



City of Tracy

Modified Ellis Project

Draft Revised Environmental Impact Report

(State Clearinghouse No. 2012022023)



Volume 1: EIR

Prepared for
The City of Tracy

Prepared by
RBF Consulting

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CITY OF TRACY
MODIFIED ELLIS PROJECT

DRAFT REVISED ENVIRONMENTAL IMPACT REPORT
(STATE CLEARINGHOUSE No. 2012022023)

JULY 2012

CITY OF TRACY
333 CIVIC CENTER PLAZA
TRACY, CA 95376

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1 EXECUTIVE SUMMARY

1.1 INTRODUCTION

This chapter summarizes the Modified Project and its history, and provides an overview of the analysis contained in Chapter 4: Environmental Analysis. The California Environmental Quality Act (CEQA) requires that this chapter summarize the following: 1) areas of controversy; 2) significant impacts; 3) unavoidable significant impacts; 4) implementation of mitigation measures; and 5) alternatives to the Project.

1.2 PROJECT HISTORY

In June 2004, the Surland Companies (“Project Applicant”) filed land use applications to entitle the Ellis Project. The City of Tracy processed the applications and commissioned the preparation of the City of Tracy/Surland Development Agreement and Ellis Specific Plan Environmental Impact Report (“Original Ellis EIR”). On December 16, 2008, the City certified the Original Ellis EIR and approved the land use applications for the Original Ellis Entitlements, approving the Ellis Development Agreement (“Original Ellis DA”) and the Ellis Specific Plan (“Original Ellis Specific Plan”).

Following the approvals, the Tracy Regional Alliance for a Quality Community (TRAQC) challenged the sufficiency of the Original Ellis EIR and the Original Ellis DA in an action filed in the Superior Court. On October 31, 2011, the trial court issued its Statement of Decision and Judgment, ordering that the certification of the Original Ellis EIR and the Original Ellis DA be set aside for legal infirmities. The other requested entitlements were also ordered to be set aside. The Project Applicant and the City subsequently appealed the judgment of the Superior Court to the District Court of Appeal. The result of the appeal is that the judgment of the Superior Court is stayed, pending the outcome of the appeal. It is anticipated that the appeal process could take two years or more.

Following the Original Ellis EIR approvals, the City prepared an update to its General Plan and adopted the 2011 General Plan. No challenges to that 2011 General Plan were filed. The 2011 General Plan was the subject of a separate and sufficient EIR, *City of Tracy General Plan Final EIR*, State Clearinghouse No. 2008092006 (the “General Plan EIR”), and established a separate and distinct land use classification for the Ellis Project entitled Traditional Residential-Ellis (“TR-Ellis”).

In December 2011, the Project Applicant filed applications with the City for a modification and amendment to the Original Ellis DA (“Amended and Restated Ellis DA”); a modification and amendment to the Original Ellis Specific Plan (“Modified Ellis Specific Plan”); and Petition for Annexation and Pre-Zoning and General Plan Amendment (collectively referred to as the “Modified Project”). The application for the General Plan Amendment seeks to make minor modifications to the language in the TR-Ellis designation identified in the City’s 2011 General Plan. A revised Ellis EIR (“Revised Ellis EIR” or “Draft Revised EIR”) is being prepared in response to the trial judge’s Statement of Decision and Judgment, addressing and remedying those issues that the trial judge found objectionable. In addition, the Original Ellis DA and the Original Ellis Entitlements will be modified and amended to address and remedy the issues outlined by the trial judge.

1.3 PROJECT UNDER REVIEW

The Project proposes a modification and amendment to the Original Ellis DA (“Amended and Restated Ellis DA”) (Application Number DA11-0002); a modification and amendment to the Original Ellis Specific Plan (“Modified Ellis Specific Plan” or “Modified ESP”) (Application Number SP11-0002); and Petition for Annexation and Pre-Zoning (Application Number A/P11-0002) and General Plan Amendment (Application Number GPA11-0005) (collectively referred to as the “Modified Project”). The Modified Project would accommodate the development of a minimum of 1,000 to a maximum of 2,250 residential units, as well as a Village Center, open space, 180,000 square feet of retail, office, and other commercial uses, and, consistent with City requirements, approximately four acres per 1,000 people of parks with an opportunity to include a Family-Oriented Swim Center (Family Swim Center) on approximately 321 acres. Pursuant to Section 15161 of the State CEQA Guidelines, the environmental impacts associated with implementation of the Modified ESP and corresponding Amended and Restated DA are addressed at a “Project” level of detail within this Revised Environmental Impact Report (Draft Revised EIR).

1.4 AREAS OF CONTROVERSY

The scoping period for this Draft Revised EIR was February 8 to March 12, 2012, during which interested agencies and the public were requested to submit comments about the Modified Project. Nine comment letters and one comment e-mail were received in response to the Initial Study and Notice of Preparation (NOP). In addition, the City’s Planning Commission held a public scoping meeting on February 22, 2012 (during the public review period), to discuss characteristics of the Modified Project, its planning status, the nature of its potential environmental effects, and the scope (i.e., the specific issues) of the Draft Revised EIR analysis. The scoping meeting provided further opportunity for public input regarding environmental concerns and issues that should be addressed in the Draft Revised EIR.

The NOP and written and verbal comments received from public agencies and interested parties are included in Appendix A (Notice of Preparation (NOP), Draft Initial Study, and Public Comments). This Draft Revised EIR assesses all relevant scoping comments regarding the Modified Project and identified in detail in Chapter 2 (Introduction), subsection 2.2 (Revised EIR, Scope, Issues, Concerns). There are no other known areas of particular controversy.

1.5 SIGNIFICANT IMPACTS

Under CEQA, a significant impact on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance. Table 1-1 (Original Ellis EIR Summary of Impacts and Mitigation) and Table 1-2 (Revised Ellis EIR Summary of Impacts and Mitigation) provide a summary of the potentially significant impacts identified in the Original Ellis EIR and the Revised Draft EIR for the Modified Project, proposed mitigation measures, and the level of significance after mitigation. It should be noted that the Original Ellis EIR referred to the Ellis Specific Plan (ESP) as the “proposed ESP” and this Revised Draft EIR refers to the currently proposed ESP as the “Modified ESP,” but all other aspects remain the same. The impacts that were previously identified in the Original ESP EIR that remain valid are incorporated herein and are identified in Table 1-1. Refer to Chapter 2 (Introduction) for a summary of key aspects of the Original Ellis EIR. As described in Chapter 2 (Introduction), the Original Ellis EIR is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376.

1.6 MITIGATION MEASURES

This Draft Revised EIR suggests mitigation measures that would reduce the impacts identified above to less than significant levels, as summarized in Tables 1-1 and 1-2 at the end of this chapter. The mitigation measures in the Original Ellis EIR in combination with those identified in this Draft Revised EIR will form the basis of a mitigation monitoring and reporting program to be implemented in accordance with State law.

1.7 UNAVOIDABLE SIGNIFICANT IMPACTS

The Modified Project would result in 12 significant and unavoidable impacts, as listed below. The significant and unavoidable impacts of the Original Ellis EIR that were not re-analyzed in this Draft Revised EIR remain valid and, as described in Chapter 2 (Introduction), have been incorporated by reference into this Draft Revised EIR. The list of significant and unavoidable impacts identified by the Original Ellis EIR follows the list of significant and unavoidable impacts identified by this Draft Revised EIR.

1.7.1 DRAFT REVISED EIR

AIR QUALITY

As described in Section 4.3 (Air Quality), the Modified Project would have the following significant and unavoidable air quality impacts:

- ◆ The Modified ESP would result in an overall increase in the local and regional pollutant load due to direct impacts from vehicle emissions and indirect impacts from area sources and electricity consumption.
- ◆ Due to the ESP site's exceedances of SJVAPCD's air quality standards, future development within the ESP site would not be consistent with the most recent Air Quality Management Plan.
- ◆ Implementation of the Modified Project could impact regional air quality levels on a cumulatively considerable basis.

GREENHOUSE GAS EMISSIONS

As described in Section 4.6 (Greenhouse Gas Emissions), the Modified Project would have the following significant and unavoidable greenhouse gas emission impacts:

- ◆ Significant generation of greenhouse gas emissions.
- ◆ Future development facilitated by the Modified ESP and other related cumulative projects could have a cumulatively considerable contribution to greenhouse gas emissions.

NOISE

As described in Section 4.10 (Noise), the Modified Project would have the following significant and unavoidable noise impacts:

- ◆ Substantial noise levels for future residential uses along the Union Pacific Railroad.
- ◆ Temporary increases in noise and/or vibration from grading and construction.
- ◆ Substantial increases in traffic noise.
- ◆ Cumulatively considerable contribution to traffic noise.

TRAFFIC AND CIRCULATION

As described in Section 4.13 (Traffic and Circulation), the Modified Project would have the following significant and unavoidable transportation impacts:

- ◆ The addition of traffic to the regional transportation system from the Modified ESP would degrade LOS on I-580 west of I-205 to unacceptable traffic conditions during the AM and PM peak hours.
- ◆ The addition of traffic from the Modified ESP would further degrade an existing unacceptable traffic condition on Tesla Road and Patterson Pass Road individually and cumulatively.
- ◆ Cumulative contribution of traffic to segments of I-580.

1.7.2 ORIGINAL ELLIS EIR

AESTHETICS

The following lists the significant and unavoidable impacts identified in Section 3.06 (Aesthetics) of the Original Ellis EIR:

- ◆ The ESP would create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.
- ◆ Implementation of the ESP could substantially degrade the existing visual character or quality of the site and its surroundings.
- ◆ The ESP could cause a substantial adverse effect on a scenic vista.
- ◆ The ESP could substantially damage scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic buildings within a state scenic highway.

AGRICULTURAL RESOURCES

The following lists the significant and unavoidable impacts identified in Section 3.07 (Agricultural Resources) of the Original Ellis EIR:

- ◆ The proposed ESP would convert Prime Farmland to non-agricultural uses.

1.8 ALTERNATIVES TO THE PROJECT

This Draft Revised EIR analyzes two new alternatives to the Modified Project Alternative 9: “No Swim Center” and Alternative 10: “1993 ALUCP Runway Length.” In addition, the alternatives chapter provides:

- 1) A brief summary of the Original ESP EIR alternatives evaluated;
 - 2) an elaboration on the previously discussed process that the City went through to evaluate (and reject) alternative swim center locations;
 - 3) the rationale for rejecting alternative Project site locations, in particular the Keenan Saddlebrook Development/UR 17 (identified as UR 9 in the 2011 General Plan), Moitoso/Plan B, and the Alavarez/UR 1 areas;
 - 4) locations more contiguous to the City core, and locations outside the airport flight path;
 - 5) an explanation of the rationale behind the selection of Project alternatives in the Original ESP EIR;
 - 6) reassessment of the feasibility of Alternative 6: Reduced Density of the Original ESP EIR;
- and

- 7) analysis of two new alternatives: one alternative that omits the Family Swim Center from the ESP area and a second alternative that evaluates impacts under a scenario where runway lengths at the Tracy Municipal Airport are similar to those identified in the 1993 ALUCP.

This Draft Revised EIR incorporates Chapter 3B.14 (Alternatives to the Proposed ESP) of the Original Ellis EIR by reference where applicable, and identifies where the Modified EIR has triggered a “revision” to the Original Ellis EIR analysis. It should be noted that all alternatives previously evaluated in the Original Ellis EIR have been incorporated by reference into this Draft Revised EIR, with the exception of minor modifications that have been made to Alternative 6: Reduced Density, as identified in Chapter 6 (Alternatives) of this Draft Revised EIR. Summaries of the alternatives previously evaluated in the Original Ellis EIR are included in Chapter 6 of the Draft Revised EIR. The Original Ellis EIR is available for public review at the City of Tracy Planning Division, located at 333 Civic Center Plaza, Tracy, California, 95376.

1.8.1 ALTERNATIVE 9: NO FAMILY SWIM CENTER

The No Family Swim Center Alternative (Alternative 9) would involve the implementation of the Modified ESP as described in Chapter 2 (Project Description), with the exception that the Family Swim Center would not be constructed. Thus, under Alternative 9, the Modified ESP area could develop with a minimum of 1,000 to a maximum of 2,250 residential units under the TR-Ellis (Mixed Residential) designation. The 180,000 square feet of retail, office, and other commercial uses would remain, and, consistent with City requirements, a minimum of four acres of parks per 1,000 residents would be dedicated to public use. While three acres of Neighborhood Parks per 1,000 residents would be built throughout Ellis similar to the Modified Project, unlike the Modified Project, the one acre of Community Park per 1,000 residents requirement would only be met with the payment of an in lieu fee and would not have the option of being satisfied with the donation of land from the Project Applicant for a Family Swim Center.

1.8.2 ALTERNATIVE 10: 1993 ALUCP RUNWAY LENGTH

Under the 1993 ALUCP Runway Length Alternative (Alternative 10), all the same uses would develop as proposed by the Modified ESP (a minimum of 1,000 to a maximum of 2,250 residential units, 180,000 square feet of retail, office, and other commercial uses, and four acres of parks per 1,000 residents). Like the Modified ESP, three acres of Neighborhood Parks per 1,000 residents would be built throughout Ellis, and the one acre of Community Park per 1,000 residents requirement could be met with either the donation of land from the Project Applicant for a Family Swim Center or the payment of an in lieu fee. All underlying zoning would be Residential Mixed (TR-Ellis). However, under Alternative 10, the runway lengths at the Tracy Municipal Airport would be similar to those identified in the 1993 ALUCP, which are shorter than those identified in the 2009 ALUCP. Thus, under Alternative 10, runway 8-26 at the Tracy Municipal Airport would be 3,418 feet long and 100 feet wide and runway 12-30 would be 3,996 feet long and 100 feet wide (or as adjusted by the City’s recent survey), as opposed to the 2009 ALUCP runway 8-26 length of 3,438 feet long and 100 feet wide and runway 12-30 length of 4,002 feet long and 100 feet wide.

1.8.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126(e)(2) requires that the environmentally superior alternative be identified. If the environmentally superior alternative is the No Project Alternative, the EIR shall identify an environmentally superior alternative among the other alternatives. Alternative 4: No Project/No Build (Status Quo) would be the environmentally superior alternative, as all the impacts associated with the Modified ESP would be avoided, although Alternative 4 would be inconsistent

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with the goals of the General Plan, as the ESP site would remain unchanged and would continue to be used for agricultural purposes.

Among the other alternatives, the Original Ellis EIR found that Alternative 6: Reduced Density was the environmentally superior alternative, as described below under subsection 6.3. Alternative 6 has been identified as a potentially feasible alternative that has some drawbacks, namely it would enable a less dense growth pattern that could indirectly result in growth being directed or diverted to other areas in the City or within the City's SOI that are not as suitably prepared for development to occur. It could also have indirect consequences of increasing vehicle miles traveled and associated air pollutant and greenhouse gas emissions due to its less dense nature. Alternative 6 would result in less adverse impacts on air quality, noise, greenhouse gas emissions, geology, soils, seismicity, public services, and traffic relative to the Original and/or Modified ESP, as Alternative 6 would include the construction of 54 percent fewer residential units than either the Original or Modified ESP. Moreover, Alternative 6 is not anticipated to entirely eliminate the significant and unavoidable impacts associated with the Original and/or Modified ESPs, and it would create similar impacts in areas of land use and planning, agricultural resources, and hazards and hazardous materials.

The Original or Modified ESP would achieve each of the Project Objectives while creating similar or decreased impacts as compared to all of the Project Alternatives considered herein, with the exception of Alternative 1, assuming no development occurs under existing zoning.

1.9 SUMMARY TABLE

Table 1-1 (Original Ellis EIR Summary of Impacts and Mitigation) and Table 1-2 (Revised Ellis EIR Summary of Impacts and Mitigation) provide a summary of the potentially significant impacts identified in the Original Ellis EIR and the Revised Draft EIR for the Modified Project, proposed mitigation measures, and the level of significance after mitigation. It should be noted that the Original Ellis EIR referred to the Ellis Specific Plan (ESP) as the "proposed ESP" and this Revised Draft EIR refers to the currently proposed ESP as the "Modified ESP," but all other aspects remain the same. The impacts that were previously identified in the Original ESP EIR that remain valid are incorporated herein and are identified in Table 1-1. Refer to Chapter 2 (Introduction) for a summary of key aspects of the Original Ellis EIR. As described in Chapter 2 (Introduction), the Original Ellis EIR is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376.

TABLE 1-1 ORIGINAL ELLIS EIR SUMMARY OF IMPACTS AND MITIGATION

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Population and Housing | | |
| Impact 3B.2-1: Implementation of the proposed ESP would directly induce substantial population growth in the planning area. | Mitigation Measure 3B.2-1: No mitigation is necessary. | Less Than Significant Impact. |
| Impact 3B.2-2: Implementation of the proposed ESP would indirectly induce substantial population growth. | Mitigation Measure 3B.2-2: No mitigation is necessary. | Less Than Significant Impact. |
| Impact 3B.2-3: Implementation of the proposed ESP would displace substantial numbers of existing housing. | Mitigation Measure 3B.2-3: No mitigation is necessary. | Less Than Significant Impact. |
| Aesthetics | | |
| Impact 3B.6-1: The ESP would create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area. | Mitigation Measure 3B.6-1: ESP design features shall be incorporated by the Project Applicant and future Project Applicants to reduce visibility of the ESP caused by light and glare. | Significant and Unavoidable Impact. |
| Impact 3B.6-2: Implementation of the ESP could substantially degrade the existing visual character or quality of the site and its surroundings. | Mitigation Measure 3B.6-2: With submittal of a tentative tract map application, the Project Applicant shall show the temporary construction equipment staging areas within the ESP site through the duration of construction. These areas shall be clustered in order to minimize visual impacts during construction. | Significant and Unavoidable Impact. |
| Impact 3B.6-3: The ESP could cause a substantial adverse effect on a scenic vista. | Mitigation Measure 3B.6-3: No mitigation is feasible. | Significant and Unavoidable Impact. |
| Impact 3B.6-4: The ESP could substantially damage scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic buildings within a state scenic highway. | Mitigation Measure 3B.6-4: No mitigation is feasible. | Significant and Unavoidable Impact. |

TABLE 1 - 1 ORIGINAL ELLIS EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Agricultural Resources | | |
| Impact 3B.7-1: The proposed ESP would conflict with existing zoning for agricultural use or a Williamson Act Contract. | Mitigation Measure 3B.7-1: No mitigation is necessary. | Less Than Significant Impact. |
| Impact 3B.7-2: <i>Indirect Impacts to Important Farmland:</i> The proposed ESP would involve other changes to the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. | Mitigation Measure 3B.7-2: As construction occurs along the northern Ellis boundary, fencing consistent with the ESP shall be required prior to occupancy of those structures. | Less Than Significant Impact. |
| Impact 3B.7-3: <i>Direct Impacts to Important Farmland:</i> The proposed ESP would convert Prime Farmland to non-agricultural uses. | Mitigation Measure 3B.7-3: Prior to issuance of building permits, future Project Applicants shall pay the appropriate Agricultural Mitigation Fee to the City of Tracy, in accordance with Chapter 13.28. | Significant and Unavoidable Impact. |
| Public Utilities | | |
| Impact 3B.8-2: Implementation of the proposed ESP may require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. | Mitigation Measure 3B.8-2: No mitigation is necessary. | Less Than Significant Impact. |
| Impact 3B.8-3: Development of the ESP would result in an increase in demand necessitating the expansion of utility services. | Mitigation Measure 3B.8-3: The Project Applicant shall coordinate with PG&E regarding the proper extension of electrical and natural gas services to the ESP site. This shall include the development of detailed plans for utility placement and the ESP's participation in energy conservation programs provided by PG&E. Utility placement shall not conflict with other planned infrastructure improvements such as water distribution systems and ESP site drainage facilities. Evidence of this coordination with PG&E shall be provided to the City's Department of Development and Engineering Services for review and approval prior to the issuance of grading permits. | Less Than Significant Impact. |

TABLE 1 -1 ORIGINAL ELLIS EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Public Services | | |
| <p>Impact 3B.9-1: The ESP would result in substantial adverse physical impacts associated with the provisions of new or physically altered government facilities, and/or the 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 school services.</p> | <p>Mitigation Measure 3B.9-1: No mitigation is necessary.</p> | <p>Less Than Significant Impact.</p> |
| <p>Impact 3B.9-2: The ESP would 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.</p> | <p>Mitigation Measure 3B.9-2: No mitigation is necessary.</p> | <p>Less Than Significant Impact.</p> |
| <p>Impact 3B.9-3: The ESP would include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.</p> | <p>Mitigation Measure 3B.9-3: No mitigation is necessary.</p> | <p>Less Than Significant Impact.</p> |
| <p>Impact 3B.9-4: The ESP would result in substantial adverse physical impacts associated with the provisions of new or physically altered government facilities, and/or the 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 police protection services.</p> | <p>Mitigation Measure 3B.9-4: The Project Applicant of individual projects within the ESP site shall consult with the Police Department during preliminary stages of site design to review safety features, determine their adequacy, and suggest design and/or physical improvements to the proposed site plan and/or to police facilities and equipment to ensure adequate service is maintained. This is achieved through the City's development review process, which currently is coordinated with various City Departments' review of new development proposals.</p> | <p>Less Than Significant Impact.</p> |

TABLE 1 - 1 ORIGINAL ELLIS EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <p>Impact 3B.9-5: The ESP would result in substantial adverse physical impacts associated with the provisions of new or physically altered government facilities, and/or the need for new or physically altered governmental facilities beyond the Aquatic Center, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.</p> | <p>Mitigation Measure 3B.9-5a: The Project Applicant shall work with the City and the South County Fire Authority to help identify a possible location for a future fire station to serve the ESP site and surrounding areas, per Recommendation Number 32 of the South County Fire Authority Standards of Response Coverage Review.</p> <p>Mitigation Measure 3B.9-5b: Prior to the issuance of Building Permits beyond the Aquatic Center, the Project Applicant shall work with the City and the South County Fire Authority to establish adequate emergency response services to the ESP site through either the construction of a new fire sub-station, and EMT sub-station, temporarily stationed emergency response personnel, or other means as reviewed and approved by the South County Fire Authority. The Project FIP shall include a Public Buildings Mitigation Fee and shall pay appropriate assessments to the Tracy Rural Fire District. The Project Applicant shall be entitled to reimbursement for any costs beyond the Project's fair share.</p> | <p>Less Than Significant Impact.</p> |
| Hydrology, Drainage, and Water Quality | | |
| <p>Impact 3B.10-1: Implementation of the proposed ESP would 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.</p> | <p>Mitigation Measure 3B.10-1: No mitigation is necessary.</p> | <p>No Impact.</p> |
| <p>Impact 3B.10-3: Implementation of the proposed ESP would result in violations to water quality standards or waste discharge requirements.</p> | <p>Mitigation Measure 3B.10-3a: Prior to approval of Final Subdivision Maps, the Project Applicant shall provide a detailed hydrology report that specifies the expected stormwater volumes, projected peak storage capacity of temporary basins, and percolation characteristics of soil. The hydrology report shall demonstrate that adequate stormwater conveyance and capacity is available in either the region, onsite or offsite basins, depending on the chosen option. The hydrology report would be subject to review and approval by the City Engineer.</p> <p>Mitigation Measure 3B.10-3b: Prior to issuance of a grading or building permit, whichever occurs first, and following the preparation of ESP site grading plan, the Project Applicant shall demonstrate to the City of Tracy compliance with NPDES General Construction Activities Storm Water Permit Requirements established by the Clean Water Act (CWA), including the preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall identify specific types and sources of stormwater pollutants,</p> | <p>Less Than Significant Impact.</p> |

TABLE 1 -1 ORIGINAL ELLIS EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| | <p>determine the location and nature of potential impacts, and specify appropriate control measures to eliminate any potentially significant impacts on receiving water quality from stormwater runoff. The SWPPP shall comply with the most current standards established by the Central Valley RWQCB. Best Management Practices shall be selected from a menu according to site requirements and shall be subject to approval by the City Engineer and Central Valley RWQCB.</p> <p>Mitigation Measure 3B.10-3c: Prior to issuance of a grading or building permit, whichever occurs first, and following the preparation of the ESP site grading plan, the Project Applicant shall submit to the City Engineer for review a draft copy of the Notice of Intent (NOI) and SWPPP. After approval by the City, the NOI and SWPPP shall be sent to the State Water Resources Control Board for approval.</p> <p>Mitigation Measure 3B.10-3d: After Project completion, the Project Applicant or successor shall properly maintain parking lots and other common paved areas, by sweeping or other appropriate means, to prevent the majority of litter from washing into storm drains.</p> | |
| <p>Impact 3B.10-4: Implementation of the proposed ESP would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or offsite.</p> | <p>Mitigation Measure 3B.10-4: Refer to Mitigation Measure 3B.10-3b through 3d.</p> | <p>Less Than Significant Impact.</p> |
| <p>Impact 3B.10-5: Implementation of the proposed ESP would 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 offsite.</p> | <p>Mitigation Measure 3B.10-5: Refer to Mitigation Measure 3.10-1a through 3.10-1d.</p> | <p>Less Than Significant Impact.</p> |

TABLE 1 -1 ORIGINAL ELLIS EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Impact 3B.10-7: Implementation of the proposed ESP would otherwise substantially degrade water quality. | Mitigation Measure 3B.10-7: Refer to Mitigation Measure 3B.10-1a through 3B.10-1c. | Less Than Significant Impact. |
| Geology and Soils Hazards | | |
| Impact 3B.12-1: The Proposed ESP would expose people or structures to potential substantial adverse effects involving strong seismic ground shaking or seismic related ground failure. | Mitigation Measure 3B.12-1: No mitigation is necessary. | Less Than Significant Impact. |
| Impact 3B.12-2: The Proposed ESP would result in substantial soil erosion or the loss of topsoil. | Mitigation Measure 3B.12-2: No mitigation is necessary. | Less Than Significant Impact. |
| Impact 3B.12-3: The Proposed ESP would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the ESP, and potentially result in liquefaction. | Mitigation Measure 3B.12-3: No mitigation is necessary. | Less Than Significant Impact. |
| Impact 3B.12-4: The Proposed ESP would be located on expansive soil creating substantial risks to life or property. | Mitigation Measure 3B.12-4: During excavation activities and prior to the placement of fill on the site, a certified geotechnical engineer shall be retained by the Project Applicant/future Project Applicants to evaluate subgrade soils for the extent of their expansive potential. For areas found to contain soft, potentially expansive clays, the soil shall be removed (i.e., over excavated) and/or stabilized prior to the placement and compaction of fill. Stabilization techniques include, but are not limited to, the placement of 18 inches of ½-inch to ¾-inch crushed rock over stabilization fabric (such as Mirafi 500X or equivalent), placement of larger, angular stabilization rock (1-inch to 3-inch, clean) and use of chemical treatments such as lime to reduce the soil's expansive potential. In addition, building construction alternatives, such as the use of alternative foundation types (i.e., post-tension, piles, etc.) versus end-bearing foundations, shall be considered and implemented where appropriate. Final techniques shall be (a) developed by a certified geotechnical engineer or engineering geologist and (b) reviewed and approved by the City prior to issuance of a grading permit. | Less Than Significant Impact. |

TABLE 1 -2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Air Quality | | |
| <p>Impact 4.3-1: Implementation of the Modified ESP would result in temporary construction-related dust and vehicle emissions within the ESP site.</p> | <p>Mitigation Measure 4.3-1a: Prior to the issuance of grading permits, the Applicant shall submit a construction emission plan to demonstrate to the City of Tracy how construction activities shall comply with the following emissions control measures:</p> <ul style="list-style-type: none"> ◆ 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 ESP 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 NOx emissions. ◆ On-Road and Off-Road diesel equipment shall use aqueous diesel fuel if permitted under manufacturer’s guidelines. ◆ On-Road and Off-Road diesel equipment shall use diesel particulate filters if permitted under manufacturer’s guidelines. ◆ On-Road and Off-Road diesel equipment shall use cooled exhaust gas recirculation (EGR) if permitted under manufacturer’s guidelines. ◆ Use of Caterpillar pre-chamber diesel engines or equivalent shall be utilized if economic and available to reduce NOx emissions. ◆ All construction activities within the ESP 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 the ozone level exceeds 0.20 ppm (1-hour average). | <p>Less Than Significant Impact.</p> |

TABLE 1-2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| | <p>Mitigation Measure 4.3-1b: The Modified Ellis Specific Plan requires the implementation of control measures set forth under Regulation VIII of the San Joaquin Valley Air Pollution Control District (SJVAPCD) Fugitive PM₁₀ Prohibition. The following mitigation measures, in addition to those required under Regulation VIII of the SJVAPCD, shall be implemented by the Project Applicant/future subsequent project applicants to reduce fugitive dust emissions:</p> <ul style="list-style-type: none"> ◆ 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 on-site and off-site 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 off-site, 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. | |

TABLE 1 -2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| | <ul style="list-style-type: none"> ◆ Remove visible track-out from the site at the end of each workday. ◆ Cease grading activities during periods of high winds (greater than 20 mph over a one-hour period). ◆ Asphalt-concrete paving shall comply with SJVUAPCD Rule 4641 and restrict use of cutback, slow-cure, and emulsified asphalt paving materials. ◆ Grading should be conducted in phases. ◆ ESP site shall not be cleared of existing vegetation cover until required by construction. <p>The Project Applicant shall revegetate graded areas as soon as it is feasible after construction is completed.</p> | |
| <p>Impact 4.3-2: The Modified ESP would result in an overall increase in the local and regional pollutant load due to direct impacts from vehicle emissions and indirect impacts from area sources and electricity consumption.</p> | <p>Mitigation Measure 4.3-2a: The Modified ESP would meet the LEED for Neighborhood Development (LEED-ND) “Certified” rating criteria, as published for the LEED ND Pilot Program in Fall 2007. All residential development at Ellis will meet the National Association of Home Builders (NAHB) model Green Home Building Guidelines “Bronze” level of Green Building. Project applicants shall provide documentation demonstrating compliance with these NAHB guidelines for City review and approval prior to Building Permit approval. To the extent feasible, as a part of construction and building management contracts, the following additional measures shall be included:</p> <ul style="list-style-type: none"> ◆ Site houses to optimize the use of daylight and to allow for the use of passive solar devices; ◆ A list of appliances will be submitted to the City that identifies that each appliance used as part of the Modified Project is Energy Star qualified if an Energy Star designation is applicable for that appliance; ◆ Low flow appliances (i.e., toilets, dishwashers, shower heads, washing machines) shall be installed if provided by the builder/applicant; ◆ House tightening measures (such as sealing plumbing and electrical openings) shall be used to reduce energy loss; ◆ Provide parking and power supply for electric vehicles at the Village Center and Family Swim Center; | <p>Significant and Unavoidable Impact.</p> |

