976 E. CHARTER WAY/1976 E. DR. MARTIN
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February 15, 2012

10-SJ-Various
City of Tracy Citywide
Transportation Master Plan
SCH #2012012032

William Dean
City of Tracy
333 Civic Center Dr.
Tracy, CA 95376

Dear Mr. Dean,

The California Department of Transportation (Department) appreciates the opportunity to comment on the Notice of Preparation for the **City of Tracy Citywide Transportation Master Plan (TMP)** draft Environmental Impact Report (DEIR). The proposed TMP provides a comprehensive review of the City of Tracy's transportation system and identifies improvements and expansions to the existing system required to accommodate future growth anticipated by the General Plan. The TMP builds upon the goals and objectives contained in the Circulation Element of the General Plan and looks out another 5 years to 2035 to provide the maximum possible infrastructure planning.

Upon review of the project, the Department has the following comments:

1. Any proposed roadway improvements must be compatible with the proposed future improvements to I-5, I-205, and I-580. Future improvements to the State Highway System (SHS) include new interchanges and a 6 to 8-lane widening on I-205, with lane 7 and 8 being potential HOV lanes. HOV lanes require additional right-of-way (ROW) clearance. There is also a 6 to 8-lane widening planned in the I-580 Transportation Concept Report for both the Concept Facility and Ultimate Transportation Concept. Please ensure that adequate ROW is reserved for these highway facility improvements by acquiring an Irrevocable Offers of Dedication of ROW along the State Highway for the eventual widening of I-205 and I-580.

2. When developing the TMP, goods movement issues must be of utmost priority and incorporated into the plan. Issues that should be addressed include:

    a. Encourage planning for establishing rail line connectors at all new industrial park developments or other developments with significant goods movement activity.

    b. Provision for truck parking facilities (truck stops) that include adequate overnight parking, food, showers/restrooms, fueling and truck wash and maintenance/repair services.
        - Encourage truck stops to include truck parking electrification options at truck parking facilities to reduce truck emissions and green house gases.

If you have any questions, please contact Sinarath Pheng at (209) 942-6092 (e-mail: Sinarath_Pheng@dot.ca.gov) or myself at (209) 941-1921.

Sincerely,

for TOM DUMAS, CHIEF
OFFICE OF METROPOLITAN PLANNING

c Scott Morgan, State Clearinghouse

California Regional Water Quality Control Board
Central Valley Region
Katherine Hart, Chair

11020 Sun Center Drive, #200, Rancho Cordova, California 95670-6114
(916) 464-3291 • FAX (916) 464-4645
http://www.waterboards.ca.gov/centralvalley

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

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3 February 2012

Bill Dean, Assistant Director
Development and Engineering
Services Department
333 Civic Center Plaza
Tracy, CA 95376

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COMMENTS TO NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT, CITYWIDE TRANSPORTATION MASTER PLAN PROJECT, SAN JOAQUIN COUNTY

Pursuant to the City of Tracy's 12 January 2012 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Notice of Preparation of an Environmental Impact Report* for the Citywide Transportation Master Plan Project, located in San Joaquin County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed for the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

---

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

If you have questions regarding these comments, please contact me at (916) 464-4745 or gsparks@waterboards.ca.gov.

Genevieve Sparks

Genevieve (Gen) Sparks
Environmental Scientist
401 Water Quality Certification Program

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

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CITY OF TRACY

February 7, 2012

William Dean
City of Tracy
Development and Engineering
333 Civic Center Plaza
Tracy, CA 95376

Project: Citywide Transportation Master Plan

District CEQA Reference No: 20120059

Dear Mr. Dean:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Notice of Preparation for the project referenced above. The District offers the following comments and recommendations:

Emissions Analysis

1) The District is currently designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM10 and CO, and nonattainment for PM2.5 for the federal air quality standards. At the state level, the District is designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 air quality standards. The District recommends that the Air Quality section of the Environmental Impact Report (EIR) include a discussion of the following impacts:

   a) **Criteria Pollutants:** Project related criteria pollutant emissions should be identified and quantified. The discussion should include existing and post-project emissions.

      i) Construction Emissions: Construction emissions are short-term emissions and should be evaluated separate from operational emissions. The District recommends preparation of an Environmental Impact Report (EIR) if annual construction emissions cannot be reduced or mitigated to below the following levels of significance: 10 tons per year of oxides of nitrogen (NOx), 10 tons

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

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per year of reactive organic gases (ROG), or 15 tons per year particulate matter of 10 microns or less in size (PM10).

ii) Operational Emissions: Permitted (stationary sources) and non-permitted (mobile sources) sources should be analyzed separately. The District recommends preparation of an Environmental Impact Report (EIR) if the sum of annual permitted and non-permitted emissions cannot be reduced or mitigated to below the following levels of significance: 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), or 15 tons per year particulate matter of 10 microns or less in size (PM10).

b) **Health Impacts:** Project related health impacts should be evaluated to determine if emissions of toxic air contaminants (TAC) will pose a significant health risk to nearby sensitive receptors. TACs are defined as air pollutants that which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. The most common source of TACs can be attributed to diesel exhaust fumes that are emitted from both stationary and mobile sources. Health impacts may require a detailed health risk assessment (HRA).

Prior to conducting an HRA, an applicant may perform a prioritization on all sources of emissions to determine if it is necessary to conduct an HRA. A prioritization is a screening tool used to identify projects that may have significant health impacts. If the project has a prioritization score of 1.0 or more, the project has the potential to exceed the District's significance threshold for health impacts of 10 in a million and an HRA should be performed.

If an HRA is to be performed, it is recommended that the project proponent contact the District to review the proposed modeling approach. The project would be considered to have a significant health risk if the HRA demonstrates that project related health impacts would exceed the District's significance threshold of 10 in a million.

More information on TACs, prioritizations and HRAs can be obtained by:

- E-mailing inquiries to: hramodeler@valleyair.org; or
- Visiting the District's website at:

  http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.

2) In addition to the discussions on potential impacts identified above, the District recommends the EIR also include the following discussions:

a) A discussion of the methodology, model assumptions, inputs and results used in characterizing the project's impact on air quality. To comply with CEQA requirements for full disclosure, the District recommends that the modeling

outputs be provided as appendices to the EIR. The District further recommends that the District be provided with an electronic copy of all input and output files for all modeling.

b) A discussion of the components and phases of the project and the associated emission projections, including ongoing emissions from each previous phase.

c) A discussion of project design elements and mitigation measures, including characterization of the effectiveness of each mitigation measure incorporated into the project.

d) A discussion of whether the project would result in a cumulatively considerable net increase of any criteria pollutant or precursor for which the San Joaquin Valley Air Basin is in non-attainment. More information on the District's attainment status can be found online by visiting the District's website at:

http://valleyair.org/aqinfo/attainment.htm.

District Rules and Regulations

3) The proposed project may be subject to District rules and regulations, including: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants).

The District recommends that a copy of the District's comments be provided to the project proponent. If you have any questions or require further information, please call Debbie Johnson at (559) 230-5817.

Sincerely,

David Warner
Director of Permit Services

for Arnaud Marjollet
Permit Services Manager

DW:dj

January 11, 2012

RECEIVED
JAN 17 2012
CITY OF TRACY

Mr. Bill Dean
City of Tracy
Development and Engineering Services
333 Civic Center Plaza
Tracy, CA 95376

Re: Request for Notices of CEQA Actions and Public Hearings

Dear Mr. Dean:

This letter serves as the annual renewal of our request for mailed notices of CEQA actions and public hearings. We have worked out arrangements with a number of jurisdictions to meet this request in a way that works effectively with their current information and notification systems and nothing in this request should supersede those agreements.

On behalf of Carpenters Local Union 152-East, I request that the City of Tracy send us notice of any and all actions or hearings related to:

1. residential development projects of 30 units or greater,
2. commercial projects of 20,000 sq. ft. or greater, or
3. activities authorized, approved, permitted, licensed, undertaken, or certified by the City of Tracy, and/or supported, in whole or in part, through contracts, grants, subsidies, loans or other forms of assistance from the City of Tracy, including, but not limited to the following:
   - Notice of any public hearing in connection with projects as required by California Planning and Zoning Law pursuant to Government Code Section 65091.
   - Any and all notices prepared pursuant to the California Environmental Quality Act ("CEQA"), including:
     - Notices of any public hearing held pursuant to CEQA.
     - Notices of determination that an Environmental Impact Report ("EIR") is required for a project, prepared pursuant to Public Resources Code Section 21080.4.
     - Notices of any scoping meeting held pursuant to Public Resources Code Section 21083.9.
     - Notices of preparation of an EIR or a negative declaration for a project prepared pursuant to Public Resources Code Section 21092.
     - Notices of availability of an EIR or a negative declaration for a project prepared pursuant to Public Resources Code Section 21152 and Section 15087 of Title 14 of the California Code of Regulations.
     - Notices of approval and/or determination to carry out a project, prepared pursuant to Public Resources Code Section 21152(a).

- Notices of determination that a project is exempt from CEQA, prepared pursuant to Public Resources Code Section 21152(b).

Please note that we are requesting notices of CEQA actions and notices of any public hearings to be held under any provision of Title 7 of the California Government Code governing California Planning and Zoning Law.

This request is filed pursuant to Public Resources Code Section 21092.2 and Government Code Section 65092, which require local agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

In addition, we request that we receive a copy of all City of Tracy Planning Commission and City Council meeting and/or hearing agendas.

We are of course willing to pay any fees reasonably related to the costs of providing these services, and will renew this general request on an annual basis at the City of Tracy's request.

Electronic notices are preferred and can be sent to project.tracking@nccrc.org. Please mail paper notices and documents to:

Northern California Carpenters Regional Council
Katie Boyd
Research Department
265 Hegenberger Rd., Suite 220
Oakland, CA 94621

Please contact me should you have any questions. I may be reached at (510) 430-9706 x115 or via email at kboyd@nccrc.org. Thank you for your attention to this matter.

Sincerely,

Katie Boyd

THOMAS M. GAU
DIRECTOR

FRITZ BUCHMAN
DEPUTY DIRECTOR

MICHAEL SELLING
DEPUTY DIRECTOR

STEVEN WINKLER
DEPUTY DIRECTOR

ROGER JANES
BUSINESS ADMINISTRATOR

P. O. BOX 1810 - 1810 E. HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201
(209) 468-3000 FAX (209) 468-2999
www.sjgov.org/pubworks

Working for YOU

February 10, 2012

William Dean, Assistant Director
Development and Engineering Services Department
City of Tracy
333 Civic Center Plaza
Tracy, California 95376

SUBJECT: NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE CITYWIDE TRANSPORTATION MASTER PLAN

Dear Mr. Dean:

The San Joaquin County Department of Public Works has reviewed the Notice of Preparation for the above referenced project and our comments are as follows:

From Flood Management:

1. Depending upon the location of the crossing, a San Joaquin County Watercourse Encroachment Permit or a Central Valley Flood Protection Board Encroachment Permit may be required.

From Transportation Engineering:

2. Truck Routes should focus on establishing STAA routes along the Linne Road area where a concentration of industrial terminals are predominant.

Thank you for the opportunity to review and comment. Should you have questions or need additional information regarding the above comments, please contact me at (209) 468-8494.

Sincerely,

Megan Aguirre

MEGAN AGUIRRE
Associate Planner

MA:to
TE-12B012-T1

c: Alex Chetley, Senior Civil Engineer
John I. Maguire, Engineering Services Manager
Firoz Vohra, Senior Engineer

William Dean

From: Nathaniel Atherstone <natherstone@sanjoaquinrtd.com>
Sent: Friday, January 20, 2012 2:16 PM
To: William Dean
Cc: Gloria Salazar; Ed Lovell
Subject: Citywide Transportation Master Plan (Tracy)

Mr. Dean:

I received your notice of Preparation of an Environmental Impact Report (EIR) for the Transportation Master Plan for the City of Tracy (TMP), and formally request to be included on the mailing list for the distribution of information and draft review of the TMP and EIR as you progress.

I am disappointed to see that Public Transportation (Transit) or Transit Facilities are not identified as a TMP component.

The San Joaquin Regional Transit District (RTD) would appreciate the City of Tracy to further expand upon the scope of the Environmental Impact Report to include mass transportation alternatives and associated facility improvements for services that are currently operating within the City, and for potential services that may be warranted as the City grows in population. This includes public transportation services provided by RTD, the Altamont Commuter Express, and the Tracy Tracer. We also encourage expanding the review to include private transportation services, including Greyhound and Amtrak, as well.

Thank you for your consideration.

Regards,

Nathaniel Atherstone, Planning Manager
San Joaquin Regional Transit District (RTD)
PO Box 201010
Stockton, CA 95201
(209) 948-5566 x604
(209) 948-8516 Fax
natherstone@sanjoaquinRTD.com

APPENDIX B:

AIR QUALITY AND GREENHOUSE GAS EMISSIONS DATA

Existing

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	3215	1000sqft
Industrial Park	10850	1000sqft
Apartments Low Rise	6594	Dwelling Unit
Single Family Housing	20195	Dwelling Unit
Regional Shopping Center	1805	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2	**Precipitation Freq (Days)**	51		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - No construction modeled. Model used for area sources only.

Off-road Equipment -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	0.00	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.47	3.47	0.00	0.00	3.48
Total	**0.00**	**0.04**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.47**	**3.47**	**0.00**	**0.00**	**3.48**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	0.00	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.47	3.47	0.00	0.00	3.48
Total	**0.00**	**0.04**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.47**	**3.47**	**0.00**	**0.00**	**3.48**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	523.50	31.76	2,004.33	5.85		0.00	295.49		0.00	295.47	39,099.76	35,144.19	74,243.95	183.85	0.64	78,302.69
Energy	5.80	50.27	26.41	0.32		0.00	4.01		0.00	4.01	0.00	158,170.46	158,170.46	5.66	2.78	159,151.27
Mobile	608.62	2,268.99	5,705.85	5.55	525.41	74.86	600.27	22.98	74.86	97.84	0.00	582,604.44	582,604.44	37.27	0.00	583,387.18
Waste						0.00	0.00		0.00	0.00	33,395.70	0.00	33,395.70	1,973.63	0.00	74,841.91
Water						0.00	0.00		0.00	0.00	0.00	90,021.16	90,021.16	1,707.29	43.77	139,443.96
Total	**1,137.92**	**2,351.02**	**7,736.59**	**11.72**	**525.41**	**74.86**	**899.77**	**22.98**	**74.86**	**397.32**	**72,495.46**	**865,940.25**	**938,435.71**	**3,907.70**	**47.19**	**1,035,127.01**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	523.50	31.76	2,004.33	5.85		0.00	295.49		0.00	295.47	39,099.76	35,144.19	74,243.95	183.85	0.64	78,302.69
Energy	5.80	50.27	26.41	0.32		0.00	4.01		0.00	4.01	0.00	158,170.46	158,170.46	5.66	2.78	159,151.27
Mobile	608.62	2,268.99	5,705.85	5.55	525.41	74.86	600.27	22.98	74.86	97.84	0.00	582,604.44	582,604.44	37.27	0.00	583,387.18
Waste						0.00	0.00		0.00	0.00	33,395.70	0.00	33,395.70	1,973.63	0.00	74,841.91
Water						0.00	0.00		0.00	0.00	0.00	90,021.16	90,021.16	1,707.29	43.77	139,443.96
Total	**1,137.92**	**2,351.02**	**7,736.59**	**11.72**	**525.41**	**74.86**	**899.77**	**22.98**	**74.86**	**397.32**	**72,495.46**	**865,940.25**	**938,435.71**	**3,907.70**	**47.19**	**1,035,127.01**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	3.41	3.41	0.00	0.00	3.41
Total	**0.00**	**0.04**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**3.41**	**3.41**	**0.00**	**0.00**	**3.41**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.00	0.00	0.07
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.07**	**0.07**	**0.00**	**0.00**	**0.07**

3.2 Demolition - 2011

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.00	0.04	0.02	0.00		0.00	0.00		0.00	0.00	0.00	3.41	3.41	0.00	0.00	3.41
Total	**0.00**	**0.04**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**3.41**	**3.41**	**0.00**	**0.00**	**3.41**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.00	0.00	0.07
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.07**	**0.07**	**0.00**	**0.00**	**0.07**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	608.62	2,268.99	5,705.85	5.55	525.41	74.86	600.27	22.98	74.86	97.84	0.00	582,604.44	582,604.44	37.27	0.00	583,387.18
Unmitigated	608.62	2,268.99	5,705.85	5.55	525.41	74.86	600.27	22.98	74.86	97.84	0.00	582,604.44	582,604.44	37.27	0.00	583,387.18
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	43,454.46	47,213.04	40025.58	126,059,549	126,059,549
Industrial Park	75,516.00	27,016.50	7920.50	154,506,964	154,506,964
Office Park	36,715.30	5,272.60	2443.40	68,489,475	68,489,475
Regional Shopping Center	77,506.70	90,195.85	45558.20	131,068,941	131,068,941
Single Family Housing	193,266.15	203,565.60	177110.15	557,625,426	557,625,426
Total	426,458.61	373,263.59	273,057.83	1,037,750,355	1,037,750,355

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	100,792.39	100,792.39	4.56	1.73	101,424.00
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	100,792.39	100,792.39	4.56	1.73	101,424.00
NaturalGas Mitigated	5.80	50.27	26.41	0.32		0.00	4.01		0.00	4.01	0.00	57,378.08	57,378.08	1.10	1.05	57,727.27
NaturalGas Unmitigated	5.80	50.27	26.41	0.32		0.00	4.01		0.00	4.01	0.00	57,378.08	57,378.08	1.10	1.05	57,727.27
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	9.43465e+007	0.51	4.35	1.85	0.03		0.00	0.35		0.00	0.35	0.00	5,034.69	5,034.69	0.10	0.09	5,065.33
Industrial Park	1.87705e+008	1.01	9.20	7.73	0.06		0.00	0.70		0.00	0.70	0.00	10,016.65	10,016.65	0.19	0.18	10,077.61
Office Park	3.69082e+007	0.20	1.81	1.52	0.01		0.00	0.14		0.00	0.14	0.00	1,969.56	1,969.56	0.04	0.04	1,981.55
Regional Shopping Center	2.21835e+007	0.12	1.09	0.91	0.01		0.00	0.08		0.00	0.08	0.00	1,183.79	1,183.79	0.02	0.02	1,191.00
Single Family Housing	7.34081e+008	3.96	33.83	14.39	0.22		0.00	2.73		0.00	2.73	0.00	39,173.38	39,173.38	0.75	0.72	39,411.78
Total		**5.80**	**50.28**	**26.40**	**0.33**		**0.00**	**4.00**		**0.00**	**4.00**	**0.00**	**57,378.07**	**57,378.07**	**1.10**	**1.05**	**57,727.27**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	9.43465e+007	0.51	4.35	1.85	0.03		0.00	0.35		0.00	0.35	0.00	5,034.69	5,034.69	0.10	0.09	5,065.33
Industrial Park	1.87705e+008	1.01	9.20	7.73	0.06		0.00	0.70		0.00	0.70	0.00	10,016.65	10,016.65	0.19	0.18	10,077.61
Office Park	3.69082e+007	0.20	1.81	1.52	0.01		0.00	0.14		0.00	0.14	0.00	1,969.56	1,969.56	0.04	0.04	1,981.55
Regional Shopping Center	2.21835e+007	0.12	1.09	0.91	0.01		0.00	0.08		0.00	0.08	0.00	1,183.79	1,183.79	0.02	0.02	1,191.00
Single Family Housing	7.34081e+008	3.96	33.83	14.39	0.22		0.00	2.73		0.00	2.73	0.00	39,173.38	39,173.38	0.75	0.72	39,411.78
Total		**5.80**	**50.28**	**26.40**	**0.33**		**0.00**	**4.00**		**0.00**	**4.00**	**0.00**	**57,378.07**	**57,378.07**	**1.10**	**1.05**	**57,727.27**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	2.52244e+007					7,338.05	0.33	0.13	7,384.04
Industrial Park	1.21195e+008					35,256.87	1.59	0.60	35,477.81
Office Park	3.74548e+007					10,896.02	0.49	0.19	10,964.30
Regional Shopping Center	2.4169e+007					7,031.02	0.32	0.12	7,075.08
Single Family Housing	1.38428e+008					40,270.42	1.82	0.69	40,522.78
Total						**100,792.38**	**4.55**	**1.73**	**101,424.01**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	2.52244e+007					7,338.05	0.33	0.13	7,384.04
Industrial Park	1.21195e+008					35,256.87	1.59	0.60	35,477.81
Office Park	3.74548e+007					10,896.02	0.49	0.19	10,964.30
Regional Shopping Center	2.4169e+007					7,031.02	0.32	0.12	7,075.08
Single Family Housing	1.38428e+008					40,270.42	1.82	0.69	40,522.78
Total						**100,792.38**	**4.55**	**1.73**	**101,424.01**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	523.50	31.76	2,004.33	5.85		0.00	295.49		0.00	295.47	39,099.76	35,144.19	74,243.95	183.85	0.64	78,302.69
Unmitigated	523.50	31.76	2,004.33	5.85		0.00	295.49		0.00	295.47	39,099.76	35,144.19	74,243.95	183.85	0.64	78,302.69
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	85.49					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	229.70					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	200.62	29.20	1,790.19	5.84		0.00	294.44		0.00	294.41	39,099.76	34,815.58	73,915.34	183.45	0.64	77,965.67
Landscaping	7.68	2.56	214.14	0.01		0.00	1.06		0.00	1.06	0.00	328.61	328.61	0.40	0.00	337.02
Total	**523.49**	**31.76**	**2,004.33**	**5.85**		**0.00**	**295.50**		**0.00**	**295.47**	**39,099.76**	**35,144.19**	**74,243.95**	**183.85**	**0.64**	**78,302.69**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	85.49					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	229.70					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	200.62	29.20	1,790.19	5.84		0.00	294.44		0.00	294.41	39,099.76	34,815.58	73,915.34	183.45	0.64	77,965.67
Landscaping	7.68	2.56	214.14	0.01		0.00	1.06		0.00	1.06	0.00	328.61	328.61	0.40	0.00	337.02
Total	**523.49**	**31.76**	**2,004.33**	**5.85**		**0.00**	**295.50**		**0.00**	**295.47**	**39,099.76**	**35,144.19**	**74,243.95**	**183.85**	**0.64**	**78,302.69**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					90,021.16	1,707.29	43.77	139,443.96
Unmitigated					90,021.16	1,707.29	43.77	139,443.96
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	429.626 / 270.851					956.88	13.16	0.34	1,339.06
Industrial Park	53348.8 / 0					84,575.84	1,632.24	41.83	131,818.80
Office Park	571.414 / 350.221					1,262.48	17.50	0.45	1,770.73
Regional Shopping Center	133.701 / 81.9457					295.40	4.09	0.11	414.32
Single Family Housing	1315.79 / 829.517					2,930.57	40.30	1.05	4,101.06
Total						**90,021.17**	**1,707.29**	**43.78**	**139,443.97**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	429.626 / 270.851					956.88	13.16	0.34	1,339.06
Industrial Park	53348.8 / 0					84,575.84	1,632.24	41.83	131,818.80
Office Park	571.414 / 350.221					1,262.48	17.50	0.45	1,770.73
Regional Shopping Center	133.701 / 81.9457					295.40	4.09	0.11	414.32
Single Family Housing	1315.79 / 829.517					2,930.57	40.30	1.05	4,101.06
Total						**90,021.17**	**1,707.29**	**43.78**	**139,443.97**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					33,395.70	1,973.63	0.00	74,841.91
Unmitigated					33,395.70	1,973.63	0.00	74,841.91
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	3033.24					615.72	36.39	0.00	1,379.87
Industrial Park	133538					27,107.10	1,601.98	0.00	60,748.76
Office Park	2989.95					606.93	35.87	0.00	1,360.18
Regional Shopping Center	1895.25					384.72	22.74	0.00	862.18
Single Family Housing	23061.2					4,681.22	276.65	0.00	10,490.92
Total						**33,395.69**	**1,973.63**	**0.00**	**74,841.91**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	3033.24					615.72	36.39	0.00	1,379.87
Industrial Park	133538					27,107.10	1,601.98	0.00	60,748.76
Office Park	2989.95					606.93	35.87	0.00	1,360.18
Regional Shopping Center	1895.25					384.72	22.74	0.00	862.18
Single Family Housing	23061.2					4,681.22	276.65	0.00	10,490.92
Total						**33,395.69**	**1,973.63**	**0.00**	**74,841.91**

9.0 Vegetation

Existing

San Joaquin County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	3215	1000sqft
Industrial Park	10850	1000sqft
Apartments Low Rise	6594	Dwelling Unit
Single Family Housing	20195	Dwelling Unit
Regional Shopping Center	1805	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2	**Precipitation Freq (Days)**	51		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - No construction modeled. Model used for area sources only.

Off-road Equipment -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	9.96	79.99	47.35	0.07	0.20	4.11	4.30	0.01	4.11	4.11	0.00	7,669.36	0.00	0.89	0.00	7,688.12
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	9.96	79.99	47.35	0.07	0.01	4.11	4.11	0.01	4.11	4.11	0.00	7,669.36	0.00	0.89	0.00	7,688.12
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6,648.52	740.66	46,041.57	142.56		0.00	7,153.59		0.00	7,153.39	1,051,222.16	316,041.03		4,925.14	5.72	1,472,464.35
Energy	31.77	275.45	144.69	1.73		0.00	21.95		0.00	21.95		346,567.13		6.64	6.35	348,676.28
Mobile	4,000.01	14,135.89	35,939.99	37.09	3,897.93	459.67	4,357.60	142.99	459.67	602.66		4,252,273.75		247.15		4,257,463.80
Total	**10,680.30**	**15,152.00**	**82,126.25**	**181.38**	**3,897.93**	**459.67**	**11,533.14**	**142.99**	**459.67**	**7,778.00**	**1,051,222.16**	**4,914,881.91**		**5,178.93**	**12.07**	**6,078,604.43**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6,648.52	740.66	46,041.57	142.56		0.00	7,153.59		0.00	7,153.39	1,051,222.16	316,041.03		4,925.14	5.72	1,472,464.35
Energy	31.77	275.45	144.69	1.73		0.00	21.95		0.00	21.95		346,567.13		6.64	6.35	348,676.28
Mobile	4,000.01	14,135.89	35,939.99	37.09	3,897.93	459.67	4,357.60	142.99	459.67	602.66		4,252,273.75		247.15		4,257,463.80
Total	**10,680.30**	**15,152.00**	**82,126.25**	**181.38**	**3,897.93**	**459.67**	**11,533.14**	**142.99**	**459.67**	**7,778.00**	**1,051,222.16**	**4,914,881.91**		**5,178.93**	**12.07**	**6,078,604.43**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	9.84	79.87	45.95	0.07		4.10	4.10		4.10	4.10		7,510.82		0.88		7,529.33
Total	**9.84**	**79.87**	**45.95**	**0.07**		**4.10**	**4.10**		**4.10**	**4.10**		**7,510.82**		**0.88**		**7,529.33**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.12	1.40	0.00	0.20	0.01	0.20	0.01	0.01	0.01		158.54		0.01		158.79
Total	**0.12**	**0.12**	**1.40**	**0.00**	**0.20**	**0.01**	**0.20**	**0.01**	**0.01**	**0.01**		**158.54**		**0.01**		**158.79**

3.2 Demolition - 2011

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	9.84	79.87	45.95	0.07		4.10	4.10		4.10	4.10	0.00	7,510.82		0.88		7,529.33
Total	**9.84**	**79.87**	**45.95**	**0.07**		**4.10**	**4.10**		**4.10**	**4.10**	**0.00**	**7,510.82**		**0.88**		**7,529.33**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.12	1.40	0.00	0.01	0.01	0.01	0.01	0.01	0.01		158.54		0.01		158.79
Total	**0.12**	**0.12**	**1.40**	**0.00**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**		**158.54**		**0.01**		**158.79**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4,000.01	14,135.89	35,939.99	37.09	3,897.93	459.67	4,357.60	142.99	459.67	602.66		4,252,273.75		247.15		4,257,463.80
Unmitigated	4,000.01	14,135.89	35,939.99	37.09	3,897.93	459.67	4,357.60	142.99	459.67	602.66		4,252,273.75		247.15		4,257,463.80
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	43,454.46	47,213.04	40025.58	126,059,549	126,059,549
Industrial Park	75,516.00	27,016.50	7920.50	154,506,964	154,506,964
Office Park	36,715.30	5,272.60	2443.40	68,489,475	68,489,475
Regional Shopping Center	77,506.70	90,195.85	45558.20	131,068,941	131,068,941
Single Family Housing	193,266.15	203,565.60	177110.15	557,625,426	557,625,426
Total	426,458.61	373,263.59	273,057.83	1,037,750,355	1,037,750,355

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	31.77	275.45	144.69	1.73		0.00	21.95		0.00	21.95		346,567.13		6.64	6.35	348,676.28
NaturalGas Unmitigated	31.77	275.45	144.69	1.73		0.00	21.95		0.00	21.95		346,567.13		6.64	6.35	348,676.28
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	258484	2.79	23.82	10.14	0.15		0.00	1.93		0.00	1.93		30,409.83		0.58	0.56	30,594.90
Industrial Park	514260	5.55	50.42	42.35	0.30		0.00	3.83		0.00	3.83		60,501.21		1.16	1.11	60,869.41
Office Park	101118	1.09	9.91	8.33	0.06		0.00	0.75		0.00	0.75		11,896.28		0.23	0.22	11,968.68
Regional Shopping Center	60776.6	0.66	5.96	5.01	0.04		0.00	0.45		0.00	0.45		7,150.19		0.14	0.13	7,193.70
Single Family Housing	2.01118e+006	21.69	185.34	78.87	1.18		0.00	14.99		0.00	14.99		236,609.63		4.54	4.34	238,049.60
Total		**31.78**	**275.45**	**144.70**	**1.73**		**0.00**	**21.95**		**0.00**	**21.95**		**346,567.14**		**6.65**	**6.36**	**348,676.29**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	258.484	2.79	23.82	10.14	0.15		0.00	1.93		0.00	1.93		30,409.83		0.58	0.56	30,594.90
Industrial Park	514.26	5.55	50.42	42.35	0.30		0.00	3.83		0.00	3.83		60,501.21		1.16	1.11	60,869.41
Office Park	101.118	1.09	9.91	8.33	0.06		0.00	0.75		0.00	0.75		11,896.28		0.23	0.22	11,968.68
Regional Shopping Center	60.7766	0.66	5.96	5.01	0.04		0.00	0.45		0.00	0.45		7,150.19		0.14	0.13	7,193.70
Single Family Housing	2011.18	21.69	185.34	78.87	1.18		0.00	14.99		0.00	14.99		236,609.63		4.54	4.34	238,049.60
Total		**31.78**	**275.45**	**144.70**	**1.73**		**0.00**	**21.95**		**0.00**	**21.95**		**346,567.14**		**6.65**	**6.36**	**348,676.29**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6,648.52	740.66	46,041.57	142.56		0.00	7,153.59		0.00	7,153.39	1,051,222.16	316,041.03		4,925.14	5.72	1,472,464.35
Unmitigated	6,648.52	740.66	46,041.57	142.56		0.00	7,153.59		0.00	7,153.39	1,051,222.16	316,041.03		4,925.14	5.72	1,472,464.35
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	468.47					0.00	0.00		0.00	0.00						0.00
Consumer Products	1,258.64					0.00	0.00		0.00	0.00						0.00
Hearth	4,836.02	712.21	43,660.04	142.44		0.00	7,141.86		0.00	7,141.65	1,051,222.16	312,013.06		4,920.23	5.72	1,468,333.32
Landscaping	85.40	28.45	2,381.53	0.12		0.00	11.73		0.00	11.73		4,027.97		4.91		4,131.03
Total	**6,648.53**	**740.66**	**46,041.57**	**142.56**		**0.00**	**7,153.59**		**0.00**	**7,153.38**	**1,051,222.16**	**316,041.03**		**4,925.14**	**5.72**	**1,472,464.35**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	468.47					0.00	0.00		0.00	0.00						0.00
Consumer Products	1,258.64					0.00	0.00		0.00	0.00						0.00
Hearth	4,836.02	712.21	43,660.04	142.44		0.00	7,141.86		0.00	7,141.65	1,051,222.16	312,013.06		4,920.23	5.72	1,468,333.32
Landscaping	85.40	28.45	2,381.53	0.12		0.00	11.73		0.00	11.73		4,027.97		4.91		4,131.03
Total	**6,648.53**	**740.66**	**46,041.57**	**142.56**		**0.00**	**7,153.59**		**0.00**	**7,153.38**	**1,051,222.16**	**316,041.03**		**4,925.14**	**5.72**	**1,472,464.35**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Existing

San Joaquin County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	3215	1000sqft
Industrial Park	10850	1000sqft
Apartments Low Rise	6594	Dwelling Unit
Single Family Housing	20195	Dwelling Unit
Regional Shopping Center	1805	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2	**Precipitation Freq (Days)**	51		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - No construction modeled. Model used for area sources only.

Off-road Equipment -

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	9.97	80.01	47.25	0.07	0.20	4.11	4.30	0.01	4.11	4.11	0.00	7,649.87	0.00	0.89	0.00	7,668.63
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2011	9.97	80.01	47.25	0.07	0.01	4.11	4.11	0.01	4.11	4.11	0.00	7,649.87	0.00	0.89	0.00	7,668.63
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6,648.52	740.66	46,041.57	142.56		0.00	7,153.59		0.00	7,153.39	1,051,222.16	316,041.03		4,925.14	5.72	1,472,464.35
Energy	31.77	275.45	144.69	1.73		0.00	21.95		0.00	21.95		346,567.13		6.64	6.35	348,676.28
Mobile	4,016.27	14,599.71	36,559.21	33.71	3,897.93	472.65	4,370.58	142.99	472.65	615.64		3,881,333.31		255.32		3,886,694.94
Total	**10,696.56**	**15,615.82**	**82,745.47**	**178.00**	**3,897.93**	**472.65**	**11,546.12**	**142.99**	**472.65**	**7,790.98**	**1,051,222.16**	**4,543,941.47**		**5,187.10**	**12.07**	**5,707,835.57**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6,648.52	740.66	46,041.57	142.56		0.00	7,153.59		0.00	7,153.39	1,051,222.16	316,041.03		4,925.14	5.72	1,472,464.35
Energy	31.77	275.45	144.69	1.73		0.00	21.95		0.00	21.95		346,567.13		6.64	6.35	348,676.28
Mobile	4,016.27	14,599.71	36,559.21	33.71	3,897.93	472.65	4,370.58	142.99	472.65	615.64		3,881,333.31		255.32		3,886,694.94
Total	**10,696.56**	**15,615.82**	**82,745.47**	**178.00**	**3,897.93**	**472.65**	**11,546.12**	**142.99**	**472.65**	**7,790.98**	**1,051,222.16**	**4,543,941.47**		**5,187.10**	**12.07**	**5,707,835.57**

3.0 Construction Detail

3.1 Mitigation Measures Construction

3.2 Demolition - 2011

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	9.84	79.87	45.95	0.07		4.10	4.10		4.10	4.10		7,510.82		0.88		7,529.33
Total	**9.84**	**79.87**	**45.95**	**0.07**		**4.10**	**4.10**		**4.10**	**4.10**		**7,510.82**		**0.88**		**7,529.33**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.14	1.30	0.00	0.20	0.01	0.20	0.01	0.01	0.01		139.05		0.01		139.29
Total	**0.12**	**0.14**	**1.30**	**0.00**	**0.20**	**0.01**	**0.20**	**0.01**	**0.01**	**0.01**		**139.05**		**0.01**		**139.29**

3.2 Demolition - 2011

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	9.84	79.87	45.95	0.07		4.10	4.10		4.10	4.10	0.00	7,510.82		0.88		7,529.33
Total	**9.84**	**79.87**	**45.95**	**0.07**		**4.10**	**4.10**		**4.10**	**4.10**	**0.00**	**7,510.82**		**0.88**		**7,529.33**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.12	0.14	1.30	0.00	0.01	0.01	0.01	0.01	0.01	0.01		139.05		0.01		139.29
Total	**0.12**	**0.14**	**1.30**	**0.00**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**		**139.05**		**0.01**		**139.29**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4,016.27	14,599.71	36,559.21	33.71	3,897.93	472.65	4,370.58	142.99	472.65	615.64		3,881,333.31		255.32		3,886,694.94
Unmitigated	4,016.27	14,599.71	36,559.21	33.71	3,897.93	472.65	4,370.58	142.99	472.65	615.64		3,881,333.31		255.32		3,886,694.94
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	43,454.46	47,213.04	40025.58	126,059,549	126,059,549
Industrial Park	75,516.00	27,016.50	7920.50	154,506,964	154,506,964
Office Park	36,715.30	5,272.60	2443.40	68,489,475	68,489,475
Regional Shopping Center	77,506.70	90,195.85	45558.20	131,068,941	131,068,941
Single Family Housing	193,266.15	203,565.60	177110.15	557,625,426	557,625,426
Total	426,458.61	373,263.59	273,057.83	1,037,750,355	1,037,750,355

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	31.77	275.45	144.69	1.73		0.00	21.95		0.00	21.95		346,567.13		6.64	6.35	348,676.28
NaturalGas Unmitigated	31.77	275.45	144.69	1.73		0.00	21.95		0.00	21.95		346,567.13		6.64	6.35	348,676.28
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	258484	2.79	23.82	10.14	0.15		0.00	1.93		0.00	1.93		30,409.83		0.58	0.56	30,594.90
Industrial Park	514260	5.55	50.42	42.35	0.30		0.00	3.83		0.00	3.83		60,501.21		1.16	1.11	60,869.41
Office Park	101118	1.09	9.91	8.33	0.06		0.00	0.75		0.00	0.75		11,896.28		0.23	0.22	11,968.68
Regional Shopping Center	60776.6	0.66	5.96	5.01	0.04		0.00	0.45		0.00	0.45		7,150.19		0.14	0.13	7,193.70
Single Family Housing	2.01118e+006	21.69	185.34	78.87	1.18		0.00	14.99		0.00	14.99		236,609.63		4.54	4.34	238,049.60
Total		**31.78**	**275.45**	**144.70**	**1.73**		**0.00**	**21.95**		**0.00**	**21.95**		**346,567.14**		**6.65**	**6.36**	**348,676.29**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	258.484	2.79	23.82	10.14	0.15		0.00	1.93		0.00	1.93		30,409.83		0.58	0.56	30,594.90
Industrial Park	514.26	5.55	50.42	42.35	0.30		0.00	3.83		0.00	3.83		60,501.21		1.16	1.11	60,869.41
Office Park	101.118	1.09	9.91	8.33	0.06		0.00	0.75		0.00	0.75		11,896.28		0.23	0.22	11,968.68
Regional Shopping Center	60.7766	0.66	5.96	5.01	0.04		0.00	0.45		0.00	0.45		7,150.19		0.14	0.13	7,193.70
Single Family Housing	2011.18	21.69	185.34	78.87	1.18		0.00	14.99		0.00	14.99		236,609.63		4.54	4.34	238,049.60
Total		**31.78**	**275.45**	**144.70**	**1.73**		**0.00**	**21.95**		**0.00**	**21.95**		**346,567.14**		**6.65**	**6.36**	**348,676.29**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6,648.52	740.66	46,041.57	142.56		0.00	7,153.59		0.00	7,153.39	1,051,222.16	316,041.03		4,925.14	5.72	1,472,464.35
Unmitigated	6,648.52	740.66	46,041.57	142.56		0.00	7,153.59		0.00	7,153.39	1,051,222.16	316,041.03		4,925.14	5.72	1,472,464.35
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	468.47					0.00	0.00		0.00	0.00						0.00
Consumer Products	1,258.64					0.00	0.00		0.00	0.00						0.00
Hearth	4,836.02	712.21	43,660.04	142.44		0.00	7,141.86		0.00	7,141.65	1,051,222.16	312,013.06		4,920.23	5.72	1,468,333.32
Landscaping	85.40	28.45	2,381.53	0.12		0.00	11.73		0.00	11.73		4,027.97		4.91		4,131.03
Total	**6,648.53**	**740.66**	**46,041.57**	**142.56**		**0.00**	**7,153.59**		**0.00**	**7,153.38**	**1,051,222.16**	**316,041.03**		**4,925.14**	**5.72**	**1,472,464.35**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	468.47					0.00	0.00		0.00	0.00						0.00
Consumer Products	1,258.64					0.00	0.00		0.00	0.00						0.00
Hearth	4,836.02	712.21	43,660.04	142.44		0.00	7,141.86		0.00	7,141.65	1,051,222.16	312,013.06		4,920.23	5.72	1,468,333.32
Landscaping	85.40	28.45	2,381.53	0.12		0.00	11.73		0.00	11.73		4,027.97		4.91		4,131.03
Total	**6,648.53**	**740.66**	**46,041.57**	**142.56**		**0.00**	**7,153.59**		**0.00**	**7,153.38**	**1,051,222.16**	**316,041.03**		**4,925.14**	**5.72**	**1,472,464.35**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Tracy GP

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	5072	1000sqft
Industrial Park	21777	1000sqft
Apartments Low Rise	9858	Dwelling Unit
Single Family Housing	29068	Dwelling Unit
Regional Shopping Center	5750	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2	**Precipitation Freq (Days)**	51		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - No construction modeled. Model used for area sources only.

Off-road Equipment -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	723.80	33.70	2,152.36	6.09		0.00	308.69		0.00	308.65	40,644.69	51,066.58	91,711.27	191.43	0.93	96,018.80
Energy	9.18	79.97	44.30	0.50		0.00	6.35		0.00	6.35	0.00	270,180.14	270,180.14	9.85	4.74	271,856.80
Mobile	361.48	1,380.63	3,050.74	10.57	925.11	52.24	977.35	16.50	50.08	66.57	0.00	827,004.31	827,004.31	23.15	0.00	827,490.42
Waste						0.00	0.00		0.00	0.00	64,248.10	0.00	64,248.10	3,796.95	0.00	143,984.14
Water						0.00	0.00		0.00	0.00	0.00	178,333.29	178,333.29	3,394.39	87.02	276,591.26
Total	**1,094.46**	**1,494.30**	**5,247.40**	**17.16**	**925.11**	**52.24**	**1,292.39**	**16.50**	**50.08**	**381.57**	**104,892.79**	**1,326,584.32**	**1,431,477.11**	**7,415.77**	**92.69**	**1,615,941.42**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	723.80	33.70	2,152.36	6.09		0.00	308.69		0.00	308.65	40,644.69	51,066.58	91,711.27	191.43	0.93	96,018.80
Energy	9.18	79.97	44.30	0.50		0.00	6.35		0.00	6.35	0.00	270,180.14	270,180.14	9.85	4.74	271,856.80
Mobile	361.48	1,380.63	3,050.74	10.57	925.11	52.24	977.35	16.50	50.08	66.57	0.00	827,004.31	827,004.31	23.15	0.00	827,490.42
Waste						0.00	0.00		0.00	0.00	64,248.10	0.00	64,248.10	3,796.95	0.00	143,984.14
Water						0.00	0.00		0.00	0.00	0.00	178,333.29	178,333.29	3,394.39	87.02	276,591.26
Total	**1,094.46**	**1,494.30**	**5,247.40**	**17.16**	**925.11**	**52.24**	**1,292.39**	**16.50**	**50.08**	**381.57**	**104,892.79**	**1,326,584.32**	**1,431,477.11**	**7,415.77**	**92.69**	**1,615,941.42**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	361.48	1,380.63	3,050.74	10.57	925.11	52.24	977.35	16.50	50.08	66.57	0.00	827,004.31	827,004.31	23.15	0.00	827,490.42
Unmitigated	361.48	1,380.63	3,050.74	10.57	925.11	52.24	977.35	16.50	50.08	66.57	0.00	827,004.31	827,004.31	23.15	0.00	827,490.42
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	64,964.22	70,583.28	59838.06	188,458,452	188,458,452
Industrial Park	151,567.92	54,224.73	15897.21	310,110,428	310,110,428
Office Park	57,922.24	8,318.08	3854.72	108,049,337	108,049,337
Regional Shopping Center	246,905.00	287,327.50	145130.00	417,532,637	417,532,637
Single Family Housing	278,180.76	293,005.44	254926.36	802,627,180	802,627,180
Total	799,540.14	713,459.03	479,646.35	1,826,778,034	1,826,778,034

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	179,285.80	179,285.80	8.11	3.07	180,409.29
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	179,285.80	179,285.80	8.11	3.07	180,409.29
NaturalGas Mitigated	9.18	79.97	44.30	0.50		0.00	6.35		0.00	6.35	0.00	90,894.34	90,894.34	1.74	1.67	91,447.51
NaturalGas Unmitigated	9.18	79.97	44.30	0.50		0.00	6.35		0.00	6.35	0.00	90,894.34	90,894.34	1.74	1.67	91,447.51
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	1.41048e+008	0.76	6.50	2.77	0.04		0.00	0.53		0.00	0.53	0.00	7,526.84	7,526.84	0.14	0.14	7,572.64
Industrial Park	3.76742e+008	2.03	18.47	15.51	0.11		0.00	1.40		0.00	1.40	0.00	20,104.39	20,104.39	0.39	0.37	20,226.75
Office Park	5.82266e+007	0.31	2.85	2.40	0.02		0.00	0.22		0.00	0.22	0.00	3,107.19	3,107.19	0.06	0.06	3,126.10
Regional Shopping Center	7.06675e+007	0.38	3.46	2.91	0.02		0.00	0.26		0.00	0.26	0.00	3,771.09	3,771.09	0.07	0.07	3,794.04
Single Family Housing	1.05661e+009	5.70	48.69	20.72	0.31		0.00	3.94		0.00	3.94	0.00	56,384.84	56,384.84	1.08	1.03	56,727.98
Total		**9.18**	**79.97**	**44.31**	**0.50**		**0.00**	**6.35**		**0.00**	**6.35**	**0.00**	**90,894.35**	**90,894.35**	**1.74**	**1.67**	**91,447.51**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	1.41048e+008	0.76	6.50	2.77	0.04		0.00	0.53		0.00	0.53	0.00	7,526.84	7,526.84	0.14	0.14	7,572.64
Industrial Park	3.76742e+008	2.03	18.47	15.51	0.11		0.00	1.40		0.00	1.40	0.00	20,104.39	20,104.39	0.39	0.37	20,226.75
Office Park	5.82266e+007	0.31	2.85	2.40	0.02		0.00	0.22		0.00	0.22	0.00	3,107.19	3,107.19	0.06	0.06	3,126.10
Regional Shopping Center	7.06675e+007	0.38	3.46	2.91	0.02		0.00	0.26		0.00	0.26	0.00	3,771.09	3,771.09	0.07	0.07	3,794.04
Single Family Housing	1.05661e+009	5.70	48.69	20.72	0.31		0.00	3.94		0.00	3.94	0.00	56,384.84	56,384.84	1.08	1.03	56,727.98
Total		**9.18**	**79.97**	**44.31**	**0.50**		**0.00**	**6.35**		**0.00**	**6.35**	**0.00**	**90,894.35**	**90,894.35**	**1.74**	**1.67**	**91,447.51**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	3.77103e+007					10,970.36	0.50	0.19	11,039.10
Industrial Park	2.43249e+008					70,763.95	3.20	1.21	71,207.39
Office Park	5.90888e+007					17,189.61	0.78	0.29	17,297.33
Regional Shopping Center	7.69925e+007					22,398.00	1.01	0.38	22,538.36
Single Family Housing	1.99249e+008					57,963.88	2.62	0.99	58,327.11
Total						**179,285.80**	**8.11**	**3.06**	**180,409.29**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	3.77103e+007					10,970.36	0.50	0.19	11,039.10
Industrial Park	2.43249e+008					70,763.95	3.20	1.21	71,207.39
Office Park	5.90888e+007					17,189.61	0.78	0.29	17,297.33
Regional Shopping Center	7.69925e+007					22,398.00	1.01	0.38	22,538.36
Single Family Housing	1.99249e+008					57,963.88	2.62	0.99	58,327.11
Total						**179,285.80**	**8.11**	**3.06**	**180,409.29**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	723.80	33.70	2,152.36	6.09		0.00	308.69		0.00	308.65	40,644.69	51,066.58	91,711.27	191.43	0.93	96,018.80
Unmitigated	723.80	33.70	2,152.36	6.09		0.00	308.69		0.00	308.65	40,644.69	51,066.58	91,711.27	191.43	0.93	96,018.80
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	134.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	370.16					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	210.00	30.35	1,861.00	6.07		0.00	307.08		0.00	307.04	40,644.69	50,589.09	91,233.78	190.98	0.93	95,531.78
Landscaping	8.71	3.35	291.36	0.02		0.00	1.61		0.00	1.61	0.00	477.49	477.49	0.45	0.00	487.03
Total	**723.80**	**33.70**	**2,152.36**	**6.09**		**0.00**	**308.69**		**0.00**	**308.65**	**40,644.69**	**51,066.58**	**91,711.27**	**191.43**	**0.93**	**96,018.81**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	134.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	370.16					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	210.00	30.35	1,861.00	6.07		0.00	307.08		0.00	307.04	40,644.69	50,589.09	91,233.78	190.98	0.93	95,531.78
Landscaping	8.71	3.35	291.36	0.02		0.00	1.61		0.00	1.61	0.00	477.49	477.49	0.45	0.00	487.03
Total	**723.80**	**33.70**	**2,152.36**	**6.09**		**0.00**	**308.69**		**0.00**	**308.65**	**40,644.69**	**51,066.58**	**91,711.27**	**191.43**	**0.93**	**96,018.81**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					178,333.29	3,394.39	87.02	276,591.26
Unmitigated					178,333.29	3,394.39	87.02	276,591.26
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	642.288 / 404.921					1,430.53	19.67	0.51	2,001.89
Industrial Park	107076 / 0					169,751.89	3,276.07	83.95	264,573.09
Office Park	901.466 / 552.511					1,991.69	27.61	0.72	2,793.51
Regional Shopping Center	425.917 / 261.046					941.02	13.04	0.34	1,319.85
Single Family Housing	1893.9 / 1193.98					4,218.16	58.00	1.51	5,902.92
Total						**178,333.29**	**3,394.39**	**87.03**	**276,591.26**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	642.288 / 404.921					1,430.53	19.67	0.51	2,001.89
Industrial Park	107076 / 0					169,751.89	3,276.07	83.95	264,573.09
Office Park	901.466 / 552.511					1,991.69	27.61	0.72	2,793.51
Regional Shopping Center	425.917 / 261.046					941.02	13.04	0.34	1,319.85
Single Family Housing	1893.9 / 1193.98					4,218.16	58.00	1.51	5,902.92
Total						**178,333.29**	**3,394.39**	**87.03**	**276,591.26**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					64,248.10	3,796.95	0.00	143,984.14
Unmitigated					64,248.10	3,796.95	0.00	143,984.14
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	4534.68					920.50	54.40	0.00	2,062.90
Industrial Park	268025					54,406.58	3,215.34	0.00	121,928.64
Office Park	4716.96					957.50	56.59	0.00	2,145.82
Regional Shopping Center	6037.5					1,225.56	72.43	0.00	2,746.55
Single Family Housing	33193.4					6,737.97	398.20	0.00	15,100.22
Total						**64,248.11**	**3,796.96**	**0.00**	**143,984.13**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	4534.68					920.50	54.40	0.00	2,062.90
Industrial Park	268025					54,406.58	3,215.34	0.00	121,928.64
Office Park	4716.96					957.50	56.59	0.00	2,145.82
Regional Shopping Center	6037.5					1,225.56	72.43	0.00	2,746.55
Single Family Housing	33193.4					6,737.97	398.20	0.00	15,100.22
Total						**64,248.11**	**3,796.96**	**0.00**	**143,984.13**

9.0 Vegetation

Tracy GP

San Joaquin County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	5072	1000sqft
Industrial Park	21777	1000sqft
Apartments Low Rise	9858	Dwelling Unit
Single Family Housing	29068	Dwelling Unit
Regional Shopping Center	5750	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2	**Precipitation Freq (Days)**	51		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - No construction modeled. Model used for area sources only.