TABLE 1 -2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| | <ul style="list-style-type: none"> ◆ Use low VOC paint, adhesives, and caulking; and ◆ Provide homeowners and renters a manual that explains proper equipment operation and maintenance procedures, methods to reduce energy and water usage and wastewater generation, and alternatives to toxic cleaning substances. <p>Mitigation Measure 4.3-2b: Prior to issuance of building permits, the Building Division shall verify that the Modified Project complies with SJVAPCD Rule 9510, Indirect Source Review (ISR). The Project Applicant shall coordinate with the SJVAPCD to ensure that the Modified Project meets the requirements of SJVAPCD Rule 9510, which requires the following reductions:</p> <ul style="list-style-type: none"> ◆ 20 percent of construction-exhaust NO_x ◆ 45 percent of construction-exhaust PM₁₀ ◆ 33 percent of operational NO_x over 10 years ◆ 50 percent of operational PM₁₀ over 10 years <p>If feasible measures are not available to meet the emissions reductions targets outlined above, then the Project Applicant shall pay an in lieu mitigation fee to the SJVAPCD to off-set the Modified Project's emissions-related impacts. If in lieu fees are required, the Project Applicant shall coordinate with the SJVAPCD to calculate the amount of the fees required to off-set the Modified Project's impacts.</p> | |
| <p>Impact 4.3-3: Due to the Modified ESP's exceedances of SJVAPCD's air quality standards, future development projects would not be consistent with the most recent Air Quality Management Plan.</p> | <p>No mitigation is feasible.</p> | <p>Significant and Unavoidable Impact.</p> |
| <p>Impact 4.3-4: Implementation of the Modified Project could impact regional air quality levels on a cumulatively considerable basis.</p> | <p>Implement Mitigation Measures 4.3-2a and 4.3-2b.</p> | <p>Significant and Unavoidable Impact.</p> |

TABLE 1 -2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Biological Resources | | |
| <p>Impact 4.4-1: Implementation of the Modified Project would result in a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special status species or sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.</p> | <p>Mitigation Measure 4.4-1a: Prior to the approval of grading permits or any ground-disturbing activity, preconstruction surveys, as described in Section 5.2.2.5 of the SJMSCP shall be conducted to determine if Burrowing Owls occupy the Modified ESP area. If Burrowing Owls are observed during those surveys, the following measures described in Section 5.5.9(D) of the SJMSCP shall be implemented:</p> <ul style="list-style-type: none"> ◆ Establish a setback of at least 250 feet from each owl burrow occupied within the past five years. ◆ Preserve 6.5 acres of foraging habitat per burrowing owl pair, contiguous to the owl population. Configurations of foraging habitat in relation to owl burrows requires review and approval by the JPA with the concurrence of the permitting agencies' representatives on the TAC. ◆ Construction and other ground disturbances shall be prohibited within established setbacks and foraging habitat. Natural vegetation shall be maintained within the setback. The use of insecticides, herbicides, and fertilizers shall be not permitted within established setbacks. ◆ All on-site construction personnel shall be given instruction regarding the presence of listed species and the importance of avoiding impacts to these species and their habitats. ◆ Setbacks shall be marked by brightly colored fencing or flagging throughout the construction process. Setbacks shall be indicated on recorded maps, whenever projects involve parcel or subdivision maps. ◆ All setbacks and foraging habitat shall be preserved in perpetuity via recordation of a conservation easement. <p>Mitigation Measure 4.4-1b: Burrowing Owls may be discouraged from entering or occupying the Modified ESP area prior to construction by discouraging the presence of ground squirrels in accordance with Section 5.2.4.15(A) of the SJMSCP (Appendix D). If Burrowing Owls are known to occupy areas of the Modified ESP area prior to construction, then Sections 5.2.4.15(C) and (D) of the SJMSCP (Appendix D) shall be implemented. This measure may be refined throughout the life of the SJMSCP, pursuant to the SJMSCP's Adaptive Management Plan or to reflect improvements and new discoveries in methods of incidental take minimization or other biological factors.</p> | <p>Less than Significant Impact.</p> |

TABLE 1-2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| | <p>Mitigation Measure 4.4-1c: Prior to the approval of grading permits or any ground-disturbing activity, preconstruction surveys shall be conducted by a qualified biologist to determine if Northern Harrier, Horned Lark, Loggerhead Shrike, Sharp-Shinned Hawk, Cooper's Hawk, White-tailed Kite, or Ferruginous Hawk occupy the Modified ESP area. If any individuals of these species are observed breeding within the Modified ESP area prior to construction, the incidental take minimization measures described in Sections 5.2.4.17, 18, 19, and 22 of the SJMSCP (Appendix D) shall be applied.</p> <p>Mitigation Measure 4.4-1d: Prior to the approval of grading permits or any ground-disturbing activity and in accordance with the SJMSCP, preconstruction surveys shall be conducted for the San Joaquin kit fox as described in Section 5.2.4.25 of the SJMSCP (Appendix D). If surveys identify potential dens as defined by the USFWS's Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (Appendix E), potential den entrances shall be dusted for three calendar days to register tracks of San Joaquin kit foxes that are present.</p> <p>Mitigation Measure 4.4-1e: Prior to the approval of grading permits or any ground disturbing activities, the Project Applicant shall preserve or provide compensation of preserve land at a ratio of one acre for every acre of ruderal and non-orchard agricultural habitat converted from open space use, totaling 262.41 acres.</p> | |
| <p>Impact 4.4-2: Implementation of the Modified Project would 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.</p> | <p>Implement Mitigation Measures 4.4-1a to 4.4-1c.</p> | <p>Less than Significant Impact.</p> |
| <p>Impact 4.2-3: The Modified Project would not 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.</p> | <p>No mitigation measure is required.</p> | <p>Less than Significant Impact.</p> |

TABLE 1 -2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| <p>Impact 4.2-4: The Modified Project may conflict with applicable habitat conservation plans or natural conservation plans.</p> | <p>No mitigation measure is required.</p> | <p>Less than Significant Impact.</p> |
| <p>Impact 4.2-5: Future development facilitated by the Modified Project could have a cumulatively considerable contribution to the loss of vegetation and wildlife resources.</p> | <p>Implement Mitigation Measures 4.2-1a through 4.2-1e.</p> | <p>Less than Significant Impact.</p> |
| Greenhouse Gas Emissions | | |
| <p>Impact 4.6-1: Implementation of the Modified ESP would generate significant greenhouse gas emissions.</p> | <p>Mitigation Measure 4.6-1a: The Modified Project shall include, but not be limited to, the following list of potential design features. These features may be incorporated into the design of the Modified Project to ensure consistency with adopted statewide plans and programs. The Project Applicant shall demonstrate the incorporation of design features of the Modified Project prior to the issuance of building or occupancy permits, as noted below.</p> <p>Transportation</p> <ul style="list-style-type: none"> ◆ Provide pedestrian connections to the off-site circulation network (building permit). ◆ Implement a trip reduction program, for which all employees shall be eligible to participate (occupancy permit). ◆ Provide a ride sharing program, for which all employees shall be eligible to participate (occupancy permit). ◆ Provide amenities for non-motorized transportation (i.e., secure bicycle storage, changing rooms, and showers) (building permit). <p>Energy Efficiency</p> <ul style="list-style-type: none"> ◆ Design buildings to be energy efficient, 28 percent above Title 24 requirements (building permit). ◆ Install “cool” roofs and cool pavements, and strategically placed trees (building permit). | <p>Significant and Unavoidable Impact.</p> |

TABLE 1-2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| | <ul style="list-style-type: none"> ◆ Install high efficiency lighting, and energy efficient heating and cooling systems (building permit). ◆ Reduce unnecessary outdoor lighting (building permit). <p>Water Conservation and Efficiency</p> <ul style="list-style-type: none"> ◆ Install water-efficient irrigation systems (building permit). ◆ Comply with Municipal Code Section 21.20.050, Efficient Landscape Standards (building permit). ◆ Install water-efficient fixtures (e.g., faucets, toilets, showers) (building permit). <p>Solid Waste</p> <ul style="list-style-type: none"> ◆ Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard) (building permit). ◆ Provide interior and exterior storage areas for recyclables and adequate recycling containers located in public areas (occupancy permit). | |
| <p>Impact 4.6-2: The Modified ESP would not result in a conflict with an applicable greenhouse gas reduction plan, policy, or regulation.</p> | <p>Refer to Mitigation Measure 4.6-1a.</p> | <p>Less Than Significant Impact.</p> |
| <p>Impact 4.6-3: Future development facilitated by the Modified Project and other related cumulative projects could have a cumulatively considerable contribution to greenhouse gas emissions.</p> | <p>Refer to Mitigation Measure 4.6-1a.</p> | <p>Significant and Unavoidable Impact.</p> |
| Hazards and Hazardous Materials | | |
| <p>Impact 4.7-1: Implementation of the Modified ESP may create a significant hazard to the public or the environment through reasonably foreseeable upset and accidental conditions involving the release of hazardous materials into the environment.</p> | <p>Mitigation Measure 4.7-1a: Prior to issuance of grading permits, soil sampling shall occur within the portions of the Modified ESP area that have historically been utilized for agricultural purposes and may contain pesticide residues in the soil, as determined by a qualified Phase II/Site Characterization specialist. The sampling, conducted in consultation with the San Joaquin County Environmental Health Department (EHD), shall determine if pesticide concentrations exceed established regulatory requirements and shall identify further site characterization and remedial activities, if necessary. Should</p> | <p>Less than Significant Impact.</p> |

TABLE 1-2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| | <p>further site characterization/remedial activities be required, these activities shall be conducted per the applicable regulatory agency requirements, as directed by the EHD.</p> <p>Mitigation Measure 4.7-1b: A qualified Site Characterization specialist shall conduct updated site characterization at the Modified ESP area prior to issuance of building permits, in consultation with Shell Oil and the San Joaquin Environmental Health Department (EHD), with regard to Shell Oil’s abandoned crude oil pipeline. Upon completion of site characterization activities, the Site Characterization specialist shall recommend remedial activities, if necessary, in consultation with EHD.</p> <p>Mitigation Measure 4.7-1c: A qualified Site Characterization specialist shall conduct updated site characterization at the Modified ESP area prior to issuance of building permits, in consultation with PG&E, Chevron, and the San Joaquin Environmental Health Department (EHD), with regard to potential contaminated soils from pipeline leaks. Upon completion of site characterization activities, the Site Characterization specialist shall recommend remedial activities, if necessary, in consultation with EHD.</p> | |
| <p>Impact 4.7-2: Implementation of the Modified ESP would facilitate the development of a variety of land uses near two PG&E natural gas pipelines and one Chevron active crude oil pipeline.</p> | <p>Mitigation Measure 4.7-2: Prior to issuance of grading permits, the Project Applicant shall work with PG&E and Chevron to implement and observe a site damage-prevention plan. This may potentially include the following:</p> <ul style="list-style-type: none"> ◆ designing a site development plan incorporating permanent land use over the pipeline right-of-way that minimizes the potential for damage to the lines (as discussed above, this is already an integrated plan design feature, but is listed here because it is an important component of a damage prevention plan); ◆ prominently marking the line locations prior to site development, maintaining markings throughout the development process, and final marking after work is complete; ◆ communicate plans for significant excavation or land contouring work; ◆ identify changes in land contour that could significantly reduce the soil cover over the pipelines; ◆ evaluate the effects of heavy construction vehicles crossing the lines, designate areas for heavy construction vehicles to cross the lines, and provide temporary fill or other temporary protection over the lines where necessary; | <p>Less than Significant Impact.</p> |

TABLE 1 -2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| | <ul style="list-style-type: none"> ◆ minimize installations of new buried utilities and services across the existing pipelines; ◆ evaluate whether the existing lines should be lowered to increase vertical separation between the pipelines and new surface features; and ◆ develop other damage-prevention measures as may be necessary. <p>In addition to the damage prevention measures listed above, the Project Applicant and the pipeline operators should consider other measures for reducing risk suggested in the Pipelines and Informed Planning Alliance (PIPA) recommended practices on informed land use. Many of PIPA's recommendations appear to already have been accounted for in site plans, but additional details for consideration (if they have not been considered already) include:</p> <ul style="list-style-type: none"> ◆ select landscaping vegetation to avoid root structures that damage pipeline coatings, ◆ avoid planting trees that prevent direct observation of the pipelines by aerial patrol, ◆ manage storm runoff to prevent erosion of pipeline bedding, ◆ consider accessibility to pipeline personnel and first responders in the event of an emergency, ◆ incorporate escape routes from areas within the Potential Impact Radius (PIR). | |
| <p>Impact 4.7-3: Future development facilitated by the Modified Project and other related cumulative projects could have a cumulatively considerable contribution to hazard impacts.</p> | <p>Refer to Mitigation Measures 4.7-1a through 4.7-1c and 4.7-2.</p> | <p>Less than Significant Impact.</p> |
| Land Use and Planning | | |
| <p>Impact 4.9-1: The Modified ESP would result in no conflicts with the City's 2011 General Plan land use strategy, goals, or policies.</p> | <p>No mitigation is required.</p> | <p>No Impact.</p> |
| <p>Impact 4.9-2: Implementation of the Modified ESP would result in the placement of people and structures within the flight approach to Tracy Municipal Airport.</p> | <p>No mitigation is required.</p> | <p>Less than Significant Impact.</p> |

TABLE 1 -2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Impact 4.9-3: Implementation of the Modified ESP would result in agricultural land conversion. | Mitigation Measure 4.9-3: Prior to issuance of building permits, future project applicants shall pay the appropriate Agricultural Mitigation Fee to the City of Tracy, in accordance with Chapter 13.28 of the Tracy Municipal Code. | Significant and Unavoidable Impact. |
| Impact 4.9-4: Future development of the ESP area facilitated by the Modified ESP could result in potential land use conflicts. | Refer to Mitigation Measure 4.9-3. | Significant and Unavoidable Impact. |
| Noise | | |
| Impact 4.10-1: Implementation of the Modified ESP would result in an increase in ambient noise levels due to operational noise impacts. | <p>Mitigation Measure 4.10-1a: Prior to issuance of a Building Permit, the Project Applicant/future applicants shall demonstrate, to the satisfaction of the City of Tracy, that stationary noise sources are placed such that noise levels would not exceed the standards indicated in Tracy Municipal Code Section 4.12.750 (General Sound Level Limits).</p> <p>Mitigation Measure 4.10-1b: Prior to issuance of any Building Permit, the Project Applicant/future applicants shall demonstrate, to the satisfaction of the City of Tracy, compliance with the following:</p> <ul style="list-style-type: none"> ◆ To the extent possible, all mechanical equipment shall be oriented away from the nearest noise sensitive receptors; and ◆ All mechanical equipment shall be screened and enclosed to minimize noise. <p>Mitigation Measure 4.10-1c: Where an institutional or commercial zone abuts a residential zone or residential use, all deliveries of goods and supplies, trash pick-up (including the use of parking lot trash sweepers), and the operation of machinery or mechanical equipment which emits noise levels in excess of 65 dBA, as measured from the closest property line to the equipment, shall only be allowed between the hours of 7:00 AM and 10:00 PM, unless otherwise specified in an approved conditional use permit or other discretionary approval.</p> <p>Mitigation Measure 4.10-1d: Directional speakers shall be shielded and/or oriented away from off-site residences to the satisfaction of the City of Tracy.</p> <p>Mitigation Measure 4.10-1e: All feasible sound attenuation shall be incorporated into the parking areas (i.e., landscaping and brushed driving surfaces), such that parking lot</p> | Significant and Unavoidable Impact for Railroad Noise. |

TABLE 1-2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| | <p>noise would not exceed the standards indicated in Tracy Municipal Code Section 4.12.750 (General Sound Level Limits).</p> <p>Mitigation Measure 4.10-1f: Prior to the issuance of Grading Permits, any development along the following segments of Corral Hollow Road and Lammers Road that falls within the 65 and 70 dBA traffic noise contours shall be designed in compliance with the Uniform Building Code (UBC), and an Acoustical Noise Analysis shall be prepared to ensure that the City of Tracy’s exterior and interior noise level standards defined in General Plan Figure 9-3, Land Use Compatibility for Community Noise Environment, are met at all residential, commercial, and recreational land uses:</p> <ul style="list-style-type: none"> ◆ Corral Hollow Road <ul style="list-style-type: none"> - North of I-580 Eastbound Ramps - North of I-580 Westbound Ramps - South of Linne Road - North of Linne Road - South of Valpico Road - South of Valpico Road - North of Grant Line Road ◆ Lammers Road <ul style="list-style-type: none"> - South of Schulte Road - North of Schulte Road ◆ Linne Road <ul style="list-style-type: none"> - East of Corral Hollow ◆ Grant Line Road <ul style="list-style-type: none"> - East of Byron Road ◆ Byron Road <ul style="list-style-type: none"> - South of Grant Line Road <p>Residential buildings or structures shall be designed to ensure interior noise levels do not exceed 45 dBA. In addition, individual developments shall, to the extent feasible, implement site-planning techniques such as the following:</p> <ul style="list-style-type: none"> ◆ Increasing the distance between the noise source and the receiver; ◆ Using non-noise sensitive structures such as garages to shield noise-sensitive areas; | |

TABLE 1 -2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
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| | <ul style="list-style-type: none"> ◆ Orienting buildings to shield outdoor spaces from a noise source; ◆ Incorporating architectural design strategies, which reduce the exposure of noise-sensitive spaces to stationary noise sources (i.e., placing bedrooms or balconies on the side of the house facing away from noise sources). These design strategies shall be implemented as required by the City to comply with City noise standards; ◆ Incorporating noise barriers, walls, or other sound attenuation techniques, as required by the City to comply with City noise standards; and ◆ Modifying elements of building construction (i.e., walls, roof, ceiling, windows, and other penetrations) as necessary to provide sound attenuation. This may include sealing windows, installing thicker or double-glazed windows, locating doors on the opposite side of a building from the noise source, or installing solid-core doors equipped with appropriate acoustical gaskets. <p>Mitigation Measure 4.10-1g: Prior to the issuance of Grading Permits, any residential development located within 260 feet of the Union Pacific railroad corridor shall have a Focused Acoustical Analysis prepared to fully analyze acoustical impacts and develop measures, if required, to ensure that the City’s exterior standards of 70 dBA for residential areas, 50 dBA for interior bedrooms, and 55 dBA for other interior rooms would be achieved for the proposed land uses that are subject to noise from train pass-bys.</p> <p>Mitigation Measure 4.10-1h: Prior to the issuance of Building Permits, the Project Applicant/future project applicants shall demonstrate, to the satisfaction of the City of Tracy, that any residential development located within the future 60 to 65 dBA CNEL noise contour area for the Tracy Municipal Airport (as depicted in Exhibit 2TM-3 of the ALUCP) shall adhere to the noise compatibility criteria in ALUCP Table 3B. Specifically, any residential uses within the future 60 to 65 dBA CNEL noise contour area shall:</p> <ul style="list-style-type: none"> ◆ Incorporate sound insulation to reduce exterior to interior noise levels by at least 25 dBA ; ◆ Require an avigation easement as a condition of development approval or building permit issuance; and ◆ Require a fair disclosure statement as a condition of development approval or building permit issuance. | |

TABLE 1 -2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| <p>Impact 4.10-2: Grading and construction within the area would result in temporary noise and/or vibration impacts to nearby noise-sensitive receivers.</p> | <p>Mitigation Measure 4.10-2: Prior to the issuance of Grading Permits and to the satisfaction of the City of Tracy, the Project Applicant/future project applicants shall be required to implement feasible noise control measures to reduce daytime construction noise levels to meet the daytime speech interference criterion of 70 dBA for projects located within 500 feet of any noise-sensitive receptors (e.g., residences, schools, childcare centers, churches, hospitals, and nursing homes). Such control measures could include any of the following, as appropriate:</p> <ul style="list-style-type: none"> ◆ Best available noise control techniques (including mufflers, intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) shall be used for all equipment and trucks in order to minimize construction noise impacts; ◆ If impact equipment (e.g., jack hammers, pavement breakers, and rock drills) is used during ESP construction, hydraulically or electric-powered equipment shall be used wherever feasible to avoid the noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used (a muffler can lower noise levels from the exhaust by up to about 10 dBA); ◆ Operation of equipment requiring use of back-up beepers shall be avoided near sensitive receptors to the extent feasible during nighttime hours (10:00 PM to 7:00 AM); ◆ Stationary noise sources shall be located as far from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to ensure local noise ordinance limits are met to the extent feasible. Enclosure opening or venting shall face away from sensitive receptors. If any stationary equipment (e.g., ventilation fans, generators, dewatering pumps) is operated beyond the time limits specified by the pertinent noise ordinance, this equipment shall conform to the affected jurisdiction's pertinent day and night noise limits to the extent feasible; ◆ Material stockpiles as well as maintenance/equipment staging and parking areas shall be located as far as feasible from residential and school receptors; and ◆ A designated Project liaison shall be responsible for responding to noise complaints during the construction phases. The name and phone number of the liaison shall be conspicuously posted at construction areas and on all advanced notifications. This person shall take steps to resolve complaints, including periodic noise monitoring, if | <p>Significant and Unavoidable Impact.</p> |

TABLE 1-2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| | necessary. Results of noise monitoring shall be presented at regular Project meetings with the Project contractor, and the liaison shall coordinate with the contractor to modify any construction activities that generated excessive noise levels to the extent feasible. | |
| Impact 4.10-3: Traffic generated by the Modified ESP could result in significant impacts related to existing traffic noise in the planning area. | Refer to Mitigation Measure 4.10-1f. | Significant and Unavoidable Impact. |
| Impact 4.10-4: Future development facilitated by the Modified ESP and other related cumulative projects could result in cumulatively considerable noise impacts. | Refer to Mitigation Measure 4.10-1f. | Significant and Unavoidable Impact. |
| Traffic and Circulation | | |
| Impact 4.13-1: Implementation of the Modified ESP would result in potential impacts to transit. | No mitigation is required. | Less Than Significant Impact. |
| Impact 4.13-2: Implementation of the Modified ESP would result in an impact to bicycle and pedestrian modes. | No mitigation is required. | Less Than Significant Impact. |
| Impact 4.13-3a: Implementation of the Modified ESP would result in potential construction-related traffic impacts. | No mitigation is required. | Less Than Significant Impact. |
| Impact 4.13-3b: Implementation of the Modified ESP would substantially increase hazards due to a design feature or incompatible uses. | No mitigation is required. | Less Than Significant Impact. |
| Impact 4.13-4: Implementation of the Modified ESP would result in an impact to the CMP Roadways. | No mitigation is required. | Less Than Significant Impact. |

TABLE 1 -2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| <p>Impact 4.13-5: Development within the Modified ESP site would generate unacceptable levels of service on local intersections throughout and in the vicinity of the City of Tracy.</p> | <p>Mitigation Measure 4.13-5: Applicants of development projects within the Modified ESP shall be subject to the Modified Ellis Finance and Implementation Plan (FIP) to fund their proportionate fair share of Citywide roadway improvements to the Lammers Road/Schulte Road intersection, and Corral Hollow Road/Valpico Road intersection, and to participate in the Modified Ellis Finance and Implementation Plan (FIP) to fund their proportionate fair share of Citywide cumulative roadway improvements. The Modified Ellis FIP shall be approved by City Council prior to issuance of any building permit for the Modified ESP. The City of Tracy shall be responsible for the construction of these intersection and roadway improvements. The Project Applicant will implement the improvements at the time when the Project traffic triggers the threshold for an impact. The volume threshold at which the Project causes the impact will be determined by the City Engineer at the time of building permit application. If the improvement cost exceeds the fair share payment identified in the FIP, the Project Applicant shall fund the improvement upfront and enter into a reimbursement agreement with the City of Tracy.</p> | <p>Less than Significant Impact.</p> |
| <p>Impact 4.13-5a: Lammers Road/Schulte Road (Study Intersection #6) Development of the Modified ESP site would generate unacceptable levels of service at the intersection of Lammers Road and Schulte Road.</p> | <p>Refer to Mitigation Measure 4.13.</p> | <p>Less Than Significant Impact.</p> |
| <p>Impact 4.13-5b: Corral Hollow Road/Valpico Road (Study Intersection #8) Development of the Modified ESP site would generate unacceptable levels of service at the intersection of Corral Hollow Road and Valpico Road.</p> | <p>Refer to Mitigation Measure 4.13.</p> | <p>Less Than Significant Impact.</p> |
| <p>Impact 4.13-6: The addition of Modified ESP traffic to the regional transportation system would degrade LOS on I-580 west of I-205 to unacceptable traffic conditions during the AM and PM peak hours.</p> | <p>Mitigation Measure 4.13-6: Prior to issuance of building permits for residential units, applicants of individual projects within the Modified ESP site shall be required to pay Regional Transportation Impact Fees.</p> | <p>Significant and Unavoidable Impact.</p> |

TABLE 1 -2 MODIFIED ELLIS PROJECT EIR SUMMARY OF IMPACTS AND MITIGATION (CONTINUED)

| Environmental Impacts | Mitigation Measures | Level of Significance After Mitigation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| <p>Impact 4.13-7: The addition of Modified ESP traffic would further degrade an existing unacceptable traffic condition on Tesla Road and Patterson Pass Road.</p> | <p>Mitigation Measure 4.13-7: Prior to issuance of building permits for residential units, applicants of individual projects within the Modified ESP site shall be required to pay Regional Transportation Impact Fees.</p> | <p>Significant and Unavoidable Impact.</p> |
| <p>Water Supply and Other Public Utilities</p> | | |
| <p>Impact 4.14-1: Sufficient water supplies are available to serve the Modified Project from existing entitlements and resources. No new or expanded entitlements would be required.</p> | <p>No mitigation is required.</p> | <p>Less than Significant Impact.</p> |
| <p>Impact 4.14-2: Buildout of the Modified ESP may require modifications or expansions to the City’s existing wastewater treatment system.</p> | <p>Mitigation Measure 4.14-2: Prior to approval of any tentative map beyond 800 residential units, the Family Swim Center, and storage uses within the Modified Ellis Specific Plan area, necessary improvements, if any, beyond those identified in the Ellis Specific Plan or as part of the Ellis Finance and Implementation Plan (“FIP”), shall be determined regarding modifications or expansions to the City’s Wastewater Treatment Plant and proposed new connections (from such tentative map development) and then-existing or proposed wastewater facilities. Such improvements shall be installed prior to issuance of a building permit. Improvements shall be consistent with requirements in the Tracy Wastewater Master Plan subject to the terms of the Ellis Development Agreement and FIP in effect at the time of final map approval. The City Engineer shall verify that any necessary improvements would be available prior to occupation of those land uses for which such improvements are necessary.”</p> | <p>Less than Significant Impact.</p> |
| <p>Impact 4.14-3: Buildout of the Modified ESP may require modifications or expansions to the City’s existing storm drainage system.</p> | <p>No additional mitigation measures beyond those identified in the Original EIR are required. Implementation of Mitigation Measures 3B.10-3a through 3B.10-3d (as incorporated by reference in section 4.8, Hydrology, Drainage, and Water Quality of the Draft Revised EIR) will reduce impacts to a less than significant level.</p> | <p>Less than Significant Impact.</p> |
| <p>Impact 4.14-4: The Modified Project in conjunction with other cumulative projects would increase the demand for water and wastewater and storm drainage facilities.</p> | <p>Implement Mitigation Measure 4.14-2.</p> | <p>Less than Significant Impact.</p> |

City of Tracy Modified Ellis Project
Draft Revised EIR

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2 INTRODUCTION

2.1 PROJECT HISTORY AND OVERVIEW

In June 2004, the Surland Companies (“Project Applicant”) filed land use applications to entitle the Ellis Project. Those applications included applications for the Ellis Specific Plan, Ellis Development Agreement, General Plan Amendment, and an Annexation and Pre-Zoning of the Ellis property into the City of Tracy (the “Original Ellis Entitlements”). The City of Tracy processed the applications and commissioned the preparation of the City of Tracy/Surland Development Agreement and Ellis Specific Plan Environmental Impact Report (“Original Ellis EIR”). On December 16, 2008, the City certified the Original Ellis EIR and approved the land use applications for the Original Ellis Entitlements, approving the Ellis Development Agreement (“Original Ellis DA”) and the Ellis Specific Plan (“Original Ellis Specific Plan”). Following the approval of the Original Ellis Entitlements, the Tracy Regional Alliance for a Quality Community (TRAQC) challenged the sufficiency of the Original Ellis EIR and the Original Ellis DA in a mandamus action filed in the Superior Court, *Tracy Regional Alliance for a Quality Community v. City of Tracy, et al.*, San Joaquin County Superior Court Case No. 39-2009-00201854-CU-WM-STK.

On October 31, 2011, the trial court issued its Statement of Decision and Judgment, ordering that the certification of the Original Ellis EIR and the Original Ellis DA be set aside for legal infirmities. Because the trial court concluded that the City did not certify an adequate EIR, the Original Ellis Entitlements were ordered to be set aside.

The Project Applicant and the City subsequently appealed the judgment of the Superior Court to the District Court of Appeal. The result of the appeal is that the judgment of the Superior Court, overturning the Original Ellis EIR and the Ellis Entitlements, is stayed, pending the outcome of the appeal. It is anticipated that the appeal process could take two years or more.

Following the Original Ellis EIR approvals, the City prepared an update to its General Plan and adopted the 2011 General Plan. No challenges to that 2011 General Plan were filed. The 2011 General Plan was the subject of a separate and sufficient EIR, *City of Tracy General Plan Final EIR*, State Clearinghouse No. 2008092006 (the “General Plan EIR”), and established a separate and distinct land use classification for the Ellis Project entitled Traditional Residential-Ellis (“TR-Ellis”).

In December 2011, the Project Applicant filed applications with the City for a modification and amendment to the Original Ellis DA (“Amended and Restated Ellis DA”), a modification and amendment to the Original Ellis Specific Plan (“Modified Ellis Specific Plan”), Petition for Annexation and Pre-Zoning, and General Plan Amendment. The application for the General Plan Amendment seeks to make minor modifications to the language in the TR-Ellis designation identified in the City’s 2011 General Plan.

A revised Ellis EIR (“Revised Ellis EIR”) is being prepared in response to the trial judge’s Statement of Decision and Judgment, addressing and remedying those things that the trial judge found objectionable. In addition, the Original Ellis DA and the Original Ellis Entitlements will be modified and amended to address and remedy the issues outlined by the trial judge.

City of Tracy Modified Ellis Project Draft Revised EIR

The Project Applicant has indicated that it would like to proceed with processing of the Revised Ellis EIR and the Modified Ellis Entitlements now, rather than wait for resolution of the pending judicial appeal. The current process as proposed is intended to satisfy all of the trial judge's concerns about the validity of the Original Ellis EIR and the Original Ellis Entitlements in a manner that will still retain the desirable community benefits that the Ellis Project will provide.

For purposes of this EIR, the "Modified Ellis Entitlements" include the following:

- (1) Revised EIR
- (2) Agreements for Annexation
- (3) Rezoning
- (4) Modified General Plan Amendment
- (5) Modified Ellis Specific Plan
- (6) Amended and Restated Development Agreement

This document has been prepared in accordance with and in fulfillment of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and its implementing guidelines (CEQA Guidelines) (California Code of Regulations [CCR] Title 14, Section 15000 et seq.). This Draft Revised EIR examines the environmental issues identified in the Draft Initial Study (IS) and Notice of Preparation (NOP) prepared for the Modified Project (Appendix A), as described in greater detail under subsection 2.2 (Revised EIR Scope, Issues, Concerns) below.

CEQA identifies the public agency with the principal responsibility for carrying out or approving a project as the "lead agency." The City of Tracy (City) is the lead agency for the Modified Project. The information contained within this Draft Revised EIR will be reviewed and considered by the City prior to its action to approve, disapprove, or further modify the Modified Project.

2.2 REVISED EIR SCOPE, ISSUES, CONCERNS

To determine the scope of this Draft Revised EIR, the City prepared and distributed an IS and NOP for the Modified Project on February 8, 2012, based on modifications and amendments to the Original Ellis DA and Specific Plan, the trial judge's Statement of Decision and Judgment, and updates to the Modified Ellis Specific Plan area as identified in the 2011 General Plan Update and analysis in the General Plan EIR (certified February 2011). The IS and NOP for the Modified 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, on February 8, 2012. This began the 30-day public review period, which ended on March 12, 2012.

In addition, the City's Planning Commission held a public scoping meeting on February 22, 2012 (during the public review period), to discuss characteristics of the Modified Project, its planning status, the nature of its potential environmental effects, and the scope (i.e., the specific issues) of the Draft Revised EIR analysis. The scoping meeting provided further opportunity for public input regarding environmental concerns and issues that should be addressed in the Draft Revised EIR. Furthermore, as indicated above, under the discussion of the Modified Project History (Section 2.1), this Draft Revised EIR addresses the issues raised in the trial judge's Statement of Decision and Judgment on the Original Ellis EIR and remedies those things that the trial judge found objectionable.

The IS and NOP identified the following environmental issues to be addressed in the Draft Revised EIR based on the modifications and amendments to the Original Ellis DA and Specific Plan, the trial judge's Statement of Decision and Judgment, and updates to the Modified Ellis Specific Plan area as

identified in the 2011 General Plan Update and analysis in the General Plan EIR (certified February 2011)

- ◆ Air Quality
- ◆ Biological Resources
- ◆ Greenhouse Gas Emissions
- ◆ Hazards and Hazardous Materials
- ◆ Noise
- ◆ Traffic and Circulation
- ◆ Water Supply and Other Public Utilities

Nine comment letters and one comment email were received from organizations, individuals, and agencies in response to the NOP. These NOP comment letters and a summary of the comments raised during the public scoping meeting are included in Appendix A. No apparent substantial areas of controversy not already being addressed in this Draft Revised EIR were identified in the NOP comment letters or meeting comments.

Overall issues raised during the NOP review period and at the public scoping meeting include the following:

- ◆ Air Quality – Urban heat island effect of Modified Project; global warming contributions of the Modified Project; need for additional mitigation (roof painting, planting of trees, etc).
- ◆ Noise – Impacts of noise on home values within the Modified Project; airport noise; one to two mile radius should be analyzed for noise impacts.
- ◆ Traffic – Addition of Modified Project traffic negatively affecting intersection operation and safety at Corral Hollow Road and Valpico Road and increasing safety risks for pedestrians and bicyclists along Corral Hollow Road; include provisions to bring Valpico and Lammers Roads up to collector roadway standard, per San Joaquin County standards.
- ◆ Lack of Housing Demand – Potential for the Modified Project to result in empty homes, leading to destruction and crime.
- ◆ Home values should be considered.
- ◆ Parks – Modified Project park land does not meet General Plan requirements of four acres per 1,000 people, since the proposed Swim Center charges fees and thus should not be considered public park land; parkland in the airport approach or departure zones or near PG&E lines is not consistent with General Plan policy and should not count toward the City’s park land dedication requirements; close proximity of proposed commercial uses to the existing commercial building on Linne Road between Corral Hollow Road and Tracy Boulevard.
- ◆ Direction of overall planning efforts in the City.
- ◆ Initial Study – Does not comply with Trial Court’s Statement of Decision and Judgment; Modified Project description inadequate; lack of information on Development Agreement, terms of Development Agreement not known and meaningful comment by public not possible; ambiguous language regarding compliance with the Airport Land Use Compatibility Plan and airport zones; makes argument that airport does not need to be studied other than as a courtesy; minimizes the significance of impacts previously identified as significant in prior Initial Studies prepared for the Original Ellis Project in August 2006 and November 2007; lack of specificity compared to Initial Studies prepared for the Original Ellis Project in August 2006 and November 2007; analysis of impacts flawed; mitigation measures insufficient.
- ◆ Modified Project would result in leapfrog development.

**City of Tracy Modified Ellis Project
Draft Revised EIR**

- ◆ Pipelines – Restrictions on development over Chevron pipelines; sufficiency of existing pipeline setbacks; study needed for natural gas pipelines; concern with City’s plan of development over PG&E pipelines located in rural areas; comments regarding natural gas pipelines safety and setbacks raised in public review period of Original Ellis EIR not adequately addressed; studies were provided regarding pipeline safety; representative from PG&E should answer questions regarding pipelines.
- ◆ Airport – Consistency with the 2009 Airport Land Use Compatibility Plan for San Joaquin County’s Public Airports; airport compatibility issues; City obligated to protect airport from encroachment and mitigate and risks; Airport Planning Guide required for development around airports; use of most current information to determine safety of airport required; safety risks and noise impacts associated with housing near runway.
- ◆ Water Quality – Potentially applicable permits.
- ◆ Modified Project is subject to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).
- ◆ Overall general comments that project does not provide one single benefit beyond any other development project and that it disregards public safety.
- ◆ City should look at alternative sites for project.

Through the IS and NOP scoping process, the City determined that the Modified Project would have no significant impact on certain environmental issues, or the impact could be feasibly mitigated with identified mitigation measure(s); these issues have been excluded from further analysis in this Draft Revised EIR. Refer to Appendix A for a discussion of the effects found not to be significant as identified in the IS.

Subsequent to the close of the public review period for the NOP, the City of Tracy has engaged in a comprehensive review of the topical environmental issues identified above. Additionally, based on comments submitted on the NOP, the City of Tracy determined that Land Use and Planning would be addressed in the Draft Revised EIR.

This Draft Revised EIR has been prepared at the project-level under CEQA Guidelines Section 15161 to assess and document the environmental impacts of the Modified Project. The Project EIR process is appropriate for the Modified Project because it analyzes the environmental effects of a specific project proposal, which includes the detailed level of information in the Amended and Restated Ellis DA, Modified Ellis Specific Plan, and Petition for Annexation and Pre-Zoning and General Plan Amendment. This Draft Revised EIR serves as the primary environmental compliance document for entitlement decisions regarding these components of the Modified Project by the City of Tracy and the other regulatory jurisdictions. It is anticipated that upon certification of this Draft Revised EIR no additional CEQA review would be required for implementation of the Modified Ellis Specific Plan.

2.3 INCORPORATION BY REFERENCE

Pertinent documents relating to this Draft Revised EIR have been cited and incorporated by reference, in accordance with Section 15150 of the State CEQA Guidelines, as a means of reducing the redundancy and length of this environmental report. The following documents are available for public review at the City of Tracy Planning Division, located at 333 Civic Center Plaza, Tracy, CA 95376, and are hereby incorporated by reference into this Draft Revised EIR:

- ◆ City of Tracy General Plan Update (State Clearinghouse Number 2008092006)
- ◆ City of Tracy General Plan Final EIR (State Clearinghouse Number 2008092006)
- ◆ City of Tracy/Surland Companies Development Agreement and Ellis Specific Plan Applications Final EIR (State Clearinghouse Number 2006102092)
- ◆ Ellis Specific Plan December 2008
- ◆ City of Tracy 2010 Urban Water Management Plan
- ◆ City of Tracy 2010 Water Supply Shortage Contingency Plan
- ◆ City of Tracy Revised Water Supply Assessment for the Ellis Specific Plan June 2012
- ◆ January 1, 2006 Tracy City Council Agenda Item 5 Staff Report Regarding Site Selection and Methodology for the Financing, Design, and Construction of a Community Aquatic Center

Information contained within these documents has been utilized for sections throughout this Draft Revised EIR. The following summarizes the key aspects of all of these documents with the exception of the January 1, 2006 staff report, which is summarized in Chapter 6 (Alternatives, subsection 6.1.2 [Alternative Swim Center Locations]).

2.3.1 CITY OF TRACY GENERAL PLAN UPDATE (STATE CLEARINGHOUSE NO. 2008092006)

OVERVIEW

The City approved an update to the General Plan on February 1, 2011. The General Plan provides a vision for the future and establishes a framework for how the City of Tracy should grow and change over the next two decades. The General Plan establishes goals, objectives, policies, and actions to guide this change in a desired direction. The General Plan presents existing conditions in the City, including physical, social, cultural, and environmental resources and opportunities. The General Plan looks at trends, issues, and concerns that affect the region.

VISION STATEMENT

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

In the coming years, the City of Tracy will:

- 1) Balance the development of new retail and job creating commercial, office, and industrial development with the development of new housing so that residents have the opportunity to work in the City of Tracy.
- 2) Continue to provide a healthy setting for existing businesses while actively facilitating the establishment of new businesses, particularly those that reflect community aspirations.
- 3) Preserve its “hometown feel” by creating residential neighborhoods with a sense of place and that are diverse, attractive, safe, walkable, and affordable, and by preserving significant historic and cultural resources.
- 4) Meet the transportation challenges of the future, so that people can travel safely and conveniently on foot or by car, air, bicycle, and transit.
- 5) Ensure that development and redevelopment adhere to basic principles of high quality urban design.

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- 6) Strengthen its Downtown and develop the cultural, retail, and civic amenities of a vibrant city, without losing the spirit of a small town.
- 7) Protect its unique identity through the preservation of agricultural lands and the creation of new park and open space lands.
- 8) Protect public health, safety, and the environment by taking steps to reduce noise and air pollution, conserve water and energy, and prepare for natural and man-made disasters.
- 9) Provide beautiful parks, exciting cultural and recreational amenities, and civic institutions that inspire community pride.
- 10) Encourage high quality schools.
- 11) Enhance the cultural environment in the City by promoting the arts and cultural activities.
- 12) Welcome people from all backgrounds, ages, income levels, and physical capabilities and invite them to “put down roots and stay awhile”.

PURPOSE

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

In addition, it articulates a vision for the City’s long-term physical form and development. It also brings a deliberate overall direction to the day-to-day decisions of the City Council, its commissions, and City staff. In particular, the General Plan serves six related purposes:

- ◆ **Policy Determination.** The General Plan enables the City Council to define a set of policies that govern the future physical development of the community and determine a general physical design showing how the policies will be implemented.
- ◆ **Policy Effectuation.** The General Plan provides a framework for the City Council to compare and evaluate specific projects.
- ◆ **Communication.** The General Plan provides a forum for the City Council to communicate its vision for the future of the City to citizens and key stakeholders.
- ◆ **Conveyance of Advice.** The General Plan provides a coherent, unified structure for the Planning Commission to advise the City Council on development issues, and to allow the City to provide advice and recommendations to County and State government.
- ◆ **Education.** The document, and the process of creating and revising it, provides a forum for the City Council to educate themselves and others on the problems and opportunities of the City.
- ◆ **Action Plan.** The General Plan includes specific actions that the City will take in order to meet its planning goals. These actions constitute a work program for the Planning Commission and City staff over the life of the General Plan.

PLAN CONTENTS

The City of Tracy General Plan is guided by the vision statement listed above. The remainder of the General Plan is comprised of nine separate “elements” that set goals, objectives, policies, and actions for a given subject. The goals, objectives, policies, and actions provide guidance to the City on how to accommodate growth and manage its resources over the next 20 years. The goals, objectives, policies, and actions in each element are derived from a number of sources, including the 1993 General Plan, the background information collected for the General Plan Update, discussions with the City Council

and Planning Commission, public workshops, and meetings with property owners. Many of the recommendations from the Tracy Tomorrow 2000 final report are also brought forward into the General Plan. In addition to the goals, objectives, policies, and actions, each element contains background information that describes current conditions in the City of Tracy relative to the subject of the element.

Five of these elements cover six topics required by State law, while the remaining four elements have been prepared by the City to meet local needs and concerns. Some elements also have additional sections that are specific to them. For example, the Land Use Element contains a series of land use designations that guide overall development in the City and the Circulation Element contains information on the network and hierarchy of streets in the City.

The elements that form the General Plan Update are briefly described below:

- ◆ Land Use Element. The required Land Use Element designates all lands within the City for a specific use such as residential, office, commercial, industry, open space, recreation, or public uses. The Land Use Element provides policy direction for each land use category, and also provides overall land use policies for the City.
- ◆ Community Character Element. The Community Character Element is not required by State law. However, due to the importance of maintaining and enhancing the City of Tracy's hometown feel and the related importance of urban design for the City, this optional element has been included.
- ◆ Economic Development Element. This optional element contains goals, objectives, policies, and actions to encourage the development of desired economic activities throughout the City. The information in this element is derived from the City's Economic Development Strategy prepared in 2002.
- ◆ Circulation Element. This required element specifies the general location and extent of existing major streets, level of service, transit facilities, and bicycle and pedestrian network. As required by law, all facilities in the Circulation Element are correlated with the land uses foreseen in the Land Use Element.
- ◆ Open Space and Conservation Element. The Open Space Element and the Conservation Element are required under State law and are combined in this General Plan. Issues addressed include the preservation of open space and agricultural land, the conservation, development, and utilization of natural resources, and the provision of parks and recreational facilities. Open space goals for public health and safety are covered in the Safety Element.
- ◆ Public Facilities and Services Element. This optional element covers a wide range of topics related to the provision of public services and infrastructure in the City. Topics covered include law enforcement, fire protection, schools, public buildings, solid waste, and the provision of water, wastewater, and stormwater infrastructure.
- ◆ Safety Element. State law requires the development of a Safety Element to protect the community from risks associated with the effects of flooding, seismic and other geologic hazards, and wildland fires.
- ◆ Noise Element. This required element addresses noise in the community and analyzes and quantifies current and projected noise levels from a variety of sources, such as traffic, industry, rail, and the airport. The Noise Element includes goals, objectives, policies, and actions to address current and foreseeable noise issues.
- ◆ Air Quality Element. This element, which is required for all jurisdictions in the San Joaquin Air Pollution Control District, outlines goals, objectives, policies, and actions to mitigate the air

pollution impacts of land use, the transportation system, and other activities that occur in the City of Tracy.

In addition, the City has prepared a Housing Element under a separate cover. Each city and county has an obligation to contribute its part by including a Housing Element as one of the seven mandatory elements of the General Plan. The Housing Element provides a long-term, comprehensive plan to address the housing needs for all economic segments of the community. The Housing Element addresses existing and projected housing demand and establishes goals, objectives, policies, and actions to assist the City in implementing the plan in accordance with other General Plan policies. It is not included with the remainder of the General Plan because it was prepared under a separate timeline and under detailed State criteria.

MODIFIED ESP AREA LAND USE DESIGNATION

The Modified ESP area is designated as Traditional Residential-Ellis (TR-Ellis) by the City of Tracy 2011 General Plan. The current description of this designation from the General Plan is provided below.

Traditional Residential Ellis (TR-Ellis)

The Traditional Residential – Ellis (TR-Ellis) designation applies to the majority of, but not all of, former Urban Reserve 10. The TR designation requires that the specific TR-Ellis designation establish at least four residential criteria. In order for development of the TR-Ellis property to proceed, it is a mandatory obligation of this TR-Ellis designation that the City first adopt a Specific Plan that implements the following criteria. The first criterion requires a determination of the minimum and maximum number of residential units. The TR-Ellis designation shall include between 1,200 and 2,250 total residential units, for an overall site density of between 4 and 7 units per gross acre. (The General Plan establishes an average of 3.21 persons per household, as set forth in the Land Use and Housing Elements.) The second criterion requires a determination of the density ranges allowed, measured in terms of dwelling units per acre, and the maximum and minimum number of units of each such residential density type allowed. The TR-Ellis designation shall include three residential sub-designations (Zoning Districts): "Residential Mixed Low," "Residential Mixed Medium," and "Residential Mixed High." Between 256 and 976 residential units and approximately 122 acres shall be allowed for the Residential Mixed Low designation (2.1 – 8 units per gross acre), between 372 and 1488 residential units and approximately 93 acres shall be allowed for the Residential Mixed Medium designation (4 – 16 units per gross acre), and between 250 and 780 residential units and approximately 31 acres shall be allowed for the Residential Mixed High designation (8 – 25 units per gross acre).

The foregoing densities overlap by design in order to allow for flexibility of housing types, and to ensure a wider mix of residential types within close proximity of each other throughout the Ellis site. Additionally, up to 50 of the 2250 residential units shall be allowed in the adjacent Village Center (4 to 16 units per gross acre for approximately 7 acres). Finally, the TR-Ellis area shall include approximately 18 acres of parks. Also, there is a possibility of an additional 16 acres (approximately) of Community Park. The Community Park can informally accommodate active recreational programming needs such as, but not limited to, ball fields and a multi-use soccer field, as well as tennis, volleyball, basketball courts, and a family-oriented swim center ("Swim Center"). The third criterion requires the adoption of a "Design Book" to ensure design quality, interesting and diverse architectural treatments, and an attractive streetscape. The "Ellis Pattern Book," which sets forth the architectural and site design guidelines for the TR-Ellis area consistent with the requirements set forth herein, shall be adopted by the City Council in connection with the

Council's adoption of the TR-Ellis designation. The fourth criterion requires that the TR-Ellis designation establish the location/mix of residential design and housing types in the Traditional Residential area to encourage an interesting and compatible neighborhood and to discourage the domination of a sub-area with only one or a few residential housing types and designs. TR-Ellis shall consist of three residential neighborhoods, each with its own distinct sense of place, reinforcing the traditional, hometown feel. Blocks shall be sized to support a mix of housing types – modest to compact single-family homes, townhouses, secondary residential units, apartments, and condominiums, all designed to accommodate a wide range of incomes and family needs. The TR-Ellis area will be constructed using traditional neighborhood design principles, creating a pedestrian-friendly network of streets and parks. In most cases, garages will be located off the street and will be accessed by way of rear alleys. Other land uses adjacent to, and compatible with, the TR-Ellis area shall include, but not be limited to, an approximately 7-acre Village Center (with up to 50 of the 2250 residential units and up to 60,000 square feet of commercial uses), and up to 120,000 additional square feet of commercial uses (the General Plan establishes a maximum FAR for commercial uses of 1.0). The Tracy Airport "outer approach zone" shall be limited in uses to those authorized in the San Joaquin County Airport Land Use Plan as amended in 1998.

The owner of the Ellis property is willing to provide the City a substantial financial contribution towards the design, construction, operation and maintenance of the Swim Center (that far exceeds the owner's fair share responsibility and therefore what the City could otherwise legally require the owner to contribute towards the Swim Center) in return for certain City commitments that the City is not otherwise legally required to provide. For example, the City's Growth Management Ordinance and Guidelines recognize that a process can be established through a freely entered statutory development agreement whereby the City could provide commitments to the owner to potentially issue up to a set maximum amount of residential growth allocations (RGAs) to a project that absent that development agreement the City might not have to issue. The Ellis property owner and the City have negotiated a proposed statutory development agreement that would set forth the Ellis property owner's Swim Center contribution as well as the City's commitments in exchange for that Swim Center contribution. It shall be in the parties' sole and exclusive discretion as to whether to execute such an agreement.

Residential Medium and Residential High designations are most often located near commercial uses and high activity areas or near or within Village Center and the Downtown designations. These locations provide the best access to goods and services. These designations are also often located near transit amenities such as the ACE station and the future multi-modal terminal in the Downtown. Issues of pedestrian orientation of buildings, direct and safe connections with nearby uses, access to transit facilities and integration with residential neighborhoods of different densities are critical with Residential Medium and Residential High designations.

As noted in Section 2.1, the Project Applicant's application includes a General Plan Amendment for minor modifications to the TR-Ellis classification as identified above. The proposed modifications are identified and analyzed in Section 4.9 of this document.

2.3.2 CITY OF TRACY GENERAL PLAN FINAL EIR (STATE CLEARINGHOUSE NO. 2008092006)

OVERVIEW

The General Plan EIR assesses the potential environmental consequences of adoption and implementation of the City of Tracy General Plan and Sustainability Action Plan. The assessment is designed to inform City of Tracy decision-makers, other responsible agencies, and the public-at-large of the nature of the General Plan and Sustainability Action Plan and their effects on the environment. The General Plan EIR has been prepared in accordance with and in fulfillment of CEQA requirements. The General Plan EIR consists of the Draft EIR, the Final EIR, and its various amendments and supplements.

The General Plan EIR is a Program EIR. As a Program EIR, the General Plan EIR is not project-specific and does not evaluate the impacts of specific projects that may be proposed under the General Plan. Such projects would require separate environmental review to secure the necessary discretionary development permits. While subsequent environmental review may be tiered off the General Plan EIR, the General Plan EIR is not intended to address impacts of individual projects.

GENERAL PLAN EIR PROJECT DESCRIPTION

A summary description of the General Plan is provided above, under subsection 2.3.1. The Sustainability Action Plan is a detailed, long-range strategy to achieve sustainability in the sectors of greenhouse gas (GHG) emissions, energy, transportation, land use, solid waste, water, agriculture and open space, biological resources, air quality, public health, and economic development. Implementation of the Sustainability Action Plan is intended to support the State of California's emission reduction targets by guiding the City's actions to reduce its GHG emissions, conserve and protect natural resources, improve public health, promote economic vitality, and engage residents.

The Sustainability Action Plan establishes targets related to a variety of sustainability topics, and sets forth measures that will assist the City in reaching those goals. The Sustainability Action Plan sets a target of a 29 percent reduction of GHG emissions from 2020 Business As Usual (BAU) projected levels. GHG emissions in 2020 under BAU conditions are projected to be 1,748,970 metric tons carbon dioxide equivalent (MTCO_{2e}). The target therefore translates into a reduction of 507,201 MTCO_{2e}. Implementation of the Sustainability Action Plan is projected to reduce GHG emissions in the City of Tracy by between 382,422 and 486,115 MTCO_{2e}, which represents an achievement of between 75 and 96 percent of the overall target.

ENVIRONMENTAL EFFECTS

Under CEQA, a significant impact on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance. Implementation of the General Plan and Sustainability Action Plan has the potential to generate 22 environmental impacts in a number of areas, including both plan level and cumulative impacts. Some of the impacts can be reduced to a less than significant level with mitigation measures, while others cannot and are considered significant and unavoidable.

A brief summary of the impacts identified is provided below.

Land Use

No significant land use impacts were identified as a result of implementation of the General Plan and Sustainability Action Plan. The proposed General Plan and Sustainability Action Plan would not physically divide an established community with the implementation of policies identified in the General Plan, and due to the fact that the majority of development would occur on vacant land where no established community exists. Implementation of policies and actions in the proposed General Plan and Sustainability Action Plan and the LAFCO process would result in less than significant land use impacts related to conflicts with other plans, policies, and regulations applicable in the City of Tracy area. Furthermore, implementation of General Plan policies designed to minimize conflict and encourage an orderly land use pattern would ensure land use compatibility.

Population, Employment, and Housing

While General Plan policies and other regulations would reduce impacts to future population and housing growth to the extent feasible for development projected through 2025, a significant and unavoidable impact would occur by inducing substantial population growth at total buildout of the General Plan. However, implementation of the General Plan and Sustainability Action Plan would not displace housing or populations, given that a majority of growth proposed in the General Plan would occur on vacant and agricultural land, growth is encouraged in existing neighborhoods and infill areas, and General Plan policies encourage the preservation and enhancement of the character of existing neighborhoods while specifically stating that new development should not physically divide established neighborhoods.

Visual Quality

Despite General Plan policies to enhance “hometown feel” and preserve open space, development permitted under the General Plan for both 2025 and total buildout of the City limits and SOI would result in a significant and unavoidable impact on the existing visual identity and character of the City. Furthermore, in spite of General Plan policies to protect scenic resources, including those along state designated scenic highways for development projected through 2025, a significant and unavoidable impact would occur on scenic resources along the state designated scenic routes I-580 (between I-205 and I-5) and I-5 (south of I-205) at total buildout of the General Plan. In addition, a significant and unavoidable impact on scenic views from regional roadways would occur as a result of development projected for the 20-year development scenario and under total buildout of the City limits and SOI. However, General Plan objectives and policies would positively affect corridors and gateways and enhance the visual character of streetscapes throughout the City. Development permitted under the General Plan would increase levels of light and glare to a significant level resulting in adverse, but mitigable impacts on the visual quality of the City of Tracy.

Traffic and Circulation

There would be a less than significant impact on local roadways with the implementation of roadway improvements identified in the General Plan EIR. Assuming the planned network improvements outlined in the General Plan EIR are implemented, the City’s level of service standards would be maintained except at the Eleventh Street/Corral Hollow Road and Eleventh Street/Lammers Road intersections. In the case of the Eleventh Street/Corral Hollow Road intersection, General Plan Policy 2 under Objective CIR-1.3, which 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, would apply, since this intersection is constrained to the point of not allowing for adequate at-grade improvements. Thus, the resulting level of service would not result in a significant impact. Further improvements at the Eleventh Street/Lammers Road

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intersection identified in the General Plan EIR would reduce impacts at this intersection to a less than significant level.

While the General Plan incorporates a range of features that work to help reduce the potential impact of future growth in the City on regional roadways, none of these approaches would reduce the potential impact to a less than significant level, so a significant and unavoidable impact on the following regional roadways would occur:

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

Regarding design feature hazards, bicycle and pedestrian safety, emergency vehicle access, parking capacity, conflicts with adopted regional policies and plans regarding alternative transportation and air traffic, implementation of existing regulations and goals, objectives, and policies included in the General Plan would ensure that significant impacts do not occur.

Cultural Resources

The implementation of a combination of General Plan policies and guiding mechanisms would reduce potential impacts on historical resources to a less than significant level. However, undiscovered archaeological and paleontological sites, including human remains (especially in undeveloped areas), could be negatively impacted by development identified by the General Plan, requiring the implementation of mitigation measures identified in the General Plan EIR to reduce the potentially significant impact on archaeological and paleontological resources to a less than significant level.

Biological Resources

Development allowed under the proposed General Plan does have the potential to significantly impact biological resources, but these potential impacts would be addressed through General Plan goals, objectives, and policies, resulting in less than significant impacts on biological resources.

Agricultural Resources

Despite General Plan policies to preserve agricultural lands, in addition to policies in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) and the City's Agricultural Mitigation Fee Ordinance, development permitted under the General Plan would result in the conversion of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to urban uses. This is a significant and unavoidable impact. No additional mitigation is available. Moreover, 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 conversion of land under active contracts to urban uses. This is a significant and unavoidable impact. No additional mitigation is available. Finally, implementation of the General Plan would result in additional and incompatible urban development adjacent to agricultural uses, resulting in a significant and unavoidable impact associated with the conversion of additional farmland to urban uses.

Mineral Resources

The policies in the General Plan would minimize potential land use conflicts between aggregate resource activities and other uses, and in general ensure that new development would not impact the future availability of mineral resources or mineral resource recovery sites. Therefore, this impact would be less than significant.

Community Services

Increases in population and development facilitated by the General Plan would increase the demand for the following community services: police protection, fire protection and emergency medical services, schools, solid waste disposal, and parks and recreational facilities. The General Plan EIR determined that the construction of new police and fire protection and emergency medical facilities, as well as schools and new individual park or recreation facilities to support the growth permitted under the General Plan, could not be determined at the first tier level of analysis conducted for the General Plan. Policies from the General Plan that are identified in other sections of the General Plan EIR also apply to any potential impacts associated with the construction and operation of these community service facilities. As specific community service facility projects are identified, additional second-tier environmental analysis would be completed pursuant to CEQA.

Infrastructure

Water

No significant water-related impacts were identified for development projected through 2025. However, despite policies in the Public Facilities Element of the General Plan, the General Plan EIR identified an insufficient secured water supply to serve projected development under total buildout of the General Plan. This is a significant and unavoidable impact of total buildout of the General Plan. No additional mitigation is available.

Wastewater

The City's existing wastewater treatment system is not designed to accommodate development projected under total buildout of the SOI, resulting in a significant impact. However, the General Plan EIR concluded that the specific environmental impact of constructing wastewater treatment facilities in the City limits and SOI could not be determined at that first-tier level of analysis, but as specific wastewater treatment expansion projects are identified, additional project specific, second-tier environmental analysis would be completed.

Stormwater

The policy direction identified in the General Plan, in addition to other regulatory requirements regarding stormwater management, ensure that the General Plan would not have a significant impact on storm drainage facilities. Regardless, development facilitated by the General Plan would increase stormwater runoff in the City and its SOI and result in the need to develop the stormwater collection system to satisfy future conditions and meet the needs of development identified by the General Plan. However, the General Plan EIR determined that the specific environmental impact of constructing new stormwater infrastructure in the City limits and SOI could not be determined at that first-tier level of analysis. As specific stormwater infrastructure expansion projects are identified, additional project specific, second-tier environmental analysis would be completed.

Geology, Soils, and Seismic Hazards

Increased development proposed under the General Plan could increase the number of people and buildings exposed to geologic hazards. The General Plan Update includes a series of policies and actions within the Safety Element to minimize harm from geologic hazards and did not identify any significant impacts.

Hydrology and Flooding

Some development would occur within the 100-year floodplain, within the 20-year planning horizon, and under total buildout of the General Plan. However, the implementation of the General Plan and its policies would reduce the potential impact associated with exposure to the 100-year flood plain to a less than significant level. Portions of the SOI have the potential to experience flooding from dam failure during the 20-year planning horizon of the General Plan and at total buildout, but the General Plan includes policies and actions that would reduce this risk to a less than significant level. Moreover, risk of dam failure is small, because the County continues to maintain the dam to withstand probable seismic activity. Development proposed under the General Plan is not anticipated to significantly alter existing drainage patterns or stream alignments, and there would not be a significant increase in storm water runoff or flooding, especially in light of General Plan policies and actions that are designed to mitigate such risk. The City of Tracy is at a low risk for seiche and tsunami and implementation of the General Plan is not expected to increase these risks. No new development is proposed in the hillsides, where there is a risk of mudflow. Thus, no impact associated with seiche, tsunami, or mudflow would be expected.