Off-road Equipment -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7,903.38	777.57	48,625.98	148.24		0.00	7,450.17		0.00	7,449.87	1,092,758.50	459,226.30		5,122.68	8.31	1,662,137.77
Energy	50.33	438.20	242.76	2.75		0.00	34.77		0.00	34.77		549,007.46		10.52	10.07	552,348.63
Mobile	2,434.52	8,919.42	19,429.91	71.92	6,968.47	328.94	7,297.41	104.23	315.26	419.49		6,107,215.35		177.16		6,110,935.76
Total	**10,388.23**	**10,135.19**	**68,298.65**	**222.91**	**6,968.47**	**328.94**	**14,782.35**	**104.23**	**315.26**	**7,904.13**	**1,092,758.50**	**7,115,449.11**		**5,310.36**	**18.38**	**8,325,422.16**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7,903.38	777.57	48,625.98	148.24		0.00	7,450.17		0.00	7,449.87	1,092,758.50	459,226.30		5,122.68	8.31	1,662,137.77
Energy	50.33	438.20	242.76	2.75		0.00	34.77		0.00	34.77		549,007.46		10.52	10.07	552,348.63
Mobile	2,434.52	8,919.42	19,429.91	71.92	6,968.47	328.94	7,297.41	104.23	315.26	419.49		6,107,215.35		177.16		6,110,935.76
Total	**10,388.23**	**10,135.19**	**68,298.65**	**222.91**	**6,968.47**	**328.94**	**14,782.35**	**104.23**	**315.26**	**7,904.13**	**1,092,758.50**	**7,115,449.11**		**5,310.36**	**18.38**	**8,325,422.16**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,434.52	8,919.42	19,429.91	71.92	6,968.47	328.94	7,297.41	104.23	315.26	419.49		6,107,215.35		177.16		6,110,935.76
Unmitigated	2,434.52	8,919.42	19,429.91	71.92	6,968.47	328.94	7,297.41	104.23	315.26	419.49		6,107,215.35		177.16		6,110,935.76
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	64,964.22	70,583.28	59838.06	188,458,452	188,458,452
Industrial Park	151,567.92	54,224.73	15897.21	310,110,428	310,110,428
Office Park	57,922.24	8,318.08	3854.72	108,049,337	108,049,337
Regional Shopping Center	246,905.00	287,327.50	145130.00	417,532,637	417,532,637
Single Family Housing	278,180.76	293,005.44	254926.36	802,627,180	802,627,180
Total	799,540.14	713,459.03	479,646.35	1,826,778,034	1,826,778,034

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	50.33	438.20	242.76	2.75		0.00	34.77		0.00	34.77		549,007.46		10.52	10.07	552,348.63
NaturalGas Unmitigated	50.33	438.20	242.76	2.75		0.00	34.77		0.00	34.77		549,007.46		10.52	10.07	552,348.63
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	386432	4.17	35.61	15.15	0.23		0.00	2.88		0.00	2.88		45,462.55		0.87	0.83	45,739.23
Industrial Park	1.03217e+006	11.13	101.19	85.00	0.61		0.00	7.69		0.00	7.69		121,431.78		2.33	2.23	122,170.79
Office Park	159525	1.72	15.64	13.14	0.09		0.00	1.19		0.00	1.19		18,767.63		0.36	0.34	18,881.84
Regional Shopping Center	193610	2.09	18.98	15.94	0.11		0.00	1.44		0.00	1.44		22,777.60		0.44	0.42	22,916.22
Single Family Housing	2.89483e+006	31.22	266.78	113.52	1.70		0.00	21.57		0.00	21.57		340,567.90		6.53	6.24	342,640.54
Total		**50.33**	**438.20**	**242.75**	**2.74**		**0.00**	**34.77**		**0.00**	**34.77**		**549,007.46**		**10.53**	**10.06**	**552,348.62**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	386.432	4.17	35.61	15.15	0.23		0.00	2.88		0.00	2.88		45,462.55		0.87	0.83	45,739.23
Industrial Park	1032.17	11.13	101.19	85.00	0.61		0.00	7.69		0.00	7.69		121,431.78		2.33	2.23	122,170.79
Office Park	159.525	1.72	15.64	13.14	0.09		0.00	1.19		0.00	1.19		18,767.63		0.36	0.34	18,881.84
Regional Shopping Center	193.61	2.09	18.98	15.94	0.11		0.00	1.44		0.00	1.44		22,777.60		0.44	0.42	22,916.22
Single Family Housing	2894.83	31.22	266.78	113.52	1.70		0.00	21.57		0.00	21.57		340,567.90		6.53	6.24	342,640.54
Total		**50.33**	**438.20**	**242.75**	**2.74**		**0.00**	**34.77**		**0.00**	**34.77**		**549,007.46**		**10.53**	**10.06**	**552,348.62**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7,903.38	777.57	48,625.98	148.24		0.00	7,450.17		0.00	7,449.87	1,092,758.50	459,226.30		5,122.68	8.31	1,662,137.77
Unmitigated	7,903.38	777.57	48,625.98	148.24		0.00	7,450.17		0.00	7,449.87	1,092,758.50	459,226.30		5,122.68	8.31	1,662,137.77
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	739.33					0.00	0.00		0.00	0.00						0.00
Consumer Products	2,028.28					0.00	0.00		0.00	0.00						0.00
Hearth	5,038.93	740.35	45,385.80	148.07		0.00	7,432.23		0.00	7,431.92	1,092,758.50	453,373.41		5,117.11	8.31	1,656,167.97
Landscaping	96.84	37.22	3,240.18	0.17		0.00	17.94		0.00	17.94		5,852.88		5.57		5,969.80
Total	**7,903.38**	**777.57**	**48,625.98**	**148.24**		**0.00**	**7,450.17**		**0.00**	**7,449.86**	**1,092,758.50**	**459,226.29**		**5,122.68**	**8.31**	**1,662,137.77**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	739.33					0.00	0.00		0.00	0.00						0.00
Consumer Products	2,028.28					0.00	0.00		0.00	0.00						0.00
Hearth	5,038.93	740.35	45,385.80	148.07		0.00	7,432.23		0.00	7,431.92	1,092,758.50	453,373.41		5,117.11	8.31	1,656,167.97
Landscaping	96.84	37.22	3,240.18	0.17		0.00	17.94		0.00	17.94		5,852.88		5.57		5,969.80
Total	**7,903.38**	**777.57**	**48,625.98**	**148.24**		**0.00**	**7,450.17**		**0.00**	**7,449.86**	**1,092,758.50**	**459,226.29**		**5,122.68**	**8.31**	**1,662,137.77**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Tracy GP

San Joaquin County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	5072	1000sqft
Industrial Park	21777	1000sqft
Apartments Low Rise	9858	Dwelling Unit
Single Family Housing	29068	Dwelling Unit
Regional Shopping Center	5750	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2	**Precipitation Freq (Days)**	51		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - No construction modeled. Model used for area sources only.

Off-road Equipment -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7,903.38	777.57	48,625.98	148.24		0.00	7,450.17		0.00	7,449.87	1,092,758.50	459,226.30		5,122.68	8.31	1,662,137.77
Energy	50.33	438.20	242.76	2.75		0.00	34.77		0.00	34.77		549,007.46		10.52	10.07	552,348.63
Mobile	2,431.44	8,748.66	19,967.23	65.09	6,968.47	331.53	7,300.00	104.23	317.85	422.08		5,602,344.96		161.01		5,605,726.10
Total	**10,385.15**	**9,964.43**	**68,835.97**	**216.08**	**6,968.47**	**331.53**	**14,784.94**	**104.23**	**317.85**	**7,906.72**	**1,092,758.50**	**6,610,578.72**		**5,294.21**	**18.38**	**7,820,212.50**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7,903.38	777.57	48,625.98	148.24		0.00	7,450.17		0.00	7,449.87	1,092,758.50	459,226.30		5,122.68	8.31	1,662,137.77
Energy	50.33	438.20	242.76	2.75		0.00	34.77		0.00	34.77		549,007.46		10.52	10.07	552,348.63
Mobile	2,431.44	8,748.66	19,967.23	65.09	6,968.47	331.53	7,300.00	104.23	317.85	422.08		5,602,344.96		161.01		5,605,726.10
Total	**10,385.15**	**9,964.43**	**68,835.97**	**216.08**	**6,968.47**	**331.53**	**14,784.94**	**104.23**	**317.85**	**7,906.72**	**1,092,758.50**	**6,610,578.72**		**5,294.21**	**18.38**	**7,820,212.50**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,431.44	8,748.66	19,967.23	65.09	6,968.47	331.53	7,300.00	104.23	317.85	422.08		5,602,344.96		161.01		5,605,726.10
Unmitigated	2,431.44	8,748.66	19,967.23	65.09	6,968.47	331.53	7,300.00	104.23	317.85	422.08		5,602,344.96		161.01		5,605,726.10
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	64,964.22	70,583.28	59838.06	188,458,452	188,458,452
Industrial Park	151,567.92	54,224.73	15897.21	310,110,428	310,110,428
Office Park	57,922.24	8,318.08	3854.72	108,049,337	108,049,337
Regional Shopping Center	246,905.00	287,327.50	145130.00	417,532,637	417,532,637
Single Family Housing	278,180.76	293,005.44	254926.36	802,627,180	802,627,180
Total	799,540.14	713,459.03	479,646.35	1,826,778,034	1,826,778,034

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	50.33	438.20	242.76	2.75		0.00	34.77		0.00	34.77		549,007.46		10.52	10.07	552,348.63
NaturalGas Unmitigated	50.33	438.20	242.76	2.75		0.00	34.77		0.00	34.77		549,007.46		10.52	10.07	552,348.63
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	386432	4.17	35.61	15.15	0.23		0.00	2.88		0.00	2.88		45,462.55		0.87	0.83	45,739.23
Industrial Park	1.03217e+006	11.13	101.19	85.00	0.61		0.00	7.69		0.00	7.69		121,431.78		2.33	2.23	122,170.79
Office Park	159525	1.72	15.64	13.14	0.09		0.00	1.19		0.00	1.19		18,767.63		0.36	0.34	18,881.84
Regional Shopping Center	193610	2.09	18.98	15.94	0.11		0.00	1.44		0.00	1.44		22,777.60		0.44	0.42	22,916.22
Single Family Housing	2.89483e+006	31.22	266.78	113.52	1.70		0.00	21.57		0.00	21.57		340,567.90		6.53	6.24	342,640.54
Total		**50.33**	**438.20**	**242.75**	**2.74**		**0.00**	**34.77**		**0.00**	**34.77**		**549,007.46**		**10.53**	**10.06**	**552,348.62**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	386.432	4.17	35.61	15.15	0.23		0.00	2.88		0.00	2.88		45,462.55		0.87	0.83	45,739.23
Industrial Park	1032.17	11.13	101.19	85.00	0.61		0.00	7.69		0.00	7.69		121,431.78		2.33	2.23	122,170.79
Office Park	159.525	1.72	15.64	13.14	0.09		0.00	1.19		0.00	1.19		18,767.63		0.36	0.34	18,881.84
Regional Shopping Center	193.61	2.09	18.98	15.94	0.11		0.00	1.44		0.00	1.44		22,777.60		0.44	0.42	22,916.22
Single Family Housing	2894.83	31.22	266.78	113.52	1.70		0.00	21.57		0.00	21.57		340,567.90		6.53	6.24	342,640.54
Total		**50.33**	**438.20**	**242.75**	**2.74**		**0.00**	**34.77**		**0.00**	**34.77**		**549,007.46**		**10.53**	**10.06**	**552,348.62**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7,903.38	777.57	48,625.98	148.24		0.00	7,450.17		0.00	7,449.87	1,092,758.50	459,226.30		5,122.68	8.31	1,662,137.77
Unmitigated	7,903.38	777.57	48,625.98	148.24		0.00	7,450.17		0.00	7,449.87	1,092,758.50	459,226.30		5,122.68	8.31	1,662,137.77
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	739.33					0.00	0.00		0.00	0.00						0.00
Consumer Products	2,028.28					0.00	0.00		0.00	0.00						0.00
Hearth	5,038.93	740.35	45,385.80	148.07		0.00	7,432.23		0.00	7,431.92	1,092,758.50	453,373.41		5,117.11	8.31	1,656,167.97
Landscaping	96.84	37.22	3,240.18	0.17		0.00	17.94		0.00	17.94		5,852.88		5.57		5,969.80
Total	**7,903.38**	**777.57**	**48,625.98**	**148.24**		**0.00**	**7,450.17**		**0.00**	**7,449.86**	**1,092,758.50**	**459,226.29**		**5,122.68**	**8.31**	**1,662,137.77**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	739.33					0.00	0.00		0.00	0.00						0.00
Consumer Products	2,028.28					0.00	0.00		0.00	0.00						0.00
Hearth	5,038.93	740.35	45,385.80	148.07		0.00	7,432.23		0.00	7,431.92	1,092,758.50	453,373.41		5,117.11	8.31	1,656,167.97
Landscaping	96.84	37.22	3,240.18	0.17		0.00	17.94		0.00	17.94		5,852.88		5.57		5,969.80
Total	**7,903.38**	**777.57**	**48,625.98**	**148.24**		**0.00**	**7,450.17**		**0.00**	**7,449.86**	**1,092,758.50**	**459,226.29**		**5,122.68**	**8.31**	**1,662,137.77**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Tracy TMP

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	6250	1000sqft
Industrial Park	30340	1000sqft
Apartments Low Rise	13297	Dwelling Unit
Single Family Housing	27229	Dwelling Unit
Regional Shopping Center	7546	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2	**Precipitation Freq (Days)**	51		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - No construction modeled. Model used for area sources only.

Off-road Equipment -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	775.69	32.69	2,093.35	5.86		0.00	297.36		0.00	297.32	39,099.76	53,165.60	92,265.36	184.27	0.97	96,434.27
Energy	10.08	88.17	51.52	0.55		0.00	6.96		0.00	6.96	0.00	318,017.15	318,017.15	11.78	5.57	319,991.98
Mobile	371.63	1,487.29	3,202.82	12.19	1,073.00	57.38	1,130.39	19.07	54.93	74.00	0.00	939,044.83	939,044.83	25.16	0.00	939,573.19
Waste						0.00	0.00		0.00	0.00	86,141.45	0.00	86,141.45	5,090.81	0.00	193,048.54
Water						0.00	0.00		0.00	0.00	0.00	246,070.63	246,070.63	4,696.26	120.38	382,010.82
Total	**1,157.40**	**1,608.15**	**5,347.69**	**18.60**	**1,073.00**	**57.38**	**1,434.71**	**19.07**	**54.93**	**378.28**	**125,241.21**	**1,556,298.21**	**1,681,539.42**	**10,008.28**	**126.92**	**1,931,058.80**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	775.69	32.69	2,093.35	5.86		0.00	297.36		0.00	297.32	39,099.76	53,165.60	92,265.36	184.27	0.97	96,434.27
Energy	10.08	88.17	51.52	0.55		0.00	6.96		0.00	6.96	0.00	318,017.15	318,017.15	11.78	5.57	319,991.98
Mobile	371.63	1,487.29	3,202.82	12.19	1,073.00	57.38	1,130.39	19.07	54.93	74.00	0.00	939,044.83	939,044.83	25.16	0.00	939,573.19
Waste						0.00	0.00		0.00	0.00	86,141.45	0.00	86,141.45	5,090.81	0.00	193,048.54
Water						0.00	0.00		0.00	0.00	0.00	246,070.63	246,070.63	4,696.26	120.38	382,010.82
Total	**1,157.40**	**1,608.15**	**5,347.69**	**18.60**	**1,073.00**	**57.38**	**1,434.71**	**19.07**	**54.93**	**378.28**	**125,241.21**	**1,556,298.21**	**1,681,539.42**	**10,008.28**	**126.92**	**1,931,058.80**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	371.63	1,487.29	3,202.82	12.19	1,073.00	57.38	1,130.39	19.07	54.93	74.00	0.00	939,044.83	939,044.83	25.16	0.00	939,573.19
Unmitigated	371.63	1,487.29	3,202.82	12.19	1,073.00	57.38	1,130.39	19.07	54.93	74.00	0.00	939,044.83	939,044.83	25.16	0.00	939,573.19
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	87,627.23	95,206.52	80712.79	254,202,884	254,202,884
Industrial Park	211,166.40	75,546.60	22148.20	432,049,887	432,049,887
Office Park	71,375.00	10,250.00	4750.00	133,144,392	133,144,392
Regional Shopping Center	324,025.24	377,073.62	190461.04	547,948,049	547,948,049
Single Family Housing	260,581.53	274,468.32	238798.33	751,848,613	751,848,613
Total	954,775.40	832,545.06	536,870.36	2,119,193,825	2,119,193,825

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	218,259.40	218,259.40	9.87	3.74	219,627.11
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	218,259.40	218,259.40	9.87	3.74	219,627.11
NaturalGas Mitigated	10.08	88.17	51.52	0.55		0.00	6.96		0.00	6.96	0.00	99,757.76	99,757.76	1.91	1.83	100,364.87
NaturalGas Unmitigated	10.08	88.17	51.52	0.55		0.00	6.96		0.00	6.96	0.00	99,757.76	99,757.76	1.91	1.83	100,364.87
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	1.90253e+008	1.03	8.77	3.73	0.06		0.00	0.71		0.00	0.71	0.00	10,152.60	10,152.60	0.19	0.19	10,214.39
Industrial Park	5.24882e+008	2.83	25.73	21.61	0.15		0.00	1.96		0.00	1.96	0.00	28,009.70	28,009.70	0.54	0.51	28,180.16
Office Park	7.175e+007	0.39	3.52	2.95	0.02		0.00	0.27		0.00	0.27	0.00	3,828.85	3,828.85	0.07	0.07	3,852.16
Regional Shopping Center	9.27403e+007	0.50	4.55	3.82	0.03		0.00	0.35		0.00	0.35	0.00	4,948.98	4,948.98	0.09	0.09	4,979.10
Single Family Housing	9.89765e+008	5.34	45.61	19.41	0.29		0.00	3.69		0.00	3.69	0.00	52,817.62	52,817.62	1.01	0.97	53,139.06
Total		**10.09**	**88.18**	**51.52**	**0.55**		**0.00**	**6.98**		**0.00**	**6.98**	**0.00**	**99,757.75**	**99,757.75**	**1.90**	**1.83**	**100,364.87**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Apartments Low Rise	1.90253e+008	1.03	8.77	3.73	0.06		0.00	0.71		0.00	0.71	0.00	10,152.60	10,152.60	0.19	0.19	10,214.39
Industrial Park	5.24882e+008	2.83	25.73	21.61	0.15		0.00	1.96		0.00	1.96	0.00	28,009.70	28,009.70	0.54	0.51	28,180.16
Office Park	7.175e+007	0.39	3.52	2.95	0.02		0.00	0.27		0.00	0.27	0.00	3,828.85	3,828.85	0.07	0.07	3,852.16
Regional Shopping Center	9.27403e+007	0.50	4.55	3.82	0.03		0.00	0.35		0.00	0.35	0.00	4,948.98	4,948.98	0.09	0.09	4,979.10
Single Family Housing	9.89765e+008	5.34	45.61	19.41	0.29		0.00	3.69		0.00	3.69	0.00	52,817.62	52,817.62	1.01	0.97	53,139.06
Total		**10.09**	**88.18**	**51.52**	**0.55**		**0.00**	**6.98**		**0.00**	**6.98**	**0.00**	**99,757.75**	**99,757.75**	**1.90**	**1.83**	**100,364.87**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	5.08657e+007					14,797.41	0.67	0.25	14,890.14
Industrial Park	3.38898e+008					98,589.26	4.46	1.69	99,207.06
Office Park	7.28125e+007					21,181.99	0.96	0.36	21,314.73
Regional Shopping Center	1.01041e+008					29,393.97	1.33	0.50	29,578.16
Single Family Housing	1.86644e+008					54,296.77	2.46	0.93	54,637.02
Total						**218,259.40**	**9.88**	**3.73**	**219,627.11**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Apartments Low Rise	5.08657e+007					14,797.41	0.67	0.25	14,890.14
Industrial Park	3.38898e+008					98,589.26	4.46	1.69	99,207.06
Office Park	7.28125e+007					21,181.99	0.96	0.36	21,314.73
Regional Shopping Center	1.01041e+008					29,393.97	1.33	0.50	29,578.16
Single Family Housing	1.86644e+008					54,296.77	2.46	0.93	54,637.02
Total						**218,259.40**	**9.88**	**3.73**	**219,627.11**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	775.69	32.69	2,093.35	5.86		0.00	297.36		0.00	297.32	39,099.76	53,165.60	92,265.36	184.27	0.97	96,434.27
Unmitigated	775.69	32.69	2,093.35	5.86		0.00	297.36		0.00	297.32	39,099.76	53,165.60	92,265.36	184.27	0.97	96,434.27
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	148.49					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	415.72					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	202.43	29.20	1,790.29	5.84		0.00	295.68		0.00	295.64	39,099.76	52,668.49	91,768.25	183.79	0.97	95,927.23
Landscaping	9.06	3.48	303.06	0.02		0.00	1.68		0.00	1.68	0.00	497.11	497.11	0.47	0.00	507.04
Total	**775.70**	**32.68**	**2,093.35**	**5.86**		**0.00**	**297.36**		**0.00**	**297.32**	**39,099.76**	**53,165.60**	**92,265.36**	**184.26**	**0.97**	**96,434.27**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	148.49					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	415.72					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	202.43	29.20	1,790.29	5.84		0.00	295.68		0.00	295.64	39,099.76	52,668.49	91,768.25	183.79	0.97	95,927.23
Landscaping	9.06	3.48	303.06	0.02		0.00	1.68		0.00	1.68	0.00	497.11	497.11	0.47	0.00	507.04
Total	**775.70**	**32.68**	**2,093.35**	**5.86**		**0.00**	**297.36**		**0.00**	**297.32**	**39,099.76**	**53,165.60**	**92,265.36**	**184.26**	**0.97**	**96,434.27**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					246,070.63	4,696.26	120.38	382,010.82
Unmitigated					246,070.63	4,696.26	120.38	382,010.82
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	866.353 / 546.179					1,929.58	26.53	0.69	2,700.26
Industrial Park	149180 / 0					236,500.55	4,564.26	116.96	368,606.67
Office Park	1110.84 / 680.835					2,454.27	34.02	0.88	3,442.31
Regional Shopping Center	558.951 / 342.583					1,234.94	17.12	0.44	1,732.11
Single Family Housing	1774.08 / 1118.44					3,951.30	54.33	1.41	5,529.47
Total						**246,070.64**	**4,696.26**	**120.38**	**382,010.82**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Apartments Low Rise	866.353 / 546.179					1,929.58	26.53	0.69	2,700.26
Industrial Park	149180 / 0					236,500.55	4,564.26	116.96	368,606.67
Office Park	1110.84 / 680.835					2,454.27	34.02	0.88	3,442.31
Regional Shopping Center	558.951 / 342.583					1,234.94	17.12	0.44	1,732.11
Single Family Housing	1774.08 / 1118.44					3,951.30	54.33	1.41	5,529.47
Total						**246,070.64**	**4,696.26**	**120.38**	**382,010.82**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					86,141.45	5,090.81	0.00	193,048.54
Unmitigated					86,141.45	5,090.81	0.00	193,048.54
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	6116.62					1,241.62	73.38	0.00	2,782.55
Industrial Park	373415					75,799.95	4,479.65	0.00	169,872.57
Office Park	5812.5					1,179.88	69.73	0.00	2,644.20
Regional Shopping Center	7923.3					1,608.36	95.05	0.00	3,604.43
Single Family Housing	31093.2					6,311.64	373.01	0.00	14,144.79
Total						**86,141.45**	**5,090.82**	**0.00**	**193,048.54**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Apartments Low Rise	6116.62					1,241.62	73.38	0.00	2,782.55
Industrial Park	373415					75,799.95	4,479.65	0.00	169,872.57
Office Park	5812.5					1,179.88	69.73	0.00	2,644.20
Regional Shopping Center	7923.3					1,608.36	95.05	0.00	3,604.43
Single Family Housing	31093.2					6,311.64	373.01	0.00	14,144.79
Total						**86,141.45**	**5,090.82**	**0.00**	**193,048.54**

9.0 Vegetation

Tracy TMP

San Joaquin County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	6250	1000sqft
Industrial Park	30340	1000sqft
Apartments Low Rise	13297	Dwelling Unit
Single Family Housing	27229	Dwelling Unit
Regional Shopping Center	7546	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2	**Precipitation Freq (Days)**	51		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - No construction modeled. Model used for area sources only.

Off-road Equipment -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8,042.92	750.95	47,031.23	142.62		0.00	7,170.67		0.00	7,170.36	1,051,222.16	478,102.17		4,929.09	8.65	1,635,517.75
Energy	55.23	483.10	282.32	3.01		0.00	38.16		0.00	38.16		602,543.04		11.55	11.05	606,210.02
Mobile	2,551.47	9,761.52	20,589.46	83.96	8,178.37	365.53	8,543.90	121.92	351.33	473.25		7,018,717.19		180.96		7,022,517.27
Total	**10,649.62**	**10,995.57**	**67,903.01**	**229.59**	**8,178.37**	**365.53**	**15,752.73**	**121.92**	**351.33**	**7,681.77**	**1,051,222.16**	**8,099,362.40**		**5,121.60**	**19.70**	**9,264,245.04**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8,042.92	750.95	47,031.23	142.62		0.00	7,170.67		0.00	7,170.36	1,051,222.16	478,102.17		4,929.09	8.65	1,635,517.75
Energy	55.23	483.10	282.32	3.01		0.00	38.16		0.00	38.16		602,543.04		11.55	11.05	606,210.02
Mobile	2,551.47	9,761.52	20,589.46	83.96	8,178.37	365.53	8,543.90	121.92	351.33	473.25		7,018,717.19		180.96		7,022,517.27
Total	**10,649.62**	**10,995.57**	**67,903.01**	**229.59**	**8,178.37**	**365.53**	**15,752.73**	**121.92**	**351.33**	**7,681.77**	**1,051,222.16**	**8,099,362.40**		**5,121.60**	**19.70**	**9,264,245.04**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,551.47	9,761.52	20,589.46	83.96	8,178.37	365.53	8,543.90	121.92	351.33	473.25		7,018,717.19		180.96		7,022,517.27
Unmitigated	2,551.47	9,761.52	20,589.46	83.96	8,178.37	365.53	8,543.90	121.92	351.33	473.25		7,018,717.19		180.96		7,022,517.27
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	87,627.23	95,206.52	80712.79	254,202,884	254,202,884
Industrial Park	211,166.40	75,546.60	22148.20	432,049,887	432,049,887
Office Park	71,375.00	10,250.00	4750.00	133,144,392	133,144,392
Regional Shopping Center	324,025.24	377,073.62	190461.04	547,948,049	547,948,049
Single Family Housing	260,581.53	274,468.32	238798.33	751,848,613	751,848,613
Total	954,775.40	832,545.06	536,870.36	2,119,193,825	2,119,193,825

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	55.23	483.10	282.32	3.01		0.00	38.16		0.00	38.16		602,543.04		11.55	11.05	606,210.02
NaturalGas Unmitigated	55.23	483.10	282.32	3.01		0.00	38.16		0.00	38.16		602,543.04		11.55	11.05	606,210.02
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	521240	5.62	48.04	20.44	0.31		0.00	3.88		0.00	3.88		61,322.34		1.18	1.12	61,695.53
Industrial Park	1.43803e+006	15.51	140.98	118.43	0.85		0.00	10.71		0.00	10.71		169,180.34		3.24	3.10	170,209.94
Office Park	196575	2.12	19.27	16.19	0.12		0.00	1.46		0.00	1.46		23,126.51		0.44	0.42	23,267.25
Regional Shopping Center	254083	2.74	24.91	20.92	0.15		0.00	1.89		0.00	1.89		29,892.13		0.57	0.55	30,074.05
Single Family Housing	2.71168e+006	29.24	249.90	106.34	1.60		0.00	20.20		0.00	20.20		319,021.72		6.11	5.85	320,963.23
Total		**55.23**	**483.10**	**282.32**	**3.03**		**0.00**	**38.14**		**0.00**	**38.14**		**602,543.04**		**11.54**	**11.04**	**606,210.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	521.24	5.62	48.04	20.44	0.31		0.00	3.88		0.00	3.88		61,322.34		1.18	1.12	61,695.53
Industrial Park	1438.03	15.51	140.98	118.43	0.85		0.00	10.71		0.00	10.71		169,180.34		3.24	3.10	170,209.94
Office Park	196.575	2.12	19.27	16.19	0.12		0.00	1.46		0.00	1.46		23,126.51		0.44	0.42	23,267.25
Regional Shopping Center	254.083	2.74	24.91	20.92	0.15		0.00	1.89		0.00	1.89		29,892.13		0.57	0.55	30,074.05
Single Family Housing	2711.68	29.24	249.90	106.34	1.60		0.00	20.20		0.00	20.20		319,021.72		6.11	5.85	320,963.23
Total		**55.23**	**483.10**	**282.32**	**3.03**		**0.00**	**38.14**		**0.00**	**38.14**		**602,543.04**		**11.54**	**11.04**	**606,210.00**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8,042.92	750.95	47,031.23	142.62		0.00	7,170.67		0.00	7,170.36	1,051,222.16	478,102.17		4,929.09	8.65	1,635,517.75
Unmitigated	8,042.92	750.95	47,031.23	142.62		0.00	7,170.67		0.00	7,170.36	1,051,222.16	478,102.17		4,929.09	8.65	1,635,517.75
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	813.62					0.00	0.00		0.00	0.00						0.00
Consumer Products	2,277.93					0.00	0.00		0.00	0.00						0.00
Hearth	4,850.69	712.21	43,660.84	142.44		0.00	7,152.00		0.00	7,151.68	1,051,222.16	472,008.71		4,923.30	8.65	1,629,302.68
Landscaping	100.69	38.74	3,370.38	0.18		0.00	18.68		0.00	18.68		6,093.46		5.79		6,215.08
Total	**8,042.93**	**750.95**	**47,031.22**	**142.62**		**0.00**	**7,170.68**		**0.00**	**7,170.36**	**1,051,222.16**	**478,102.17**		**4,929.09**	**8.65**	**1,635,517.76**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	813.62					0.00	0.00		0.00	0.00						0.00
Consumer Products	2,277.93					0.00	0.00		0.00	0.00						0.00
Hearth	4,850.69	712.21	43,660.84	142.44		0.00	7,152.00		0.00	7,151.68	1,051,222.16	472,008.71		4,923.30	8.65	1,629,302.68
Landscaping	100.69	38.74	3,370.38	0.18		0.00	18.68		0.00	18.68		6,093.46		5.79		6,215.08
Total	**8,042.93**	**750.95**	**47,031.22**	**142.62**		**0.00**	**7,170.68**		**0.00**	**7,170.36**	**1,051,222.16**	**478,102.17**		**4,929.09**	**8.65**	**1,635,517.76**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Tracy TMP

San Joaquin County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	6250	1000sqft
Industrial Park	30340	1000sqft
Apartments Low Rise	13297	Dwelling Unit
Single Family Housing	27229	Dwelling Unit
Regional Shopping Center	7546	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2	**Precipitation Freq (Days)**	51		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase - No construction modeled. Model used for area sources only.