Hazards and Hazardous Materials

Implementation of the General Plan would allow for the development of new residential, commercial, office, and industrial uses. This could increase the amount of hazardous materials used and wastes generated, as well as the number of people and structures exposed to these and other hazards. Implementation of a combination of Federal, State, and local policies and regulations, including policies and actions identified by the General Plan, would reduce the risk to less than significant.

Noise

Despite General Plan policies and regulations, significant noise level increases (3 dBA Ldn or greater) associated with increased traffic would occur adjacent to existing noise sensitive uses along portions of I-205, Grant Line Road, Schulte Road, Linne Road, Lammers Road, Corral Hollow Road, Tracy Boulevard, and MacArthur Drive. New roadways facilitated by the General Plan would also increase existing noise levels at receivers in the City of Tracy. This is a significant and unavoidable impact. No additional mitigation is available. Under the General Plan, new noise sensitive development is proposed throughout the City, and in some cases, in noisy areas. However, General Plan policies would adequately reduce this noise impact to a less than significant level. Additionally, development under the proposed General Plan would introduce new noise-generating sources adjacent to existing noise-sensitive areas and new noise-sensitive uses adjacent to existing noise-generating sources. Regardless, according to the General Plan EIR, General Plan policies would adequately reduce these impacts to a less than significant level. The General Plan EIR found that no significant impacts would occur with regard to airport noise, and noise associated with construction could be reduced to less than significant with the implementation of mitigation identified by the General Plan EIR.

Air Quality

As stated in the General Plan EIR, the air quality analysis relies on modeled traffic data that extends to the year 2030 and, thus, air quality impacts extend to that year as well. The General Plan and

Sustainability Action Plan would not be consistent with applicable clean air planning efforts of the San Joaquin County Valley Air Pollution Control District (SJVAPCD), since vehicle miles traveled (VMT) that could occur under the proposed General Plan would exceed that projected by the San Joaquin Council of Governments (SJCOG), which are used in projections for air quality planning. The projected growth could lead to an increase in the region's VMT beyond that anticipated in the SJCOG and SJVAPCD clean air planning efforts. Development in Tracy would contribute to the on-going air quality issues in the San Joaquin Valley Air Basin. Mitigation identified in the General Plan EIR would not reduce the impact to less than significant. However, the General Plan would be consistent with clean air transportation control measures of the SJVAPCD and SJCOG.

The General Plan does not provide adequate buffers between new or existing sources of toxic air contaminants and new or existing residences or sensitive receptors, requiring mitigation which was determined to reduce this impact to less than significant. General Plan policies work to ensure that the General Plan would have a less than significant impact on exposure to odors. Sensitive receptors would not be significantly impacted by carbon monoxide (CO) concentrations, resulting in a less than significant impact. Particulate matter from construction associated with development allowed under the General Plan would be a less than significant impact with the incorporation of construction air pollutant control measures recommended by the SJVAPCD. Construction exhaust emissions would be reduced to a less than significant impact with adherence to General Plan policies and SJVAPCD rules and regulations.

Greenhouse Gas Emissions

Although the General Plan and Sustainability Action Plan include many goals, policies, and measures that would reduce GHG emissions from projected BAU levels by 22 and 28 percent, the General Plan would not meet the SJVAPCD's threshold of a 29 percent reduction in GHG emissions from BAU projected emissions. Therefore, the proposed General Plan and Sustainability Action Plan would result in a significant GHG emission impact. All feasible GHG emissions reduction measures were incorporated into the General Plan and Sustainability Action Plan; therefore, no additional mitigation would be feasible, and the impact is considered significant and unavoidable.

Taken together, policies and actions from the General Plan in combination with Sustainability Action Plan policies would ensure adequate emergency preparedness to handle impacts associated with climate change. Therefore, the related impact would be less than significant.

ALTERNATIVES TO THE PROJECT

The General Plan EIR analyzes alternatives to the General Plan. The following four alternatives to the General Plan are considered and described in detail in Chapter 5 of the 2006 Draft General Plan EIR:

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

As discussed in Chapter 5 of the 2006 Draft General Plan EIR, the Concentrated Growth Alternative is environmentally superior to both the General Plan and the other alternatives. This alternative would offer a substantial improvement with respect to visual quality, community character, and agriculture, although it would not avoid the significant and unavoidable impacts associated with those areas for the General Plan. The Concentrated Growth Alternative would also offer an insubstantial

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improvement with respect to land use; population, employment and housing; traffic and circulation; biology; infrastructure; hydrology and flooding; hazardous materials and other hazards; and air quality.

The City Limits Alternative is also environmentally superior to the General Plan, but on balance it is marginally inferior to the Concentrated Growth Alternative. As shown in Table 5-1 of the 2006 Draft General Plan EIR, the City Limits Alternative does not offer as much of an improvement as the Concentrated Growth Alternative with respect to visual quality, and it also does not offer improvements with respect to land use, hazardous materials and hazards, and air quality.

The City of Tracy has developed the General Plan to represent the best possible balance between on-going residential growth, development of employment areas, and open space and agricultural preservation. Although two of the alternatives each have the potential of substantially reducing significant impacts that have been identified in the General Plan EIR, overall the alternatives analysis shows that none of the alternatives would result in a level of improvement that would completely avoid a significant impact that is associated with the General Plan.

2.3.3 CITY OF TRACY/SURLAND COMPANIES DEVELOPMENT AGREEMENT AND ELLIS SPECIFIC PLAN APPLICATIONS FINAL EIR (STATE CLEARINGHOUSE NO. 2006102092)

OVERVIEW

The Original Ellis EIR assesses the potential environmental impacts, including growth-inducing and cumulative impacts, associated with the execution and implementation of the Original Ellis DA and development of the Original Ellis Specific Plan. Portions of that document are revised by this Draft Revised EIR. Specifically, this Revised Draft EIR analyzes the potential environmental effects of the proposed changes associated with the Amended and Restated Ellis DA, the minor amendments to the Original Ellis Specific Plan (Modified Ellis Specific Plan or Modified ESP), the minor text amendments to the General Plan and identifies feasible mitigation measures for potentially significant impacts where applicable. In addition, this Draft Revised EIR also addresses:

- ◆ the Trial Court’s Statement of Decision and Judgment (issued October 31, 2011) on the Original Ellis EIR; as well as,
- ◆ updates to the Modified ESP area as identified in the 2011 General Plan Update and analysis in the General Plan EIR (certified February 2011).

To ensure clarity and avoid confusion, this Draft Revised EIR incorporates the Original Ellis EIR by reference in its entirety with the exception of Chapter 3A, Development Agreement Program (DAP). The Development Agreement Program (DAP) described and analyzed in the Original Ellis EIR is not a part of the Modified Project and has been eliminated from this Revised EIR.

The Original Ellis EIR was organized into eight Chapters. Chapter 3 (Environmental Analysis) of the Original Ellis EIR consists of Part A and Part B. As noted above, Part A is not a part of the Modified Project and has been eliminated from this Revised EIR. Part B consists of 14 subsections. Thirteen of the 14 subsections evaluate the environmental impacts of the Original ESP, while the 14th subsection evaluates alternatives to the Original ESP. This Draft Revised EIR includes each of the 14 subsections of Part B and incorporates that analysis by reference where applicable, and identifies where the Modified EIR has triggered a “revision” to the Prior EIR analysis.

ORIGINAL ELLIS SPECIFIC PLAN PROJECT DESCRIPTION

The key components of the Original Ellis DA included: (1) the establishment of a program for the allocation of residential growth allotments (RGAs) to the Project Applicant; (2) the requirement of the Project Applicant to provide funding, offer of land, and design assistance for a community swim center; and, (3) the provision of vested development rights to the Project Applicant for the Original ESP area. The Original Ellis DA included a Development Agreement Program (Original Ellis DAP) that enabled the Project Applicant to obtain up to 3,850 RGAs at some time in the future. The Original ESP was to be the first phase of the Original Ellis DAP and involved the development of up to 2,250 residential units, a village center, open space, 180,000 square feet of commercial space, and a 12-acre, family oriented swim center within a 20-acre community park. The remaining residential growth allotments outside the Original ESP area (1,600) could have been constructed elsewhere within the City and/or the City's SOI in the future. Only 2,250 of the originally proposed 3,850 residential units analyzed in the Original Ellis EIR were approved.

The environmental impacts associated with the development of the RGAs are analyzed at a Program-level within the Original Ellis EIR based on the environmental impact analysis of the City of Tracy General Plan as provided by the General Plan EIR. Environmental impacts associated with implementation of the Original ESP are addressed at a "Project" level of detail within the Original Ellis EIR. As noted above, the DAP has been eliminated from consideration and is not the subject of this application. Therefore, the summary provided in each subsection of Section 4.0 of this Draft Revised EIR focuses on the project specific elements of the Original EIR and associated applications.

2.3.4 CITY OF TRACY 2010 URBAN WATER MANAGEMENT PLAN

In 1983, California enacted the Urban Water Management Planning Act ("UWMP Act") (Water Code Sections 10610-10656). The UWMP Act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, should ensure water service reliability to meet the needs of its customers during normal, dry, and multiple-dry years. Normally, the UWMP Act requires urban water suppliers to update their Urban Water Management Plan ("UWMP") for submittal to the Department of Water Resources (DWR) in years ending in five and zero. However, because of recent changes in UWMP requirements, State law extended the deadline for the 2010 plans to July 1, 2011.

Tracy's 2011 UWMP describes how the City intends to manage its existing and future water resources and demands to continue to provide its customers with an adequate and reliable water supply. The updated UWMP reflects changes to the City's water supply portfolio and water uses, as well as significant revisions that have been made to the UWMP Act since 2005.

The UWMP addresses the water management needs of the Ellis Specific Plan area within its service area evaluation (Chapter 2) and in Table 7 of the UWMP.

Briefly, the UWMP was prepared in accordance with the format suggested in the DWR's *Guidebook to Assist Water Suppliers in the Preparation of a 2010 Urban Water Management Plan*, dated March 2011. The content of the UWMP includes the following:

- ◆ Agency Coordination: As required by the current Water Code, the City coordinated preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies and relevant public agencies. These agencies are all identified in Section 1 of the UWMP.

- ◆ Service Area Information: The chapter of the UWMP describes the service area of the City, including current and projected population, climate, and other demographic factors affecting the City's water management planning. The service area information is included in Chapter 2 of the UWMP and includes the identification of the Ellis Specific Plan area.
- ◆ Water Demand: Chapter 3 of the UWMP quantifies, to the extent records are available, past and current water use, over the same five-year increments described in the Water Code and project water use, identifying the uses among water use sectors.
- ◆ Water Supply Sources: Chapter 4 of the UWMP identifies and quantifies the existing and planned sources of water available to the City over the same five-year increments described in Chapter 3, including the availability of recycled water.
- ◆ Reliability of Supply: Chapter 5 of the UWMP describes the reliability of the water supply and vulnerability to seasonal or climatic shortage (to the extent practicable) and provides data for: an average water year, a single-dry water year, and multiple-dry water years. This section of the UWMP also includes the City's Water Shortage Contingency Plan (Section 5.5 of the UWMP).
- ◆ Demand Management Measures: Chapter 6 includes a description of the City's water demand management measures including those that are currently being implemented, scheduled for implementation, and/or steps necessary to implement any proposed measures.
- ◆ Climate Change. Chapter 7 identifies the steps that the City of Tracy is taking to address the potential for climate change to affect the water supply and water use.
- ◆ Completed UWMP Checklist. Chapter 8 provides a DWR checklist that details where each of the UWMP requirements are located in the UWMP.

2.3.5 CITY OF TRACY WATER SHORTAGE CONTINGENCY PLAN

The City of Tracy established its Water Shortage Contingency Plan ("WSCP") in 1992, following a period of severe drought, to provide City staff and City water customers with guidelines for reducing water consumption in the event of another drought. Tracy's WSCP includes an analysis of existing and projected water demands and supplies, a water conservation and rationing plan with mandatory prohibitions and penalties, and an analysis of projected revenues and expenditures.

The WSCP was incorporated into the Water Management Chapter of the Tracy Municipal Code (TMC) as codified in Chapter 11.28, Article 5-Drought and Other Water Emergency, and Article 6-Water Conservation and Rationing Plan, Water Emergency Plan, variances and Appeals ("WCRP"). Tracy's WCRP includes provisions for five Stages of Action (referred to as "Phases" in the TMC and as "Stages" in the UWMP). Implementation of the WCRP can be triggered by four different scenarios: (1) decline of groundwater basin to 30 feet below sea level; (2) cutback of CVP water supplies; (3) drought declaration by the Governor of California; and (4) any unusual situation that affects the quantity or quality of the City's water supply. In the event that any of the aforementioned triggers occur, the City Council is granted the authority to declare a drought and direct the City Manager to implement the WCRP. These Stages of Action are intended to promote the proper management and distribution of the City's water supplies during a drought or emergency situation.

In addition to the five Stages of Action, the WCRP includes the following:

- ◆ An estimate of the minimum water supply available during each of the next three water years
- ◆ Actions to be undertaken to prepare for, and implement during, a catastrophic interruption of water supplies
- ◆ Consumption reduction methods and prohibitions; and,
- ◆ Analysis of revenue impacts of reduced water sales during shortages.

A copy of the City's Water Shortage Contingency Plan, its Water Conservation and Rationing Plan, and the associated Articles 5 and 6 of Tracy's Municipal Code Chapter 11.28 are all included in Appendix L of the UWMP. As with all the documents incorporated by reference, these documents are on file with the City of Tracy for public review.

2.3.6 CITY OF TRACY REVISED WATER SUPPLY ASSESSMENT FOR THE ELLIS SPECIFIC PLAN JUNE 2012

A WSA was prepared for the Surland Development Agreement and Ellis Specific Plan in March 2008 (Original Ellis WSA), and was approved by the Tracy City Council on April 1, 2008. The Original Ellis WSA was also ordered to be set aside by the October 2011 Statement of Decision and Judgment. A Revised Ellis WSA was prepared to clarify issues identified regarding the Original Ellis WSA in the Statement of Decision and Judgment, and to satisfy state law requirements for purposes of City of Tracy when deciding whether or not to reconsider or re-approve the land use entitlements for the Modified Project.

Relevant sections of the Revised Ellis WSA are included in Section 4.13 (Water Supply and Other Utilities) of this Draft Revised EIR. For purposes of the Revised Ellis WSA, the potable water demand for the Modified Project at buildout (including the proposed Swim Center) has been conservatively estimated to be 1,076 af/yr (as included in the City's 2010 UWMP) and the recycled water demand has been estimated to be 116 af/yr (as calculated in the Revised Ellis WSA based on the Modified Project's current anticipated use of recycled water).

Based on the analysis described within the Revised Ellis WSA (and included within Section 4.13 of this Draft Revised EIR), the City's existing and additional planned (future, not yet firmly assured) water supplies are sufficient to meet the City's existing and projected future water demands, including those future water demands associated with the Modified Project, to the year 2035 under all hydrologic conditions (including normal years, single dry years, and multiple dry years).

2.4 ENVIRONMENTAL REVIEW PROCESS

Prior to the preparation of this Draft Revised EIR, the City of Tracy contacted affected agencies, organizations, and persons who the City has identified as having an interest in this Modified Project in accordance with the State CEQA Guidelines.

This Draft Revised EIR, with an accompanying Notice of Completion (NOC), is being circulated to the State Clearinghouse, trustee agencies, responsible agencies, other government agencies, and interested members of the public for a 45-day review period as required by CEQA. The review period for this Draft Revised EIR will extend between July and September, 2012. During this period, public agencies and members of the public may provide written comments on the analysis and content of the Draft Revised 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 Modified Project might be avoided or mitigated.

**City of Tracy Modified Ellis Project
Draft Revised EIR**

Comments on the Draft Revised EIR may be submitted in writing to:

Bill Dean, Assistant Director of Development and Engineering Services
Department of Development and Engineering Services, Planning Division
City of Tracy
333 Civic Center Plaza
Tracy, CA 95376
Fax: 209.831.6439
Email: william.dean@ci.tracy.ca.us

Following the close of the public comment period, a Final Revised EIR will be prepared to respond to all substantive comments related to environmental issues surrounding the Modified Project. The Final Revised EIR will be available prior to Planning Commission and City Council public hearings to consider this Revised EIR and the Modified Project.

Once the City Council certifies the Final Revised EIR, the Council will also consider the Modified Project itself, which may be approved or denied. If the Modified Project is approved, the Council may require mitigation measures specified in this Revised Draft EIR as conditions of Modified Project approval. Alternatively, the Council could require other mitigation measures deemed to be effective mitigations for the identified impacts, or it could find that the mitigation measures cannot be feasibly implemented. For any identified significant impacts for which no mitigation measure is feasible, or where mitigation would not reduce the impact to a less than significant level, the Council will be required to adopt a finding that the impacts are considered acceptable because specific overriding considerations indicate that the Modified Project's benefits outweigh the impacts in question.

2.5 REPORT ORGANIZATION

This Revised Draft EIR is organized into the following chapters:

- ◆ Chapter 1: Executive Summary provides a brief summary of the proposed actions and their consequences, including the significant environmental impacts of the Modified Project and those incorporated by reference from the Original EIR, describes recommended mitigation measures, indicates the level of significance of impacts before and after mitigation, and identifies alternatives that would reduce or avoid the significant impacts. The summary also identifies areas of controversy and issues to be resolved.
- ◆ Chapter 2: Introduction provides an introduction and overview of the document.
- ◆ Chapter 3: Project Description describes the Modified Project in detail, including the location, surrounding uses, characteristics, and objectives.
- ◆ Chapter 4: Environmental Analysis provides an analysis of the potential environmental impacts of the Modified Project and presents recommended mitigation measures to reduce their significance.
- ◆ Chapter 5: Other CEQA Required Topics evaluates and describes the following CEQA required topics: significant and unavoidable environmental effects, growth-inducing effects, significant and irreversible changes, and potentially significant energy implications of the Modified Project.
- ◆ Chapter 6: Alternatives addresses the Trial Court's Statement of Decision and Judgment, dated October 31, 2012, as well as updates to the Modified ESP area as identified in the 2011 General Plan Update and analysis in the General Plan EIR (certified February 2011).
- ◆ Chapter 7: References lists sources of information used in the preparation of the Revised Draft EIR.

- ◆ Chapter 8: Report Preparation Personnel identifies the preparers of the Revised Draft EIR.
- ◆ Appendices include the IS and NOP for the Revised Draft EIR, comments received in response to the IS and NOP and the City’s scoping activities, and background technical studies.

Table 2-1 (CEQA Required Sections and Location in Draft Revised EIR) identifies the sections of the Draft Revised EIR that are required and their location.

TABLE 2-1 CEQA REQUIRED SECTIONS AND LOCATION IN DRAFT REVISED EIR

| Required EIR Section | Location in this Draft Revised EIR | |
|-------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------|
| | Chapter/Section | Page |
| Table of Contents (Section 15122) | Same | i |
| Summary (Section 15123) | Chapter 1 | 1-1 |
| Project Description (Section 15124) | Chapter 3 | 3-1 |
| Environmental Setting (Section 15125) | Chapter 3 | 3-1 |
| Significant Environmental Effects of the Modified Project (Section 15126(a)) | Chapter 4 | 4-1 |
| Significant Unavoidable Environmental Effects of the Modified Project (Section 15126(b)) | Chapter 4 Chapter 5 | 4-1 5-1 |
| Significant Irreversible Environmental Changes of the Modified Project (Section 15126(c)) | Chapter 5 | 5-7 |
| Growth-Inducing Impact of the Modified Project (Section 15126 (d)) | Chapter 5 | 5-3 |
| Mitigation Measures (Section 15126 (e)) | Chapter 1 | 1-7 |
| Alternatives to the Proposed Modified Project (Section 15126(f)) | Chapter 6 | 6-1 |
| Effects Found Not to Be Significant (Section 15128) | Appendix A | Initial Study |
| Organizations and Persons Consulted (Section 15129) | Chapter 8 | 8-1 |
| Cumulative Impacts (Section 15130) | Chapter 4 | 4-1 |
| Technical Appendices and other materials, including the Initial Study, Notice of Preparation, and comment Letters | Appendices | -- |

City of Tracy Modified Ellis Project
Draft Revised EIR

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3 PROJECT DESCRIPTION

3.1 MODIFIED PROJECT SUMMARY

The Project proposes a modification and amendment to the Original Ellis DA (“Amended and Restated Ellis DA”) (Application Number DA11-0002); a modification and amendment to the Original Ellis Specific Plan (“Modified Ellis Specific Plan or Modified ESP”) (Application Number SP11-0002); and Petition for Annexation and Pre-Zoning (Application Number A/P11-0002) and General Plan Amendment (Application Number GPA11-0005) (collectively referred to as the “Modified Project”). The Modified Project would accommodate the development of a minimum of 1,000 to a maximum of 2,250 residential units, as well as a Village Center, open space, 180,000 square feet of retail, office, and other commercial uses and, consistent with City requirements, approximately four acres per 1,000 people of parks with an opportunity to include a Family-Oriented Swim Center (“Family Swim Center”) on approximately 321 acres. Pursuant to Section 15161 of the State CEQA Guidelines, the environmental impacts associated with implementation of the Modified ESP and corresponding Amended and Restated Ellis DA are addressed at a “Project” level of detail within this Revised Environmental Impact Report (Draft Revised EIR).

3.2 MODIFIED PROJECT LOCATION/SETTING AND SURROUNDING LAND USES

The City of Tracy is located in San Joaquin County, which is within the Central Valley region of California. The City is approximately 60 miles east of San Francisco, which 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. The topography in the vicinity of the City of Tracy flattens into the “low alluvial plains and fans” geomorphic units. The Modified ESP area lies at the foothills of the Diablo Range, just north of the Cedar Mountains. The land within the Modified ESP area is relatively flat and uniform and is currently characterized by open fields on a relatively flat agricultural plain. Elevations on the Modified ESP area range from approximately 190 feet National Geodetic Vertical Datum (NGVD) in the southern area to approximately 140 feet NGVD in the northern area.

The City is regionally connected by three major Interstate Highways: I-580 is less than one mile to the west, I-205 bisects the City to the north, and I-5 is located approximately eight miles to the east. The nearest urban areas to the City of Tracy are Lathrop, Manteca, and Mountain House. Refer to Figure 3-1 (Regional Location Map), which shows the City of Tracy’s regional location.

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

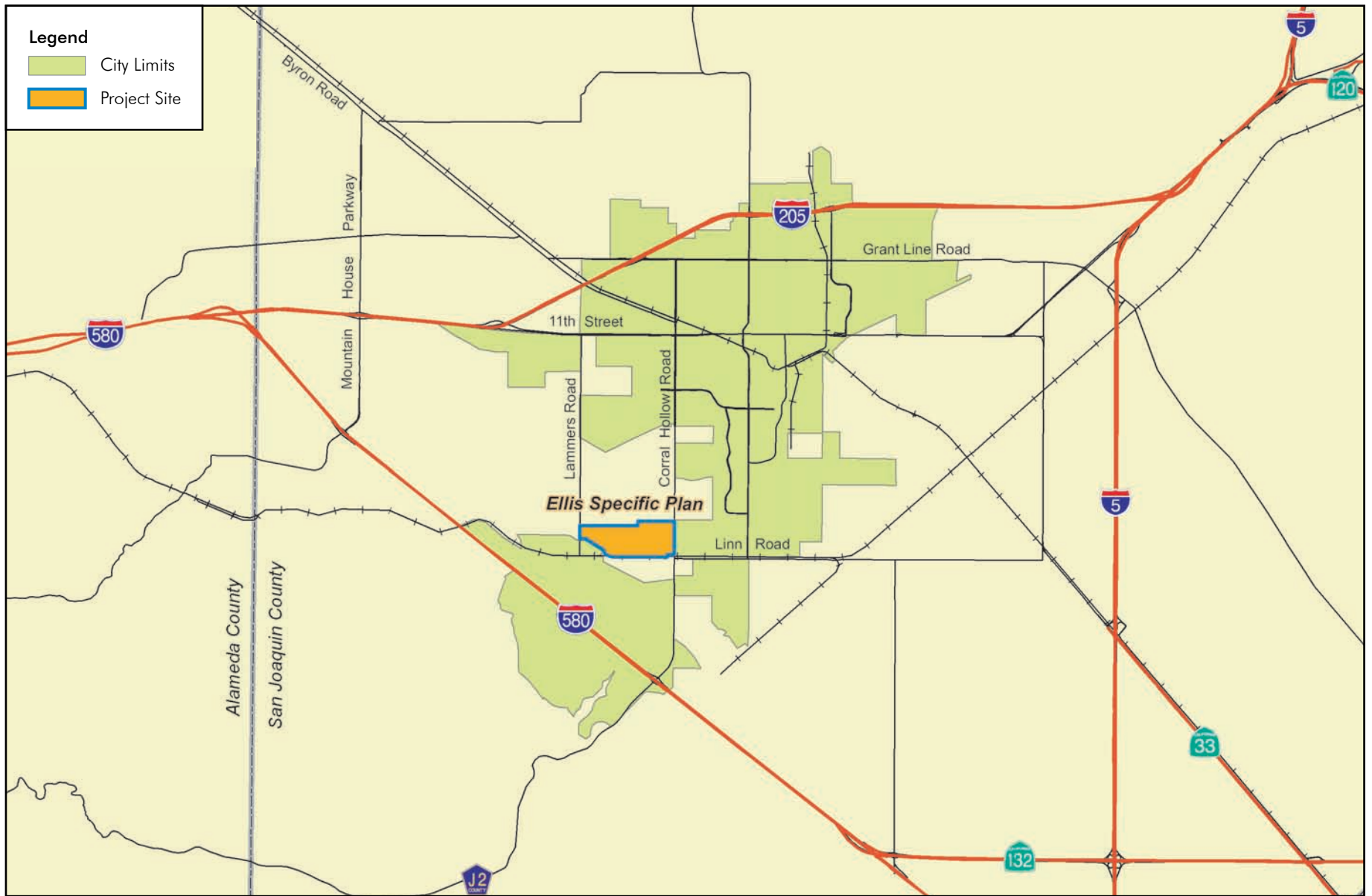
The City of Tracy General Plan identifies two additional areas outside of the City limits that were analyzed as part of the General Plan process. The Sphere of Influence (SOI) is the area outside of the City limits that the City anticipates to annex and urbanize in the future. It is the expected physical limit of the City based on the most current information available. Any changes to the SOI are subject to approval by the Local Agency Formation Commission (LAFCo).

The General Plan also identifies a Planning Area for the City of Tracy. The Planning Area is an area outside of the City boundaries and generally outside of the SOI that bears a relation to the City's planning and policy direction. The Planning Area contains approximately 114 square miles and is 92 square miles larger than the City limits. The 321-acre Modified ESP area lies within the City's SOI (adopted in January 2012) and borders the southwest City of Tracy city limit line. Locally, Corral Hollow Road and Lammers Road connect the Modified ESP area to the City. Refer to Figure 3-2 (Local Vicinity Map).

The majority of the City's SOI and Planning Area consists of open space, agricultural uses, and rural residences.

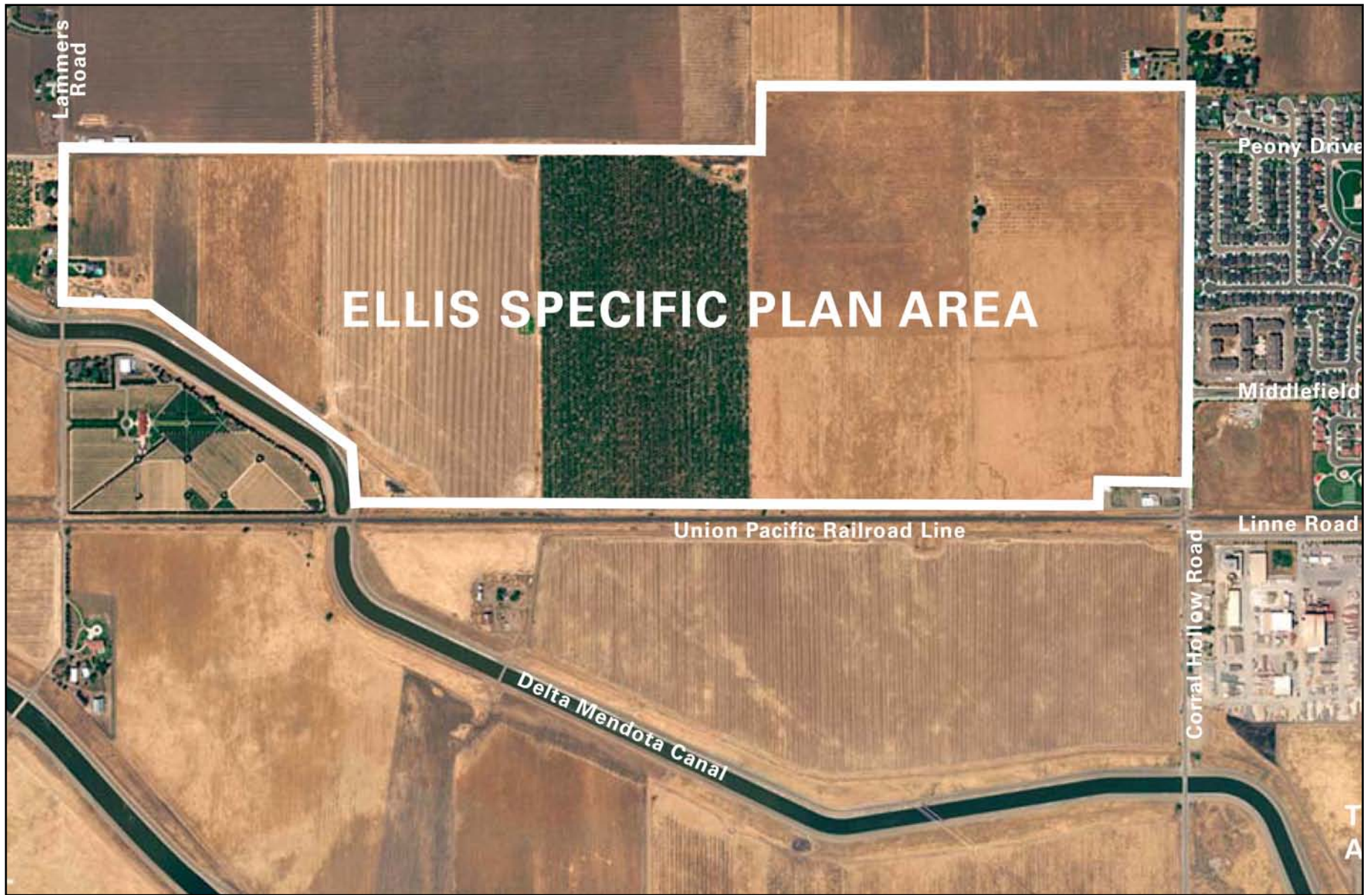
The majority of land uses in the vicinity of the Modified ESP area are industrial and agricultural. Large-scale aggregate mining and concrete production industries are located to the south, active agricultural lands are present to the north, and Tracy Municipal Airport operates to the southeast. An MCI telecommunications facility (switching station) is located adjacent to the southeastern corner of the Modified ESP area. The Edgewood residential development is located east of the Modified ESP area, across Corral Hollow Road. The area west of the Modified ESP area, across Lammers Road, is characterized by sparse rural residential development such as small-acre ranches and farmsteads (along with the appurtenant structures such as barns, storage sheds, etc.) on parcels of approximately four acres or more. The area is partially bounded to the south by the Delta Mendota Canal, which supplies water to the Central Valley. Refer to Figure 3-3 (Aerial Photograph).

The Modified ESP area is physically separated from surrounding areas by the Union Pacific Railroad on the south, the Delta Mendota Canal to the southwest, Corral Hollow Road on the east, and Lammers Road on the west; refer to Figure 3-3 (Aerial Photograph). The Modified ESP area is currently designated as Traditional Residential-Ellis (TR-Ellis) by the City of Tracy General Plan. The Modified ESP area contains some agricultural uses and is largely undeveloped. In addition, a residence, a barn, and a small tree nursery are located within the Modified ESP boundaries.



Source: RBF Consulting (2012)





Source: Modified Ellis Specific Plan (2012)



City of Tracy Modified Ellis Project Draft Revised EIR
Aerial Photograph

Figure 3-3

3.3 MODIFIED PROJECT CHARACTERISTICS

3.3.1 AMENDED AND RESTATED ELLIS DEVELOPMENT AGREEMENT¹

The Amended and Restated Ellis DA (application number DA11-0002) would establish the allocation of a total of 2,250 RGAs to the Project Applicant (to be applied entirely within the approximate 321-acre ESP area), funding, land, and design assistance for a community swim center, and the development of the Modified ESP.

The Amended and Restated Ellis DA will supersede the previously approved Ellis DA. The Amended and Restated Ellis DA vests into the existing laws and regulations as of the time of the Agreement, with exceptions for future changes in affordable housing and green building requirements. The term of the Amended and Restated Ellis DA is 25 years. The Amended and Restated Ellis DA will set forth several burdens and benefits for both parties including the following:

PROJECT APPLICANT TO PROVIDE CITY

- ◆ Two (2) Capital Contributions toward the design, construction, operation and maintenance of a Swim Center
 - \$2 Million within 60 days of Annexation Effective Date (First Swim Center Contribution)
 - \$8 Million no later than three years following First Swim Center Contribution
- ◆ Land Contribution
 - 16 acres of land (the “Ellis Swim Center site”) offered for dedication to the City, at no cost, for a Swim Center
- ◆ Design Contribution
 - \$324 Thousand in previous Swim Center design costs paid by Tracy Ellis
- ◆ Environmental Review
 - All environmental review costs for construction of a Swim Center at the Ellis Swim Center site
- ◆ Infrastructure Analysis Funding
 - All technical infrastructure analyses necessary for provision of infrastructure to a Swim Center at the Ellis Swim Center site
- ◆ Recycled Water Program
 - Project to fully participate in future recycled water program requirements in anticipated Water Master Plan, including all infrastructure and fee requirements

¹ The Draft Amended and Restated Ellis DA terms presented here are intended to provide sufficient information to the public to fully and adequately understand the potential environmental impacts from adoption and implementation of the proposed Amended and Restated Ellis DA. While there may be changes to terms and language of the Amended and Restated DA between the date of publication of the Draft Revised EIR and the City's certification of the Final Revised EIR and approval of the Amended and Restated Ellis DA, the City and the Project Applicant do not anticipate any changes to the substantive terms of the of the Amended and Restated Ellis DA that would result in any new, potentially significant environmental impacts resulting from its adoption and implementation that are not identified and analyzed in this Draft Revised EIR. In the event that any changes are proposed to the current Draft Amended and Restated DA, the City would carefully evaluate such proposed changes to ensure that they do not alter the conclusions identified in the Draft Revised EIR.

CITY TO PROVIDE PROJECT APPLICANT

- ◆ Reservation of Residential Growth Allotments (RGAs) and Building Permits (BPs)
 - Maximum of 2,250 RGAs and BPs reserved for Project over 25 years, to be allocated annually.
 - 225 RGAs and BPs reserved and allocated to the Project each year, subject to City's right to reduce reservation to 150 RGAs and BPs for up to 3 years (non-consecutive and no less than 2 years apart)
- ◆ Wastewater Treatment Capacity
 - Sufficient treatment capacity in City's existing WWTP to serve 800 residential units
- ◆ Wastewater Conveyance Capacity
 - No cost for Corral Hollow System capacity sufficient to serve 550 residential units
 - The right to use 330 residential units of existing capacity in the Corral Hollow Sewer Conveyance System on a permanent basis shall be reserved for Tracy Ellis at no cost. If, by January 31, 2016, contributions from other developers for expansion of the system for an additional 220 residential units has not been guaranteed to the City, then the remaining 220 units of capacity shall be reserved to Tracy Ellis and allocated upon each subdivision map approval.
 - Sufficient capacity in Eastside System to serve additional 250 residential units on an interim basis, until Corral Hollow Phase One Upgrade is completed shall be reserved for Tracy Ellis.
- ◆ Water Supplies and Capacity
 - City to reserve supplies, and transmission and treatment capacity for all Project development
 - City to provide supplies (but not transmission or treatment capacity) at no cost to Tracy Ellis

3.3.2 MODIFIED ELLIS SPECIFIC PLAN (MODIFIED ESP)

OVERVIEW

The Modified ESP would serve as a comprehensive land use policy, zoning, and design guideline document for the future development of approximately 321 acres defined in the City of Tracy General Plan as Traditional Residential-Ellis (TR-Ellis). As proposed, it is the intent of the Modified ESP to implement and fully comply with the goals, objectives, and policies of the General Plan, including the specific intent of the General Plan with respect to TR-Ellis. The Modified ESP includes a vision, guiding principles, and objectives, as well as design concepts, guidelines, a regulatory framework, and provisions for infrastructure financing. The document sets forth the strategies and phasing to guide future development within the Modified ESP boundaries. The Modified ESP would serve as the zoning document for all properties located within its borders (Petition for Annexation and Pre-Zoning Application Number A/P11-0002).

The Modified ESP incorporates a Pattern Book that sets forth the design standards for the development of buildings on lots. The Modified ESP with the Pattern Book would serve as the primary regulatory document to guide land use decisions and reinforce the City's goals and expectations for quality development of the area designated as TR-Ellis. While the Modified ESP would generally regulate development of lots with their land uses, parks, public landscaping, roads, and utilities, the Pattern Book would guide the placement of buildings on lots and the exterior architecture of buildings. The Modified ESP was prepared in accordance with the General Plan such that the goals and objectives of the Community Character Element of the General Plan were intentionally incorporated into the Modified ESP.

City of Tracy Modified Ellis Project Draft Revised EIR

Implementation of the Modified ESP would allow a mix of residential, commercial, office/professional, institutional, and recreational uses. The plan would accommodate a minimum of 1,000 to a maximum of 2,250 residential units,² 180,000 square feet of retail, office, and other commercial uses. It should be noted that the Modified Project is required to meet the City's parkland requirement of a dedication of four acres of parks per 1,000 residents for public use. This would be accomplished with the requirement of three acres of Neighborhood Parks per 1,000 residents to be built throughout Ellis and one acre of Community Park per 1,000 residents that would be satisfied with the payment of an in lieu fee.

VISION

The vision for the Modified ESP is to create a village with a broad mix of residential housing types and densities, neighborhood parks, commercial space, and an opportunity to include a Family Swim Center serving as a Community Park. Proposed development would be based on the principles of smart growth that promote pedestrian-friendly (walkable), compact, planned development tied together with a network of open spaces.

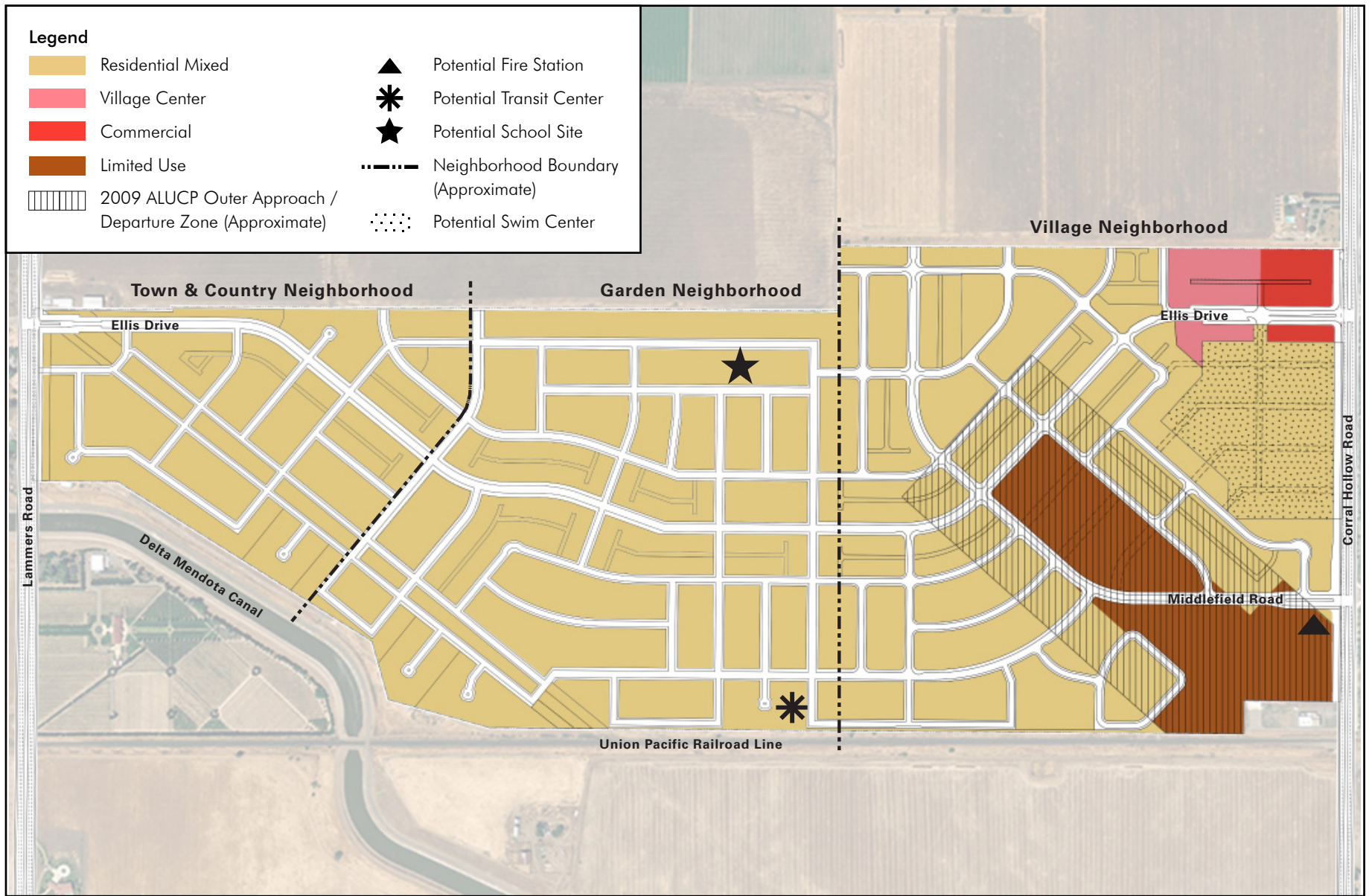
A Village Center with commercial and office/professional uses would be located adjacent to the Family Swim Center and would serve as the focal point of community activities. It should be noted that the Modified Project would include the opportunity to provide a Family Swim Center, but the Family Swim Center may not develop within the ESP area. The Modified Project would nonetheless still be required to meet the City's parkland requirement. These uses would be within walking distance of each other. The Modified ESP is also designed to accommodate a multi-modal transit hub (Transit Center) with Altamont Commuter Express (ACE) and Tracer bus service and commercial space in the event such a use becomes desirable and feasible. The community that would result from the Modified Ellis Specific Plan vision would be known as "Ellis."

LAND USE CONCEPT

Overview

In order to achieve the proposed vision for the future Ellis community, the Modified Ellis Specific Plan establishes a context for the orderly and efficient development of the Modified ESP area in accordance with the provisions of the City of Tracy General Plan. The Modified ESP includes a mix of residential, commercial, office/professional, institutional, and recreational uses. The Modified ESP would accommodate a minimum of 1,000 to a maximum of 2,250 residential units (not including secondary residential units), 60,000 square feet of retail and office use in the Village Center, 120,000 square feet of ancillary commercial uses and, consistent with City requirements, approximately four acres of parkland per 1,000 residents (three acres of parkland per 1,000 residents would be dedicated for Neighborhood Parks and one acre of parkland per 1,000 residents would be satisfied with the dedication of approximately 16 acres by the Project Applicant for a Family Swim Center), which would count toward the Community Park requirement. If the Family Swim Center is located elsewhere in the City, the Project Applicant would meet the Community Park requirement with the payment of an in lieu fee; refer to Figure 3-4 (Modified ESP Zoning Summary) for an illustrative depiction of the general location and relationship of all the primary land use areas within the Modified ESP area.

² Secondary residential units, as defined by the Tracy Municipal Code (T.M.C.), may be permitted within the ESP area provided they are located on lots that meet criteria to be established in the ESP.



Source: Modified Ellis Specific Plan (2012)



City of Tracy Modified Ellis Project Draft Revised EIR

The Pattern Book calls for a mix of architectural styles historically popular in the region, such as Ellis Craftsman, Ellis Farmhouse Victorian, Ellis European Country, Ellis Revival, Ellis Mediterranean Revival, and Ellis Spanish Colonial to guide the design of all future buildings within the Modified ESP area.

Housing would be the predominant land use within the Modified ESP area. The Modified ESP proposes three residential neighborhoods that would have pedestrian-scaled streets, neighborhood parks, and open spaces: the Village Neighborhood, Garden Neighborhood, and Town and Country Neighborhood. A Village Center with commercial, office/professional, civic facilities, and/or places of public assembly is proposed to support the residential land uses. Ancillary commercial uses are proposed adjacent to the Village Center, at the northeastern corner of the Modified ESP area. A variety of uses are permitted, including retail, restaurants, and service stations.

A Limited Use designation encompasses the Tracy Airport Outer Approach/Departure Zone in the southeast corner of the Modified ESP area. This designation allows all uses permitted in the Outer Approach/Departure Zone per the 1998 Tracy Municipal Airport Master Plan and the 2009 San Joaquin County Airport Land Use Compatibility Plan (ALUCP), including outdoor/self storage (conditional approval not required). However, it should be noted that all uses within the Tracy Airport Outer Approach/Departure Zone would be restricted to those consistent with the criteria established by the ALUCP in effect at the time of application.

As noted previously, a minimum of four acres per 1,000 residents would be dedicated to public use for parks and could include the provision of a Family Swim Center, which would serve as a Community Park. Uses in the Family Swim Center may include a competition swimming pool, recreation pool, wet play structures, recreational rivers, support facilities, and associated parking and landscaping. Should the Family Swim Center locate elsewhere in the City other than the Modified ESP area, the area it could have occupied within the Modified ESP area would revert to the underlying zoning (Residential Mixed). Proposed park, open space, and buffer areas would provide the community with both passive and active recreation opportunities.

In addition, the Modified ESP includes a potential five-acre site along the existing rail line that could be used as a multi-modal transit hub for both the ACE train and Tracer bus service. Uses on this site would include a train stop, bus transfer stop, and commuter parking spaces sufficient to serve the transportation needs of the future Ellis community.

Residential Land Uses

The goal of the residential component of the Modified ESP is to provide a range of housing choices to the residents of the City of Tracy. Residential Mixed is the primary zoning for Ellis. Consistent with TR-Ellis, Residential Mixed requires lot types to be intermixed. The resulting community character would project a “hometown feel,” including moderate building setbacks, variety in house size, sitting porches, and a mix of architectural styles. Lot types range from higher density mansion apartments to lower density 100-foot wide detached single-family lots.

Pursuant to the Modified ESP, the exact location of each lot type would be established at the time of Tentative Map approval, based on the mixing criteria in the Modified ESP and Pattern Book, which are described below (zoning standards are associated with the lot types documented in the Pattern Book). Within each neighborhood (Village, Garden, and Town and Country) there would be a minimum of four different lot types. A single lot type may represent up to 50 percent of the lot mix. Approved lot types are documented in the Pattern Book. Front-loaded versus rear-loaded lots

constitute two different lot types. For attached housing, no more than 200 apartment units or condominiums would be located together and no more than 800 linear feet of one lot type along the same street face would be permitted without a break.³ For detached housing, no more than 1,200 linear feet of one lot type along the same street face would be permitted without a break.

Neighborhoods

Village Neighborhood

The Village Neighborhood would consist of commercial uses, open space uses (the Family Swim Center may be located in the Village Neighborhood), and a mix of residential uses that would be located in the eastern portion of the Modified ESP area. The high-density residential uses would be located directly adjacent to the Village Center. Refer to Figure 3-5 (Illustrative Phasing Diagram).

Garden Neighborhood

The Garden Neighborhood would be located in the central portion of the Modified ESP area and would consist of a multitude of parks, open space, and a mix of residential uses.

Town and Country Neighborhood

The Town and Country Neighborhood would be located in the western portion of the Modified ESP area and would consist of parks, open space, and a mix of residential uses. However, this neighborhood would predominantly consist of low-density residential land uses.

Village Center (Mixed Use)

The Modified ESP would accommodate up to 60,000 square feet of commercial uses in the Village Center (VC). Permitted commercial uses would include shops, art galleries, services, banking, professional offices, cafes, and restaurants. Permitted public uses include a post office and/or civic facilities, including administrative offices. Places of public assembly and daycare centers are also permitted uses in the Village Center. A maximum of 50 residential units would be allowed in the Village Center. Those residential units may have a vertical mixed-use configuration with residential over commercial uses. Residential units in the Village Center may also be apartments, townhouses, condominiums, and/or live/work units. Access to the Village Center for most vehicles would be located off of Ellis Drive. Visitor parking would be on-street and behind shops and connected to the shopping areas by pathways between groups of buildings. The Village Center is within an approximate twenty-minute walk of all residential development proposed within the Modified ESP. The Village Center is anticipated to be the focal point of neighborhood activity and would provide a variety of retail, office, and residential uses. Retail services are envisioned as primarily neighborhood-serving.

Commercial (General) (C)

The northeast corner of the Modified ESP area is designated for up to 40,000 square feet of commercial uses, such as gas stations, banks, small office buildings, or coffee shops.

³ A break is defined as a physical interruption. Breaks must be a minimum of 200 linear feet and can be created by the use of a park or another lot type.



Source: Modified Ellis Specific Plan (2012)



Limited Use

The Limited Use designation is intended to allow for up to 80,000 square feet of development within the Tracy Airport Outer Approach Zone. Residential uses are not permitted in the Limited Use designation. No uses resulting in an assembly of greater than 50 people per acre are allowed. Uses permitted in this zone would include low intensity active recreation (i.e., jogging trails), agriculture production and sales (with restrictions on gathering), construction business, nurseries, storage units, and art studios (with restrictions on gathering). As noted previously, all uses within the Tracy Airport Outer Approach/Departure Zone would be restricted to those consistent with the criteria established by the Airport Land Use Compatibility Plan (ALUCP) in effect at the time of application.

Public Facilities

The Modified ESP allows a Transit Center as an allowable land use within a portion of the Residential Mixed Use zoning designation along a five-acre site along the existing Union Pacific rail line, approximately halfway between Corral Hollow Road and Lammers Road. It could include a train stop, bus transfer stop, and commuter parking spaces. The ACE Train and Tracer bus service may serve the Modified ESP area via a multi-modal transit hub. The feasibility of this use is dependent upon the transit policies of the City and regional transportation agencies. As noted previously, in the event the transit center is feasible to build in the future, it would replace residential development otherwise permitted.

Improved Parks

A substantial portion of the Modified ESP area is reserved for parks, including a Family Swim Center that would serve as a Community Park. Consistent with City requirements, the Modified ESP includes a minimum of four acres of parkland per 1,000 residents that would be dedicated for public use (Ellis proposes three acres of Neighborhood Parks per 1,000 residents and one acre of Community Parks per 1,000 residents – four acres total). The Amended and Restated Ellis DA establishes that the Family Swim Center would be used as credit for the Community Park requirement. However, it should be noted that if the Family Swim Center locates elsewhere in the City and not within the Modified ESP area, the Project Applicant would be required to pay an in lieu fee to meet the City's parkland dedication requirements, and the area it could have occupied would revert to the underlying zoning (Residential Mixed Use). The system is designed to serve a broad cross-section of residents by providing a diverse mix of active and passive recreational opportunities. The park areas would also be designed to be in compliance with the City of Tracy General Plan and the State of California's Quimby Act. The Modified ESP proposes improved parks that would be distributed throughout Modified ESP residential neighborhoods. The Modified ESP would also provide a native preserve that would be fenced off and planted with drought-tolerant native grasses and other compatible plants. The parks are designed to provide a diverse set of passive and active recreational opportunities, including walking paths, sports fields, play areas, court games, and community gathering places. Refer to Figure 3-6 (Illustrative Parks Plan).

Family Swim Center

A site along Corral Hollow Road has been reserved for a Family Swim Center that under the Amended and Restated Ellis DA would fulfill the Community Park obligation. As noted above, should the Family Swim Center not locate within the Modified ESP, the Project Applicant would be required to pay an in lieu fee to meet the City's parkland dedication requirements and the area it could have occupied would revert to the underlying zoning (Residential Mixed Use). Uses in the Family Swim Center may include a competition swimming pool, recreation pool, wet play structures, recreational rivers, support facilities, and associated parking and landscaping. The Community Park

Legend

- | | |
|-----------------------------|------------------------------|
| A Family Swim Center | F Western Park |
| B Village Green | G Carol's Rose Garden |
| C Cottage Park | H The Orchard |
| D Homestead Park | I The Native Preserve |
| E Central Park | |



Source: Modified Ellis Specific Plan (2012)



would meet active recreational needs for residents citywide and residents who live within the Modified ESP area. While the Family Swim Center is one component of the Community Park, it is intended to not only serve the needs of residents within the Modified ESP area, but also serve the recreational needs of residents citywide.

LANDSCAPING

The Modified ESP proposes that all future developments constructed within the Modified ESP area prioritize drought-tolerant landscaping where feasible. The Modified ESP recommends a variety of low-water use landscape materials. The Modified ESP requires that each park and public open space utilize a native plant palette to complement the streetscape plantings and provide for variety amongst the distribution of species.

RESOURCE CONSERVATION MEASURES

The Modified Ellis Specific Plan has been designed and planned with environmental sustainability measures in mind, such as compliance with new water efficiency measures for landscaping, walking paths, community connectivity, and Class 1 bike paths. The Modified ESP is also located on a commuter rail line with an existing transit stop less than two miles away. Building plans would be required to show how each proposed feature, material, component, and manufactured devices meet current energy efficiency standards.

The landscape system would be designed to reflect current best practices in landscape sustainability, including some or all of the following:

- ◆ Emphasize drought-tolerant native or climate adapted plants;
- ◆ Use California native plants where feasible;
- ◆ Minimize the use of lawn, except for recreational purposes;
- ◆ Group plants by water use, i.e., hydrozones;
- ◆ Design high efficiency, weather-based irrigation systems;
- ◆ Space plants to avoid the need for shearing;
- ◆ Choose diverse plant palettes;
- ◆ Incorporate on-site landscape stormwater management wherever feasible, including vegetated bioswales, rain gardens, infiltration planters, pervious paving, etc.
- ◆ Use recycled content landscape materials and furnishings where practical;
- ◆ Design high efficiency landscape lighting systems; and,
- ◆ Minimize light pollution and trespass.

INFRASTRUCTURE/PUBLIC UTILITIES

Procurement, development, and construction of a variety of infrastructure improvements would be required to support the proposed land uses. Necessary utilities include, but are not limited to: water supply sources, a water distribution system, a wastewater system, a stormwater conveyance system, and roads and sidewalks. The Modified ESP contains an Implementation Plan that describes the funding options and phasing of necessary infrastructure improvements. All utility distribution facilities (including but not limited to electric, gas, water, communication, and cable television lines), including utility service laterals and equipment, installed in and for the purpose of supplying service to any building or property, would be placed underground. Equipment appurtenant to underground facilities (i.e., transformers, terminal boxes, and meter cabinets) would be placed above ground. The following subsections describe the anticipated approach to required infrastructure and public utilities.

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The approach, corresponding methodology for analysis, and strategy to mitigate for any environmental impacts associated with providing for infrastructure and public utilities are addressed in Sections 4.7 and 4.8 of this Draft Revised EIR.

Circulation

Vehicular Access

The land use concept for the Modified ESP contains a framework for circulation consisting of both a Primary Street Network and an Internal Street Network. Proposed access to the community would be provided by new main entrances from Corral Hollow Road and Lammers Road, which are the main north/south arterials defining the edges of the Modified ESP area. Corral Hollow Road is designated as a major arterial and would be a two way, four-lane street. A main community street would align with Peony Road, connecting the new community to the existing residential development to the east. This street would run through the community, leading from the Village Center to Lammers Road in the west. A second main community street would align with the existing signalized intersection of Corral Hollow Road and Middlefield Road. This street would lead from Corral Hollow to the north, through the Village Neighborhood, providing future community streets throughout the Modified ESP area. Lammers Road would provide access to the Modified ESP area on the western edge of the community and would be a two way, two-lane street. Traffic signals are proposed for these three main entrance points.

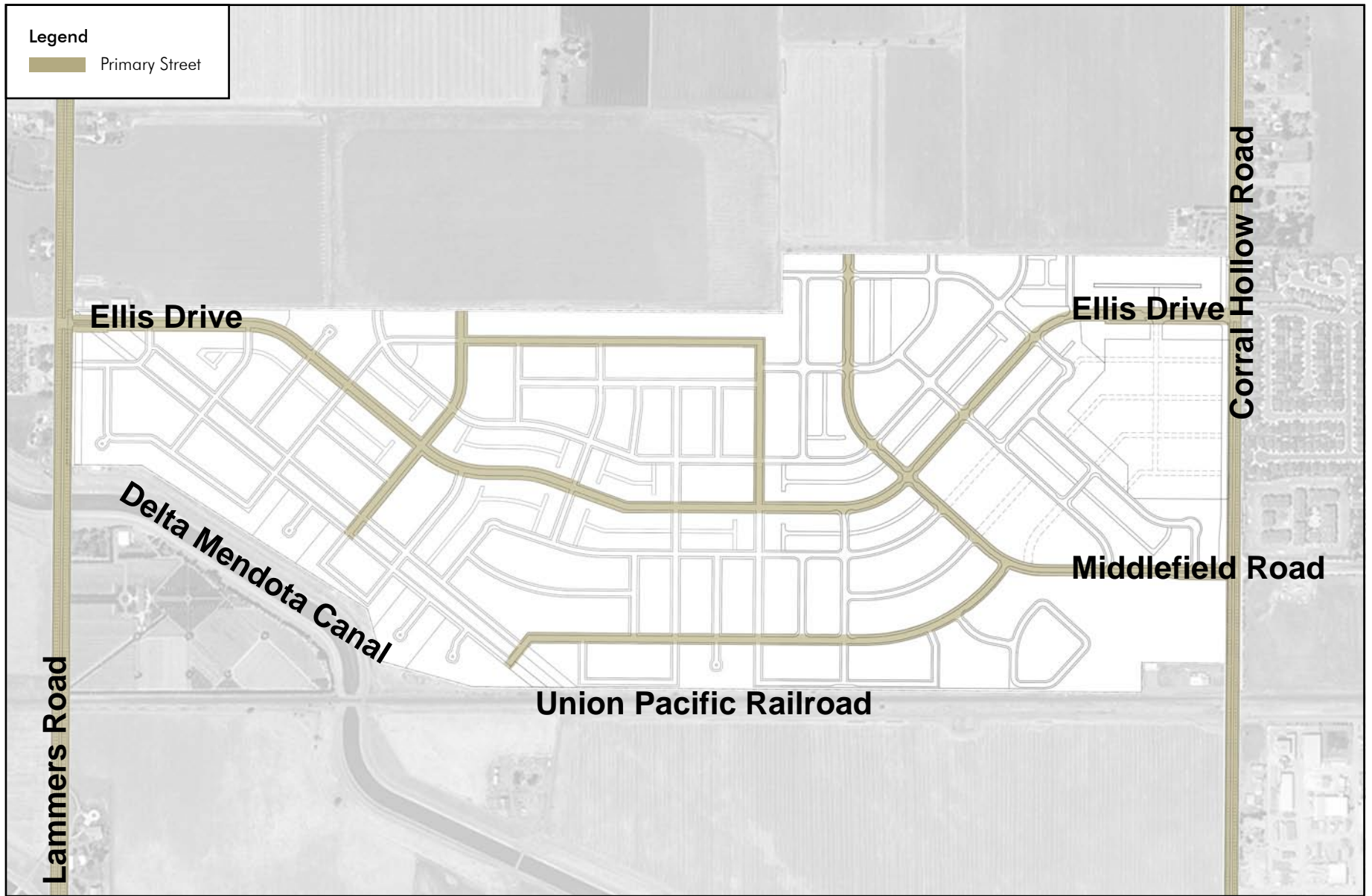
A grid pattern of different street types, most with a different character and function, would serve the transportation needs of the community. All streets would include sidewalks, and some streets may include bikeways. Most neighborhood streets would be designed for a 25-mph speed. Streets may contain landscaped shoulders and street trees. All roads would be publicly owned and maintained. Refer to Figures 3-7 (Primary Street Network) and 3-8 (Internal Street Network).

Bikeway and Pedestrian Plan

The streets, blocks, and parks of the Modified ESP area would be designed to accommodate the needs of pedestrians and bicyclists. All streets in the Modified ESP area would have sidewalks on at least one side; many would have sidewalks on both sides. A ten-foot multi-modal bike/pedestrian path would run through portions of the community to facilitate and encourage non-vehicular travel among neighborhoods, parks, and open spaces. Many parks would have bicycle racks. The bicycle/pedestrian network would link to the broader City of Tracy and San Joaquin Bikeway systems. Refer to Figure 3-9 (Pedestrian and Trail Systems Plan).