Off-road Equipment -

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8,042.92	750.95	47,031.23	142.62		0.00	7,170.67		0.00	7,170.36	1,051,222.16	478,102.17		4,929.09	8.65	1,635,517.75
Energy	55.23	483.10	282.32	3.01		0.00	38.16		0.00	38.16		602,543.04		11.55	11.05	606,210.02
Mobile	2,531.22	9,568.79	21,245.16	75.92	8,178.37	367.02	8,545.39	121.92	352.82	474.74		6,435,036.76		177.74		6,438,769.37
Total	**10,629.37**	**10,802.84**	**68,558.71**	**221.55**	**8,178.37**	**367.02**	**15,754.22**	**121.92**	**352.82**	**7,683.26**	**1,051,222.16**	**7,515,681.97**		**5,118.38**	**19.70**	**8,680,497.14**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8,042.92	750.95	47,031.23	142.62		0.00	7,170.67		0.00	7,170.36	1,051,222.16	478,102.17		4,929.09	8.65	1,635,517.75
Energy	55.23	483.10	282.32	3.01		0.00	38.16		0.00	38.16		602,543.04		11.55	11.05	606,210.02
Mobile	2,531.22	9,568.79	21,245.16	75.92	8,178.37	367.02	8,545.39	121.92	352.82	474.74		6,435,036.76		177.74		6,438,769.37
Total	**10,629.37**	**10,802.84**	**68,558.71**	**221.55**	**8,178.37**	**367.02**	**15,754.22**	**121.92**	**352.82**	**7,683.26**	**1,051,222.16**	**7,515,681.97**		**5,118.38**	**19.70**	**8,680,497.14**

3.0 Construction Detail

3.1 Mitigation Measures Construction

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,531.22	9,568.79	21,245.16	75.92	8,178.37	367.02	8,545.39	121.92	352.82	474.74		6,435,036.76		177.74		6,438,769.37
Unmitigated	2,531.22	9,568.79	21,245.16	75.92	8,178.37	367.02	8,545.39	121.92	352.82	474.74		6,435,036.76		177.74		6,438,769.37
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	87,627.23	95,206.52	80712.79	254,202,884	254,202,884
Industrial Park	211,166.40	75,546.60	22148.20	432,049,887	432,049,887
Office Park	71,375.00	10,250.00	4750.00	133,144,392	133,144,392
Regional Shopping Center	324,025.24	377,073.62	190461.04	547,948,049	547,948,049
Single Family Housing	260,581.53	274,468.32	238798.33	751,848,613	751,848,613
Total	954,775.40	832,545.06	536,870.36	2,119,193,825	2,119,193,825

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	55.23	483.10	282.32	3.01		0.00	38.16		0.00	38.16		602,543.04		11.55	11.05	606,210.02
NaturalGas Unmitigated	55.23	483.10	282.32	3.01		0.00	38.16		0.00	38.16		602,543.04		11.55	11.05	606,210.02
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	521240	5.62	48.04	20.44	0.31		0.00	3.88		0.00	3.88		61,322.34		1.18	1.12	61,695.53
Industrial Park	1.43803e+006	15.51	140.98	118.43	0.85		0.00	10.71		0.00	10.71		169,180.34		3.24	3.10	170,209.94
Office Park	196575	2.12	19.27	16.19	0.12		0.00	1.46		0.00	1.46		23,126.51		0.44	0.42	23,267.25
Regional Shopping Center	254083	2.74	24.91	20.92	0.15		0.00	1.89		0.00	1.89		29,892.13		0.57	0.55	30,074.05
Single Family Housing	2.71168e+006	29.24	249.90	106.34	1.60		0.00	20.20		0.00	20.20		319,021.72		6.11	5.85	320,963.23
Total		**55.23**	**483.10**	**282.32**	**3.03**		**0.00**	**38.14**		**0.00**	**38.14**		**602,543.04**		**11.54**	**11.04**	**606,210.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Apartments Low Rise	521.24	5.62	48.04	20.44	0.31		0.00	3.88		0.00	3.88		61,322.34		1.18	1.12	61,695.53
Industrial Park	1438.03	15.51	140.98	118.43	0.85		0.00	10.71		0.00	10.71		169,180.34		3.24	3.10	170,209.94
Office Park	196.575	2.12	19.27	16.19	0.12		0.00	1.46		0.00	1.46		23,126.51		0.44	0.42	23,267.25
Regional Shopping Center	254.083	2.74	24.91	20.92	0.15		0.00	1.89		0.00	1.89		29,892.13		0.57	0.55	30,074.05
Single Family Housing	2711.68	29.24	249.90	106.34	1.60		0.00	20.20		0.00	20.20		319,021.72		6.11	5.85	320,963.23
Total		**55.23**	**483.10**	**282.32**	**3.03**		**0.00**	**38.14**		**0.00**	**38.14**		**602,543.04**		**11.54**	**11.04**	**606,210.00**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8,042.92	750.95	47,031.23	142.62		0.00	7,170.67		0.00	7,170.36	1,051,222.16	478,102.17		4,929.09	8.65	1,635,517.75
Unmitigated	8,042.92	750.95	47,031.23	142.62		0.00	7,170.67		0.00	7,170.36	1,051,222.16	478,102.17		4,929.09	8.65	1,635,517.75
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	813.62					0.00	0.00		0.00	0.00						0.00
Consumer Products	2,277.93					0.00	0.00		0.00	0.00						0.00
Hearth	4,850.69	712.21	43,660.84	142.44		0.00	7,152.00		0.00	7,151.68	1,051,222.16	472,008.71		4,923.30	8.65	1,629,302.68
Landscaping	100.69	38.74	3,370.38	0.18		0.00	18.68		0.00	18.68		6,093.46		5.79		6,215.08
Total	**8,042.93**	**750.95**	**47,031.22**	**142.62**		**0.00**	**7,170.68**		**0.00**	**7,170.36**	**1,051,222.16**	**478,102.17**		**4,929.09**	**8.65**	**1,635,517.76**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	813.62					0.00	0.00		0.00	0.00						0.00
Consumer Products	2,277.93					0.00	0.00		0.00	0.00						0.00
Hearth	4,850.69	712.21	43,660.84	142.44		0.00	7,152.00		0.00	7,151.68	1,051,222.16	472,008.71		4,923.30	8.65	1,629,302.68
Landscaping	100.69	38.74	3,370.38	0.18		0.00	18.68		0.00	18.68		6,093.46		5.79		6,215.08
Total	**8,042.93**	**750.95**	**47,031.22**	**142.62**		**0.00**	**7,170.68**		**0.00**	**7,170.36**	**1,051,222.16**	**478,102.17**		**4,929.09**	**8.65**	**1,635,517.76**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Existing Conditions

Mobile Source Emissions Calculations

Project VMT: 3,300,000
Year: 2010

	Total	Breakdown of		Emission Factor		Total Emis Passenger	Total Emis Delivery	Passnger	Delivery	Total Emissions	
	VMT	Passnger	Truck/Other	Passnger	Truck/Other	pounds/day		tons/year		tons/year	metric tons/year
CO	3,300,000	2,343,000	957,000	0.0083	0.0184	19,359.64	17,644.83	3,533.13	3,220.18	6,753.32	6126.50
NO_x	3,300,000	2,343,000	957,000	0.0009	0.0206	2,151.20	19,737.75	392.59	3,602.14	3,994.73	3623.96
N_2O[1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	194.66	176.60
ROG	3,300,000	2,343,000	957,000	0.0009	0.0026	2,141.47	2,478.22	390.82	452.28	843.10	764.84
SO_x	3,300,000	2,343,000	957,000	0.0000	0.0000	25.25	25.85	4.61	4.72	9.32	8.46
PM_{10}	3,300,000	2,343,000	957,000	0.0001	0.0008	203.79	718.91	37.19	131.20	168.39	152.76
$PM_{2.5}$	3,300,000	2,343,000	957,000	0.0001	0.0006	128.35	614.71	23.42	112.18	135.61	123.02
CH_4	3,300,000	2,343,000	957,000	0.0001	0.0001	190.86	120.36	34.83	21.97	56.80	51.53
CO_2	3,300,000	2,343,000	957,000	1.0957	2.7322	2,567,183.74	2,614,736.44	468,511.03	477,189.40	945,700.43	857924.96

	CO_2	N_2O	CH_4	Total $MTCO_2eq$
metric tons per year	857,924.96	176.60	51.53	
metric tons CO_2eq per year	857,924.96	54,744.64	1,082.04	**913,751.65**

Notes:

1. VMT based the City of Tracy Transportation Master Plan and Fehr and Peers Supplemental Data, 2011.

2. Emission Factor based upon EMFAC 2007 (version 2.3), *Highest (Most Conservative) Emission Factors for On-Road Passenger Vehicles and Delivery Trucks* .

3. Breakdown of Passenger and Trucks assumes 71% auto and 29% truck based on the fleet mix for the project.

4. Emission Factor for N_2O based upon a conversion ratio of 0.04873 from NO_x to N_2O. Based upon California Air Resources Board: *Estimates of Nitrous Oxide Emissions from Motor Vehicles and the Effects of Catalyst Composition and Aging*, 2005.

5. Conversion from metric tons per year to metric tons of CO_2eq per year is based upon the EPA Greenhouse Gas Equivalencies Calculator; http://www.epa.gov/cleanenergy/energy-resources/calculator.html

General Plan 2030
Mobile Source Emissions Calculations

Project VMT: 4,778,000
Year: 2026

	Total	Breakdown of		Emission Factor		al Emis Passen	otal Emis Delive	Passnger	Delivery	Total Emissions	
	VMT	Passnger	Truck/Other	Passnger	Truck/Other	pounds/day		tons/year		tons/year	metric tons/year
CO	4,778,000	3,392,380	1,385,620	0.0033	0.0057	11,153.43	7,890.21	2,035.50	1,439.96	3,475.46	3152.89
NO_X	4,778,000	3,392,380	1,385,620	0.0003	0.0059	920.72	8,173.35	168.03	1,491.64	1,659.67	1505.63
N_2O[1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	80.88	73.37
ROG	4,778,000	3,392,380	1,385,620	0.0004	0.0009	1,426.58	1,224.93	260.35	223.55	483.90	438.99
SO_X	4,778,000	3,392,380	1,385,620	0.0000	0.0000	36.50	37.64	6.66	6.87	13.53	12.27
PM_{10}	4,778,000	3,392,380	1,385,620	0.0001	0.0003	328.64	383.22	59.98	69.94	129.91	117.86
$PM_{2.5}$	4,778,000	3,392,380	1,385,620	0.0001	0.0002	217.62	279.72	39.72	51.05	90.76	82.34
CH_4	4,778,000	3,392,380	1,385,620	0.0000	0.0000	119.33	49.61	21.78	9.05	30.83	27.97
CO_2	4,778,000	3,392,380	1,385,620	1.1111	2.8830	3,769,131.93	3,994,718.89	687,866.58	729,036.20	1,416,902.78	1285392.52

	CO_2	N_2O	CH_4	Total $MTCO_2eq$
metric tons per year	1,285,392.52	73.37	27.97	
metric tons CO_2eq per year	1,285,392.52	22,744.44	587.39	**1,308,724.35**

Notes:

1. VMT based the City of Tracy Transportation Master Plan and Fehr and Peers Supplemental Data, 2011.

2. Emission Factor based upon EMFAC 2007 (version 2.3), *Highest (Most Conservative) Emission Factors for On-Road Passenger Vehicles and Delivery Trucks* .

3. Breakdown of Passenger and Trucks assumes 71% auto and 29% truck based on the fleet mix for the project.

4. Emission Factor for N_2O based upon a conversion ratio of 0.04873 from NO_X to N_2O. Based upon California Air Resources Board: *Estimates of Nitrous Oxide Emissions from Motor Vehicles and the Effects of Catalyst Composition and Aging* , 2005.

5. Conversion from metric tons per year to metric tons of CO_2eq per year is based upon the EPA Greenhouse Gas Equivalencies Calculator; http://www.epa.gov/cleanenergy/energy-resources/calculator.html

TMP 2035

Mobile Source Emissions Calculations

Project VMT: 6,901,062
Year: 2026

	Total	Breakdown of		Emission Factor		al Emis Passen	otal Emis Delive	Passnger	Delivery	Total Emissions	
	VMT	Passnger	Truck/Other	Passnger	Truck/Other	pounds/day		tons/year		tons/year	metric tons/year
CO	6,901,062	4,899,754	2,001,308	0.0033	0.0057	16,109.36	11,396.16	2,939.96	2,079.80	5,019.76	4553.85
NO_X	6,901,062	4,899,754	2,001,308	0.0003	0.0059	1,329.84	11,805.10	242.70	2,154.43	2,397.13	2174.64
N_2O[1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	116.81	105.97
ROG	6,901,062	4,899,754	2,001,308	0.0004	0.0009	2,060.47	1,769.22	376.04	322.88	698.92	634.05
SO_X	6,901,062	4,899,754	2,001,308	0.0000	0.0000	52.71	54.36	9.62	9.92	19.54	17.73
PM_{10}	6,901,062	4,899,754	2,001,308	0.0001	0.0003	474.66	553.50	86.63	101.01	187.64	170.22
$PM_{2.5}$	6,901,062	4,899,754	2,001,308	0.0001	0.0002	314.32	404.01	57.36	73.73	131.09	118.93
CH_4	6,901,062	4,899,754	2,001,308	0.0000	0.0000	172.36	71.66	31.46	13.08	44.53	40.40
CO_2	6,901,062	4,899,754	2,001,308	1.1111	2.8830	5,443,912.34	5,769,736.87	993,514.00	1,052,976.98	2,046,490.98	1856545.31

	CO_2	N_2O	CH_4	Total $MTCO_2eq$
metric tons per year	1,856,545.31	105.97	40.40	
metric tons CO_2eq per year	1,856,545.31	32,850.72	848.40	**1,890,244.43**

Notes:

1. VMT based the City of Tracy Transportation Master Plan and Fehr and Peers Supplemental Data, 2011.

2. Emission Factor based upon EMFAC 2007 (version 2.3), *Highest (Most Conservative) Emission Factors for On-Road Passenger Vehicles and Delivery Trucks*.

3. Breakdown of Passenger and Trucks assumes 71% auto and 29% truck based on the fleet mix for the project.

4. Emission Factor for N_2O based upon a conversion ratio of 0.04873 from NO_X to N_2O. Based upon California Air Resources Board: *Estimates of Nitrous Oxide Emissions from Motor Vehicles and the Effects of Catalyst Composition and Aging*, 2005.

5. Conversion from metric tons per year to metric tons of CO_2eq per year is based upon the EPA Greenhouse Gas Equivalencies Calculator; http://www.epa.gov/cleanenergy/energy-resources/calculator.html

1 CALINE4 - (DATED CALINE4x)

3.0.0 PC (32 BIT) VERSION
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Run Began on 12/19/2011 at 14:47:09

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Lammers-Commerce
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	6 (F)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	3.4 PPM		
SIGTH=	20. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

	LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
1.	Y SB1	684	1256	711	1201	AG	3700	0.8	0.0	12.9
2.	Y SB2	711	1201	745	1133	AG	3120	1.8	0.0	12.9
3.	Y SB3	745	1133	800	1025	AG	3145	0.8	0.0	12.9
4.	Y SB4	800	1025	858	906	AG	3145	0.8	0.0	12.9
5.	Y NB1	868	911	813	1024	AG	1985	0.8	0.0	12.9
6.	Y NB2	814	1024	761	1138	AG	1535	1.8	0.0	12.9
7.	Y NB3	761	1138	728	1205	AG	2905	0.8	0.0	12.9
8.	Y NB4	728	1205	700	1263	AG	2905	0.8	0.0	12.9
9.	Y LT1	720	1198	753	1134	AG	580	1.8	0.0	12.9
10.	Y LT2	753	1134	802	1038	AG	450	1.8	0.0	12.9
11.	X EB1	596	1103	682	1125	AG	2170	0.8	0.0	12.9
12.	X EB2	682	1125	750	1141	AG	800	1.8	0.0	12.9
13.	X EB3	750	1141	826	1158	AG	1380	0.8	0.0	12.9
14.	X EB4	826	1158	923	1182	AG	1380	0.8	0.0	12.9
15.	X WB1	924	1170	832	1147	AG	1050	0.8	0.0	12.9
16.	X WB2	832	1147	757	1128	AG	1025	1.8	0.0	12.9
17.	X WB3	757	1128	687	1111	AG	1475	0.8	0.0	12.9
18.	X WB4	687	1111	599	1090	AG	1475	0.8	0.0	12.9
19.	X LT1	674	1115	753	1134	AG	1370	1.8	0.0	12.9
20.	X LT2	753	1134	841	1157	AG	25	1.8	0.0	12.9

III. RECEPTOR LOCATIONS

	RECEPTOR	COORDINATES (M) X	Y	Z
1.	Recpt 1	805	1099	1.8
2.	Recpt 2	691	1157	1.8
3.	Recpt 3	729	1093	1.8
4.	Recpt 4	778	1179	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) 1	2	3	4	5	6	7	8
1. Recpt 1	301.	3.8	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
2. Recpt 2	109.	3.8	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3. Recpt 3	7.	3.8	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4. Recpt 4	229.	3.7	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0

RECEPTOR	CONC/LINK (PPM) 9	10	11	12	13	14	15	16
1. Recpt 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. Recpt 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Recpt 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. Recpt 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RECEPTOR	CONC/LINK (PPM) 17	18	19	20
1. Recpt 1	0.0	0.0	0.0	0.0
2. Recpt 2	0.0	0.0	0.0	0.0
3. Recpt 3	0.0	0.0	0.1	0.0
4. Recpt 4	0.0	0.0	0.1	0.0

1

Run Ended on 12/19/2011 at 14:47:09

1 CALINE4 - (DATED CALINE4x)

3.0.0 PC (32 BIT) VERSION
(C) COPYRIGHT 2000, TRINITY CONSULTANTS

Run Began on 12/19/2011 at 14:40:06

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Tracy-11th
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	6 (F)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	3.4 PPM		
SIGTH=	20. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

	LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
1.	Y SB1	684	1256	711	1201	AG	1840	0.8	0.0	31.6
2.	Y SB2	711	1201	745	1133	AG	1550	1.8	0.0	31.6
3.	Y SB3	745	1133	800	1025	AG	1940	0.8	0.0	31.6
4.	Y SB4	800	1025	858	906	AG	1940	0.8	0.0	31.6
5.	Y NB1	868	911	813	1024	AG	2060	0.8	0.0	31.6
6.	Y NB2	814	1024	761	1138	AG	1530	1.8	0.0	31.6
7.	Y NB3	761	1138	728	1205	AG	2090	0.8	0.0	31.6
8.	Y NB4	728	1205	700	1263	AG	2090	0.8	0.0	31.6
9.	Y LT1	720	1198	753	1134	AG	290	1.8	0.0	31.6
10.	Y LT2	753	1134	802	1038	AG	530	1.8	0.0	31.6
11.	X EB1	596	1103	682	1125	AG	2490	0.8	0.0	32.7
12.	X EB2	682	1125	750	1141	AG	1930	1.8	0.0	32.7
13.	X EB3	750	1141	826	1158	AG	2220	0.8	0.0	32.7
14.	X EB4	826	1158	923	1182	AG	2220	0.8	0.0	32.7
15.	X WB1	924	1170	832	1147	AG	1740	0.8	0.0	32.7
16.	X WB2	832	1147	757	1128	AG	1350	1.8	0.0	32.7
17.	X WB3	757	1128	687	1111	AG	1880	0.8	0.0	32.7
18.	X WB4	687	1111	599	1090	AG	1880	0.8	0.0	32.7
19.	X LT1	674	1115	753	1134	AG	560	1.8	0.0	32.7
20.	X LT2	753	1134	841	1157	AG	390	1.8	0.0	32.7

III. RECEPTOR LOCATIONS

	RECEPTOR	COORDINATES (M) X	Y	Z
1.	Recpt 1	805	1099	1.8
2.	Recpt 2	691	1157	1.8
3.	Recpt 3	729	1093	1.8
4.	Recpt 4	778	1179	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) 1	2	3	4	5	6	7	8
1. Recpt 1	302.	3.8	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
2. Recpt 2	116.	3.8	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
3. Recpt 3	8.	3.7	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4. Recpt 4	229.	3.7	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

RECEPTOR	CONC/LINK (PPM) 9	10	11	12	13	14	15	16
1. Recpt 1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
2. Recpt 2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3. Recpt 3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
4. Recpt 4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

RECEPTOR	CONC/LINK (PPM) 17	18	19	20
1. Recpt 1	0.0	0.0	0.0	0.0
2. Recpt 2	0.0	0.0	0.0	0.0
3. Recpt 3	0.1	0.0	0.0	0.0
4. Recpt 4	0.0	0.0	0.0	0.0

1

Run Ended on 12/19/2011 at 14:40:06

1 CALINE4 - (DATED CALINE4x)

3.0.0 PC (32 BIT) VERSION
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Run Began on 12/19/2011 at 14:45:22

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Tracy-Schulte
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	6 (F)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	3.4 PPM		
SIGTH=	20. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

	LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
1.	Y SB1	684	1256	711	1201	AG	1390	0.8	0.0	30.7
2.	Y SB2	711	1201	745	1133	AG	1010	1.8	0.0	30.7
3.	Y SB3	745	1133	800	1025	AG	1135	0.8	0.0	30.7
4.	Y SB4	800	1025	858	906	AG	1135	0.8	0.0	30.7
5.	Y NB1	868	911	813	1024	AG	1200	0.8	0.0	30.7
6.	Y NB2	814	1024	761	1138	AG	825	1.8	0.0	30.7
7.	Y NB3	761	1138	728	1205	AG	1075	0.8	0.0	30.7
8.	Y NB4	728	1205	700	1263	AG	1075	0.8	0.0	30.7
9.	Y LT1	720	1198	753	1134	AG	380	1.8	0.0	30.7
10.	Y LT2	753	1134	802	1038	AG	375	1.8	0.0	30.7
11.	X EB1	596	1103	682	1125	AG	1400	0.8	0.0	26.3
12.	X EB2	682	1125	750	1141	AG	1150	1.8	0.0	26.3
13.	X EB3	750	1141	826	1158	AG	1530	0.8	0.0	26.3
14.	X EB4	826	1158	923	1182	AG	1530	0.8	0.0	26.3
15.	X WB1	924	1170	832	1147	AG	1100	0.8	0.0	26.3
16.	X WB2	832	1147	757	1128	AG	975	1.8	0.0	26.3
17.	X WB3	757	1128	687	1111	AG	1350	0.8	0.0	26.3
18.	X WB4	687	1111	599	1090	AG	1350	0.8	0.0	26.3
19.	X LT1	674	1115	753	1134	AG	250	1.8	0.0	26.3
20.	X LT2	753	1134	841	1157	AG	125	1.8	0.0	26.3

III. RECEPTOR LOCATIONS

	RECEPTOR	COORDINATES (M) X	Y	Z
1.	Recpt 1	805	1099	1.8
2.	Recpt 2	691	1157	1.8
3.	Recpt 3	729	1093	1.8
4.	Recpt 4	778	1179	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) 1	2	3	4	5	6	7	8
1. Recpt 1	304.	3.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
2. Recpt 2	108.	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Recpt 3	4.	3.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4. Recpt 4	229.	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RECEPTOR	CONC/LINK (PPM) 9	10	11	12	13	14	15	16
1. Recpt 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. Recpt 2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3. Recpt 3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
4. Recpt 4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

RECEPTOR	CONC/LINK (PPM) 17	18	19	20
1. Recpt 1	0.0	0.0	0.0	0.0
2. Recpt 2	0.0	0.0	0.0	0.0
3. Recpt 3	0.0	0.0	0.0	0.0
4. Recpt 4	0.0	0.0	0.0	0.0

1

Run Ended on 12/19/2011 at 14:45:22

1 CALINE4 - (DATED CALINE4x)

3.0.0 PC (32 BIT) VERSION
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Run Began on 12/19/2011 at 14:37:52

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Corral-11th
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	6 (F)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	3.4 PPM		
SIGTH=	20. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

	LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
1.	Y SB1	684	1256	711	1201	AG	2440	0.8	0.0	42.1
2.	Y SB2	711	1201	745	1133	AG	1910	1.8	0.0	42.1
3.	Y SB3	745	1133	800	1025	AG	2160	0.8	0.0	42.1
4.	Y SB4	800	1025	858	906	AG	2160	0.8	0.0	42.1
5.	Y NB1	868	911	813	1024	AG	1960	0.8	0.0	42.1
6.	Y NB2	814	1024	761	1138	AG	1750	1.8	0.0	42.1
7.	Y NB3	761	1138	728	1205	AG	2420	0.8	0.0	42.1
8.	Y NB4	728	1205	700	1263	AG	2420	0.8	0.0	42.1
9.	Y LT1	720	1198	753	1134	AG	530	1.8	0.0	42.1
10.	Y LT2	753	1134	802	1038	AG	210	1.8	0.0	42.1
11.	X EB1	596	1103	682	1125	AG	3160	0.8	0.0	41.6
12.	X EB2	682	1125	750	1141	AG	2490	1.8	0.0	41.6
13.	X EB3	750	1141	826	1158	AG	3020	0.8	0.0	41.6
14.	X EB4	826	1158	923	1182	AG	3020	0.8	0.0	41.6
15.	X WB1	924	1170	832	1147	AG	2320	0.8	0.0	41.6
16.	X WB2	832	1147	757	1128	AG	2070	1.8	0.0	41.6
17.	X WB3	757	1128	687	1111	AG	2820	0.8	0.0	41.6
18.	X WB4	687	1111	599	1090	AG	2820	0.8	0.0	41.6
19.	X LT1	674	1115	753	1134	AG	670	1.8	0.0	41.6
20.	X LT2	753	1134	841	1157	AG	250	1.8	0.0	41.6

III. RECEPTOR LOCATIONS

	RECEPTOR	COORDINATES (M) X	Y	Z
1.	Recpt 1	805	1099	1.8
2.	Recpt 2	691	1157	1.8
3.	Recpt 3	729	1093	1.8
4.	Recpt 4	778	1179	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) 1	2	3	4	5	6	7	8
1. Recpt 1	307.	3.8	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
2. Recpt 2	105.	3.8	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3. Recpt 3	6.	3.8	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4. Recpt 4	230.	3.8	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0

RECEPTOR	CONC/LINK (PPM) 9	10	11	12	13	14	15	16
1. Recpt 1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
2. Recpt 2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
3. Recpt 3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
4. Recpt 4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

RECEPTOR	CONC/LINK (PPM) 17	18	19	20
1. Recpt 1	0.0	0.0	0.0	0.0
2. Recpt 2	0.0	0.0	0.0	0.0
3. Recpt 3	0.1	0.0	0.0	0.0
4. Recpt 4	0.0	0.0	0.0	0.0

1

Run Ended on 12/19/2011 at 14:37:52

1 CALINE4 - (DATED CALINE4x)

3.0.0 PC (32 BIT) VERSION
(C) COPYRIGHT 2000, TRINITY CONSULTANTS

Run Began on 12/19/2011 at 14:43:35

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Corral-Schulte
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	0.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	6 (F)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	3.4 PPM		
SIGTH=	20. DEGREES	TEMP=	15.0 DEGREE (C)		

II. LINK VARIABLES

	LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
1.	Y SB1	684	1256	711	1201	AG	2135	0.8	0.0	33.0
2.	Y SB2	711	1201	745	1133	AG	1175	1.8	0.0	33.0
3.	Y SB3	745	1133	800	1025	AG	1245	0.8	0.0	33.0
4.	Y SB4	800	1025	858	906	AG	1245	0.8	0.0	33.0
5.	Y NB1	868	911	813	1024	AG	1290	0.8	0.0	33.0
6.	Y NB2	814	1024	761	1138	AG	1220	1.8	0.0	33.0
7.	Y NB3	761	1138	728	1205	AG	1700	0.8	0.0	33.0
8.	Y NB4	728	1205	700	1263	AG	1700	0.8	0.0	33.0
9.	Y LT1	720	1198	753	1134	AG	960	1.8	0.0	33.0
10.	Y LT2	753	1134	802	1038	AG	70	1.8	0.0	33.0
11.	X EB1	596	1103	682	1125	AG	1200	0.8	0.0	42.0
12.	X EB2	682	1125	750	1141	AG	720	1.8	0.0	42.0
13.	X EB3	750	1141	826	1158	AG	1680	0.8	0.0	42.0
14.	X EB4	826	1158	923	1182	AG	1680	0.8	0.0	42.0
15.	X WB1	924	1170	832	1147	AG	1270	0.8	0.0	42.0
16.	X WB2	832	1147	757	1128	AG	1200	1.8	0.0	42.0
17.	X WB3	757	1128	687	1111	AG	1270	0.8	0.0	42.0
18.	X WB4	687	1111	599	1090	AG	1270	0.8	0.0	42.0
19.	X LT1	674	1115	753	1134	AG	480	1.8	0.0	42.0
20.	X LT2	753	1134	841	1157	AG	70	1.8	0.0	42.0

III. RECEPTOR LOCATIONS

	RECEPTOR	COORDINATES (M) X	Y	Z
1.	Recpt 1	805	1099	1.8
2.	Recpt 2	691	1157	1.8
3.	Recpt 3	729	1093	1.8
4.	Recpt 4	778	1179	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) 1	2	3	4	5	6	7	8
1. Recpt 1	310.	3.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
2. Recpt 2	100.	3.7	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3. Recpt 3	9.	3.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
4. Recpt 4	231.	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RECEPTOR	CONC/LINK (PPM) 9	10	11	12	13	14	15	16
1. Recpt 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. Recpt 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Recpt 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. Recpt 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RECEPTOR	CONC/LINK (PPM) 17	18	19	20
1. Recpt 1	0.0	0.0	0.0	0.0
2. Recpt 2	0.0	0.0	0.0	0.0
3. Recpt 3	0.0	0.0	0.0	0.0
4. Recpt 4	0.0	0.0	0.0	0.0

1

Run Ended on 12/19/2011 at 14:43:35

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Fresno (SJV)

****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Fresno (SJV) Fresno (SJV) Fresno (SJV)

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.037	0.068	0.106	1.874	1.558	4.685	0.304
35	0.006	0.010	0.017	0.204	0.284	1.805	0.046

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.783	1.296	1.846	5.598	15.364	22.068	1.828
35	0.468	0.771	1.001	1.185	2.878	14.286	0.830

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.066	0.120	0.242	6.144	10.880	1.393	0.826
35	0.038	0.068	0.148	2.258	5.605	1.266	0.333

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	921.810	1181.126	1698.003	3352.071	2418.624	266.396	1381.757
35	299.862	384.333	521.883	1685.526	1482.786	139.995	514.536

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.009	0.011	0.016	0.032	0.023	0.003	0.013
35	0.003	0.004	0.005	0.016	0.014	0.002	0.005

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.053	0.108	0.118	0.126	0.314	0.023	0.087
35	0.009	0.018	0.020	0.069	0.073	0.011	0.020

Pollutant Name: PM2.5 - Tire Wear Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.002	0.002	0.002	0.008	0.002	0.001	0.003
35	0.002	0.002	0.002	0.008	0.002	0.001	0.003

Pollutant Name: PM2.5 - Brake Wear Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.005	0.005	0.005	0.011	0.005	0.003	0.006
35	0.005	0.005	0.005	0.011	0.005	0.003	0.006

Pollutant Name: Gasoline - mi/gal Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	9.598	7.486	5.145	3.487	3.461	28.032	8.324
35	29.476	22.983	16.928	17.622	17.502	52.631	25.487

Pollutant Name: Diesel - mi/gal Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	29.156	29.156	19.435	3.379	4.314	0.000	4.452
35	29.156	29.156	19.435	5.735	4.314	0.000	6.637

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Fresno (SJV)

****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Fresno (SJV) Fresno (SJV) Fresno (SJV)

Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.003	0.006	0.026	0.039	0.228	0.645	0.018
10	0.006	0.013	0.052	0.076	0.445	0.799	0.031
20	0.012	0.024	0.102	0.144	0.843	1.094	0.056
30	0.018	0.036	0.150	0.204	1.195	1.372	0.080
40	0.023	0.047	0.196	0.256	1.501	1.633	0.102
50	0.028	0.057	0.240	0.300	1.760	1.878	0.122
60	0.033	0.067	0.282	0.336	1.973	2.057	0.141
120	0.055	0.115	0.484	0.378	2.218	2.328	0.213
180	0.054	0.112	0.479	0.401	2.354	2.355	0.213
240	0.057	0.119	0.509	0.424	2.485	2.503	0.226
300	0.061	0.126	0.540	0.445	2.612	2.648	0.239
360	0.064	0.133	0.570	0.466	2.734	2.790	0.252
420	0.067	0.140	0.601	0.486	2.853	2.929	0.265
480	0.071	0.147	0.631	0.506	2.967	3.065	0.278
540	0.074	0.154	0.661	0.525	3.076	3.198	0.290
600	0.077	0.161	0.691	0.543	3.182	3.328	0.303
660	0.080	0.168	0.721	0.560	3.283	3.454	0.315
720	0.084	0.174	0.750	0.576	3.380	3.578	0.327

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.061	0.112	0.389	0.760	2.182	2.952	0.231
10	0.121	0.221	0.769	1.490	4.275	3.578	0.435
20	0.237	0.432	1.504	2.856	8.195	4.776	0.824
30	0.348	0.634	2.205	4.098	11.760	5.902	1.190
40	0.453	0.825	2.873	5.217	14.971	6.956	1.534
50	0.553	1.007	3.507	6.213	17.828	7.938	1.854
60	0.647	1.179	4.107	7.084	20.329	8.849	2.151
120	1.051	1.907	6.616	8.273	23.741	12.515	3.195

180	0.995	1.808	6.335	8.515	24.435	12.095	3.099
240	1.085	1.970	6.908	8.765	25.152	13.103	3.336
300	1.164	2.112	7.411	9.023	25.892	14.035	3.547
360	1.232	2.235	7.845	9.289	26.654	14.891	3.733
420	1.289	2.338	8.208	9.562	27.440	15.672	3.893
480	1.335	2.422	8.502	9.844	28.248	16.377	4.029
540	1.370	2.486	8.726	10.134	29.080	17.006	4.139
600	1.394	2.530	8.879	10.432	29.934	17.559	4.225
660	1.407	2.554	8.963	10.737	30.811	18.037	4.285
720	1.410	2.559	8.977	11.051	31.711	18.439	4.320

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.028	0.064	0.569	0.160	1.066	0.153	0.167
10	0.029	0.067	0.591	0.241	1.606	0.193	0.180
20	0.032	0.072	0.630	0.383	2.555	0.263	0.203
30	0.034	0.076	0.665	0.499	3.328	0.321	0.223
40	0.035	0.080	0.696	0.588	3.925	0.366	0.239
50	0.037	0.083	0.721	0.652	4.347	0.400	0.252
60	0.038	0.086	0.742	0.689	4.593	0.421	0.261
120	0.041	0.094	0.815	0.694	4.626	0.423	0.280
180	0.042	0.094	0.816	0.691	4.609	0.420	0.280
240	0.041	0.093	0.809	0.687	4.583	0.413	0.278
300	0.041	0.092	0.799	0.682	4.548	0.405	0.275
360	0.040	0.091	0.784	0.675	4.504	0.396	0.270
420	0.039	0.088	0.765	0.667	4.451	0.384	0.265
480	0.038	0.086	0.741	0.658	4.389	0.371	0.257
540	0.037	0.083	0.714	0.647	4.319	0.356	0.249
600	0.035	0.079	0.682	0.636	4.239	0.339	0.239
660	0.033	0.075	0.646	0.622	4.150	0.321	0.228
720	0.031	0.070	0.606	0.608	4.052	0.301	0.216

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	12.036	15.383	22.010	2.532	4.431	13.053	14.360
10	13.460	17.217	24.716	5.050	8.838	15.242	16.273
20	16.803	21.518	31.027	10.045	17.577	19.541	20.671
30	20.809	26.664	38.541	14.983	26.218	23.734	25.833
40	25.477	32.654	47.255	19.865	34.762	27.821	31.758
50	30.807	39.489	57.172	24.691	43.207	31.802	38.447
60	36.798	47.170	68.290	29.461	51.554	35.677	45.899
120	86.189	110.361	159.081	50.109	87.684	53.072	105.438
180	97.777	125.214	180.578	59.200	103.592	57.350	119.807
240	109.359	140.056	202.039	67.754	118.561	61.377	134.117
300	120.935	154.887	223.465	75.772	132.592	65.153	148.367
360	132.505	169.707	244.854	83.253	145.683	68.678	162.556
420	144.069	184.515	266.208	90.198	157.835	71.951	176.687
480	155.627	199.312	287.527	96.606	169.049	74.974	190.757
540	167.178	214.099	308.809	102.478	179.323	77.745	204.767
600	178.724	228.874	330.056	107.813	188.659	80.265	218.718
660	190.264	243.637	351.268	112.611	197.055	82.534	232.609

720	201.797	258.390	372.443	116.873	204.513	84.552	246.440

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.001	0.000	0.001	0.000	0.000
50	0.000	0.000	0.001	0.000	0.001	0.000	0.000
60	0.000	0.000	0.001	0.000	0.001	0.001	0.000
120	0.001	0.001	0.002	0.001	0.001	0.001	0.001
180	0.001	0.001	0.002	0.001	0.001	0.001	0.001
240	0.001	0.001	0.002	0.001	0.002	0.001	0.001
300	0.001	0.002	0.002	0.001	0.002	0.001	0.001
360	0.001	0.002	0.002	0.001	0.002	0.001	0.002
420	0.001	0.002	0.003	0.001	0.002	0.001	0.002
480	0.002	0.002	0.003	0.001	0.002	0.001	0.002
540	0.002	0.002	0.003	0.001	0.002	0.001	0.002
600	0.002	0.002	0.003	0.001	0.002	0.001	0.002
660	0.002	0.002	0.004	0.001	0.002	0.001	0.002
720	0.002	0.003	0.004	0.001	0.003	0.001	0.002

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.001	0.001	0.001	0.000	0.001	0.005	0.001
10	0.001	0.002	0.002	0.001	0.001	0.005	0.001
20	0.002	0.004	0.003	0.001	0.003	0.004	0.003
30	0.003	0.006	0.005	0.002	0.004	0.003	0.004
40	0.004	0.008	0.007	0.002	0.005	0.003	0.005
50	0.005	0.009	0.008	0.003	0.006	0.002	0.006
60	0.005	0.011	0.009	0.003	0.006	0.002	0.008
120	0.009	0.018	0.016	0.004	0.009	0.005	0.012
180	0.010	0.020	0.017	0.004	0.009	0.006	0.014
240	0.011	0.022	0.019	0.004	0.009	0.008	0.015
300	0.012	0.023	0.020	0.005	0.010	0.010	0.016
360	0.013	0.025	0.022	0.005	0.010	0.011	0.017
420	0.013	0.026	0.023	0.005	0.010	0.012	0.018
480	0.014	0.027	0.023	0.005	0.011	0.013	0.019
540	0.014	0.028	0.024	0.005	0.011	0.014	0.019
600	0.014	0.028	0.025	0.005	0.011	0.014	0.020
660	0.014	0.028	0.025	0.005	0.012	0.014	0.020
720	0.014	0.028	0.025	0.006	0.012	0.015	0.020

Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Fresno (SJV)
****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Fresno (SJV) Fresno (SJV) Fresno (SJV)

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.021	0.035	0.028	0.002	0.042	0.177	0.026
10	0.038	0.065	0.052	0.004	0.078	0.330	0.049
20	0.066	0.113	0.090	0.008	0.134	0.578	0.085
30	0.086	0.146	0.117	0.010	0.172	0.764	0.110
40	0.093	0.159	0.128	0.011	0.187	0.839	0.120

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Fresno (SJV)
****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Fresno (SJV) Fresno (SJV) Fresno (SJV)

Table 5a: Partial Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.019	0.049	0.056	0.001	0.002	0.451	0.048

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Fresno (SJV)
****
*****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Fresno (SJV) Fresno (SJV) Fresno (SJV)

Table 5b: Multi-Day Diurnal Loss Emissions
(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity:
ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.003	0.004	0.000	0.001	0.043	0.004

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Fresno (SJV)
****
*****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Fresno (SJV) Fresno (SJV) Fresno (SJV)

Table 6a: Partial Day Resting Loss Emissions
(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity:
ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.011	0.033	0.039	0.001	0.001	0.143	0.026

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Fresno (SJV)
****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Fresno (SJV) Fresno (SJV) Fresno (SJV)

Table 6b: Multi-Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.002	0.003	0.000	0.000	0.014	0.002

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Fresno (SJV)
****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Fresno (SJV) Fresno (SJV) Fresno (SJV)

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative Humidity: ALL

	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
%VMT	0.433	0.305	0.138	0.114	0.002	0.008	1.000
%TRIP	0.409	0.285	0.214	0.082	0.000	0.010	1.000
%VEH	0.457	0.322	0.145	0.042	0.000	0.034	1.000

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Fresno (SJV)
****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Fresno (SJV) Fresno (SJV) Fresno (SJV)

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
1	0.008	0.163	0.194	0.014	0.533	0.003	0.083
2	0.007	0.086	0.102	0.008	0.275	0.037	0.045
3	0.008	0.063	0.073	0.005	0.190	0.056	0.034
4	0.010	0.052	0.061	0.005	0.149	0.068	0.030
5	0.011	0.046	0.053	0.004	0.124	0.077	0.027
10	0.015	0.036	0.040	0.003	0.078	0.099	0.024
15	0.017	0.034	0.037	0.003	0.066	0.113	0.024
20	0.018	0.034	0.037	0.003	0.063	0.123	0.025
25	0.019	0.035	0.038	0.003	0.064	0.133	0.026
30	0.020	0.037	0.040	0.003	0.068	0.140	0.027
35	0.021	0.038	0.041	0.003	0.071	0.147	0.028
40	0.022	0.040	0.043	0.003	0.074	0.154	0.029
45	0.023	0.041	0.044	0.003	0.077	0.160	0.030
50	0.023	0.042	0.046	0.004	0.080	0.166	0.031
55	0.024	0.043	0.047	0.004	0.083	0.172	0.032
60	0.025	0.045	0.048	0.004	0.085	0.177	0.033

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kern (SJV)
****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kern (SJV) Kern (SJV) Kern (SJV)

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.037	0.067	0.103	2.116	2.569	4.698	0.557
35	0.006	0.010	0.017	0.225	0.464	1.809	0.074

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.789	1.268	1.820	6.260	24.099	22.147	2.497
35	0.471	0.755	0.968	1.320	4.579	14.335	0.942

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.066	0.117	0.251	6.856	14.852	1.402	1.627
35	0.038	0.067	0.155	2.486	7.791	1.273	0.621

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	921.824	1180.786	1719.971	3531.643	2417.025	266.398	1678.834
35	299.866	384.251	520.803	1731.634	1692.008	139.997	669.833

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.009	0.011	0.017	0.034	0.023	0.003	0.016
35	0.003	0.004	0.005	0.017	0.016	0.002	0.006

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.053	0.108	0.120	0.119	0.330	0.023	0.092
35	0.009	0.018	0.020	0.071	0.078	0.011	0.026

Pollutant Name: PM2.5 - Tire Wear Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.002	0.002	0.002	0.008	0.002	0.001	0.003
35	0.002	0.002	0.002	0.008	0.002	0.001	0.003

Pollutant Name: PM2.5 - Brake Wear Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.005	0.005	0.005	0.011	0.005	0.003	0.007
35	0.005	0.005	0.005	0.011	0.005	0.003	0.007

Pollutant Name: Gasoline - mi/gal Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	9.598	7.488	5.072	3.452	3.388	28.017	8.198
35	29.475	22.989	16.967	17.448	17.147	52.603	25.118

Pollutant Name: Diesel - mi/gal Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	29.156	29.156	19.438	3.082	4.266	0.000	3.790
35	29.156	29.156	19.438	5.648	4.266	0.000	6.238

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kern (SJV)
****

*****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kern (SJV) Kern (SJV) Kern (SJV)

Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.003	0.006	0.028	0.041	0.259	0.646	0.021
10	0.006	0.012	0.055	0.080	0.504	0.800	0.036
20	0.012	0.023	0.109	0.151	0.956	1.097	0.066
30	0.017	0.034	0.160	0.215	1.355	1.377	0.093
40	0.023	0.045	0.210	0.270	1.702	1.640	0.119
50	0.028	0.055	0.257	0.316	1.996	1.885	0.143
60	0.032	0.065	0.303	0.354	2.238	2.065	0.165
120	0.055	0.112	0.525	0.398	2.516	2.339	0.251
180	0.053	0.109	0.519	0.423	2.670	2.365	0.251
240	0.057	0.115	0.553	0.446	2.819	2.514	0.266
300	0.060	0.122	0.586	0.469	2.963	2.659	0.282
360	0.064	0.129	0.619	0.491	3.102	2.802	0.297
420	0.067	0.136	0.652	0.512	3.236	2.941	0.312
480	0.070	0.143	0.685	0.533	3.365	3.078	0.328
540	0.074	0.150	0.718	0.553	3.490	3.211	0.342
600	0.077	0.157	0.751	0.572	3.609	3.341	0.357
660	0.080	0.163	0.783	0.590	3.724	3.468	0.372
720	0.083	0.170	0.816	0.607	3.834	3.592	0.386

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.061	0.109	0.409	0.944	3.001	2.960	0.286
10	0.121	0.216	0.810	1.849	5.880	3.594	0.541
20	0.236	0.422	1.586	3.545	11.272	4.808	1.027
30	0.346	0.619	2.327	5.088	16.177	5.949	1.484
40	0.451	0.807	3.033	6.477	20.594	7.016	1.911
50	0.551	0.985	3.704	7.713	24.523	8.010	2.307
60	0.645	1.154	4.340	8.795	27.964	8.930	2.673
120	1.050	1.874	7.022	10.271	32.657	12.627	3.895
180	0.995	1.778	6.724	10.572	33.612	12.193	3.799
240	1.085	1.940	7.339	10.882	34.598	13.203	4.076
300	1.165	2.081	7.878	11.202	35.616	14.138	4.325
360	1.233	2.203	8.342	11.532	36.665	14.997	4.545
420	1.290	2.306	8.730	11.872	37.745	15.781	4.737
480	1.336	2.388	9.043	12.221	38.857	16.489	4.900
540	1.372	2.451	9.281	12.581	40.001	17.121	5.035
600	1.396	2.494	9.443	12.951	41.176	17.678	5.141
660	1.409	2.517	9.529	13.330	42.382	18.159	5.219
720	1.411	2.521	9.541	13.719	43.620	18.565	5.268

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.028	0.064	0.641	0.184	1.289	0.154	0.214
10	0.030	0.066	0.664	0.277	1.942	0.194	0.231
20	0.032	0.071	0.705	0.441	3.089	0.264	0.261
30	0.034	0.075	0.741	0.574	4.023	0.323	0.287
40	0.035	0.078	0.773	0.677	4.745	0.369	0.308
50	0.037	0.081	0.800	0.750	5.255	0.402	0.324
60	0.038	0.083	0.823	0.793	5.552	0.424	0.336
120	0.041	0.092	0.906	0.798	5.593	0.426	0.361
180	0.042	0.092	0.906	0.796	5.572	0.422	0.361
240	0.041	0.091	0.899	0.791	5.541	0.416	0.359
300	0.041	0.090	0.887	0.785	5.499	0.408	0.354
360	0.040	0.088	0.871	0.777	5.445	0.398	0.349
420	0.039	0.086	0.849	0.768	5.381	0.387	0.341
480	0.038	0.084	0.823	0.758	5.307	0.374	0.332
540	0.036	0.081	0.792	0.745	5.221	0.359	0.321
600	0.035	0.077	0.756	0.732	5.125	0.342	0.309
660	0.033	0.073	0.716	0.716	5.017	0.324	0.295
720	0.031	0.068	0.671	0.699	4.899	0.304	0.279

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	12.040	15.394	22.271	2.300	3.433	13.049	14.561
10	13.462	17.221	24.990	4.587	6.847	15.238	16.524
20	16.802	21.509	31.340	9.123	13.617	19.536	21.027
30	20.805	26.643	38.907	13.608	20.312	23.729	26.302
40	25.470	32.623	47.692	18.042	26.931	27.816	32.350
50	30.797	39.449	57.695	22.425	33.473	31.797	39.169
60	36.787	47.121	68.915	26.757	39.940	35.672	46.760
120	86.184	110.319	160.695	45.509	67.931	53.065	107.226
180	97.769	125.158	182.389	53.766	80.255	57.344	121.861
240	109.348	139.987	204.053	61.535	91.852	61.372	136.430
300	120.922	154.807	225.685	68.817	102.722	65.148	150.933
360	132.491	169.619	247.285	75.612	112.864	68.673	165.369
420	144.054	184.421	268.854	81.919	122.279	71.948	179.740
480	155.611	199.214	290.391	87.739	130.966	74.971	194.045
540	167.163	213.997	311.896	93.072	138.926	77.742	208.283
600	178.710	228.772	333.370	97.917	146.159	80.263	222.455
660	190.251	243.537	354.813	102.275	152.664	82.532	236.562
720	201.787	258.294	376.224	106.145	158.441	84.551	250.602

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000

20	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.001	0.000	0.001	0.000	0.000
50	0.000	0.000	0.001	0.000	0.001	0.000	0.000
60	0.000	0.000	0.001	0.000	0.001	0.001	0.000
120	0.001	0.001	0.002	0.001	0.001	0.001	0.001
180	0.001	0.001	0.002	0.001	0.001	0.001	0.001
240	0.001	0.001	0.002	0.001	0.001	0.001	0.001
300	0.001	0.002	0.002	0.001	0.002	0.001	0.002
360	0.001	0.002	0.003	0.001	0.002	0.001	0.002
420	0.001	0.002	0.003	0.001	0.002	0.001	0.002
480	0.002	0.002	0.003	0.001	0.002	0.001	0.002
540	0.002	0.002	0.003	0.001	0.002	0.001	0.002
600	0.002	0.002	0.003	0.001	0.002	0.001	0.002
660	0.002	0.002	0.004	0.001	0.002	0.001	0.002
720	0.002	0.003	0.004	0.001	0.002	0.001	0.002

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.001	0.001	0.001	0.000	0.001	0.005	0.001
10	0.001	0.002	0.002	0.001	0.001	0.005	0.001
20	0.002	0.004	0.003	0.001	0.002	0.004	0.003
30	0.003	0.006	0.005	0.002	0.003	0.003	0.004
40	0.004	0.008	0.006	0.002	0.004	0.003	0.005
50	0.005	0.009	0.008	0.003	0.004	0.002	0.006
60	0.005	0.011	0.009	0.003	0.005	0.002	0.008
120	0.009	0.018	0.015	0.004	0.007	0.005	0.012
180	0.010	0.020	0.017	0.004	0.007	0.006	0.014
240	0.011	0.022	0.019	0.004	0.007	0.008	0.015
300	0.012	0.024	0.020	0.005	0.008	0.010	0.016
360	0.012	0.025	0.021	0.005	0.008	0.011	0.017
420	0.013	0.026	0.022	0.005	0.008	0.012	0.018
480	0.014	0.027	0.023	0.005	0.008	0.013	0.019
540	0.014	0.028	0.024	0.005	0.009	0.014	0.019
600	0.014	0.029	0.024	0.005	0.009	0.014	0.020
660	0.014	0.029	0.024	0.005	0.009	0.014	0.020
720	0.014	0.029	0.024	0.006	0.009	0.015	0.020

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kern (SJV)
****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kern (SJV) Kern (SJV) Kern (SJV)

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.020	0.034	0.026	0.002	0.040	0.176	0.025
10	0.038	0.063	0.047	0.004	0.075	0.329	0.046
20	0.065	0.108	0.082	0.007	0.127	0.575	0.080
30	0.085	0.140	0.107	0.009	0.164	0.760	0.104
40	0.092	0.153	0.116	0.009	0.177	0.835	0.113

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kern (SJV)

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kern (SJV) Kern (SJV) Kern (SJV)

Table 5a: Partial Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.018	0.047	0.051	0.001	0.002	0.450	0.047

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kern (SJV)

*****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kern (SJV) Kern (SJV) Kern (SJV)

Table 5b: Multi-Day Diurnal Loss Emissions
(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity:
ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.003	0.003	0.000	0.001	0.043	0.004

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kern (SJV)

*****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kern (SJV) Kern (SJV) Kern (SJV)

Table 6a: Partial Day Resting Loss Emissions
(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity:
ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.011	0.032	0.037	0.000	0.001	0.142	0.026

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kern (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kern (SJV) Kern (SJV) Kern (SJV)

Table 6b: Multi-Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.002	0.002	0.000	0.000	0.014	0.002

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kern (SJV)

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kern (SJV) Kern (SJV) Kern (SJV)

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative Humidity: ALL

	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
%VMT	0.353	0.268	0.149	0.220	0.001	0.009	1.000
%TRIP	0.361	0.266	0.258	0.104	0.000	0.010	1.000
%VEH	0.417	0.311	0.165	0.070	0.000	0.036	1.000

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kern (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kern (SJV) Kern (SJV) Kern (SJV)

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
1	0.008	0.154	0.184	0.010	0.434	0.003	0.074
2	0.007	0.081	0.097	0.005	0.223	0.037	0.040
3	0.008	0.059	0.070	0.004	0.154	0.056	0.031
4	0.009	0.050	0.058	0.003	0.121	0.068	0.027
5	0.011	0.044	0.051	0.003	0.100	0.077	0.025
10	0.015	0.034	0.038	0.002	0.062	0.099	0.022
15	0.017	0.033	0.036	0.002	0.052	0.113	0.022
20	0.018	0.033	0.036	0.002	0.049	0.123	0.022
25	0.019	0.034	0.037	0.002	0.050	0.133	0.023
30	0.020	0.036	0.039	0.002	0.052	0.140	0.024
35	0.021	0.037	0.040	0.002	0.055	0.147	0.025
40	0.022	0.039	0.042	0.002	0.057	0.153	0.026
45	0.023	0.040	0.043	0.002	0.060	0.160	0.027
50	0.023	0.041	0.044	0.002	0.062	0.166	0.028
55	0.024	0.042	0.046	0.002	0.064	0.172	0.029
60	0.025	0.043	0.047	0.003	0.066	0.177	0.030

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kings (SJV)

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*****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kings (SJV) Kings (SJV) Kings (SJV)

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.042	0.079	0.112	2.226	2.921	4.702	0.609

35	0.006	0.012	0.018	0.234	0.490	1.810	0.080

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.855	1.401	1.923	6.498	30.838	22.176	2.694
35	0.510	0.831	1.047	1.369	5.951	14.354	1.005

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.079	0.147	0.271	7.164	12.049	1.405	1.771
35	0.045	0.083	0.163	2.583	7.113	1.275	0.675

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	921.828	1178.969	1703.138	3636.429	2395.926	266.395	1694.943
35	299.869	383.748	521.637	1757.857	1533.770	139.994	680.659

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.009	0.011	0.016	0.035	0.023	0.003	0.016
35	0.003	0.004	0.005	0.017	0.015	0.002	0.007

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.059	0.112	0.126	0.109	0.275	0.023	0.093
35	0.010	0.018	0.021	0.069	0.064	0.011	0.027

Pollutant Name: PM2.5 - Tire Wear Temperature: 70F Relative Humidity: 0%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.002	0.002	0.002	0.008	0.002	0.001	0.003
35	0.002	0.002	0.002	0.008	0.002	0.001	0.003

Pollutant Name: PM2.5 - Brake Wear Temperature: 70F Relative Humidity: 0%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.005	0.005	0.005	0.011	0.005	0.003	0.007
35	0.005	0.005	0.005	0.011	0.005	0.003	0.007

Pollutant Name: Gasoline - mi/gal Temperature: 70F Relative Humidity: 0%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	9.597	7.496	5.129	3.419	3.368	28.013	8.387
35	29.469	23.011	16.933	17.282	17.044	52.593	25.572

Pollutant Name: Diesel - mi/gal Temperature: 70F Relative Humidity: 0%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	29.156	29.156	19.443	2.912	4.367	0.000	3.409
35	29.156	29.156	19.443	5.599	4.367	0.000	6.002

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kings (SJV)
****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kings (SJV) Kings (SJV) Kings (SJV)

Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.004	0.007	0.026	0.043	0.313	0.646	0.020
10	0.007	0.013	0.051	0.084	0.610	0.801	0.035
20	0.014	0.026	0.100	0.160	1.156	1.098	0.062
30	0.020	0.038	0.147	0.227	1.639	1.379	0.087
40	0.026	0.049	0.193	0.285	2.058	1.642	0.111
50	0.032	0.060	0.237	0.334	2.413	1.888	0.133
60	0.037	0.070	0.279	0.374	2.706	2.068	0.153
120	0.061	0.118	0.491	0.421	3.042	2.342	0.229
180	0.060	0.115	0.485	0.446	3.228	2.368	0.228
240	0.063	0.122	0.516	0.471	3.408	2.517	0.243
300	0.067	0.129	0.548	0.495	3.582	2.663	0.257
360	0.071	0.137	0.579	0.519	3.750	2.806	0.271
420	0.075	0.144	0.610	0.541	3.912	2.946	0.284
480	0.078	0.151	0.641	0.563	4.068	3.082	0.298
540	0.082	0.158	0.672	0.584	4.219	3.216	0.312
600	0.086	0.165	0.702	0.604	4.363	3.346	0.325
660	0.089	0.172	0.733	0.623	4.502	3.473	0.338
720	0.093	0.179	0.764	0.641	4.634	3.597	0.351

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.069	0.118	0.386	1.123	4.054	2.964	0.281
10	0.137	0.234	0.763	2.200	7.943	3.601	0.527
20	0.268	0.457	1.495	4.217	15.228	4.820	0.997
30	0.393	0.670	2.194	6.052	21.853	5.965	1.437
40	0.512	0.872	2.862	7.705	27.820	7.036	1.848
50	0.625	1.064	3.498	9.175	33.127	8.033	2.229
60	0.731	1.245	4.102	10.462	37.776	8.957	2.579
120	1.185	2.005	6.689	12.218	44.116	12.663	3.728
180	1.122	1.901	6.392	12.576	45.406	12.225	3.638
240	1.222	2.070	6.984	12.944	46.738	13.237	3.897
300	1.311	2.218	7.503	13.325	48.113	14.173	4.130
360	1.387	2.346	7.949	13.718	49.530	15.034	4.337
420	1.451	2.454	8.322	14.122	50.989	15.819	4.519
480	1.503	2.542	8.621	14.538	52.492	16.528	4.674
540	1.543	2.609	8.847	14.966	54.036	17.162	4.803
600	1.570	2.655	9.000	15.405	55.623	17.720	4.907
660	1.585	2.682	9.079	15.857	57.253	18.202	4.984
720	1.588	2.688	9.085	16.320	58.925	18.609	5.036

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.038	0.080	0.606	0.206	1.609	0.154	0.186
10	0.040	0.083	0.624	0.311	2.424	0.194	0.202
20	0.043	0.090	0.657	0.495	3.856	0.265	0.230
30	0.045	0.095	0.687	0.645	5.023	0.324	0.254
40	0.048	0.100	0.713	0.760	5.925	0.370	0.273

50	0.049	0.103	0.737	0.842	6.561	0.403	0.288
60	0.051	0.107	0.757	0.890	6.933	0.425	0.298
120	0.056	0.117	0.835	0.896	6.983	0.427	0.320
180	0.056	0.117	0.836	0.893	6.957	0.423	0.320
240	0.056	0.116	0.830	0.888	6.918	0.417	0.318
300	0.055	0.115	0.819	0.881	6.865	0.409	0.314
360	0.054	0.113	0.803	0.872	6.799	0.399	0.309
420	0.053	0.110	0.783	0.862	6.719	0.388	0.302
480	0.051	0.107	0.758	0.850	6.626	0.374	0.294
540	0.049	0.103	0.729	0.837	6.519	0.360	0.285
600	0.047	0.098	0.695	0.821	6.398	0.343	0.274
660	0.045	0.093	0.657	0.804	6.264	0.325	0.262
720	0.042	0.088	0.615	0.785	6.117	0.305	0.248

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	12.033	15.347	22.162	2.070	4.082	13.056	14.235
10	13.458	17.179	24.837	4.128	8.142	15.246	16.109
20	16.804	21.476	31.096	8.210	16.193	19.545	20.424
30	20.812	26.616	38.570	12.247	24.154	23.738	25.497
40	25.482	32.598	47.258	16.237	32.025	27.825	31.326
50	30.813	39.423	57.160	20.182	39.805	31.807	37.913
60	36.806	47.090	68.277	24.081	47.495	35.682	45.257
120	86.193	110.146	159.466	40.958	80.780	53.078	104.089
180	97.783	124.973	180.962	48.389	95.436	57.355	118.244
240	109.367	139.789	202.435	55.381	109.227	61.382	132.345
300	120.945	154.593	223.884	61.935	122.152	65.157	146.392
360	132.516	169.385	245.308	68.050	134.213	68.681	160.385
420	144.080	184.165	266.709	73.727	145.408	71.954	174.323
480	155.639	198.933	288.086	78.965	155.739	74.976	188.208
540	167.190	213.689	309.439	83.764	165.204	77.747	202.038
600	178.735	228.433	330.767	88.125	173.805	80.267	215.815
660	190.274	243.165	352.072	92.047	181.540	82.536	229.537
720	201.807	257.886	373.353	95.530	188.411	84.553	243.206

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.001	0.000	0.000
40	0.000	0.000	0.001	0.000	0.001	0.000	0.000
50	0.000	0.000	0.001	0.000	0.001	0.000	0.000
60	0.000	0.000	0.001	0.000	0.001	0.001	0.000
120	0.001	0.001	0.002	0.001	0.002	0.001	0.001
180	0.001	0.001	0.002	0.001	0.002	0.001	0.001
240	0.001	0.001	0.002	0.001	0.002	0.001	0.001
300	0.001	0.002	0.002	0.001	0.002	0.001	0.001
360	0.001	0.002	0.002	0.001	0.002	0.001	0.002
420	0.001	0.002	0.003	0.001	0.002	0.001	0.002
480	0.002	0.002	0.003	0.001	0.002	0.001	0.002

540	0.002	0.002	0.003	0.001	0.003	0.001	0.002
600	0.002	0.002	0.003	0.001	0.003	0.001	0.002
660	0.002	0.002	0.004	0.001	0.003	0.001	0.002
720	0.002	0.003	0.004	0.001	0.003	0.001	0.002

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.001	0.001	0.001	0.000	0.001	0.005	0.001
10	0.001	0.002	0.002	0.001	0.001	0.005	0.002
20	0.002	0.004	0.004	0.001	0.002	0.004	0.003
30	0.003	0.006	0.005	0.002	0.004	0.003	0.004
40	0.004	0.007	0.007	0.002	0.005	0.003	0.005
50	0.005	0.009	0.008	0.002	0.005	0.002	0.007
60	0.006	0.011	0.010	0.003	0.006	0.002	0.008
120	0.010	0.018	0.016	0.004	0.008	0.005	0.013
180	0.011	0.020	0.018	0.004	0.009	0.006	0.014
240	0.012	0.022	0.020	0.004	0.009	0.008	0.016
300	0.013	0.023	0.021	0.004	0.009	0.010	0.017
360	0.014	0.025	0.023	0.004	0.010	0.011	0.018
420	0.015	0.026	0.024	0.004	0.010	0.012	0.019
480	0.015	0.027	0.025	0.005	0.010	0.013	0.020
540	0.016	0.028	0.025	0.005	0.010	0.014	0.020
600	0.016	0.028	0.026	0.005	0.011	0.014	0.020
660	0.016	0.028	0.026	0.005	0.011	0.014	0.021
720	0.016	0.028	0.026	0.005	0.011	0.015	0.021

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kings (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kings (SJV) Kings (SJV) Kings (SJV)

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.021	0.035	0.027	0.002	0.048	0.177	0.026
10	0.039	0.065	0.049	0.003	0.089	0.331	0.049

20	0.067	0.111	0.085	0.006	0.153	0.579	0.084
30	0.086	0.145	0.111	0.008	0.196	0.764	0.110
40	0.094	0.158	0.121	0.009	0.213	0.840	0.119

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kings (SJV)

****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kings (SJV) Kings (SJV) Kings (SJV)

Table 5a: Partial Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.019	0.048	0.053	0.001	0.003	0.451	0.049

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kings (SJV)

****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kings (SJV) Kings (SJV) Kings (SJV)

Table 5b: Multi-Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.003	0.003	0.000	0.001	0.043	0.004

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kings (SJV)
****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kings (SJV) Kings (SJV) Kings (SJV)

Table 6a: Partial Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.011	0.032	0.039	0.000	0.001	0.143	0.026

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kings (SJV)
****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kings (SJV) Kings (SJV) Kings (SJV)

Table 6b: Multi-Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.002	0.003	0.000	0.000	0.014	0.002

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kings (SJV)

****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kings (SJV) Kings (SJV) Kings (SJV)

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative Humidity: ALL

	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
%VMT	0.371	0.277	0.114	0.227	0.003	0.010	1.000
%TRIP	0.393	0.295	0.209	0.090	0.000	0.012	1.000
%VEH	0.429	0.326	0.135	0.069	0.001	0.040	1.000

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Kings (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Kings (SJV) Kings (SJV) Kings (SJV)

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
1	0.008	0.162	0.185	0.009	0.499	0.003	0.072
2	0.007	0.086	0.097	0.005	0.257	0.037	0.039
3	0.008	0.062	0.070	0.003	0.178	0.056	0.030
4	0.010	0.052	0.058	0.003	0.139	0.068	0.026
5	0.011	0.046	0.051	0.002	0.116	0.077	0.024
10	0.015	0.035	0.039	0.002	0.073	0.099	0.021
15	0.017	0.034	0.036	0.002	0.061	0.113	0.021
20	0.018	0.034	0.036	0.002	0.058	0.123	0.022
25	0.020	0.035	0.038	0.002	0.059	0.133	0.023
30	0.020	0.036	0.039	0.002	0.062	0.140	0.024
35	0.021	0.038	0.041	0.002	0.065	0.147	0.025
40	0.022	0.039	0.042	0.002	0.068	0.154	0.026
45	0.023	0.041	0.044	0.002	0.071	0.160	0.027
50	0.023	0.042	0.045	0.002	0.074	0.166	0.028
55	0.024	0.043	0.046	0.002	0.076	0.172	0.028
60	0.025	0.044	0.047	0.002	0.078	0.177	0.029

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Madera (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Madera (SJV) Madera (SJV) Madera (SJV)

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.040	0.067	0.110	2.101	0.349	4.705	0.399
35	0.006	0.010	0.019	0.228	0.082	1.811	0.061

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.840	1.283	1.921	6.498	3.754	22.196	2.185
35	0.502	0.765	1.014	1.370	0.621	14.366	0.952

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.071	0.117	0.274	6.969	5.648	1.408	1.087
35	0.041	0.067	0.168	2.557	2.696	1.277	0.431

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	921.870	1177.444	1713.743	3447.098	2379.089	266.399	1463.597
35	299.884	383.194	520.696	1692.621	1442.334	139.997	551.032

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.009	0.011	0.016	0.033	0.023	0.003	0.014
35	0.003	0.004	0.005	0.016	0.014	0.002	0.005

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.061	0.114	0.130	0.135	0.190	0.023	0.099
35	0.010	0.019	0.022	0.076	0.043	0.011	0.024

Pollutant Name: PM2.5 - Tire Wear Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.002	0.002	0.002	0.008	0.002	0.001	0.003
35	0.002	0.002	0.002	0.008	0.002	0.001	0.003

Pollutant Name: PM2.5 - Brake Wear Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL

5	0.005	0.005	0.005	0.011	0.005	0.003	0.006
35	0.005	0.005	0.005	0.011	0.005	0.003	0.006

Pollutant Name: Gasoline - mi/gal Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	9.596	7.508	5.065	3.475	3.520	28.009	8.240
35	29.469	23.051	16.968	17.564	17.788	52.586	25.129

Pollutant Name: Diesel - mi/gal Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	29.156	29.156	19.443	3.193	4.455	0.000	4.353
35	29.156	29.156	19.443	5.680	4.455	0.000	6.658

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Madera (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Madera (SJV) Madera (SJV) Madera (SJV)

Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.003	0.006	0.029	0.044	0.159	0.646	0.022
10	0.006	0.012	0.057	0.085	0.311	0.801	0.036
20	0.012	0.024	0.112	0.162	0.589	1.099	0.065
30	0.018	0.036	0.165	0.229	0.836	1.380	0.092
40	0.024	0.046	0.216	0.288	1.049	1.644	0.117
50	0.029	0.057	0.265	0.337	1.231	1.890	0.141
60	0.034	0.066	0.311	0.378	1.380	2.070	0.162
120	0.057	0.113	0.541	0.425	1.551	2.345	0.247

180	0.056	0.110	0.535	0.451	1.646	2.371	0.246
240	0.059	0.117	0.569	0.476	1.737	2.520	0.262
300	0.063	0.124	0.604	0.500	1.826	2.666	0.277
360	0.066	0.131	0.638	0.524	1.912	2.809	0.292
420	0.070	0.138	0.672	0.547	1.995	2.949	0.307
480	0.073	0.144	0.706	0.568	2.074	3.086	0.322
540	0.076	0.151	0.740	0.589	2.151	3.219	0.337
600	0.080	0.158	0.773	0.610	2.225	3.350	0.351
660	0.083	0.165	0.807	0.629	2.295	3.477	0.366
720	0.087	0.172	0.841	0.648	2.363	3.601	0.380

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.065	0.119	0.411	0.924	0.855	2.965	0.264
10	0.129	0.235	0.813	1.810	1.676	3.605	0.492
20	0.252	0.460	1.591	3.470	3.212	4.829	0.928
30	0.370	0.675	2.335	4.980	4.610	5.978	1.339
40	0.482	0.879	3.043	6.340	5.869	7.053	1.724
50	0.588	1.072	3.717	7.550	6.989	8.054	2.085
60	0.689	1.255	4.357	8.609	7.969	8.981	2.420
120	1.119	2.030	7.060	10.054	9.307	12.696	3.619
180	1.059	1.925	6.758	10.348	9.579	12.254	3.507
240	1.155	2.098	7.378	10.651	9.860	13.266	3.780
300	1.239	2.249	7.921	10.965	10.150	14.202	4.023
360	1.311	2.380	8.388	11.288	10.449	15.063	4.237
420	1.372	2.490	8.779	11.620	10.757	15.848	4.421
480	1.421	2.579	9.094	11.963	11.074	16.558	4.576
540	1.459	2.647	9.333	12.315	11.400	17.193	4.701
600	1.484	2.694	9.496	12.676	11.734	17.752	4.798
660	1.498	2.720	9.582	13.048	12.078	18.235	4.864
720	1.501	2.725	9.592	13.429	12.431	18.643	4.902

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.030	0.067	0.656	0.190	0.676	0.154	0.204
10	0.031	0.070	0.679	0.286	1.018	0.194	0.219
20	0.034	0.075	0.721	0.455	1.619	0.265	0.244
30	0.036	0.079	0.758	0.593	2.109	0.324	0.266
40	0.038	0.083	0.790	0.699	2.488	0.370	0.283
50	0.039	0.086	0.818	0.774	2.755	0.404	0.298
60	0.040	0.089	0.842	0.818	2.911	0.425	0.308
120	0.044	0.097	0.926	0.824	2.932	0.428	0.332
180	0.044	0.098	0.927	0.821	2.921	0.424	0.333
240	0.044	0.097	0.919	0.817	2.905	0.418	0.330
300	0.044	0.096	0.907	0.810	2.882	0.410	0.326
360	0.043	0.094	0.890	0.803	2.855	0.400	0.320
420	0.042	0.092	0.868	0.793	2.821	0.388	0.313
480	0.040	0.089	0.841	0.782	2.782	0.375	0.305
540	0.039	0.086	0.810	0.769	2.737	0.360	0.294
600	0.037	0.082	0.773	0.755	2.686	0.344	0.283
660	0.035	0.078	0.732	0.739	2.630	0.325	0.269

720	0.033	0.073	0.686	0.722	2.568	0.305	0.254

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	12.034	15.325	22.126	2.388	4.435	13.047	14.849
10	13.458	17.154	24.824	4.763	8.846	15.236	16.787
20	16.802	21.443	31.126	9.473	17.594	19.535	21.257
30	20.809	26.574	38.639	14.130	26.244	23.727	26.517
40	25.476	32.546	47.361	18.735	34.796	27.814	32.568
50	30.806	39.360	57.293	23.286	43.249	31.795	39.410
60	36.798	47.015	68.435	27.785	51.604	35.670	47.042
120	86.184	109.978	159.603	47.257	87.770	53.063	108.306
180	97.772	124.782	181.147	55.831	103.694	57.342	123.015
240	109.353	139.575	202.661	63.899	118.678	61.370	137.671
300	120.929	154.356	224.144	71.460	132.721	65.147	152.275
360	132.498	169.125	245.596	78.516	145.826	68.672	166.826
420	144.062	183.882	267.018	85.065	157.990	71.947	181.324
480	155.619	198.628	288.410	91.109	169.214	74.970	195.770
540	167.170	213.362	309.770	96.646	179.499	77.742	210.164
600	178.714	228.084	331.101	101.678	188.844	80.263	224.505
660	190.253	242.795	352.400	106.203	197.248	82.533	238.793
720	201.785	257.493	373.670	110.222	204.713	84.551	253.029

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.001	0.000	0.000	0.000	0.000
50	0.000	0.000	0.001	0.000	0.001	0.000	0.000
60	0.000	0.000	0.001	0.000	0.001	0.001	0.000
120	0.001	0.001	0.002	0.001	0.001	0.001	0.001
180	0.001	0.001	0.002	0.001	0.001	0.001	0.001
240	0.001	0.001	0.002	0.001	0.001	0.001	0.001
300	0.001	0.002	0.002	0.001	0.001	0.001	0.002
360	0.001	0.002	0.003	0.001	0.002	0.001	0.002
420	0.001	0.002	0.003	0.001	0.002	0.001	0.002
480	0.002	0.002	0.003	0.001	0.002	0.001	0.002
540	0.002	0.002	0.003	0.001	0.002	0.001	0.002
600	0.002	0.002	0.003	0.001	0.002	0.001	0.002
660	0.002	0.002	0.004	0.001	0.002	0.001	0.002
720	0.002	0.003	0.004	0.001	0.002	0.001	0.003

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL

5	0.001	0.001	0.001	0.000	0.001	0.005	0.001
10	0.001	0.002	0.002	0.001	0.001	0.005	0.002
20	0.002	0.004	0.004	0.001	0.003	0.004	0.003
30	0.003	0.006	0.005	0.002	0.004	0.003	0.005
40	0.004	0.008	0.007	0.002	0.005	0.003	0.006
50	0.005	0.010	0.008	0.003	0.006	0.002	0.007
60	0.006	0.012	0.010	0.003	0.007	0.002	0.009
120	0.010	0.019	0.016	0.004	0.009	0.005	0.014
180	0.011	0.022	0.018	0.005	0.009	0.006	0.016
240	0.012	0.024	0.020	0.005	0.010	0.008	0.017
300	0.013	0.026	0.021	0.005	0.010	0.010	0.019
360	0.014	0.027	0.023	0.005	0.010	0.011	0.020
420	0.015	0.029	0.024	0.005	0.011	0.012	0.021
480	0.015	0.030	0.025	0.005	0.011	0.013	0.021
540	0.016	0.030	0.025	0.005	0.011	0.014	0.022
600	0.016	0.031	0.026	0.006	0.012	0.014	0.022
660	0.016	0.031	0.026	0.006	0.012	0.014	0.023
720	0.016	0.031	0.026	0.006	0.012	0.015	0.023

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Madera (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Madera (SJV) Madera (SJV) Madera (SJV)

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.020	0.031	0.025	0.002	0.027	0.177	0.026
10	0.037	0.057	0.046	0.004	0.050	0.330	0.047
20	0.064	0.099	0.080	0.007	0.085	0.577	0.082
30	0.083	0.128	0.104	0.009	0.110	0.763	0.107
40	0.091	0.140	0.113	0.010	0.119	0.838	0.116

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Madera (SJV)
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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Madera (SJV) Madera (SJV) Madera (SJV)

Table 5a: Partial Day Diurnal Loss Emissions
(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity:
ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.018	0.043	0.050	0.001	0.001	0.451	0.050

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Madera (SJV)
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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Madera (SJV) Madera (SJV) Madera (SJV)

Table 5b: Multi-Day Diurnal Loss Emissions
(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity:
ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.003	0.003	0.000	0.000	0.043	0.004

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Madera (SJV)
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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Madera (SJV) Madera (SJV) Madera (SJV)

Table 6a: Partial Day Resting Loss Emissions
(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity:
ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.010	0.029	0.036	0.001	0.001	0.143	0.027

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Madera (SJV)
****
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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Madera (SJV) Madera (SJV) Madera (SJV)

Table 6b: Multi-Day Resting Loss Emissions
(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity:
ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.002	0.002	0.000	0.000	0.014	0.002

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title

Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Madera (SJV)
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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Madera (SJV) Madera (SJV) Madera (SJV)

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative Humidity: ALL

	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
%VMT	0.354	0.358	0.138	0.138	0.001	0.012	1.000
%TRIP	0.349	0.329	0.238	0.071	0.000	0.013	1.000
%VEH	0.388	0.370	0.146	0.052	0.000	0.045	1.000