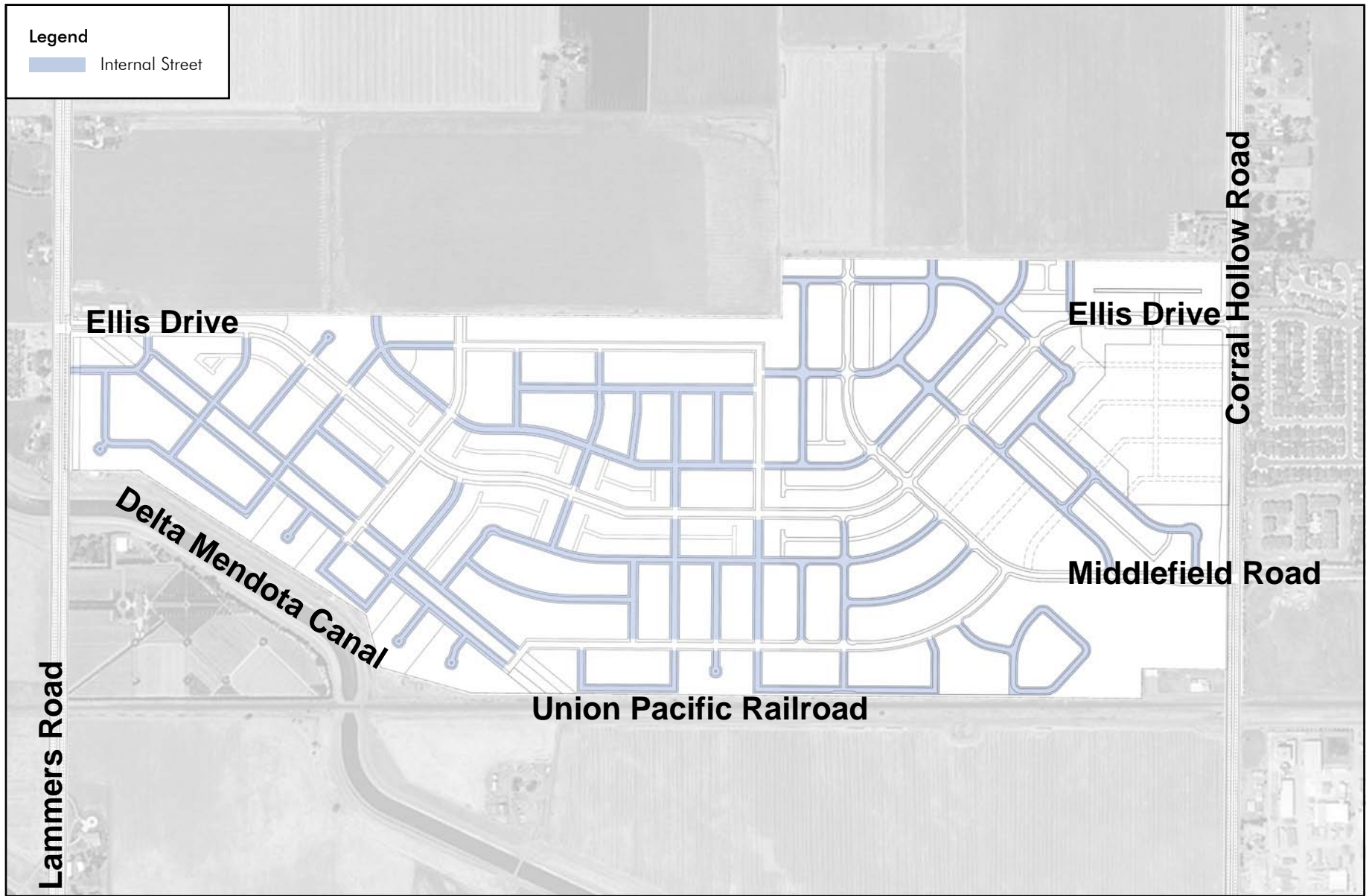
Public Transportation

The Modified ESP is designed to be a walkable, human-scaled community. At a regional scale, the community would be served by the ACE, which is a passenger rail line running between Stockton and San Jose, with a Bay Area Rapid Transit (BART) connection to the Bay Area from Pleasanton. Regional bus service is available within San Joaquin County via the San Joaquin Regional Transit District, County Area Transit, the San Joaquin Commuter bus, Greyhound, and Amtrak California.



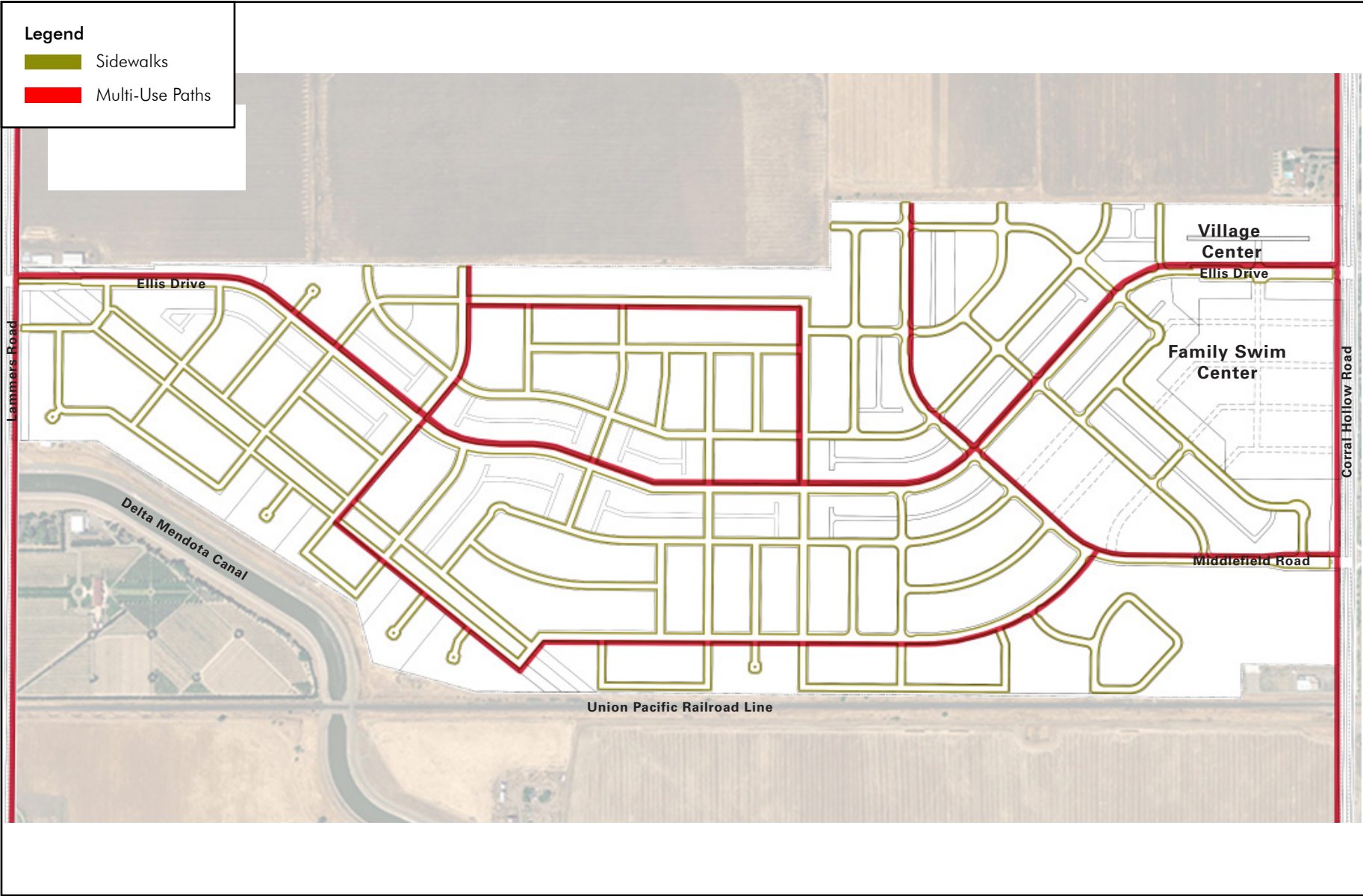
Source: Modified Ellis Specific Plan (2012)





Source: Modified Ellis Specific Plan (2012)





Source: Modified Ellis Specific Plan (2012)



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Transit access would be provided by the City's TRACER bus system. TRACER would provide a proposed commuter route along Ellis Drive through the Modified ESP area with four major stops. A potential commuter route connection to provide access to a potential Altamont Commuter Express (ACE) stop would be provided just south of the Ellis property boundary. The TRACER service would provide service to the City of Tracy Multimodal Transit Center, with connecting service to ACE rail, San Joaquin County Regional Transit (SJRTD) regional bus service, Greyhound, and the proposed future high speed rail service and BART connections to the Bay Area and beyond. As the City further develops to the south and the west, the bus service would be extended along Ellis Drive to Lammers Road; bus stops/pull outs would be located at intersections and provide for a quarter-mile to a half-mile walking distance from origins and destinations within the Modified ESP to the bus stops to promote transit travel.

Parking

Parking would be located on- and off-street, in designated lots; some residential parking may be accessed via rear alleys (called lanes). On-street visitor parking would be allowed on most street types. Off-street parking for land uses in the Village Center would be shared use. Shared use parking refers to spaces that are available to multiple functions in close proximity which are unlikely to require the same spaces at the same time, such as commercial and Village Center residential uses. Shared use parking would be constructed in the form of landscaped parking lots. Non-residential uses within the Village Center are required to provide one space per 250 square feet of building space. Residential uses within the Village Center are required to provide 1.25 spaces per unit.

All Residential Mixed lot types are required to provide two non-tandem parking spaces per unit for single-family residences and one and a half non-tandem parking spaces per unit for multiple-family residences that are located off street. Commercial land uses are required to provide one parking space per 250 square feet of building space or one parking space per 60 feet of assembly areas that are located off-street. Public land uses are required to provide one parking space per 250 square feet of building space (excluding truck bays) and one parking space per 45 square feet for dining uses.

EASEMENTS

The Modified ESP area is dissected by a number of easements granted to various federal, state, and regional agencies. The following utility easements are presently active on the Modified Project area:

- ◆ Easements owned by the United States of America. The water line easement is 16-foot wide, and the construction easement is 18-foot wide (except for a small triangular portion at the intersection of the canal property with the easterly right-of-way line of Lammers Road). The most northerly corner of the roadway/bridge easement is 350 feet northerly of the southern edge of the property along Lammers Road.
- ◆ A 50-foot wide Pacific Gas and Electric (PG&E) easement that traverses along the northwest-southeast axis within the Modified ESP area. A separate pipeline easement for gas, oil, and water, transferred to the Standard Oil Company by PG&E, is located along the PG&E easement in the southwest quadrant of the Modified ESP area.
- ◆ An unrecorded pipeline easement oriented northwest and southeast cutting across the northern Modified ESP boundary approximately 2,153 feet from Lammers Road.
- ◆ Two construction easements that are approximately 18 and 20 feet wide, respectively, in the north-south direction are located approximately 2,539 feet from Corral Hollow Road. A water pipeline easement is also located adjacent to these easements to the east and is 16-foot wide.

- ◆ A 16-foot water pipeline and construction easement along the southwest Modified ESP boundary parallel to the Delta-Mendota Canal that continues along portions of the railroad track in the south.
- ◆ An eight-foot wide roadway easement along the northern boundary of the Modified ESP area.
- ◆ A pipeline easement along Corral Hollow Road that is 30-feet wide.
- ◆ A 25-foot wide “Offer of Dedication” oriented west-east at a distance of 590 feet from the northern Modified ESP boundary.

In all, combinations of 26 easements are present on the Modified ESP area and in its immediate vicinity. As a result, portions of land within the Modified ESP area are required to have limited improvement to allow access to these utility lines for future construction and maintenance-related improvements. The Modified ESP has considered the location of these utility easements and, as a result, has proposed development policies and design guidelines that meet the criteria imposed by various public agencies in maintaining their easement rights.

UTILITIES

Anticipated utility systems required to address the proposed land use demands of the Modified Ellis Specific Plan only are described below.

Domestic Water Supply

Due to the size of the Modified Project, it was determined that it is subject to the requirements of Senate Bills 610 (SB 610) and 221 (SB 221), which require a Water Supply Assessment (WSA) to be prepared. As noted in Section 2.0, the Revised WSA has been incorporated by reference into this Draft Revised EIR.

The Modified ESP would be served from the City’s existing water supply sources as indicated in the Draft Revised Water Supply Assessment (Draft Revised Ellis WSA) prepared by West Yost Associates. Although not yet approved as of the writing of this Draft Revised EIR, the City will consider the Draft Revised Ellis WSA at the same City Council meeting at which the Council will consider certification of the Final Revised Ellis EIR. Information in the Draft Revised Ellis WSA represents the most up-to-date and current information available on water supply. As indicated in the WSA, the City’s existing supplies are sufficient to meet the City’s current and projected water needs. Information regarding the analysis contained within the Water Supply Assessment is described in detail in Section 4.14 (Water Supply and Other Public Utilities).

Domestic Water Distribution

The City of Tracy has three pressure zones for its treated water distribution system: Zones 1, 2, and 3. The Modified Project area is located in Zones 2 and 3. Zone 2 has a service elevation range of 75 to 150 feet. Zone 3 serves above elevation 150 feet, but is an isolated system that serves only the Patterson Pass Business Park through the Patterson Pass booster pump station several miles west of the Modified Project area. The existing 20-inch water main within Corral Hollow Road is a Zone 2 facility. This 20-inch main would serve as the distribution pipe for the Modified Project area. To serve areas within the Modified ESP area that are within the Zone 3 service elevation, a new booster pump station would be required near the 20-inch main located in Corral Hollow Road. Pressure reducing station(s) may be located if necessary to transition between zones within the Modified ESP area.

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Each phase of development within the Modified ESP area would need to complete a water line loop within the Modified Project. Proposed water mains within the Zone 2 service elevation of the Modified ESP may connect directly to the existing 20-inch main in Corral Hollow Road.

At buildout of the Modified ESP (the completion of all Modified ESP phases), multiple redundant loops would be provided between Corral Hollow Road, and a future water transmission main would be constructed south of the Modified ESP area from Linne Road to serve the Modified ESP area and other properties developing in Zone 3 by sharing pro-rata costs. The Modified ESP water distribution network would ultimately become part of the Westside Planning Area Pressure Zones 2 and 3.

Wastewater Generation

The average daily Modified ESP wastewater generated for the identified phases of development would depend on phasing limits and the amount of residential units proposed to be built. The Modified ESP would have an average daily sewage generation of 547,148 gpd (0.55 mgd) at buildout.

Wastewater Treatment

The City of Tracy provides wastewater collection, conveyance, treatment, and disposal for areas within the City limits. The existing Wastewater Treatment Plant (WWTP) has a current capacity of 10.8 mgd with a permitted expansion that would increase capacity to 16.0 mgd in phases as follows:

- ◆ Phase II – 12 mgd
- ◆ Phase III – 13.65 mgd
- ◆ Phase IV – 16 mgd

The WWTP currently has capacity and would serve the Family Swim Center, storage and development, and 800 residential units of the initial buildout. For ultimate Modified ESP buildout, Ellis will be served by the City's existing wastewater infrastructure and existing WWTP capacity. The "Ellis Finance and Implementation Plan" (FIP) shall identify the fees required for the Modified ESP maximum buildout.

Wastewater Conveyance

The proposed wastewater conveyance system to serve the Modified ESP area would be constructed to follow the existing ground slope of the area. The proposed wastewater line would convey flow toward Corral Hollow Road. The onsite collection system would range from eight- to 15-inch diameter wastewater line, with much of the 15-inch diameter line on the eastern side of the area near the discharge to Corral Hollow Road. A proposed wastewater trunk main would be installed within Corral Hollow Road and would connect to the existing 21-inch diameter wastewater trunk line on Corral Hollow Road that terminates at the intersection of Parkside Drive. The Modified ESP would be served by the City's existing wastewater infrastructure.

Phase 1 of the Modified ESP (including the Family Swim Center, 250 residential units, and the storage uses) would be permitted to connect to the east side transmission system through a tie-in constructed into the wastewater main at Peony Drive. Should access to the line not be required by the proposed Swim Center, then an additional 250 residential units may discharge to this line. The Corral Hollow Sewer Conveyance System currently has 550 units of available capacity. Pursuant to the Amended and Restated Ellis DA, the Project Applicant would be afforded the right to use 330 residential units of existing capacity in the Corral Hollow Sewer Conveyance System on a permanent basis. If, by

January 31, 2016, contributions from other developers to fund expansion of the system for an additional 220 residential units has not been guaranteed to the City, then the remaining 220 units of capacity shall be reserved to the Modified ESP and allocated upon each subdivision map approval. All east side residential units would be shifted to the Corral Hollow Sewer Conveyance System upon completion of the Corral Hollow Sewer Conveyance System Phase I upgrade. A new wastewater trunkline main, which would support full buildout, would extend northerly along Corral Hollow Road.

Conveyance capacity created in the Phase I upgrade of the Corral Hollow Sewer Conveyance System would serve an additional 1,750 residential units beyond the initial capacity of the Modified Project phases, along with commercial uses. The existing WWTP capacity would serve 800 single-family, detached residential units, the proposed Family Swim Center, and the storage uses. Modifications or expansions to the WWTP may be required for an additional 1,450 residential units and commercial uses.

The Ellis Finance and Implementation Plan shall identify the fees required for the Modified ESP at maximum buildout.

Storm Drainage

The Modified ESP area is located entirely within the southernmost, upstream portion of the City's Westside Channel Watershed. Existing storm drainage facilities downstream of the Modified ESP area, consisting of trunk line storm drains and open channels serving residential subdivisions to the north to DET 5 (Plasencia Field) and facilities downstream of DET 5 associated with the City's Westside Channel Outfall System, have been sized to accept attenuated (metered) storm runoff from the Modified ESP area. A new regional Detention Basin #3A is planned for the north side of Valpico Road and would store and attenuate runoff from existing and future development, including Ellis, within a portion of the Westside Channel Watershed.

The proposed site storm drainage system would be constructed to follow the existing ground slope of the Modified ESP area, which is relatively flat. Based on existing topographic information, the terrain generally slopes less than one percent from the southwest corner of the site to the northwest corner of the Modified ESP area. In the east-west direction, the slope of the Modified ESP area is less than 0.5 percent.

The proposed storm drain collection system would include a network of gravity lines and inlet structures. Pipe sizes may range from 12- to 42-inch diameter. In the event that the proposed regional Detention Basin #3A is not constructed prior to the development of Phase 1 of the Modified ESP, stormwater runoff from Phase 1 would be retained on site or at a nearby location. Based on the City of Tracy Design Standards, the Basic Retention Volume (BRV) is 18.1 acre feet or as approved by the City Engineer. Retention basin(s) constructed with Phase 1 could be expanded, relocated, and/or duplicated prior to the next phase of development. Alternatively, all or a portion of the regional Westside Channel Stormwater Detention Basin #3A could be constructed to serve the Modified ESP or upsized to serve the regional storm watershed. At buildout, a stormwater conveyance system to the regional Westside Channel Stormwater Detention Basin #3A would serve the Modified ESP and the regional storm watershed and any interim retention basins would be filled and may be developed.

The Ellis Finance and Implementation Plan shall identify the fees required for the Modified ESP at maximum buildout.

Stormwater Quality Best Management Practices

The Modified Project would implement stormwater management techniques or Best Management Practices (BMPs) to comply with the City of Tracy Manual of Stormwater Quality Control Standards for New Development and Redevelopment (SWQC Manual).

PHASING

The Modified ESP area is divided into three neighborhoods defined by density, intensity, and character. Each neighborhood represents a proposed phase for implementation of the Modified ESP. Development is expected to take place in the following phases: Phase 1 (Village Neighborhood), Phase 2 (Garden Neighborhood), and Phase 3 (Town and Country Neighborhood), but the buildout of the neighborhoods is expected to overlap. Refer to Figure 3-5 (Illustrative Phasing Diagram).

3.3.3 PETITION FOR ANNEXATION AND PRE-ZONING

As described previously, the Modified ESP area is currently located outside of the City of Tracy city limits, within the City's SOI. In addition to the adoption of the Modified ESP, the City is also proposing to pre-zone the Modified Project area to Ellis Specific Plan to accommodate the uses proposed by the Modified Specific Plan and to annex the entire 321-acre Modified Project area into the City of Tracy. Upon annexation of the entire 321-acre Modified Project area into the City of Tracy, the City would amend the Zoning Map to designate the Modified Project area Ellis Specific Plan.

3.3.4 GENERAL PLAN AMENDMENT

The Modified Project would require an amendment of the General Plan that would modify the TR-Ellis designation in the General Plan from what was approved in February 2011 to reflect specific mix and density/intensity of uses proposed by the Modified Project. The proposed amendments to the General Plan are listed below.

- A. Section 2 of the Land Use Element at page 2-14: Table 2-2 General Plan Land Use Designations (City Limits and SOI); the Land Use Designation row labeled "Commercial", shall hereby be amended to say:

768 City Limits (Acres); 500 SOI (Acres); 1268 Total

- B. Section 2 of the Land Use Element at page 2-14: Table 2-2 General Plan Land Use Designations (City Limits and SOI); the Land Use Designation row labeled "Village Center", shall hereby be amended to say:

121 City Limits (Acres); 6 SOI (Acres); 127 Total

- C. Section 2 of the Land Use Element at pages 2-18 and 2-19: Traditional Residential (TR) is hereby amended to read as follows:

TR areas consist of a mix of residential densities and housing types reminiscent of traditional neighborhoods (often seen in older urban and suburban settings), ranging from single-family detached housing to attached medium and high density housing types, sometimes adjacent to (or above) retail, commercial or other compatible uses. TR allows a mix of a wider range of housing types, lot sizes, and density ranges compared with typical Residential Very Low (RVL), Residential Low (RL), Residential Medium (RM), and Residential High (RH). TR also

allows the establishment of building and design criteria that allows for a more traditional look, including items such as moderate building setbacks, picket fences and sitting porches, an interconnected street network, pedestrian accessibility and trail systems, and the organization of residential units around a series of centrally-located active and passive "themed" neighborhood parks and/or recreation uses. TR areas are intended to be used primarily for residential Urban Reserves, though not exclusively, and are encouraged to be located near Village Centers. At least four (4) important residential criteria shall be established at the time a property is designated to "TR" through a General Plan Amendment so that dwelling unit and population density, design, and neighborhood compatibility standards can be established: (1) The maximum and minimum number of residential units allowed in the TR area and the average number of people per unit; (2) The density ranges allowed in terms of dwelling units per acre; (3) A "Design Book" to ensure design quality, interesting and diverse architectural treatments, and an attractive streetscape; and (4) The criteria that will be used to establish the location/mix of residential design and housing types in the TR area to encourage an interesting and compatible neighborhood and to discourage the domination of a sub-area with only one or a few residential housing types and designs. Park and recreation uses shall be established as part of the TR planning process. The re-designation of a property to the TR designation shall be implemented only in combination with the particular project's development-level planning process (e.g., Specific Plan process, or if no Specific Plan is required, through the City's zoning process) that addresses the residential criteria set forth above. In other words, a property shall not be re-designated to the TR designation unless and until a particular project's residential criteria as set forth above are known and determined. Once a property secures a TR designation, the designation shall be known as "TR-[the name of the project]."

- D. Section 2 of the Land Use Element at pages 2-19 through 2-22: Traditional Residential - Ellis (TR-Ellis) is hereby amended to read as follows:

The Traditional Residential – Ellis (TR-Ellis) designation applies to the Ellis Specific Plan. The TR-Ellis designation shall include between 1000 and 2250 total residential units, for an overall site density of between 4 and 7 units per gross acre. (The General Plan establishes an average of 3.21 persons per household, as set forth in the Land Use and Housing Elements.) The TR-Ellis designation includes one residential sub-designation (Zoning District): "Residential Mixed." Additionally, up to 50 of the 2250 residential units shall be allowed in the adjacent Village Center (4 to 16 units per gross acre for approximately 6 acres). Finally, the TR-Ellis area shall include a park dedication of 4 acres per 1,000 people. TR-Ellis will feature 3 park acres per 1,000 population generated for Neighborhood Parks and 1 park acre per 1,000 population generated for Community Parks (4 acres per 1,000 population generated total). Also, there is a possibility of an additional 16 acres (approximately) for a family-oriented swim Center ("Swim Center"), which would serve as a credit for Ellis' Community Park requirement. The "Ellis Pattern Book," which sets forth the architectural and site design guidelines for the TR-Ellis area has been adopted by the City Council in connection with the Council's adoption of the TR-Ellis designation. TR-Ellis shall consist of residential neighborhoods, each with its own distinct sense of place, reinforcing the traditional, hometown feel. Blocks shall be sized to support a mix of housing types all designed to accommodate a wide range of incomes and family needs. The TR-Ellis area will be constructed using traditional neighborhood design principles, creating a pedestrian-friendly network of streets and parks. In some cases, garages will be located off the street and will be accessed by way of rear alleys. Other land uses adjacent to, and compatible with,

the TR-Ellis area, shall include, but not be limited to, an approximately 7-acre Village Center (with up to 50 of the 2250 residential units and up to 60,000 square feet of commercial uses), and up to 120,000 additional square feet of commercial uses (the General Plan establishes a maximum FAR for commercial uses of 1.0). The Tracy Airport “outer approach zone” shall be limited in uses to those authorized in the San Joaquin County Airport Land Use Plan. The owner of the Ellis property is willing to provide the City a substantial financial contribution towards the design, construction, operation and maintenance of the Swim Center (that far exceeds the owner's fair share responsibility and therefore what the City could otherwise legally require the owner to contribute towards the Swim Center) in return for certain City commitments that the City is not otherwise legally required to provide. For example, the City's Growth Management Ordinance and Guidelines recognize that a process can be established through a freely-entered statutory development agreement whereby the City could provide commitments to the owner to potentially issue up to a set maximum amount of residential growth allocations (RGAs) to a project that absent that development agreement the City might not have to issue.

- E. Section 2 of the Land Use Element at page 2-23: The term, “future multi-modal terminal,” shall hereby be amended to say: “Tracy Transit Station.”
- F. Section 2 of the Land Use Element at page 2-26; 5. Village Center (VC): the portion of the sentence that says, “...Village Centers generally range in size from 10 to 20 acres...” is hereby amended to say: “...Village Centers generally range in size from 5 to 20 acres...”
- G. Section 2 of the Land Use Element, Policy P3, page 2-36, 1st paragraph: The term, “Applications,” shall hereby be amended to say: “Approvals,” and, the term, “considered,” shall hereby be amended to say: “issued.”
- H. Section 2 of the Land Use Element, Objective LU-1.5, Policy P3, page 2-39, is hereby amended to read as follows:

A new, mixed-use, high density Village Center should be developed along the Union Pacific Railroad.

3.4 MODIFIED PROJECT OBJECTIVES

3.4.1 CITY OF TRACY OBJECTIVES

PRIMARY OBJECTIVES

- ◆ Obtain significant funding for, or develop a public-private partnership for the construction of, a family-oriented swim center that is economically viable and sited in a central location, with easy and safe access for pedestrians and bicyclists.
- ◆ Implement the General Plan's policies and vision for UR-10/TR Ellis, which was the culmination of a planning process that began nearly two decades ago.

SECONDARY OBJECTIVES

- ◆ To further the land planning, architecture, landscape architecture, and urban design goals of the Community Character element and Land Use elements of the General Plan.

- ◆ To further the diversity of housing types, lot sizes, and density ranges consistent with traditional neighborhoods.
- ◆ To encourage applications that preserve and enhance the City of Tracy’s unique “hometown” character through quality urban design and application of environmental sustainable features such as walkability, bicycle friendliness, and connectivity to the community.
- ◆ To encourage and secure private participation in the provision, dedication, and funding of community benefits such as a family-oriented swim center.
- ◆ To approve a project that can be used as a representation and example to other projects of future residential site planning that is desirable to the City.
- ◆ To increase the certainty of development by providing reservations for growth allotments and public utilities.

3.4.2 PROJECT APPLICANT OBJECTIVES

- ◆ Provide a mix of housing options, including single-family and multi-family dwellings, to help assure the economic feasibility of the development, provide for a mix of housing options in terms of affordability, and provide a varied urban form.
- ◆ Create a range of job and economic development opportunities for local individuals and business enterprises, particularly for residents and businesses located in the City of Tracy.
- ◆ Provide a mix of commercial, office/professional, institutional, recreational, and residential uses in close proximity and at the maximum density feasible within ranges established by the General Plan, in order to create an appealing walkable urban environment served by transit that addresses the concepts and practices of sustainability and smart growth, especially in the Village Center.
- ◆ Create new public recreational and public open spaces.
- ◆ Utilize a variety of architectural styles for all land uses.
- ◆ Create a series of neighborhoods with a unique identity that is compatible, but distinguishable, from other areas in the City of Tracy.
- ◆ Construct a project that will maintain the Surland Companies’ strong reputation in the community for high quality development.

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4.1 AESTHETICS

No changes have been made to the aesthetics environmental impact evaluation contained within the Original Ellis EIR as a result of the Modified Project; other background information, analysis of environmental impacts, and mitigation measures contained within Section 3B.6 (Aesthetics) of the Original Ellis EIR remain valid and are incorporated herein. Please refer to Section 3B.6 (Aesthetics) in the Original Ellis EIR, certified December 2008. Pursuant to Section 15150 (c) of the State CEQA Guidelines, the following summarizes the impacts and mitigation measures identified in Section 3B.6 (Aesthetics) of the Original Ellis EIR. As described in Chapter 2 (Introduction), the Original Ellis EIR is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376.

4.1.1 AESTHETICS IMPACT AND MITIGATION SUMMARY

Light and glare associated with development allowed under the Original ESP would adversely affect day or nighttime views in the area. However, it is anticipated that even with the implementation of mitigation, long-term light and glare impacts would be significant and unavoidable. Identified mitigation consists of requiring design features that reduce visibility of the Original ESP caused by light and glare. Implementation of the Original ESP would permanently change the existing visual landscape and character of the Original ESP area. Identified mitigation consists of requiring tentative tract maps to show the temporary construction equipment staging areas within the Original ESP site through the duration of construction. These areas shall be clustered in order to minimize visual impacts during construction. However, even with the implementation of this mitigation, a significant and unavoidable impact would occur. Development of the Original ESP area would impact scenic private views of the agricultural vista associated with the Original ESP area. This is because the Original ESP area would be changed from agricultural open space to a planned community. Regardless of the fact that private views are not protected, implementation of the Original ESP would cause a substantial adverse effect on a scenic vista. No mitigation is feasible, and as such the impact would be significant and unavoidable. The Original ESP would construct buildings and other urban features within the range of the I-580 scenic corridor. As no feasible mitigation was found, the impact would be significant and unavoidable.