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Madera (SJV)
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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Madera (SJV) Madera (SJV) Madera (SJV)

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
1	0.008	0.152	0.182	0.015	0.380	0.003	0.085
2	0.007	0.080	0.096	0.008	0.196	0.037	0.046
3	0.008	0.059	0.069	0.006	0.136	0.056	0.035
4	0.009	0.049	0.058	0.005	0.107	0.068	0.030
5	0.011	0.043	0.051	0.004	0.090	0.077	0.028
10	0.015	0.034	0.038	0.003	0.058	0.099	0.024
15	0.017	0.032	0.036	0.003	0.051	0.113	0.024
20	0.018	0.032	0.036	0.003	0.050	0.123	0.025

25	0.019	0.034	0.037	0.003	0.052	0.133	0.026
30	0.020	0.035	0.038	0.003	0.055	0.140	0.027
35	0.021	0.036	0.040	0.003	0.058	0.147	0.028
40	0.022	0.038	0.041	0.004	0.060	0.153	0.029
45	0.023	0.039	0.043	0.004	0.063	0.160	0.030
50	0.023	0.040	0.044	0.004	0.065	0.166	0.031
55	0.024	0.041	0.045	0.004	0.067	0.172	0.032
60	0.025	0.043	0.046	0.004	0.070	0.177	0.033

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Merced (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Merced (SJV) Merced (SJV) Merced (SJV)

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.040	0.069	0.107	2.240	1.664	4.717	0.511
35	0.006	0.010	0.018	0.241	0.371	1.815	0.071

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.855	1.300	1.924	7.109	10.079	22.274	2.496
35	0.511	0.774	1.037	1.494	1.758	14.414	0.976

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.072	0.119	0.252	7.363	21.936	1.417	1.498
35	0.041	0.068	0.154	2.683	9.768	1.283	0.577

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	921.604	1178.540	1704.426	3527.869	2423.641	266.401	1565.931
35	299.799	383.520	521.354	1730.183	1889.179	139.999	615.051

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.009	0.011	0.016	0.034	0.023	0.003	0.015
35	0.003	0.004	0.005	0.017	0.018	0.002	0.006

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.063	0.113	0.131	0.134	0.535	0.023	0.100
35	0.010	0.018	0.022	0.077	0.130	0.011	0.027

Pollutant Name: PM2.5 - Tire Wear Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.002	0.002	0.002	0.008	0.002	0.001	0.003
35	0.002	0.002	0.002	0.008	0.002	0.001	0.003

Pollutant Name: PM2.5 - Brake Wear Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.005	0.005	0.005	0.011	0.005	0.003	0.006
35	0.005	0.005	0.005	0.011	0.005	0.003	0.006

Pollutant Name: Gasoline - mi/gal Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL

5	9.599	7.502	5.110	3.433	3.480	27.994	8.372
35	29.476	23.031	16.944	17.352	17.590	52.558	25.537

Pollutant Name: Diesel - mi/gal Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	29.156	29.156	19.442	3.087	4.215	0.000	3.748
35	29.156	29.156	19.442	5.650	4.215	0.000	6.192

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Merced (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Merced (SJV) Merced (SJV) Merced (SJV)

Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.003	0.006	0.026	0.044	0.131	0.647	0.019
10	0.006	0.012	0.052	0.086	0.255	0.803	0.033
20	0.012	0.024	0.102	0.164	0.484	1.103	0.059
30	0.018	0.035	0.150	0.232	0.686	1.385	0.083
40	0.023	0.046	0.197	0.291	0.862	1.650	0.106
50	0.029	0.056	0.242	0.342	1.011	1.897	0.127
60	0.033	0.066	0.286	0.383	1.133	2.079	0.147
120	0.057	0.112	0.505	0.431	1.274	2.355	0.222
180	0.055	0.109	0.498	0.457	1.352	2.381	0.222
240	0.059	0.116	0.531	0.483	1.427	2.531	0.236
300	0.062	0.123	0.563	0.507	1.500	2.677	0.250
360	0.066	0.130	0.595	0.531	1.571	2.821	0.263
420	0.069	0.137	0.627	0.554	1.638	2.961	0.277
480	0.072	0.144	0.659	0.576	1.704	3.098	0.290
540	0.076	0.151	0.690	0.598	1.767	3.232	0.303
600	0.079	0.157	0.722	0.618	1.827	3.363	0.316
660	0.083	0.164	0.754	0.638	1.885	3.491	0.329
720	0.086	0.171	0.785	0.656	1.941	3.615	0.342

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.067	0.117	0.390	1.025	0.994	2.973	0.261
10	0.133	0.231	0.773	2.009	1.947	3.621	0.490
20	0.261	0.451	1.513	3.851	3.732	4.860	0.929
30	0.383	0.662	2.222	5.527	5.356	6.023	1.341
40	0.499	0.862	2.899	7.036	6.818	7.111	1.727
50	0.609	1.052	3.544	8.378	8.119	8.123	2.085
60	0.713	1.231	4.156	9.554	9.258	9.060	2.417
120	1.161	1.994	6.784	11.158	10.812	12.804	3.544
180	1.100	1.891	6.485	11.484	11.128	12.348	3.449
240	1.201	2.061	7.088	11.821	11.454	13.362	3.704
300	1.288	2.211	7.616	12.168	11.791	14.301	3.933
360	1.364	2.340	8.070	12.527	12.139	15.165	4.135
420	1.427	2.448	8.448	12.896	12.496	15.953	4.311
480	1.479	2.535	8.753	13.276	12.864	16.666	4.460
540	1.517	2.602	8.982	13.667	13.243	17.304	4.583
600	1.544	2.648	9.136	14.068	13.632	17.866	4.679
660	1.558	2.674	9.216	14.480	14.031	18.353	4.749
720	1.560	2.678	9.221	14.903	14.441	18.764	4.792

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.031	0.066	0.613	0.200	0.601	0.155	0.177
10	0.033	0.069	0.631	0.301	0.905	0.195	0.191
20	0.035	0.074	0.664	0.478	1.440	0.267	0.216
30	0.037	0.078	0.694	0.623	1.876	0.326	0.238
40	0.039	0.082	0.721	0.735	2.212	0.373	0.255
50	0.040	0.085	0.744	0.814	2.450	0.407	0.268
60	0.041	0.088	0.764	0.860	2.589	0.428	0.278
120	0.045	0.096	0.844	0.866	2.608	0.431	0.299
180	0.046	0.096	0.845	0.863	2.598	0.427	0.299
240	0.045	0.096	0.838	0.858	2.583	0.421	0.297
300	0.045	0.094	0.827	0.852	2.564	0.412	0.293
360	0.044	0.093	0.811	0.843	2.539	0.403	0.288
420	0.043	0.090	0.791	0.833	2.509	0.391	0.282
480	0.041	0.088	0.766	0.822	2.474	0.378	0.275
540	0.040	0.085	0.736	0.809	2.434	0.363	0.266
600	0.038	0.081	0.702	0.794	2.389	0.346	0.255
660	0.036	0.077	0.664	0.777	2.339	0.328	0.244
720	0.034	0.072	0.621	0.759	2.284	0.308	0.231

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	12.037	15.348	22.155	2.254	2.531	13.042	14.341
10	13.459	17.177	24.815	4.496	5.047	15.231	16.222

20	16.798	21.467	31.047	8.942	10.038	19.529	20.558
30	20.800	26.600	38.494	13.339	14.973	23.721	25.658
40	25.464	32.576	47.155	17.685	19.852	27.808	31.523
50	30.790	39.395	57.032	21.981	24.676	31.788	38.151
60	36.779	47.057	68.124	26.228	29.443	35.663	45.544
120	86.163	110.102	159.222	44.609	50.077	53.055	104.835
180	97.745	124.919	180.672	52.703	59.162	57.335	119.089
240	109.322	139.726	202.100	60.318	67.711	61.364	133.290
300	120.893	154.522	223.508	67.456	75.724	65.141	147.439
360	132.459	169.306	244.896	74.116	83.200	68.668	161.534
420	144.019	184.080	266.263	80.299	90.141	71.943	175.577
480	155.574	198.842	287.608	86.004	96.545	74.966	189.567
540	167.123	213.594	308.934	91.231	102.412	77.739	203.505
600	178.667	228.334	330.238	95.980	107.744	80.260	217.389
660	190.205	243.064	351.522	100.252	112.539	82.531	231.221
720	201.737	257.782	372.785	104.046	116.799	84.549	245.000

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.001	0.000	0.000	0.000	0.000
50	0.000	0.000	0.001	0.000	0.000	0.000	0.000
60	0.000	0.000	0.001	0.000	0.000	0.001	0.000
120	0.001	0.001	0.002	0.001	0.001	0.001	0.001
180	0.001	0.001	0.002	0.001	0.001	0.001	0.001
240	0.001	0.001	0.002	0.001	0.001	0.001	0.001
300	0.001	0.002	0.002	0.001	0.001	0.001	0.001
360	0.001	0.002	0.002	0.001	0.001	0.001	0.002
420	0.001	0.002	0.003	0.001	0.001	0.001	0.002
480	0.002	0.002	0.003	0.001	0.001	0.001	0.002
540	0.002	0.002	0.003	0.001	0.001	0.001	0.002
600	0.002	0.002	0.003	0.001	0.001	0.001	0.002
660	0.002	0.002	0.004	0.001	0.001	0.001	0.002
720	0.002	0.003	0.004	0.001	0.001	0.001	0.002

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.001	0.001	0.001	0.000	0.000	0.005	0.001
10	0.001	0.002	0.002	0.001	0.001	0.005	0.002
20	0.002	0.004	0.004	0.001	0.001	0.004	0.003
30	0.003	0.006	0.005	0.002	0.002	0.003	0.005
40	0.004	0.008	0.007	0.002	0.003	0.003	0.006
50	0.005	0.010	0.009	0.003	0.003	0.002	0.007
60	0.006	0.012	0.010	0.003	0.004	0.002	0.008
120	0.011	0.019	0.017	0.004	0.005	0.005	0.014
180	0.012	0.021	0.019	0.004	0.005	0.006	0.016
240	0.013	0.023	0.020	0.005	0.005	0.008	0.017
300	0.014	0.025	0.022	0.005	0.006	0.010	0.018

360	0.015	0.027	0.023	0.005	0.006	0.011	0.019
420	0.016	0.028	0.024	0.005	0.006	0.012	0.020
480	0.016	0.029	0.025	0.005	0.006	0.013	0.021
540	0.016	0.030	0.026	0.005	0.006	0.014	0.022
600	0.017	0.030	0.026	0.005	0.006	0.014	0.022
660	0.017	0.030	0.027	0.006	0.007	0.014	0.022
720	0.017	0.030	0.027	0.006	0.007	0.015	0.022

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Merced (SJV)
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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Merced (SJV) Merced (SJV) Merced (SJV)

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.018	0.029	0.023	0.002	0.016	0.169	0.023
10	0.033	0.054	0.043	0.003	0.030	0.316	0.042
20	0.056	0.094	0.075	0.006	0.052	0.554	0.073
30	0.073	0.122	0.098	0.008	0.067	0.734	0.095
40	0.080	0.133	0.107	0.008	0.073	0.807	0.104

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Merced (SJV)
****
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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Merced (SJV) Merced (SJV) Merced (SJV)

Table 5a: Partial Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.015	0.041	0.047	0.001	0.001	0.444	0.043

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Merced (SJV)

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Merced (SJV) Merced (SJV) Merced (SJV)

Table 5b: Multi-Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.003	0.003	0.000	0.000	0.042	0.003

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Merced (SJV)

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Merced (SJV) Merced (SJV) Merced (SJV)

Table 6a: Partial Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.009	0.028	0.035	0.000	0.000	0.141	0.023

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Merced (SJV)

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Merced (SJV) Merced (SJV) Merced (SJV)

Table 6b: Multi-Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.002	0.002	0.000	0.000	0.014	0.002

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Merced (SJV)

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Merced (SJV) Merced (SJV) Merced (SJV)

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative Humidity: ALL

	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
%VMT	0.382	0.306	0.116	0.184	0.002	0.010	1.000
%TRIP	0.386	0.314	0.205	0.084	0.000	0.011	1.000
%VEH	0.425	0.350	0.131	0.058	0.000	0.036	1.000

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Merced (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Merced (SJV) Merced (SJV) Merced (SJV)

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
1	0.007	0.140	0.161	0.008	0.183	0.003	0.066
2	0.006	0.074	0.085	0.004	0.094	0.037	0.036
3	0.007	0.054	0.061	0.003	0.065	0.056	0.028
4	0.009	0.045	0.051	0.003	0.051	0.068	0.024
5	0.010	0.040	0.045	0.002	0.043	0.076	0.023
10	0.014	0.032	0.034	0.002	0.027	0.099	0.020
15	0.016	0.030	0.033	0.002	0.024	0.112	0.021
20	0.018	0.031	0.033	0.002	0.023	0.123	0.022
25	0.019	0.032	0.034	0.002	0.024	0.132	0.023
30	0.020	0.033	0.036	0.002	0.025	0.140	0.024
35	0.020	0.035	0.037	0.002	0.026	0.147	0.025
40	0.021	0.036	0.039	0.002	0.027	0.153	0.026
45	0.022	0.037	0.040	0.002	0.028	0.159	0.026
50	0.023	0.038	0.041	0.002	0.030	0.165	0.027
55	0.023	0.040	0.042	0.002	0.031	0.171	0.028
60	0.024	0.041	0.043	0.002	0.031	0.177	0.029

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : San Joaquin (SJV)
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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

San Joaquin (SJV) San Joaquin (SJV) San Joaquin (SJV)

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.037	0.067	0.103	1.828	3.600	4.688	0.263
35	0.006	0.010	0.017	0.200	0.658	1.805	0.044

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.780	1.280	1.824	5.620	31.649	22.085	1.761
35	0.466	0.762	0.991	1.188	6.023	14.297	0.831

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.066	0.119	0.238	6.008	24.969	1.395	0.692
35	0.038	0.067	0.146	2.219	12.437	1.267	0.290

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	921.742	1180.346	1703.448	3306.140	2433.523	266.397	1314.986
35	299.843	384.116	521.755	1663.305	1920.904	139.996	478.182

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.009	0.011	0.016	0.032	0.024	0.003	0.013
35	0.003	0.004	0.005	0.016	0.018	0.002	0.005

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.053	0.107	0.119	0.131	0.600	0.023	0.087
35	0.009	0.017	0.020	0.069	0.146	0.011	0.019

Pollutant Name: PM2.5 - Tire Wear Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.002	0.002	0.002	0.007	0.002	0.001	0.002
35	0.002	0.002	0.002	0.007	0.002	0.001	0.002

Pollutant Name: PM2.5 - Brake Wear Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.005	0.005	0.005	0.010	0.005	0.003	0.006
35	0.005	0.005	0.005	0.010	0.005	0.003	0.006

Pollutant Name: Gasoline - mi/gal Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	9.599	7.490	5.136	3.493	3.277	28.029	8.387
35	29.479	22.996	16.933	17.650	16.602	52.625	25.634

Pollutant Name: Diesel - mi/gal Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	29.156	29.156	19.441	3.443	4.189	0.000	4.753

35	29.156	29.156	19.441	5.753	4.189	0.000	6.841

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : San Joaquin (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

San Joaquin (SJV) San Joaquin (SJV) San Joaquin (SJV)

Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.003	0.006	0.026	0.041	0.262	0.645	0.018
10	0.006	0.012	0.051	0.080	0.511	0.799	0.031
20	0.012	0.024	0.101	0.151	0.970	1.094	0.055
30	0.018	0.035	0.148	0.214	1.375	1.373	0.078
40	0.023	0.046	0.194	0.269	1.726	1.635	0.099
50	0.028	0.057	0.238	0.315	2.025	1.879	0.119
60	0.033	0.066	0.280	0.353	2.270	2.059	0.137
120	0.056	0.114	0.485	0.397	2.552	2.331	0.209
180	0.054	0.111	0.480	0.421	2.708	2.357	0.208
240	0.058	0.118	0.510	0.445	2.858	2.505	0.222
300	0.061	0.125	0.541	0.467	3.004	2.650	0.234
360	0.064	0.132	0.572	0.489	3.145	2.793	0.247
420	0.068	0.139	0.602	0.510	3.281	2.932	0.260
480	0.071	0.145	0.632	0.531	3.413	3.068	0.273
540	0.075	0.152	0.663	0.550	3.539	3.201	0.285
600	0.078	0.159	0.693	0.569	3.660	3.331	0.297
660	0.081	0.166	0.723	0.587	3.776	3.457	0.310
720	0.084	0.173	0.753	0.605	3.888	3.581	0.322

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.062	0.111	0.385	0.763	3.644	2.954	0.221
10	0.122	0.220	0.762	1.496	7.139	3.581	0.412
20	0.238	0.430	1.491	2.867	13.686	4.783	0.778
30	0.349	0.631	2.188	4.115	19.641	5.912	1.123
40	0.455	0.822	2.852	5.238	25.004	6.969	1.447

50	0.555	1.003	3.483	6.238	29.774	7.954	1.751
60	0.651	1.175	4.082	7.113	33.952	8.867	2.033
120	1.057	1.902	6.612	8.307	39.651	12.540	3.063
180	1.001	1.804	6.327	8.550	40.810	12.117	2.963
240	1.091	1.966	6.906	8.801	42.007	13.125	3.197
300	1.171	2.109	7.414	9.059	43.242	14.058	3.405
360	1.239	2.232	7.851	9.326	44.516	14.915	3.588
420	1.297	2.335	8.216	9.601	45.828	15.696	3.745
480	1.343	2.419	8.511	9.884	47.178	16.401	3.877
540	1.378	2.482	8.735	10.175	48.566	17.031	3.983
600	1.403	2.526	8.887	10.474	49.993	17.585	4.063
660	1.416	2.550	8.968	10.781	51.458	18.064	4.118
720	1.418	2.555	8.978	11.095	52.961	18.467	4.148

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.029	0.065	0.579	0.165	1.357	0.153	0.165
10	0.030	0.067	0.600	0.249	2.044	0.193	0.176
20	0.032	0.072	0.637	0.396	3.252	0.263	0.197
30	0.034	0.077	0.671	0.515	4.235	0.321	0.215
40	0.036	0.080	0.700	0.608	4.996	0.367	0.229
50	0.038	0.083	0.725	0.673	5.533	0.400	0.241
60	0.039	0.086	0.745	0.711	5.846	0.422	0.249
120	0.042	0.094	0.820	0.717	5.888	0.424	0.269
180	0.042	0.095	0.820	0.714	5.866	0.420	0.269
240	0.042	0.094	0.814	0.710	5.833	0.414	0.267
300	0.042	0.093	0.803	0.704	5.789	0.406	0.264
360	0.041	0.091	0.788	0.698	5.733	0.396	0.259
420	0.040	0.089	0.769	0.689	5.666	0.385	0.254
480	0.039	0.086	0.745	0.680	5.587	0.371	0.247
540	0.037	0.083	0.717	0.669	5.497	0.357	0.238
600	0.036	0.079	0.685	0.657	5.395	0.340	0.229
660	0.034	0.075	0.648	0.643	5.282	0.322	0.218
720	0.032	0.071	0.607	0.628	5.158	0.302	0.206

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	12.037	15.375	22.126	2.554	2.427	13.050	14.505
10	13.460	17.206	24.829	5.094	4.841	15.239	16.394
20	16.802	21.501	31.142	10.131	9.628	19.538	20.752
30	20.807	26.642	38.665	15.111	14.361	23.731	25.884
40	25.474	32.626	47.396	20.035	19.041	27.818	31.791
50	30.802	39.455	57.338	24.903	23.667	31.799	38.472
60	36.793	47.129	68.488	29.714	28.239	35.674	45.927
120	86.183	110.278	159.681	50.538	48.030	53.067	105.829
180	97.769	125.119	181.241	59.707	56.744	57.346	120.204
240	109.350	139.948	202.770	68.335	64.944	61.373	134.528
300	120.925	154.767	224.266	76.422	72.629	65.149	148.803
360	132.494	169.575	245.731	83.967	79.800	68.674	163.027
420	144.057	184.372	267.164	90.971	86.457	71.948	177.201
480	155.614	199.159	288.565	97.434	92.599	74.971	191.326

540	167.165	213.934	309.934	103.356	98.227	77.743	205.400
600	178.710	228.699	331.271	108.737	103.341	80.263	219.424
660	190.250	243.453	352.576	113.577	107.940	82.532	233.399
720	201.783	258.196	373.849	117.875	112.025	84.550	247.323

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.000	0.001	0.000	0.001	0.000	0.000
50	0.000	0.000	0.001	0.000	0.001	0.000	0.000
60	0.000	0.000	0.001	0.000	0.001	0.001	0.000
120	0.001	0.001	0.002	0.001	0.001	0.001	0.001
180	0.001	0.001	0.002	0.001	0.001	0.001	0.001
240	0.001	0.001	0.002	0.001	0.001	0.001	0.001
300	0.001	0.002	0.002	0.001	0.001	0.001	0.001
360	0.001	0.002	0.002	0.001	0.002	0.001	0.002
420	0.001	0.002	0.003	0.001	0.002	0.001	0.002
480	0.002	0.002	0.003	0.001	0.002	0.001	0.002
540	0.002	0.002	0.003	0.001	0.002	0.001	0.002
600	0.002	0.002	0.003	0.001	0.002	0.001	0.002
660	0.002	0.002	0.004	0.001	0.002	0.001	0.002
720	0.002	0.003	0.004	0.001	0.002	0.001	0.002

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.001	0.001	0.001	0.000	0.000	0.005	0.001
10	0.001	0.002	0.002	0.001	0.001	0.005	0.001
20	0.002	0.004	0.003	0.001	0.001	0.004	0.003
30	0.003	0.006	0.005	0.002	0.002	0.003	0.004
40	0.004	0.008	0.007	0.002	0.003	0.003	0.005
50	0.005	0.009	0.008	0.003	0.003	0.002	0.007
60	0.005	0.011	0.009	0.003	0.003	0.002	0.008
120	0.009	0.018	0.015	0.004	0.005	0.005	0.013
180	0.010	0.020	0.017	0.004	0.005	0.006	0.014
240	0.011	0.022	0.019	0.005	0.005	0.008	0.015
300	0.012	0.024	0.020	0.005	0.005	0.010	0.017
360	0.013	0.025	0.022	0.005	0.005	0.011	0.018
420	0.013	0.026	0.023	0.005	0.005	0.012	0.018
480	0.014	0.027	0.023	0.005	0.006	0.013	0.019
540	0.014	0.028	0.024	0.005	0.006	0.014	0.020
600	0.014	0.028	0.024	0.005	0.006	0.014	0.020
660	0.015	0.029	0.025	0.006	0.006	0.014	0.020
720	0.015	0.029	0.025	0.006	0.006	0.015	0.020

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : San Joaquin (SJV)
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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

San Joaquin (SJV) San Joaquin (SJV) San Joaquin (SJV)

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.021	0.034	0.027	0.002	0.040	0.175	0.026
10	0.038	0.064	0.050	0.004	0.074	0.328	0.049
20	0.065	0.110	0.086	0.007	0.125	0.573	0.084
30	0.085	0.143	0.112	0.010	0.161	0.758	0.110
40	0.092	0.155	0.122	0.011	0.174	0.832	0.120

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : San Joaquin (SJV)
****
*****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

San Joaquin (SJV) San Joaquin (SJV) San Joaquin (SJV)

Table 5a: Partial Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL

70	0.019	0.048	0.053	0.001	0.002	0.449	0.048

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : San Joaquin (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

San Joaquin (SJV) San Joaquin (SJV) San Joaquin (SJV)

Table 5b: Multi-Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.003	0.003	0.000	0.001	0.043	0.004

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : San Joaquin (SJV)

****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

San Joaquin (SJV) San Joaquin (SJV) San Joaquin (SJV)

Table 6a: Partial Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.011	0.033	0.038	0.001	0.001	0.142	0.026

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : San Joaquin (SJV)
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*****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

San Joaquin (SJV) San Joaquin (SJV) San Joaquin (SJV)

Table 6b: Multi-Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.002	0.002	0.000	0.000	0.014	0.002

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : San Joaquin (SJV)
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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

San Joaquin (SJV) San Joaquin (SJV) San Joaquin (SJV)

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative Humidity: ALL

	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
%VMT	0.453	0.314	0.133	0.088	0.002	0.009	1.000
%TRIP	0.427	0.289	0.209	0.064	0.000	0.011	1.000

%VEH	0.469	0.322	0.137	0.035	0.001	0.037	1.000

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : San Joaquin (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

San Joaquin (SJV) San Joaquin (SJV) San Joaquin (SJV)

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
1	0.008	0.157	0.183	0.017	0.430	0.003	0.080
2	0.007	0.083	0.096	0.009	0.221	0.037	0.044
3	0.008	0.061	0.070	0.007	0.152	0.056	0.033
4	0.009	0.051	0.058	0.005	0.118	0.068	0.029
5	0.011	0.045	0.051	0.005	0.098	0.077	0.027
10	0.015	0.035	0.038	0.004	0.060	0.099	0.024
15	0.017	0.033	0.036	0.003	0.049	0.113	0.024
20	0.018	0.033	0.036	0.003	0.045	0.123	0.025
25	0.019	0.035	0.037	0.004	0.045	0.133	0.026
30	0.020	0.036	0.039	0.004	0.047	0.140	0.027
35	0.021	0.037	0.040	0.004	0.050	0.147	0.028
40	0.022	0.039	0.042	0.004	0.052	0.153	0.030
45	0.023	0.040	0.043	0.004	0.054	0.160	0.031
50	0.023	0.041	0.044	0.004	0.056	0.166	0.031
55	0.024	0.043	0.046	0.005	0.058	0.172	0.032
60	0.025	0.044	0.047	0.005	0.060	0.177	0.033

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Stanislaus (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter

Emfac2007 Emission Factors: V2.3 Nov 1 2006

Stanislaus (SJV) Stanislaus (SJV) Stanislaus (SJV)

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.035	0.063	0.102	1.704	3.616	4.676	0.272
35	0.005	0.009	0.017	0.186	0.620	1.802	0.045

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.735	1.187	1.752	5.059	35.603	22.009	1.711
35	0.439	0.706	0.939	1.071	6.851	14.250	0.805

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.063	0.111	0.252	5.496	20.428	1.386	0.690
35	0.036	0.063	0.154	2.029	10.912	1.261	0.287

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	921.715	1179.830	1711.233	3298.108	2425.636	266.394	1356.676
35	299.834	383.985	521.121	1660.485	1729.850	139.994	497.224

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.009	0.011	0.016	0.032	0.024	0.003	0.013
35	0.003	0.004	0.005	0.016	0.017	0.002	0.005

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.046	0.092	0.107	0.115	0.455	0.023	0.077
35	0.008	0.015	0.018	0.062	0.109	0.011	0.017

Pollutant Name: PM2.5 - Tire Wear Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.002	0.002	0.002	0.007	0.002	0.001	0.003
35	0.002	0.002	0.002	0.007	0.002	0.001	0.003

Pollutant Name: PM2.5 - Brake Wear Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.005	0.005	0.005	0.010	0.005	0.003	0.006
35	0.005	0.005	0.005	0.010	0.005	0.003	0.006

Pollutant Name: Gasoline - mi/gal Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	9.600	7.494	5.094	3.498	3.306	28.043	8.304
35	29.484	23.009	16.957	17.677	16.744	52.651	25.402

Pollutant Name: Diesel - mi/gal Temperature: 70F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	29.156	29.156	19.438	3.455	4.236	0.000	4.921
35	29.156	29.156	19.438	5.757	4.236	0.000	7.002

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected

Season : Winter
Area : Stanislaus (SJV)
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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Stanislaus (SJV) Stanislaus (SJV) Stanislaus (SJV)

Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.003	0.006	0.026	0.040	0.333	0.644	0.020
10	0.007	0.012	0.052	0.078	0.649	0.797	0.034
20	0.013	0.024	0.101	0.148	1.231	1.091	0.060
30	0.019	0.036	0.149	0.210	1.745	1.368	0.085
40	0.024	0.047	0.195	0.263	2.192	1.628	0.108
50	0.030	0.057	0.239	0.309	2.571	1.872	0.130
60	0.035	0.067	0.282	0.346	2.882	2.050	0.150
120	0.057	0.113	0.489	0.389	3.240	2.320	0.227
180	0.056	0.110	0.483	0.413	3.438	2.347	0.226
240	0.059	0.117	0.515	0.436	3.630	2.495	0.240
300	0.063	0.124	0.545	0.459	3.815	2.640	0.254
360	0.066	0.131	0.576	0.480	3.994	2.781	0.268
420	0.070	0.137	0.607	0.501	4.167	2.920	0.282
480	0.073	0.144	0.638	0.521	4.333	3.056	0.295
540	0.076	0.151	0.668	0.540	4.493	3.188	0.309
600	0.080	0.158	0.699	0.559	4.647	3.317	0.322
660	0.083	0.165	0.729	0.576	4.795	3.444	0.335
720	0.087	0.171	0.759	0.593	4.936	3.567	0.348

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.060	0.107	0.396	0.754	4.412	2.946	0.240
10	0.119	0.211	0.783	1.477	8.645	3.566	0.447
20	0.233	0.413	1.532	2.832	16.573	4.752	0.844
30	0.342	0.605	2.247	4.064	23.784	5.867	1.217
40	0.445	0.787	2.929	5.173	30.278	6.912	1.567
50	0.543	0.960	3.578	6.160	36.054	7.885	1.895
60	0.636	1.124	4.193	7.025	41.114	8.788	2.199
120	1.028	1.812	6.791	8.204	48.014	12.432	3.288
180	0.972	1.717	6.498	8.443	49.418	12.023	3.185
240	1.059	1.870	7.092	8.691	50.868	13.029	3.432
300	1.135	2.005	7.614	8.947	52.364	13.959	3.652
360	1.201	2.121	8.062	9.210	53.906	14.813	3.846
420	1.256	2.218	8.438	9.482	55.495	15.591	4.013
480	1.301	2.297	8.740	9.761	57.130	16.294	4.153
540	1.335	2.358	8.970	10.048	58.811	16.921	4.267
600	1.359	2.400	9.126	10.343	60.538	17.472	4.355
660	1.372	2.424	9.210	10.646	62.312	17.947	4.416

720	1.375	2.429	9.220	10.957	64.132	18.346	4.450

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.028	0.061	0.598	0.164	1.705	0.153	0.182
10	0.030	0.064	0.618	0.247	2.569	0.192	0.195
20	0.032	0.069	0.655	0.394	4.086	0.262	0.218
30	0.034	0.074	0.688	0.513	5.323	0.319	0.238
40	0.036	0.077	0.717	0.605	6.278	0.365	0.255
50	0.038	0.081	0.742	0.670	6.953	0.398	0.267
60	0.039	0.083	0.763	0.707	7.346	0.419	0.277
120	0.042	0.091	0.840	0.713	7.400	0.421	0.298
180	0.043	0.091	0.841	0.710	7.372	0.418	0.299
240	0.042	0.090	0.834	0.706	7.331	0.411	0.296
300	0.042	0.089	0.823	0.701	7.275	0.403	0.293
360	0.041	0.088	0.808	0.694	7.205	0.393	0.288
420	0.040	0.086	0.788	0.686	7.120	0.382	0.281
480	0.039	0.083	0.763	0.676	7.021	0.369	0.274
540	0.037	0.080	0.734	0.665	6.908	0.354	0.264
600	0.036	0.077	0.701	0.653	6.780	0.338	0.254
660	0.034	0.073	0.664	0.639	6.638	0.319	0.242
720	0.032	0.068	0.621	0.624	6.482	0.299	0.229

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	12.027	15.351	22.138	2.597	3.294	13.055	14.602
10	13.454	17.186	24.850	5.179	6.571	15.245	16.543
20	16.806	21.489	31.179	10.301	13.068	19.544	21.006
30	20.818	26.634	38.718	15.366	19.493	23.737	26.245
40	25.492	32.622	47.467	20.372	25.845	27.824	32.258
50	30.826	39.453	57.424	25.322	32.124	31.805	39.047
60	36.821	47.126	68.592	30.214	38.330	35.681	46.611
120	86.198	110.210	159.867	51.389	65.192	53.076	107.050
180	97.793	125.048	181.459	60.712	77.020	57.353	121.628
240	109.380	139.874	203.018	69.485	88.149	61.380	136.145
300	120.961	154.688	224.543	77.707	98.580	65.155	150.602
360	132.534	169.489	246.035	85.379	108.314	68.679	165.000
420	144.099	184.278	267.494	92.502	117.349	71.952	179.337
480	155.658	199.054	288.919	99.073	125.686	74.974	193.614
540	167.209	213.818	310.310	105.095	133.325	77.745	207.832
600	178.752	228.569	331.668	110.566	140.266	80.265	221.989
660	190.288	243.308	352.992	115.487	146.509	82.534	236.086
720	201.817	258.034	374.283	119.858	152.053	84.552	250.123

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL

5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.001	0.000	0.000
40	0.000	0.000	0.001	0.000	0.001	0.000	0.000
50	0.000	0.000	0.001	0.000	0.001	0.000	0.000
60	0.000	0.000	0.001	0.000	0.001	0.001	0.000
120	0.001	0.001	0.002	0.001	0.001	0.001	0.001
180	0.001	0.001	0.002	0.001	0.002	0.001	0.001
240	0.001	0.001	0.002	0.001	0.002	0.001	0.001
300	0.001	0.002	0.002	0.001	0.002	0.001	0.002
360	0.001	0.002	0.003	0.001	0.002	0.001	0.002
420	0.001	0.002	0.003	0.001	0.002	0.001	0.002
480	0.002	0.002	0.003	0.001	0.002	0.001	0.002
540	0.002	0.002	0.003	0.001	0.002	0.001	0.002
600	0.002	0.002	0.003	0.001	0.002	0.001	0.002
660	0.002	0.002	0.004	0.001	0.002	0.001	0.002
720	0.002	0.003	0.004	0.001	0.003	0.001	0.002

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.001	0.001	0.000	0.001	0.005	0.001
10	0.001	0.002	0.002	0.001	0.001	0.005	0.001
20	0.002	0.003	0.003	0.001	0.002	0.004	0.003
30	0.003	0.005	0.004	0.002	0.003	0.003	0.004
40	0.003	0.007	0.006	0.002	0.003	0.003	0.005
50	0.004	0.008	0.007	0.003	0.004	0.002	0.006
60	0.005	0.010	0.008	0.003	0.005	0.002	0.007
120	0.008	0.016	0.014	0.004	0.006	0.005	0.011
180	0.009	0.018	0.015	0.004	0.007	0.006	0.013
240	0.010	0.019	0.017	0.004	0.007	0.008	0.014
300	0.010	0.021	0.018	0.004	0.007	0.010	0.015
360	0.011	0.022	0.019	0.004	0.007	0.011	0.016
420	0.012	0.023	0.020	0.005	0.007	0.012	0.016
480	0.012	0.024	0.021	0.005	0.008	0.013	0.017
540	0.012	0.025	0.021	0.005	0.008	0.014	0.017
600	0.013	0.025	0.022	0.005	0.008	0.014	0.018
660	0.013	0.025	0.022	0.005	0.008	0.014	0.018
720	0.013	0.025	0.022	0.005	0.009	0.015	0.018

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Stanislaus (SJV)
****
*****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Stanislaus (SJV) Stanislaus (SJV) Stanislaus (SJV)

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.022	0.036	0.027	0.003	0.068	0.178	0.028
10	0.041	0.067	0.051	0.005	0.125	0.333	0.052
20	0.071	0.116	0.087	0.009	0.213	0.582	0.089
30	0.092	0.151	0.113	0.012	0.273	0.768	0.116
40	0.100	0.164	0.124	0.013	0.295	0.844	0.126

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Stanislaus (SJV)

****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Stanislaus (SJV) Stanislaus (SJV) Stanislaus (SJV)

Table 5a: Partial Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.021	0.051	0.055	0.001	0.004	0.452	0.053

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected

Season : Winter
Area : Stanislaus (SJV)
****
*****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Stanislaus (SJV) Stanislaus (SJV) Stanislaus (SJV)

Table 5b: Multi-Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.002	0.003	0.004	0.000	0.001	0.043	0.004

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Stanislaus (SJV)
****
*****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Stanislaus (SJV) Stanislaus (SJV) Stanislaus (SJV)

Table 6a: Partial Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.012	0.033	0.038	0.001	0.001	0.143	0.028

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter

Area : Stanislaus (SJV)
****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Stanislaus (SJV) Stanislaus (SJV) Stanislaus (SJV)

Table 6b: Multi-Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.002	0.003	0.000	0.000	0.014	0.002

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Stanislaus (SJV)
****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Stanislaus (SJV) Stanislaus (SJV) Stanislaus (SJV)

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative Humidity: ALL

	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
%VMT	0.423	0.316	0.148	0.102	0.001	0.010	1.000
%TRIP	0.391	0.288	0.231	0.078	0.000	0.012	1.000
%VEH	0.440	0.329	0.148	0.041	0.000	0.042	1.000

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected

Season : Winter
Area : Stanislaus (SJV)
****
*****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Stanislaus (SJV) Stanislaus (SJV) Stanislaus (SJV)

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
1	0.008	0.168	0.195	0.023	0.725	0.003	0.089
2	0.007	0.089	0.102	0.012	0.372	0.037	0.048
3	0.008	0.064	0.074	0.009	0.256	0.056	0.036
4	0.010	0.054	0.061	0.007	0.199	0.068	0.032
5	0.011	0.047	0.054	0.006	0.165	0.077	0.029
10	0.015	0.036	0.040	0.004	0.100	0.099	0.025
15	0.017	0.034	0.037	0.004	0.081	0.113	0.025
20	0.019	0.035	0.037	0.004	0.075	0.123	0.026
25	0.020	0.036	0.038	0.004	0.074	0.133	0.027
30	0.021	0.037	0.040	0.005	0.078	0.140	0.028
35	0.021	0.039	0.042	0.005	0.081	0.147	0.030
40	0.022	0.040	0.043	0.005	0.085	0.154	0.031
45	0.023	0.041	0.045	0.005	0.088	0.160	0.032
50	0.024	0.043	0.046	0.005	0.092	0.166	0.033
55	0.024	0.044	0.047	0.005	0.095	0.172	0.034
60	0.025	0.045	0.048	0.006	0.098	0.177	0.034

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Tulare (SJV)
****
*****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Tulare (SJV) Tulare (SJV) Tulare (SJV)

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: 0%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.036	0.065	0.098	1.676	2.360	4.680	0.265
35	0.006	0.010	0.016	0.185	0.392	1.803	0.044

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: 0%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.760	1.224	1.714	5.213	25.322	22.036	1.739
35	0.454	0.726	0.925	1.102	4.865	14.266	0.821

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: 0%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.064	0.115	0.240	5.423	10.261	1.389	0.662
35	0.037	0.065	0.146	2.016	6.055	1.263	0.278

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: 0%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	921.975	1178.828	1703.470	3267.153	2417.443	266.397	1349.460
35	299.917	383.673	521.438	1658.528	1474.740	139.996	494.560

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: 0%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.009	0.011	0.016	0.031	0.024	0.003	0.013
35	0.003	0.004	0.005	0.016	0.014	0.002	0.005

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: 0%

Speed

MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.048	0.095	0.105	0.122	0.252	0.023	0.080
35	0.008	0.015	0.017	0.064	0.058	0.011	0.018

Pollutant Name: PM2.5 - Tire Wear Temperature: 70F Relative Humidity:

0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.002	0.002	0.002	0.007	0.002	0.001	0.003
35	0.002	0.002	0.002	0.007	0.002	0.001	0.003

Pollutant Name: PM2.5 - Brake Wear Temperature: 70F Relative Humidity:
0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.005	0.005	0.005	0.010	0.005	0.003	0.006
35	0.005	0.005	0.005	0.010	0.005	0.003	0.006

Pollutant Name: Gasoline - mi/gal Temperature: 70F Relative Humidity:
0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	9.597	7.499	5.117	3.495	3.408	28.038	8.266
35	29.473	23.026	16.947	17.661	17.241	52.642	25.266

Pollutant Name: Diesel - mi/gal Temperature: 70F Relative Humidity:
0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	29.156	29.156	19.442	3.517	4.320	0.000	4.948
35	29.156	29.156	19.442	5.775	4.320	0.000	6.991

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Tulare (SJV)
****
*****
Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Tulare (SJV) Tulare (SJV) Tulare (SJV)

Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.003	0.006	0.024	0.038	0.312	0.644	0.019
10	0.006	0.012	0.048	0.075	0.609	0.798	0.032
20	0.012	0.023	0.095	0.142	1.154	1.092	0.057
30	0.017	0.033	0.140	0.201	1.636	1.370	0.080
40	0.022	0.044	0.184	0.253	2.055	1.631	0.102
50	0.027	0.053	0.226	0.296	2.410	1.875	0.122
60	0.032	0.062	0.266	0.332	2.702	2.053	0.141
120	0.053	0.105	0.466	0.374	3.038	2.324	0.214
180	0.051	0.102	0.461	0.396	3.223	2.351	0.214
240	0.055	0.109	0.490	0.418	3.403	2.499	0.227
300	0.058	0.115	0.520	0.440	3.576	2.644	0.240
360	0.061	0.122	0.549	0.460	3.744	2.785	0.253
420	0.064	0.128	0.579	0.480	3.906	2.924	0.267
480	0.068	0.134	0.608	0.500	4.062	3.060	0.279
540	0.071	0.141	0.637	0.518	4.212	3.193	0.292
600	0.074	0.147	0.667	0.536	4.357	3.322	0.305
660	0.077	0.153	0.696	0.553	4.495	3.449	0.317
720	0.080	0.160	0.725	0.569	4.628	3.572	0.330

Pollutant Name: Carbon Monoxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.057	0.101	0.380	0.729	3.456	2.948	0.229
10	0.113	0.199	0.752	1.428	6.771	3.571	0.425
20	0.220	0.390	1.473	2.738	12.980	4.763	0.803
30	0.323	0.571	2.162	3.929	18.628	5.884	1.159
40	0.421	0.743	2.819	5.002	23.714	6.933	1.493
50	0.514	0.907	3.445	5.956	28.239	7.911	1.805
60	0.601	1.061	4.039	6.792	32.202	8.817	2.096
120	0.975	1.710	6.568	7.932	37.606	12.472	3.145
180	0.923	1.620	6.280	8.163	38.705	12.057	3.044
240	1.006	1.764	6.859	8.403	39.841	13.064	3.282
300	1.079	1.890	7.367	8.650	41.013	13.995	3.494
360	1.142	1.999	7.803	8.905	42.221	14.850	3.681
420	1.194	2.091	8.168	9.167	43.465	15.629	3.842
480	1.237	2.166	8.462	9.437	44.745	16.332	3.976
540	1.270	2.223	8.684	9.715	46.062	16.960	4.085
600	1.292	2.263	8.834	10.001	47.415	17.512	4.169
660	1.304	2.285	8.913	10.294	48.804	17.989	4.226
720	1.307	2.290	8.921	10.594	50.230	18.389	4.258

Pollutant Name: Oxides of Nitrogen Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.026	0.055	0.574	0.156	1.530	0.153	0.172
10	0.027	0.058	0.591	0.235	2.306	0.192	0.184

20	0.029	0.062	0.624	0.373	3.668	0.262	0.205
30	0.031	0.067	0.654	0.486	4.778	0.320	0.223
40	0.033	0.070	0.680	0.574	5.635	0.365	0.238
50	0.034	0.073	0.702	0.635	6.241	0.399	0.250
60	0.035	0.075	0.722	0.671	6.594	0.420	0.258
120	0.038	0.082	0.796	0.676	6.642	0.422	0.279
180	0.038	0.082	0.797	0.674	6.618	0.419	0.279
240	0.038	0.082	0.791	0.670	6.580	0.412	0.277
300	0.038	0.081	0.780	0.665	6.530	0.404	0.274
360	0.037	0.079	0.765	0.658	6.467	0.394	0.269
420	0.036	0.077	0.746	0.651	6.391	0.383	0.263
480	0.035	0.075	0.723	0.641	6.302	0.370	0.256
540	0.034	0.072	0.695	0.631	6.201	0.355	0.247
600	0.032	0.069	0.663	0.619	6.086	0.338	0.237
660	0.031	0.066	0.627	0.606	5.958	0.320	0.226
720	0.029	0.062	0.587	0.592	5.818	0.300	0.213

Pollutant Name: Carbon Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	12.036	15.346	22.094	2.575	4.464	13.050	14.669
10	13.459	17.178	24.777	5.135	8.902	15.239	16.603
20	16.803	21.474	31.049	10.213	17.706	19.538	21.056
30	20.809	26.613	38.531	15.235	26.411	23.731	26.289
40	25.476	32.594	47.221	20.199	35.017	27.818	32.303
50	30.806	39.418	57.121	25.106	43.524	31.799	39.097
60	36.797	47.084	68.230	29.956	51.932	35.674	46.672
120	86.187	110.136	159.215	50.950	88.327	53.067	107.342
180	97.775	124.962	180.696	60.194	104.352	57.346	121.945
240	109.356	139.776	202.148	68.892	119.431	61.373	136.491
300	120.932	154.579	223.573	77.045	133.564	65.150	150.981
360	132.502	169.369	244.970	84.651	146.752	68.675	165.415
420	144.065	184.148	266.338	91.713	158.993	71.949	179.793
480	155.623	198.915	287.679	98.229	170.289	74.971	194.114
540	167.174	213.670	308.992	104.199	180.639	77.743	208.379
600	178.720	228.413	330.277	109.623	190.043	80.264	222.587
660	190.259	243.144	351.534	114.502	198.501	82.533	236.740
720	201.792	257.864	372.763	118.836	206.013	84.551	250.836

Pollutant Name: Sulfur Dioxide Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.001	0.000	0.000
40	0.000	0.000	0.001	0.000	0.001	0.000	0.000
50	0.000	0.000	0.001	0.000	0.001	0.000	0.000
60	0.000	0.000	0.001	0.000	0.001	0.001	0.000
120	0.001	0.001	0.002	0.001	0.002	0.001	0.001
180	0.001	0.001	0.002	0.001	0.002	0.001	0.001
240	0.001	0.001	0.002	0.001	0.002	0.001	0.001
300	0.001	0.002	0.002	0.001	0.002	0.001	0.002

360	0.001	0.002	0.002	0.001	0.002	0.001	0.002
420	0.001	0.002	0.003	0.001	0.002	0.001	0.002
480	0.002	0.002	0.003	0.001	0.002	0.001	0.002
540	0.002	0.002	0.003	0.001	0.003	0.001	0.002
600	0.002	0.002	0.003	0.001	0.003	0.001	0.002
660	0.002	0.002	0.004	0.001	0.003	0.001	0.002
720	0.002	0.003	0.004	0.001	0.003	0.001	0.002

Pollutant Name: PM2.5 Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.001	0.001	0.000	0.001	0.005	0.001
10	0.001	0.002	0.002	0.001	0.001	0.005	0.001
20	0.002	0.003	0.003	0.001	0.003	0.004	0.002
30	0.003	0.005	0.004	0.002	0.004	0.003	0.004
40	0.003	0.006	0.006	0.002	0.005	0.003	0.005
50	0.004	0.008	0.007	0.003	0.006	0.002	0.006
60	0.005	0.009	0.008	0.003	0.006	0.002	0.007
120	0.008	0.015	0.014	0.004	0.009	0.005	0.011
180	0.009	0.017	0.015	0.004	0.009	0.006	0.012
240	0.010	0.019	0.017	0.004	0.009	0.008	0.014
300	0.010	0.020	0.018	0.004	0.009	0.010	0.015
360	0.011	0.021	0.019	0.005	0.010	0.011	0.015
420	0.011	0.022	0.020	0.005	0.010	0.012	0.016
480	0.012	0.023	0.021	0.005	0.010	0.013	0.017
540	0.012	0.024	0.021	0.005	0.011	0.014	0.017
600	0.012	0.024	0.021	0.005	0.011	0.014	0.018
660	0.012	0.024	0.022	0.005	0.011	0.014	0.018
720	0.012	0.024	0.022	0.005	0.012	0.015	0.018

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Tulare (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Tulare (SJV) Tulare (SJV) Tulare (SJV)

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL

5	0.020	0.034	0.026	0.002	0.058	0.176	0.026
10	0.038	0.063	0.049	0.005	0.108	0.328	0.049
20	0.065	0.109	0.085	0.008	0.184	0.574	0.085
30	0.085	0.142	0.110	0.010	0.237	0.758	0.110
40	0.092	0.154	0.120	0.011	0.256	0.833	0.120

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Tulare (SJV)

****

Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Tulare (SJV) Tulare (SJV) Tulare (SJV)

Table 5a: Partial Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.019	0.048	0.053	0.001	0.003	0.450	0.050

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Tulare (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Tulare (SJV) Tulare (SJV) Tulare (SJV)

Table 5b: Multi-Day Diurnal Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.003	0.004	0.000	0.001	0.043	0.004

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Tulare (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Tulare (SJV) Tulare (SJV) Tulare (SJV)

Table 6a: Partial Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.010	0.031	0.038	0.001	0.001	0.142	0.027

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Tulare (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Tulare (SJV) Tulare (SJV) Tulare (SJV)

Table 6b: Multi-Day Resting Loss Emissions (grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity: ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
70	0.001	0.002	0.002	0.000	0.000	0.014	0.002

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Tulare (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Tulare (SJV) Tulare (SJV) Tulare (SJV)

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative Humidity: ALL

	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
%VMT	0.402	0.345	0.143	0.099	0.001	0.010	1.000
%TRIP	0.374	0.311	0.229	0.075	0.000	0.011	1.000
%VEH	0.418	0.352	0.150	0.040	0.000	0.040	1.000

Title : San Joaquin Valley Air Basin Subarea Winter CYr 2035 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2011/12/19 13:55:50
Scen Year: 2035 -- All model years in the range 1991 to 2035 selected
Season : Winter
Area : Tulare (SJV)

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Year: 2035 -- Model Years 1991 to 2035 Inclusive -- Winter
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Tulare (SJV) Tulare (SJV) Tulare (SJV)

Table 8: Evaporative Running Loss Emissions (grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 70F Relative Humidity: ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
1	0.008	0.158	0.185	0.020	0.677	0.003	0.087
2	0.007	0.084	0.097	0.010	0.348	0.037	0.047
3	0.008	0.061	0.070	0.007	0.240	0.056	0.036
4	0.009	0.051	0.058	0.006	0.187	0.068	0.031
5	0.011	0.045	0.051	0.005	0.156	0.077	0.029
10	0.015	0.035	0.038	0.004	0.096	0.099	0.025
15	0.017	0.033	0.036	0.004	0.079	0.113	0.025
20	0.018	0.033	0.036	0.004	0.074	0.123	0.026
25	0.019	0.034	0.037	0.004	0.074	0.133	0.027
30	0.020	0.036	0.039	0.004	0.078	0.140	0.028
35	0.021	0.037	0.040	0.004	0.082	0.147	0.029
40	0.022	0.039	0.042	0.004	0.086	0.153	0.030
45	0.022	0.040	0.043	0.005	0.089	0.160	0.031
50	0.023	0.041	0.044	0.005	0.093	0.166	0.032
55	0.024	0.042	0.046	0.005	0.096	0.172	0.033
60	0.024	0.043	0.047	0.005	0.099	0.177	0.034

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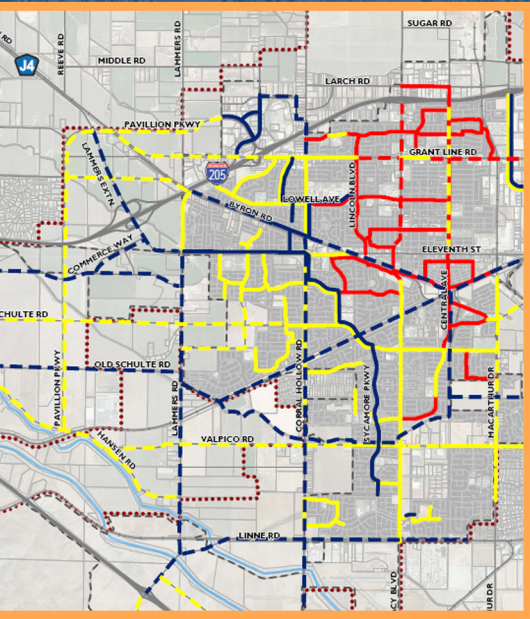

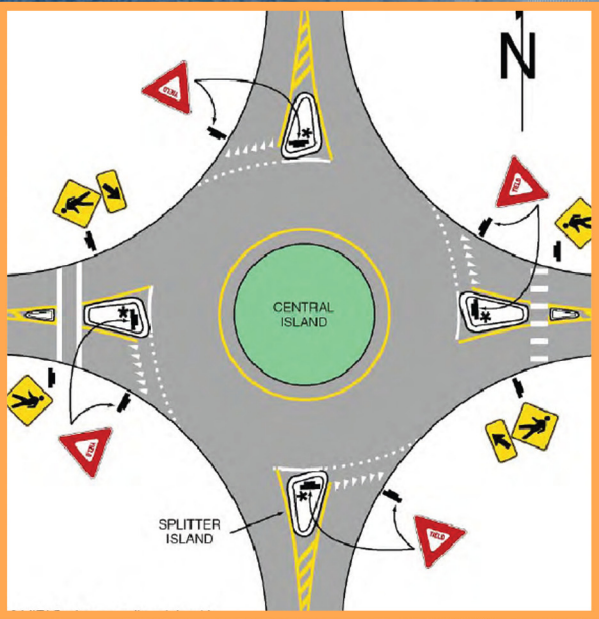

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