The following provides a list of previously identified impacts and their corresponding mitigation measures. It should be noted that the Original Ellis EIR referred to the Original ESP as the proposed ESP, while this Revised Draft EIR refers to the currently proposed ESP as the Modified ESP, but all other aspects remains the same.

Impact 3B.6-1: The ESP would create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area. Determination: Significant and Unavoidable Impact.

Mitigation Measure 3B.6-1: ESP design features shall be incorporated by the Project Applicant and future Project Applicants to reduce visibility of the ESP caused by light and glare.

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Impact 3B.6-2: Implementation of the ESP could substantially degrade the existing visual character or quality of the site and its surroundings. Determination: Significant and Unavoidable Impact.

Mitigation Measure 3B.6-2: With submittal of a tentative tract map application, the Project Applicant shall show the temporary construction equipment staging areas within the ESP site through the duration of construction. These areas shall be clustered in order to minimize visual impacts during construction.

Impact 3B.6-3: The ESP could cause a substantial adverse effect on a scenic vista. Determination: Significant and Unavoidable Impact.

Mitigation Measure 3B.6-3: No mitigation is feasible.

Impact 3B.6-4: The ESP could substantially damage scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic buildings within a state scenic highway. Determination: Significant and Unavoidable Impact.

Mitigation Measure 3B.6-4: No mitigation is feasible.

4.2 AGRICULTURAL RESOURCES

No changes have been made to the agricultural resources environmental impact evaluation contained within the Original Ellis EIR as a result of the Modified Project; other background information, analysis of environmental impacts, and mitigation measures contained within Section 3B.7 (Agricultural Resources) of the Original Ellis EIR remain valid and are incorporated herein. Please refer to Section 3B.7 (Agricultural Resources) in the Original Ellis EIR, certified December 2008. It should be noted that subsequent to certification of the Original Ellis EIR, the City updated its General Plan and corresponding Land Use Element. As a result of this update, the land use designation identified in the Original Ellis EIR (“Urban Reserve 10”) has been reclassified as Traditional Residential-Ellis, or “TR-Ellis” (refer to Section 4.9 [Land Use and Planning] of this Draft Revised EIR for further information relative to the land use designation). This redesignation does not, however, result in any changes that substantively or materially affect the content, characterization, or conclusions of the prior analysis.

In addition, goals and policies associated with agricultural land conversion were updated in the Open Space and Conservation Element of the 2011 General Plan. Goal OSC-2 focuses on the identification, preservation, and protection of significant agricultural resources, which focuses on objectives and policies designed to preserve agricultural lands outside of the Sphere of Influence (SOI) and minimize conflicts between agricultural and urban uses, which are both land use issues. In response to this change in the General Plan, additional information regarding agricultural land conversion has been provided in Section 4.9 Land Use of this Draft Revised EIR. Pursuant to Section 15150 (c) of the State CEQA Guidelines, the following summarizes the impacts and mitigation measures identified in Section 3B.7 (Agricultural Resources) of the Original Ellis EIR. As described in Chapter 2, (Introduction), the Original Ellis EIR is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376.

4.2.1 AGRICULTURAL RESOURCES IMPACT AND MITIGATION SUMMARY

Although none of the parcels within the ESP site are under a Williamson Act contract, the land is zoned Agricultural-Urban Reserve (AU-20) by the County. Development of the site would therefore conflict with existing zoning for agricultural use. However, the ESP site is considered “Urban Reserve 10” by the City (see discussion above regarding the change in land use designation as a result of the City’s update to its General Plan). The City will be initiating proceedings by petition with the San Joaquin County Local Agency Formation Commission (LAFCo) for the reorganization of the City of Tracy’s boundary and service districts to include the ESP site, which is currently in the City’s SOI. The subsequent urban development of the ESP site would be consistent with the City’s zoning and proposed uses for the area. Thus, implementation of the Original ESP would have less than significant impacts associated with conflicts with agricultural zoning. Indirect impacts on important farmland associated with implementation of the Original ESP would be less than significant with adherence to existing City policies and regulations and the implementation of mitigation requiring fencing to keep humans, pets, and livestock from crossing property lines. The Original ESP would result in the conversion of prime farmland to non agricultural use, thus resulting in a significant and unavoidable impact. The identified mitigation for this impact (payment of fees) would not

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compensate for the net loss of prime agricultural land and impacts would remain significant and unavoidable.

The following provides a list of previously identified impacts and their corresponding mitigation measures. It should be noted that the Original Ellis EIR referred to the Original ESP as the proposed ESP and this Revised Draft EIR refers to the currently proposed ESP as the Modified ESP, but all other aspects remain the same.

Impact 3B.7-1: The proposed ESP would conflict with existing zoning for agricultural use or a Williamson Act Contract. Determination: Less Than Significant Impact.

Mitigation Measure 3B.7-1: No mitigation is necessary.

Impact 3B.7-2: The proposed ESP would involve other changes to 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.

Mitigation Measure 3B.7-2: As construction occurs along the northern Ellis boundary, fencing consistent with the ESP shall be required prior to occupancy of those structures.

Impact 3B.7-3: The proposed ESP would convert Prime Farmland to non-agricultural uses. Determination: Significant and Unavoidable Impact.

Mitigation Measure 3B.7-3: Prior to issuance of building permits, future Project Applicants shall pay the appropriate Agricultural Mitigation Fee to the City of Tracy, in accordance with Chapter 13.28 of the Tracy Municipal Code.

4.3 AIR QUALITY

As described in Chapter 2 (Introduction), this Revised Draft EIR analyzes the potential environmental effects of the proposed changes associated with the Modified Project, and identifies feasible mitigation measures for potentially significant impacts where applicable. In addition, this Draft Revised EIR also addresses:

- ◆ the Trial Court’s Statement of Decision and Judgment (issued October 31, 2011) on the City of Tracy/Surland Companies Development Agreement and Ellis Specific Plan Applications Draft and Final EIRs (State Clearinghouse No. 2006102092) (Original Ellis EIR); as well as,
- ◆ updates to the ESP area as identified in the 2011 General Plan Update and analysis in the General Plan EIR (certified February 2011).

Other background information, analysis of environmental impacts, and mitigation measures contained within the Original Ellis EIR remain valid, and as described in Chapter 2, that information has been incorporated by reference into this Draft Revised EIR. Thus, the topics covered in this chapter are limited to addressing those aspects described above. Specifically, this section provides:

- 1) an updated discussion of existing environmental conditions in the San Joaquin Valley Air Basin (Basin) and the regulatory framework surrounding air quality in the Basin; and,
- 2) an evaluation of air quality emissions associated with short- and long-term impacts resulting from buildout of the Modified ESP

Information in this section is based primarily on the California Environmental Quality Act (CEQA); the *2007 Ozone Plan*, *2007 PM₁₀ 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 2009 through 2011); *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 *Transportation Impact Analysis for the Ellis Specific Plan in the City of Tracy* (December 2007), prepared by Fehr & Peers (updated and validated by RBF Consulting in April 2012).

4.3.1 EXISTING CONDITIONS

ENVIRONMENTAL SETTING

The Modified ESP 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).

CLIMATE

The climate within the Basin is characterized by moderate temperatures and comfortable humidity, 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

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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 2009 through 2011 is provided in Table 4.3-1 (Local Air Quality Levels).

TABLE 4.3-1 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 | 2009 | 3.40 ppm | 0/0 |
| | | | 2010 | 2.80 | 0/0 |
| | | | 2011 | 3.20 | 0/0 |
| Carbon Monoxide (CO) ² (8-Hour) | 9 ppm for 8 hours | 9 ppm for 8 hours | 2009 | 2.29 ppm | 0/0 |
| | | | 2010 | 1.60 | 0/0 |
| | | | 2011 | 2.13 | 0/0 |
| Ozone (O ₃) (1-Hour) ³ | 0.09 ppm for 1 hour | NA ⁴ | 2009 | 0.104 ppm | 2/0 |
| | | | 2010 | 0.113 | 1/0 |
| | | | 2011 | 0.107 | 3/0 |
| Ozone (O ₃) (8-Hour) ³ | 0.070 ppm for 8 hours | 0.075 ppm for 8 hours | 2009 | 0.087 ppm | 20/8 |
| | | | 2010 | 0.092 | 8/3 |
| | | | 2011 | 0.088 | 21/8 |
| Nitrogen Dioxide (NO ₂) ³ | 0.18 ppm for 1 hour | 0.100 ppm for 1 hour | 2009 | 0.043 ppm | 0/NM |
| | | | 2010 | 0.040 | 0/NM |
| | | | 2011 | 0.039 | 0/NM |
| Particulate Matter (PM ₁₀) ^{3,5,6} | 50 µg/m ³ for 24 hours | 150 µg/m ³ for 24 hours | 2009 | 55.3 µg/m ³ | NM/0 |
| | | | 2010 | 28.5 | NM/0 |
| | | | 2011 | 110.8 | NM/0 |
| Fine Particulate Matter (PM _{2.5}) ^{3,6} | No Separate State Standard | 35 µg/m ³ for 24 hours | 2009 | 41.6 µg/m ³ | NM/NM |
| | | | 2010 | 42.3 | NM/NM |
| | | | 2011 | 26.7 | NM/NM |

PM₁₀ = 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

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 – PM₁₀ exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.

6 – PM₁₀ 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>, accessed on June 12, 2012.

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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 (O₃), and react in the atmosphere to form acid rain. NO₂ (often used interchangeably with NO_x) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO₂ occur in areas that have a high concentration of combustion sources (i.e., motor vehicle engines, power plants, refineries, and other industrial operations).

NO₂ 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 NO₂ 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 NO₂ may aggravate eyes and mucus membranes as well as cause pulmonary dysfunction.

Ozone. O₃ 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" O₃ layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays.

The "bad" O₃ is a photochemical pollutant, and needs reactive organic gases (ROGs), NO_x, and sunlight to form; therefore, ROGs and NO_x are O₃ precursors. To reduce O₃ concentrations, it is necessary to control the emissions of these O₃ precursors. Significant O₃ 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 O₃ concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O₃ in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level O₃ (in the troposphere) can adversely affect the human respiratory system and other tissues. O₃ 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 O₃. Short-term exposure (lasting for a few hours) to O₃ 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 (PM₁₀). Coarse particulate matter (PM₁₀) refers to suspended particulate matter, which is smaller than 10 microns or 10 one-millionths of a meter. PM₁₀ 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 health 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,

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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. Table 4.3-2 (Sensitive Receptors) lists the sensitive receptors within one mile of the ESP site.

TABLE 4.3-2 SENSITIVE RECEPTORS

| Type | Name | Distance (miles) | Direction |
|-------------------|--------------------------------------------|------------------|-----------|
| Residential | Single Family Residential | 0.03-1 | Various |
| Schools | Anthony Traina Elementary School | 0.5 | East |
| | Amazing Kids Childcare | 0.6 | East |
| | Tender Loving Care Preschool | 0.5 | East |
| | Bundles of Joy Day Care | 0.25 | East |
| | AquarianKids PreSchool & ChildCare Program | 0.5 | East |
| Hospitals | NA | NA | NA |
| Religious Centers | Jesus Christ of Latter-Day Saints | 0.25 | North |
| | Church of the Resurrection | 0.9 | East |
| | Calvary Chapel Tracy | 0.5 | East |
| | New Creation Bible Fellowship | 0.5 | East |

NOTES:

NA = not applicable

Sources: <http://yp.yahoo.com> (Yellow Pages). Sensitive Receptor populations utilized in this analysis are those within a one mile radius of the ESP site.

4.3.2 REGULATORY FRAMEWORK

Regulatory oversight for air quality in the Basin rests at the regional level with the SJVAPCD, CARB at the State level, and the EPA at the Federal level.

FEDERAL

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 O₃, CO, NO₂ (which is a form of NO_x), SO₂ (which is a form of SO_x), particulate matter less than 10 and 2.5 microns in diameter (PM₁₀ and PM_{2.5}, respectively), and lead (Pb). Refer to Table 4.3-3 (National and California Ambient Air Quality Standards).

TABLE 4.3-3: NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

| Pollutant | Averaging Time | California ¹ | | Federal ² | |
|--------------------------------------------------|----------------------------------|------------------------------------------|-------------------|------------------------------------|-------------------|
| | | Standard ³ | Attainment Status | Standards ^{3,4} | Attainment Status |
| Ozone (O ₃) | 1 Hour | 0.09 ppm (180 µg/m ³) | Nonattainment | N/A | NA ⁵ |
| | 8 Hours | 0.070 ppm (137 µg/m ³) | Nonattainment | 0.075 ppm (147 µg/m ³) | Nonattainment |
| Particulate Matter (PM ₁₀) | 24 Hours | 50 µg/m ³ | Nonattainment | 150 µg/m ³ | Attainment |
| | Annual Arithmetic Mean | 20 µg/m ³ | Nonattainment | N/A | Attainment |
| Fine Particulate Matter (PM _{2.5}) | 24 Hours | No Separate State Standard | | 35 µg/m ³ | Nonattainment |
| | Annual Arithmetic Mean | 12 µg/m ³ | Nonattainment | 15.0 µg/m ³ | Nonattainment |
| Carbon Monoxide (CO) | 8 Hours | 9.0 ppm (10 mg/m ³) | Attainment | 9 ppm (10 mg/m ³) | Attainment |
| | 1 Hour | 20 ppm (23 mg/m ³) | Attainment | 35 ppm (40 mg/m ³) | Attainment |
| Nitrogen Dioxide (NO ₂) ⁵ | Annual Arithmetic Mean | 0.030 ppm (57 µg/m ³) | N/A | 53 ppb (100 µg/m ³) | Attainment |
| | 1 Hour | 0.18 ppm (339 µg/m ³) | Attainment | 100 ppb (188 µg/m ³) | N/A |
| Lead (Pb) ^{7,8} | 30 days average | 1.5 µg/m ³ | Attainment | N/A | N/A |
| | Calendar Quarter | N/A | N/A | 1.5 µg/m ³ | Attainment |
| Sulfur Dioxide (SO ₂) ⁶ | 24 Hours | 0.04 ppm (105 µg/m ³) | Attainment | N/A | N/A |
| | 3 Hours | N/A | N/A | N/A | N/A |
| | 1 Hour | 0.25 ppm (655 µg/m ³) | Attainment | 75 ppb (196 µg/m ³) | Unclassified |
| Visibility-Reducing Particles ⁹ | 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/m ³ | Attainment | | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/m ³) | Unclassified | | |
| Vinyl Chloride ⁷ | 24 Hour | 0.01 ppm (26 µg/m ³) | 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

- California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, 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.
- National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, 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. Contact the U.S. EPA for further clarification and current national policies.
- Concentration 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 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
- To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.
- On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- In 1989, CARB converted both the general Statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the Statewide and Lake Tahoe Air Basin standards, respectively.

Source: California Air Resources Board and U.S. Environmental Protection Agency, February 7, 2012.

STATE

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 4.3-3, 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 shows 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.

STATE AIR TOXICS PROGRAM

Toxic air contaminants are another group of pollutants of concern in California. There are hundreds of different types of toxic air contaminants, with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle engine exhaust. Public exposure to toxic air contaminants can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset spill conditions. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

California regulates toxic air contaminants through its air toxics program, mandated in Chapter 3.5 (Toxic Air Contaminants) of the Health and Safety Code (H&SC Section 39660 et. seq.) and Part 6 (Air Toxics "Hot Spots" Information and Assessment) (H&SC Section 44300 et. seq.). The CARB, working in conjunction with the State Office of Environmental Health Hazard Assessment, identifies toxic air contaminants. Air toxic control measures may then be adopted to reduce ambient concentrations of the identified toxic air contaminant to below a specific threshold, based on its effects on health, or to the lowest concentration achievable through use of best available control technology for toxics. The program is administered by the CARB. Air quality control agencies, including the SJVAPCD, must incorporate air toxic control measures into their regulatory programs or adopt equally stringent control measures as rules within six months of adoption by the CARB.

LOCAL

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

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, each of which 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* calls for a 75 percent reduction in ozone-forming oxides of nitrogen emissions.

The SJVAPCD has also prepared the *2007 PM₁₀ Maintenance Plan and Request for Redesignation (2007 PM₁₀ Plan)*. On April 24, 2006, the SJVAPCD submitted a Request for Determination of PM₁₀ 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 PM₁₀. 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 Federal Clean Air Act (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 Federal CAA.

The Basin has met criteria 1, 2, and 4 of Section 103(d)(3). The *2007 PM₁₀ Plan* was developed to comply with criteria 3 and 5 and to proceed with the redesignation process for PM₁₀ for the Basin. For the purposes of the *2007 PM₁₀ 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.

¹ On September 25, 2008, the EPA redesignated the Basin to attainment for the PM₁₀ NAAQS and approved the PM₁₀ Maintenance Plan.

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In addition to the *2007 Ozone Plan* and the *2007 PM₁₀ 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 is used as a guidance document for this analysis.

CITY OF TRACY

The City of Tracy General Plan provides a number of goals, policies, and objectives that would apply to the Modified ESP. The following provides the Goals, Objectives, Policies, and Actions of the City regarding air quality regulations:

Goal AQ-1: Improved air quality and reduced greenhouse gas emissions.

Objective AQ-1.1 Improve air quality and reduce greenhouse gas emissions through land use planning decisions.

Policies

- P1. The City shall promote land use patterns that reduce the number and length of motor vehicle trips.
- P2. To the extent feasible, the City shall maintain a balance and match between jobs and housing.
- P3. Higher density residential and mixed-use development shall be encouraged adjacent to commercial centers and transit corridors.
- P4. Employment areas should include a mix of support services to minimize the number of trips.
- P5. Village Centers and other retail and office areas should be located within walking and biking distance of existing and proposed residential developments.

Objective AQ-1.2 Promote development that minimizes air pollutant and greenhouse gas emissions and their impact on sensitive receptors as a result of indirect and stationary sources.

Policies

- P1. The City shall assess air quality impacts using the latest version of the CEQA Guidelines and guidelines prepared by the San Joaquin Valley Air Pollution Control District.
- P2. The City shall assess through the CEQA process any air quality impacts of development projects that may be insignificant by themselves, but cumulatively significant.
- P3. Developers shall implement best management practices to reduce air pollutant emissions associated with the construction and operation of development projects.
- P4. New development projects should incorporate energy efficient design features for HVAC, lighting systems and insulation that exceed Title 24.

- P5. Use of solar water and pool heaters is encouraged.
- P6. Installation of solar voltaic panels on new homes and businesses shall be encouraged.
- P7. Trees should be planted on the south- and west-facing sides of new buildings or building undergoing substantial renovation in order to reduce energy usage.
- P8. In accordance with San Joaquin Air Pollution Control District regulations, wood burning fireplaces shall not be installed in new and significantly renovated residential projects.
- P9. New developments shall follow the current requirements of the SJVAPCD with respect to wood burning fireplaces and heaters.
- P10. Stationary air pollutant emission sources (e.g. factories) shall be located an appropriate distance away and downwind from residential areas and other sensitive receptors.
- P11. Residential developments and other projects with sensitive receptors shall be analyzed in accordance with CARB and SJVAPCD requirements.
- P12. New sources of toxic air pollutants shall prepare a Health Risk Assessment as required under the Air Toxics “Hot Spots” Act and, based on the results of the Assessment, establish appropriate land use buffer zones around those areas posing substantial health risks.
- P13. Dust control measures consistent with San Joaquin Valley Air Pollution Control District rules shall be required as a condition of approval for subdivision maps, site plans, and all grading permits.
- P14. Developments that significantly impact air quality shall only be approved if all feasible mitigation measures to avoid, minimize or offset the impact are implemented.
- P15. Encourage businesses to electrify loading docks or implement idling-reduction systems so that trucks transporting refrigerated goods can continue to power cab cooling elements during loading, layovers, and rest periods.

Actions

- A1. Review standards for the design and use of new drive through businesses with the aim of reducing adverse impacts on air quality.
- A2. Research and include where feasible in the Roadway Master Plan update, requirements to use materials that minimize particulate emissions and that are appropriate to the scale and intensity of use.
- A3. Investigate the feasibility of new development fees to be used on coordination with local air pollution reduction efforts, such as clean air transit projects (e.g. ACE, Park & Ride, TRACER, BART and school buses).
- A4. Develop a green building standard for new development.
- A5. The City shall evaluate the installation of light emitting diodes (LEDs) or similar technology for traffic, street and other outdoor lighting where feasible.

Objective AQ-1.3 Provide a diverse and efficient transportation system that minimizes air pollutant and greenhouse gas emissions.

Policies

- P3. The City shall encourage employers to establish Transportation Demand Management programs.
- P4. The City shall support efforts to retain the railroad right-of-way for future public transit and bicycle facilities.

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- P5. The City shall require direct pedestrian and bicycle linkages from residential areas to parks, schools, retail areas, high-frequency transit facilities and major employment areas.
- P6. The City shall coordinate with regional rideshare and transit incentive programs.

Action

- A1. Pursue funding sources for the planning and development of local and regional transit services.
- A2. Consider measures to increase the capacity of the existing road network prior to constructing additional capacity (e.g. additional lanes, etc.).

In addition to the City's General Plan goals, policies, and objectives discussed above, the City of Tracy Development and Engineering Services Department provides dust control measures within the *Engineering Design Construction Standards* (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.

4.3.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

CALIFORNIA ENVIRONMENTAL QUALITY ACT GUIDELINES

The following thresholds of significance are based on Appendix G of the State *CEQA Guidelines*. Air quality impacts resulting from implementation of the Modified Project could be considered significant if they 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; and/or,
- ◆ Create objectionable odors affecting a substantial number of people.

SJVAPCD THRESHOLDS

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. State and regional standards have been developed to ensure that Federal and national ambient air quality standards are achieved. Thus, actions that violate State standards developed by CARB or criteria developed by the SJVAPCD, including thresholds for criteria pollutants, are considered significant impacts. The SJVAPCD requires the analysis of ROG, NO_x, PM₁₀, and CO. 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 PM₁₀. 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

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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 tons per year 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.

Construction Specific Thresholds

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. PM₁₀ 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 PM₁₀ 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 (as appropriate, depending on the size and location of the ESP site) would constitute sufficient mitigation to reduce PM₁₀ 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.

METHODOLOGY

CalEEMod

Operation of the Modified Project has the potential to create air quality impacts primarily from mobile vehicular traffic, area sources, and energy consumption. The California Emissions Estimator Model (CalEEMod) version 2011.1.1 software was used to compile the mass daily operational emissions estimates from operational sources that would occur during long-term operations following the implementation of the Modified ESP.

According to the *Traffic Study for the Ellis Specific Plan* (prepared by Fehr and Peers, dated December 2007 [updated and validated by RBF Consulting in April 2012]), the Original and Modified ESP would generate 1,535 vehicle trips in the AM peak hour, and 3,393 vehicle trips in the PM peak hour,

which results in approximately 20,687 daily trips. Emissions from Modified ESP-generated vehicle trips were calculated by the CalEEMod model. Area and energy source emissions were also calculated using CalEEMod default assumptions. The CalEEMod model outputs are provided in Appendix B.

POTENTIAL IMPACTS AND MITIGATION MEASURES

SHORT-TERM (CONSTRUCTION) EMISSIONS

Impact 4.3-1 Implementation of the Modified ESP would result in temporary construction-related dust and vehicle emissions within the ESP site.

Determination: Less Than Significant Impact with Mitigation Incorporation.

Section 4.3.1 of the GAMAQI states that the SJVAPCD's approach to CEQA analysis of construction related air quality emissions is to require the implementation of effective and comprehensive control measures rather than to require a quantified analysis. PM₁₀ and other criteria pollutants 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 the variability in emissions, previous construction activities and monitoring has indicated that implementation of feasible control measures can significantly reduce PM₁₀ and other criteria pollutant emissions.

The ESP site is divided into three neighborhoods defined by density, intensity, and character. Each neighborhood represents a proposed phase for implementation of the Modified ESP. The Modified ESP would include three phases: Phase 1 (Village Neighborhood), Phase 2 (Garden Neighborhood), and Phase 3 (Town and Country Neighborhood). However, Phase 1 would have three sub-phases: Phase 1A (Community Park including Swim Center), Phase 1B (Village Center/Commercial Parcels), and Phase 1C (Village Neighborhood).

The Modified ESP would develop over time as individual areas are constructed within the ESP site. Initially, rough grading would be conducted to establish the portion of fixed roadways and install the minimum infrastructure necessary to support each use constructed in the buildout of the Modified ESP. Subsequently, fine grading would occur on individual development parcels to allow construction of a proposed use. This process would be repeated as new areas are developed. Build-out of the Modified ESP is estimated based on market and demographic factors; but for purposes of establishing impacts is assumed to occur no later than 2030. Based on this scenario, construction activities would continuously occur during the buildout period.

Control measures are required and enforced by the SJVAPCD under Regulation VIII. The SJVAPCD considers construction-related emissions from all projects in this region to be mitigated to a less-than significant level if SJVAPCD-recommended PM₁₀ fugitive dust rules (collectively called Regulation VIII and included as Mitigation Measure 4.3-1a) and equipment exhaust emission controls (outlined in Mitigation Measures 4.3-1b) are implemented. With implementation of the proposed mitigation measures, fugitive dust impacts to surrounding sensitive land uses 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.

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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 ESP site and thus there is no potential that the Modified ESP 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

4.3-1a: Prior to the issuance of grading permits, the Applicant shall submit a construction emission plan to demonstrate to the City of Tracy how construction activities shall comply with the following emissions control measures:

- ◆ 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 ESP 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 NOx emissions.
- ◆ On-Road and Off-Road diesel equipment shall use aqueous diesel fuel if permitted under manufacturer’s guidelines.
- ◆ On-Road and Off-Road diesel equipment shall use diesel particulate filters if permitted under manufacturer’s guidelines.
- ◆ On-Road and Off-Road diesel equipment shall use cooled exhaust gas recirculation (EGR) if permitted under manufacturer’s guidelines.
- ◆ Use of Caterpillar pre-chamber diesel engines or equivalent shall be utilized if economic and available to reduce NOx emissions.
- ◆ All construction activities within the ESP site shall be discontinued during the first stage smog alerts.

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- ◆ Construction and grading activities shall not be allowed during first stage ozone alerts. First stage ozone alerts are declared when the ozone level exceeds 0.20 ppm (1-hour average).
- 4.3-1b: The Modified Ellis Specific Plan requires the implementation of control measures set forth under Regulation VIII of the San Joaquin Valley Air Pollution Control District (SJVAPCD) Fugitive PM₁₀ Prohibition. The following mitigation measures, in addition to those required under Regulation VIII of the SJVAPCD, shall be implemented by the Project Applicant/future subsequent project applicants to reduce fugitive dust emissions:
- ◆ 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 on-site and off-site 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 off-site, 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 mph over a one-hour period).
 - ◆ Asphalt-concrete paving shall comply with SJVUAPCD Rule 4641 and restrict use of cutback, slow-cure, and emulsified asphalt paving materials.
 - ◆ Grading should be conducted in phases.
 - ◆ ESP site shall not be cleared of existing vegetation cover until required by construction.
 - ◆ The Project Applicant shall revegetate graded areas as soon as it is feasible after construction is completed.

LONG-TERM (OPERATIONAL) IMPACTS

Impact 4.3-2 **The Modified ESP would result in an overall increase in the local and regional pollutant load due to direct impacts from vehicle emissions and indirect impacts from area sources and electricity consumption.**

Determination: Significant and Unavoidable Impact.

The Modified ESP operational emissions would be generated by area sources, energy consumption, and mobile sources as a result of normal day-to-day activities on the ESP site after occupation. These emissions would be generated by the consumption of natural gas for space and water heaters as well as electricity usage. Emissions would also be generated during the operation of landscape maintenance equipment, and from consumer products. Mobile emissions would be generated by the motor vehicles traveling to and from the ESP site.

Area Source and Energy Consumption Emissions

Emissions resulting from Modified ESP operations were estimated using CalEEMod. The area source and energy consumption emissions have been quantified utilizing the CalEEMod computer model. This model is designed to estimate regional air emissions from new development projects. CalEEMod can estimate emissions from such sources as gas heaters, furnaces or blowers, and landscape maintenance equipment. The model accounts for specific meteorological conditions and topography that characterize each specific air basin in California.

Input into the model was obtained from assumptions based on the nature of land uses constructed within the Modified ESP. Electricity and natural gas are utilized by almost every commercial and residential development. CalEEMod default inputs were used to generate the emissions for the area sources and energy consumption. The results are presented in Table 4.3-4, (Long-Term Operational Modified Project Emissions). Table 4.3-4 indicates that the energy consumption emissions alone would not exceed SJVAPCD significance threshold levels for ROG, NO_x, or PM₁₀. Area source emissions alone associated with the Modified ESP are predicted to be less than the SJVAPCD significance threshold levels for NO_x and PM₁₀; however, the SJVAPCD significance threshold levels for ROG would be exceeded.

Vehicular Emissions

Buildout of the Modified ESP would result in increased vehicle trips in the San Joaquin Valley. The vehicles associated with these trips would emit criteria pollutants including NO_x and ROG, which are considered ozone precursors. The ESP site is a non-attainment area for Federal air quality standards for ozone and particulates. Nitrogen oxides and reactive organic gases 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 PM₁₀.

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TABLE 4.3-4 LONG-TERM OPERATIONAL MODIFIED PROJECT EMISSIONS

| Emissions | Pollutant (Tons/Year) | | |
|-------------------------------------------------|-----------------------|-----------------|------------------|
| | ROG | NO _x | PM ₁₀ |
| Area Source | 20.09 | 0.89 | 7.29 |
| Energy Consumption | 0.27 | 2.28 | 0.18 |
| Mobile Source | 12.24 | 60.28 | 30.25 |
| Total Emissions | 32.60 | 63.45 | 37.72 |
| SJVAPCD Threshold | 10 | 10 | 15 |
| Is Threshold Exceeded? (Significant Impact?) | YES | YES | YES |

ROG = reactive organic gases NO_x = nitrogen oxides PM₁₀ = particulate matter 10 microns in diameter or less

Notes:

1. Based on CalEEMod modeling results, worst-case seasonal emissions, and trip rate data provided in the *Transportation Impact Analysis for the Ellis Specific Plan in the City of Tracy*, prepared by Fehr and Peers, December 2007 (updated and validated by RBF Consulting, April 2012).

As shown in Table 4.3-4, Modified ESP-related mobile source emissions for ROG, NO_x, and PM₁₀ attributable to the Modified ESP for the build-out scenario 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 Modified ESP would result in significant exceedances of the SJVAPCD thresholds. Therefore, long-term mobile source emissions would be considered significant and unavoidable. The health effects of criteria pollutants are described above in the Local Ambient Air Quality discussion in Section 4.3.1, *Existing Conditions*.

Indirect Source Rule

SJVAPCD Rule 9510 (Indirect Source Rule [ISR]) requires developers of large residential, commercial and industrial projects to reduce ozone precursor emissions (NO_x) and particulate (PM₁₀) emissions generated by their projects. Under the ISR, the Modified Project would be required to reduce operational NO_x emissions by 33 percent and operational PM₁₀ emissions by 50 percent over 10 years. The actual required reductions would be determined by SJVAPCD when an application is submitted prior to “the last discretionary approval” for the Modified Project. However, the methods used by SJVAPCD to determine the required mitigations are consistent with the methods used in this analysis (e.g., use of latest air quality model using project size and trip generation rates). The mitigation measures required by the ISR for this Modified Project may be determined through several permit applications since each individual project could apply at different times as final development plans are developed. The Modified Project’s impact to air quality with respect to PM₁₀ would be reduced further than the levels reported in Table 4.3-4 through application of the ISR. Emissions of ozone precursor emissions (i.e., ROG and NO_x) would also be reduced with the required ISR mitigation. However, the Modified Project’s impacts on regional air quality, with respect to elevated ozone and PM₁₀, would remain significant and unavoidable since the Modified Project’s emissions would contribute to region-wide emissions that cause exceedances of the Federal and State ozone and PM₁₀ standards.

Localized CO Emissions

As described above, the SJVAPCD requires CO “hotspot” modeling for projects that reduce the LOS operations on surrounding roadways to an E or an F, or worsens traffic along roadways that are already operating at an LOS F. The *Transportation Impact Analysis for the Ellis Specific Plan in the City of Tracy*, prepared by Fehr & Peers (dated December 2007) analyzed roadway conditions for three

scenarios, including Existing Conditions, Cumulative “Without Project,” and Cumulative “With Project.” According to the original study prepared by Fehr and Peers (and updated/validated by RBF Consulting in April 2012), the Modified ESP would implement traffic mitigation measures. With implementation of the required traffic mitigation, no roadway intersections would operate at LOS E or LOS F. Therefore, based upon the SJVAPCD guidelines, the Modified ESP would not result in a CO hotspot. Impacts therefore would be less than significant.

Odors

The Modified ESP consists of a mix of residential, commercial/retail, recreational, and open space land uses. The generation of odors and hazardous air pollutants is generally associated with certain types of industrial and agricultural activities other than warehouses. Odors can also be generated by restaurant uses which may be developed as part of the Modified ESP. These odors would be confined to the immediate vicinity of the new buildings and would not reach nearby sensitive uses, as the nearest sensitive receptors are approximately 0.25 miles from the ESP area (refer to Table 4.3-2). Furthermore, the Modified Project does not fall within the parameters established by the GAMAQI for requiring a detailed odor analysis.² Therefore, the Modified ESP 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 Modified Project would not result in the long-term operation of any major on-site stationary sources of TACs. In addition, no major stationary sources of TACs have been identified in the vicinity of the Modified Project site. Therefore, implementation of the Modified Project would not be anticipated to result in an increased exposure of sensitive receptors to localized concentrations of TACs that would exceed applicable standards. Impacts in this regard are considered less than significant.

Conclusion

As indicated in the analysis above, the Modified ESP would result in exceedances of the SJVAPCD thresholds of significance for ROG, NO_x, and PM₁₀. 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 Modified ESP would result in significant exceedances of the SJVAPCD thresholds. Therefore, the Modified ESP would result in a significant and unavoidable impact.

However, the Modified ESP includes several design features that would help reduce area and mobile source emissions, such as a mix of residential housing types and densities, neighborhood parks, and a Community Park. The Modified ESP has been designed and oriented to be a pedestrian-friendly planned development community with potentially a multi-modal transit hub, with ACE train and Tracer bus service. The Modified Project’s design features and the recommended mitigation measures would help reduce emissions associated with the proposed development. However, the emissions reductions associated with the Modified Project’s design features and the recommended mitigation measures would not reduce emissions levels below SJVAPCD thresholds.

² San Joaquin Valley Air Pollution Control District, *Guide for Assessing and Mitigating Air Quality Impacts*, Table 4-2 - Project Screening Trigger Levels For Potential Odor Sources, January 10, 2002.

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As previously stated, the Modified Project is subject to SJVAPCD's ISR to reduce NO_x and PM₁₀ emissions (refer to Mitigation Measure 4.3-2b). The measures required by the ISR would be determined through several permit applications, as each individual project could apply at different times as final development plans are developed. The Modified Project's impact to air quality with respect to PM₁₀ and ozone precursor emissions (i.e., ROG and NO_x) would be reduced further than the levels reported in Table 4.3-4 through application of the ISR. However, the Modified Project's impacts on regional air quality, with respect to elevated ozone and PM₁₀ levels, would be significant as the Modified Project's emissions would contribute to region-wide emissions that cause exceedances of the State and Federal ozone and PM₁₀ standards. Despite implementation of Modified Project design features and the recommended mitigation measures, impacts would remain significant and unavoidable.

Mitigation Measures

4.3-2a: The Modified ESP would meet the LEED for Neighborhood Development (LEED-ND) "Certified" rating criteria, as published for the LEED ND Pilot Program in Fall 2007. All residential development at Ellis will meet the National Association of Home Builders (NAHB) model Green Home Building Guidelines "Bronze" level of Green Building. Project applicants shall provide documentation demonstrating compliance with these NAHB guidelines for City review and approval prior to Building Permit approval. To the extent feasible, as a part of construction and building management contracts, the following additional measures shall be included:

- ◆ Site houses to optimize the use of daylight and to allow for the use of passive solar devices;
- ◆ A list of appliances will be submitted to the City that identifies that each appliance used as part of the Modified Project is Energy Star qualified if an Energy Star designation is applicable for that appliance;
- ◆ Low flow appliances (i.e., toilets, dishwashers, shower heads, washing machines) shall be installed if provided by the builder/applicant;
- ◆ House tightening measures (such as sealing plumbing and electrical openings) shall be used to reduce energy loss;
- ◆ Provide parking and power supply for electric vehicles at the Village Center and Family Swim Center;
- ◆ Use low VOC paint, adhesives, and caulking; and
- ◆ Provide homeowners and renters a manual that explains proper equipment operation and maintenance procedures, methods to reduce energy and water usage and wastewater generation, and alternatives to toxic cleaning substances.

4.3-2b: Prior to issuance of building permits, the Building Division shall verify that the Modified Project complies with SJVAPCD Rule 9510, Indirect Source Review (ISR). The Project Applicant shall coordinate with the SJVAPCD to ensure that the Modified Project meets the requirements of SJVAPCD Rule 9510, which requires the following reductions:

- ◆ 20 percent of construction-exhaust NO_x
- ◆ 45 percent of construction-exhaust PM₁₀
- ◆ 33 percent of operational NO_x over 10 years
- ◆ 50 percent of operational PM₁₀ over 10 years

If feasible measures are not available to meet the emissions reductions targets outlined above, then the Project Applicant shall pay an in lieu mitigation fee to the SJVAPCD to off-set the Modified Project's emissions-related impacts. If in lieu fees are required, the Project Applicant shall coordinate with the SJVAPCD to calculate the amount of the fees required to off-set the Modified Project's impacts.

PLAN CONSISTENCY

Impact 4.3-3 Due to the Modified ESP's exceedances of SJVAPCD's air quality standards, future development projects would not be consistent with the most recent Air Quality Management Plan.

Determination: Significant and Unavoidable Impact.

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 Modified ESP include the SJVAPCD Air Quality Attainment Plans (AQAPs) for Ozone and PM₁₀, 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 PM₁₀ prepared for the Basin by the SJVAPCD fulfill 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 Modified ESP 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 the Long-Term Operational Impacts discussion, the Modified ESP would result in exceedances of SJVAPCD thresholds for criteria pollutants. The Modified Project's design features would help reduce criteria pollutants; however, as indicated in the analysis, impacts would remain significant and unavoidable. Therefore, the Modified ESP would be inconsistent with the *2007 Ozone Plan* in this regard.

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However, the Modified ESP is intended to meet the General Plan goals, objectives, policies, and actions related to the balanced and orderly pattern of growth, the maintenance of the small-town character, and the planned growth within the sphere of influence (SOI). The amount of new residential growth facilitated by the Modified ESP (up to 2,250 housing units) would be within the range of housing development planned for in the General Plan. The General Plan projects an increase of 600 residential units in the City per year, which is the maximum increase allowed by the growth management ordinance (GMO). Of these, 2,250 units are anticipated in the ESP site as part of the Modified ESP (identified as Urban Reserve 10 in the General Plan).

The Modified ESP has been identified within the City of Tracy General Plan and it is anticipated that the Modified ESP would be consistent with the anticipated growth within the City. However, as indicated within the General Plan Environmental Impact Report (General Plan EIR) the General Plan would not be consistent with SJVAPCD's Ozone Plan. As discussed within the General Plan EIR, the projected growth within the City of Tracy would lead to an increase in the region's vehicle miles traveled (VMT), beyond what has been identified by the anticipated San Joaquin Council of Governments (SJCOG) and the SJVAPCD. Impacts associated with plan consistency would also be considered significant and unavoidable for the proposed Ellis Specific Plan. However, as previously mentioned, the Modified ESP would incorporate several design features that would help reduce air quality emissions. Despite implementation of the Modified Project's proposed design features and recommended mitigation measures, it is anticipated that the Modified Project's emissions would exceed the SJVAPCD thresholds of significance. Therefore, the Modified ESP impacts associated with plan consistency would remain significant and unavoidable.

Mitigation Measures

No mitigation is feasible.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact 4.3-4: Implementation of the Modified Project could impact regional air quality levels on a cumulatively considerable basis.

Determination: Significant and Unavoidable Impact.

The 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 Modified ESP and other existing and planned projects would exceed air quality standards.

The GAMAQI states that cumulative CO impacts are accounted for in the CO hotspot analysis. As discussed in Impact Statement 4.3-2, Long-Term (Operational) Emissions, CO impacts would be less than significant; however, area and mobile sources would be significant and unavoidable (refer to Table 4.3-4, above). Since construction emissions from future development projects within the Modified ESP area cannot be mitigated to a less than significant level, and operation of those developments would exceed SJAVPCD thresholds, cumulative impacts would be considered significant and unavoidable.

Mitigation Measures

Implement Mitigation Measures 4.3-2a and 4.3-2b.

4.4 BIOLOGICAL RESOURCES

Minor revisions have been made to the biological resources environmental impact evaluation contained within the Original Ellis EIR. These revisions are a result of changes that have occurred to the existing conditions within the ESP area since the Original ESP EIR was published in 2008. However, there is no change to the background discussion of the regulatory environment. As such, the Regulatory Framework discussion contained within Section 3B.13 (Biological Resources) of the Original Ellis EIR remains valid and is incorporated herein. For ease of reference this information is reproduced in its entirety in subsection 4.4.2 (Regulatory Framework) below. As described in Chapter 2 (Introduction), the Original Ellis EIR is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376.

This section provides an updated discussion of existing conditions within the ESP area as they pertain to biological resources based on a recent reconnaissance survey conducted in April 2012. Changes in site conditions since the publication of the Original Ellis EIR are identified. Potential impacts on biological resources resulting from the implementation of the Modified Project were reevaluated based on the changes identified within the site and are described in subsection 4.4.3. Mitigation Measures to reduce impacts on biological resources are also recommended based on the reevaluation. Information in this section is based primarily on the Ellis Specific Plan Biotic Study prepared by H.T. Harvey & Associates prepared on September 11, 2006 (and validated in December 2007); the Ellis Specific Plan Habitat Assessment Update prepared by RBF in April 2012; the City of Tracy General Plan, adopted in July 2006; and the City of Tracy General Plan EIR, certified February 2011.

Reconnaissance field surveys were conducted by qualified biologists in August 1995, November 1996, September 2004, August 2006, September 2007, and April 2012 to identify plant communities, review botanical and wildlife resources, and survey for biotic habitats which may be considered suitable for special-status plants and animals. The scope of the surveys included identifying potential Waters of the U.S. and verifying information derived from wildlife and vegetation surveys conducted by Dr. Sam McGinnis (1995) in the summer and fall of 1994.

4.4.1 ENVIRONMENTAL SETTING

SITE CHARACTERISTICS

The majority of the Modified ESP area is comprised of agricultural lands that support both annual crops and orchards. The Modified ESP area is situated northeast of Interstate 580 (I-580), south of Highway 205, and northeast of the Delta Mendota Canal. Corral Hollow Road (to the east), agricultural fields (to the north), and the Delta Mendota Canal (to the south) define the Modified ESP boundaries. The surrounding land to the north and east is predominantly residential. The Tracy Municipal Airport is located southeast of the Modified ESP area, and industrial properties are located to the west and southeast.

The Modified ESP area is within the Central/Southwest Transition Zone of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The Central/Southwest Transition Zone was created to reflect that San Joaquin foxes might occasionally roam outside of the

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Southwest Zone and into the area along the common boundary between the Southwest Zone and the Central Zone.

The topography of the Modified ESP area is relatively level and uniform. Elevations range from approximately 190 feet National Geodetic Vertical Datum (NGVD) in the southern portion of the area, to approximately 140 feet NGVD in the northern portion.

BIOTIC HABITATS

Based on the reconnaissance surveys described above, five biotic habitats have been identified within the Modified Ellis Specific Plan area. These habitats include agricultural fields, orchard, irrigation basins/ditch, ruderal, and developed areas. The approximate distribution of these biotic habitats within the Modified ESP area is presented in Figure 4.4-1 (Habitat Map). The expanded description of these habitats is provided below and Table 4.4-1 (On-Site Habitats) lists the approximate acreage by habitat type.

TABLE 4.4-1 ON-SITE HABITATS

| Habitat | Acreage | Percentage |
|------------------------------|---------|------------|
| Agricultural Fields | 242 | 58% |
| Inactive Agricultural Fields | 102 | 24% |
| Fallow Orchard | 63 | 15% |
| Irrigation Basins/Ditches | 5 | 1% |
| Ruderal Areas | 2 | 1% |
| Developed Areas | 3 | 1% |
| Total | 417 | 100% |

Source: Biotic Study, September 11, 2006 and Habitat Assessment, April 2012

AGRICULTURAL FIELDS

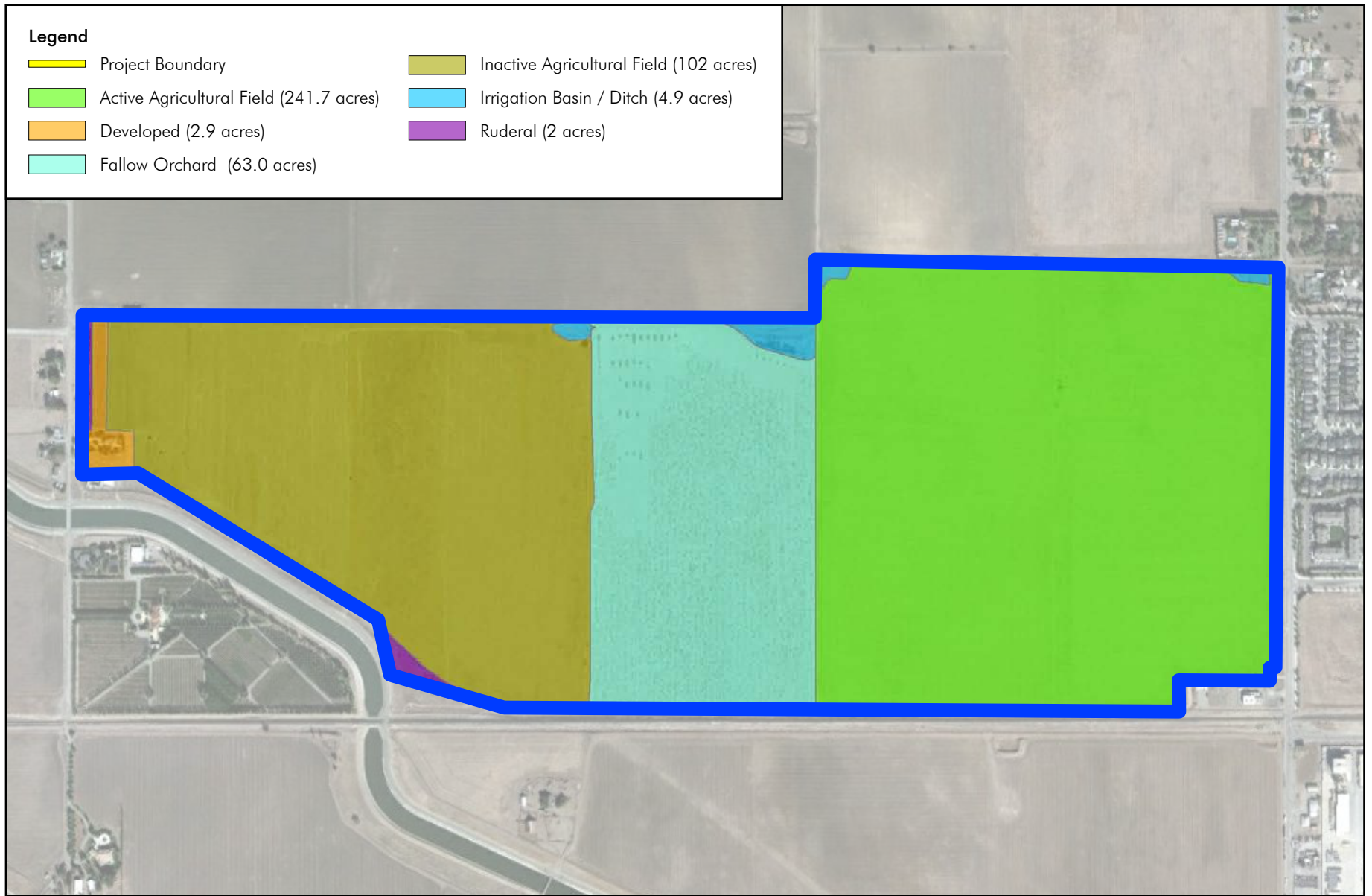
Vegetation

Agricultural fields occupy approximately 58 percent of the Modified ESP area. The crops cultivated in these fields include Alfalfa (*Medicago sativa*), potatoes (*Solanum* sp.), corn (*Zea mays*), and cauliflower (*Brassica* sp.). These fields have replaced much of the historical vegetation of native grassland and oak woodland communities present on the Modified ESP area. A majority of these fields are cultivated on an annual basis or disked as part of a weed control management practice.

At the time of the April 2012 survey, over half of the Modified ESP area was in agricultural production. Two fields along the north and east sides of the Modified ESP area had been disked and prepared for planting but no crop were growing at the time of the survey. Non-native annual grasses and forbs species were found along the edges of these agricultural fields. These non-native species include ripgut brome, wild oats (*Avena fatua*), Bermuda grass (*Cynodon dactylon*), yellow star-thistle (*Centaurea solstitialis*), Russian thistle (*Salsola kali*), horseweed (*Conyza canadensis*), milkweed (*Asclepias fascicularis*), and field bindweed (*Convolvulus arvensis*).

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4.4-2



Source: Modified Ellis Specific Plan Habitat Assessment Update (2012)



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During the 2006 survey, isolated patches of wet soils from leaking irrigation pipes were identified within the agricultural fields; however, these isolated patches of wet soils with ruderal hydrophytes plant species were no longer present in 2007 or 2012.

Wildlife

The Modified ESP area provides suitable habitat to a host of mammal, vertebrate, and bird species that have adapted to the frequent disturbance on site as a result of agricultural activities. The mammalian species expected within the Modified ESP area are common even in disturbed or non-native habitats. These species include Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and coyote (*Canis latrans*). Small mammals that frequently utilize agricultural areas include black-tailed jackrabbits (*Lepus californicus*), Botta's pocket gophers, and California voles (*Microtus californicus*).

Agricultural habitats within the Modified ESP area provide limited habitat for terrestrial vertebrates because of the on-going maintenance operations that may discourage breeding. Some species that forage the Modified ESP area include Gopher snakes (*Pituophis catenifer*), Western fence lizards (*Sceloporus occidentalis*) and Gilbert's skinks (*Eumeces gilberti*). Due to the lack of water on site, no amphibian species were present.

Agricultural lands provide foraging habitat for several bird species common to California's Central Valley. American Kestrels (*Falco sparverius*), Brewer's Blackbirds (*Euphagus cyanocephalus*), Western Meadowlarks (*Sturnella neglecta*), Mourning Doves (*Zenaidura macroura*), and American Crows (*Corvus brachyrhynchos*) are expected residents. Summer visitors such as Western Kingbirds (*Tyrannus verticalis*) are also likely to forage in this area. American Pipits (*Anthus rubescens*) and White-crowned Sparrow (*Zonotrichia leucophrys*) are among the most likely winter visitors.

Several mammals are also expected to use agricultural lands for foraging even though the area is frequently disturbed. Some mammalian species expected in within the ESP area are common even in disturbed or non-native habitats. These species include Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and coyote (*Canis latrans*). Small mammals that frequently utilize agricultural areas include black-tailed jackrabbits (*Lepus californicus*), Botta's pocket gophers, and California voles (*Microtus californicus*).

ORCHARD

Vegetation

An abandoned almond (*Prunus dulcis*) orchard covers approximately 15 percent of the Modified ESP area. The majority of the almond trees have been removed and the area is now primarily bare ground with some non-native grasses present.

Wildlife

Mammals species expected in an orchard setting include the Virginia opossum, striped skunk, Botta's pocket gopher, and California ground squirrels (*Spermophilus beecheyi*). Orchard habitats within the Modified ESP area provide limited habitat for terrestrial vertebrates. The absence of an herbaceous understory deprives many species of both food and cover. Also, on-going maintenance operations discourage breeding of vertebrates. Non-native bird species expected on the Modified ESP area include the House Sparrow (*Passer domesticus*) and European Starling (*Sturnus vulgaris*). Orchard trees may provide nesting, roosting, and foraging areas for native species such as the Northern Mockingbird (*Mimus polyglottos*), Mourning Dove, Brewer's Blackbird, American Crow, and Western

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Scrub-jay (*Apbelocoma californica*). Mammal species expected in an orchard setting include the Virginia opossum, striped skunk, Botta's pocket gopher, and California ground squirrels.

IRRIGATION BASINS/DITCH

Vegetation

Six agricultural ponds and one irrigation ditch are located within the Modified ESP boundaries that contain water only during irrigation events and were all dry during the April 2012 habitat assessment. All of the ponds have been excavated on dry, level land to function as irrigation holding ponds or as irrigation water runoff basins. The ponds are rectangular in shape and many support standpipes, pumps, culverts, etc. During the 2012 on-site survey, all six basins were dry and contained an assemblage of non-native grassland and ruderal species, such as prickly lettuce (*Lactuca serriola*), ripgut brome (*Bromus diandrus*), and Italian thistle (*Carduus pycnocephalus*).

Wildlife

Irrigation ponds have been dry for several years and no longer provide water based habitats and are used for foraging by avian and mammalian species.

RUDERAL HABITAT

Vegetation

Ruderal habitat (or weedy, disturbed habitat) occupies approximately one percent of the Modified ESP area, and includes small areas along fence lines, roadways, railroad tracks, perimeters of agricultural fields, fallow fields, orchard, and vacant/abandoned lots. Vegetation species commonly found in this habitat include ripgut grass, telegraph weed (*Heterotheca grandiflora*), black mustard (*Brassica nigra*), yellow star-thistle, Russian thistle, curly dock, prickly lettuce, horseweed, field bindweed, bluewitch (*Solanum umbelliferum*), barnyard grass (*Echinochloa crusgalli*), and turkey mullein (*Eremocarpus setigerus*).

Wildlife

The ruderal habitats support a composition of wildlife species similar to the surrounding agricultural fields that are more abundant in the absence of disturbance from tilling and pest control measures. Mammal species such as California ground squirrel and vertebrates including Western fence lizards and gopher snakes, are most common to this habitat. Avian species that forage on this part of the Modified ESP area include American Kestrels, Loggerhead Shrikes (*Lanius ludovicianus*), Horned Larks (*Eremophila alpestris*), House Finches (*Carpodacus mexicanus*), and American Goldfinches (*Carduelis tristis*).

DEVELOPED AREAS

Vegetation

Small-acre ranches and farmsteads occupy or recently occupied approximately one percent of the Modified ESP area. These areas support a wide variety of tree, shrub, and herbaceous species commonly used in landscaping including palm (*Washingtonia* sp.) and pine trees (*Pinus* sp.), and several native species such as black walnut (*Juglans californica* var. *hindsii*) and valley oak (*Quercus lobata*).

Wildlife

Although reptiles and amphibians are poorly represented in urban habitats, several species of birds may utilize these areas, though mainly only briefly during the spring and fall migration. Species such

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as Western Scrub Jays, American Robins, (*Turdus migratorius*), and Northern Mockingbirds are resident in urban habitats. However, the overall value of this habitat to wildlife is relatively low due to the periodic disturbances associated with maintaining lawns and the presence of humans, cars, domestic pets, etc. Introduced species like the European Starling, House Sparrow, house mouse (*Mus musculus*), and Norway rat (*Rattus norvegicus*) often displace native species that are more sensitive to human disturbance.

SENSITIVE BIOTIC RESOURCES

The literature searches and reconnaissance surveys conducted for the Project area identified a number of special-status plant and animal species that are known to occur or have a potential to occur in the Modified ESP vicinity. Certain plant and animal species are classified as Endangered, Threatened, or Species of Concern, depending on a variety of factors, primarily to protect their diminishing habitat and allow natural breeding to revitalize their declining population. A number of Federal and State agencies have enacted laws to protect the habitat of these various plant and animal species to minimize human impact on their natural habitat. A greater detailed description of the regulatory framework within which the Modified ESP is required to operate for the purpose of evaluating impacts on biological resources is described below under subsection 4.2.2 (Regulatory Framework)

SENSITIVE RESOURCES

Special-status plant and animal species have the potential to occur within the Modified ESP area as identified by the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). Any disturbance to identified sensitive habitat is regulated by federal, state, and regional agencies. The following section describes the special-status plant and animal species that could occur within the Modified ESP area.

SENSITIVE HABITATS

Sensitive habitats are defined by local, state, or federal agencies as those habitats that support special-status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitat types, and/or provide high biological diversity. The 2012 literature review and reconnaissance survey conducted in the Modified ESP area did not indicate presence of any sensitive habitats.

SPECIAL-STATUS PLANTS

The California Native Plant Society (CNPS) Inventory (2001) listed 16 species as occurring within the habitat type similar to that of the Modified ESP area. The California Natural Diversity Data Base (CNDDB) (2006) records listed five species as occurring within a five-mile radius of the Modified ESP area, four of which were also listed by the CNPS. A total of seventeen plant species have a potential to occur within the habitat characteristic of the Modified ESP area. However, none of the plant species were expected to occur within the Modified ESP area based on their habitat requirements. The majority of the species that might occur on the Modified ESP area required specific, edaphic conditions such as serpentine soils, alkaline soils, vernal pools, or heavy clay soils, which are not present on the Modified ESP area. Of the seventeen species considered, only one species, palmate-bracted bird's beak (*Cordylanthus palmatus*), is listed as either state or federal endangered or threatened. Furthermore, no sensitive habitats occur within the Modified ESP area, according to the CNDDB query.

Palmate-bracted birds' beak (*Cordylanthus palmatus*)

Federal Listing Status: Endangered. State Listing Status: Endangered. CNPS List: 1B. No individuals of this species were detected during detailed surveys conducted in August 2006 and April 2012. Suitable habitat for this species that includes Chenopod scrub, Valley and foothill grassland in alkaline soils is not present in the Modified ESP area. Therefore, this species is presumed absent from the Modified ESP area.

SPECIAL-STATUS MAMMALS

San Joaquin Kit Fox (*Vulpes macrotis mutica*)

Federal listing status: Endangered; State listing status: Threatened. Kit foxes are known to occur in western San Joaquin County primarily west of Interstate 5 (United States Fish and Wildlife Service [USFWS] 1998). No sightings of kit foxes east of Interstate 5 are known since the 1970s and kit foxes are presumed no longer present in this area.

On September 10, 2004, H.T. Harvey & Associates conducted a survey for San Joaquin kit fox in the Modified Ellis Specific Plan area. This survey was conducted in compliance with staff recommendations for the protection of kit fox issued by USFWS, with emphasis on the presence or absence of "potential dens." Potential dens "include the following: 1) any suitable subterranean hole; or 2) any den or burrow of another species (e.g., coyote, badger, red fox, or ground squirrel) that otherwise has appropriate characteristics for kit fox use." During the September 2004 kit fox surveys at the Modified ESP area, two expanded ground squirrel burrows were located where the Union Pacific Rail Road crosses the Delta-Mendota Canal, UTM 10 634914E4173247N (WGS84/NAD83 - USGS Tracy Quad), that fit the definition of a potential den. During the August 2006 surveys, these potential dens were still present, but during the April 2012 site visit, they were absent.

SPECIAL-STATUS FISH AND AMPHIBIANS

California Red-legged Frog (*Rana aurora draytonii*)

Federal listing status: Threatened; State listing status: Species of Special Concern. This species is generally restricted to riparian habitats in California and northern Baja California. The California red-legged frog was presumed extirpated from the floor of the Central Valley by 1960 (USFWS 2002). Furthermore, the irrigation ditches and agricultural ponds present within the Modified ESP area are unlikely to provide habitat for this species as they are dry for portions of the year. The species was not detected during the September 2004 and August 2006 surveys, when all, but one of the irrigation ponds was dry. The most recent survey in April 2012 confirmed the absence of the species from the Modified ESP area with all irrigation ponds dry. Therefore, the California red-legged frog is presumed absent from the Modified ESP area.

California Tiger Salamander (*Ambystoma californiense*)

Federal listing status: Threatened; State listing status: Species of Special Concern. Tiger Salamander is commonly found in temporary (minimum of three to four months) or permanent water sources (i.e., vernal pool, ephemeral pool, or human-made ponds) surrounded by upland habitats that support small mammal burrows. Their range is restricted to the Central Valley and Coast Range of California from Butte County south to Santa Barbara County.

The CNDDB (2011) lists one record, from 1992, approximately 2.1 miles south of the Modified ESP area and 31 additional records between 1982 and 2003 from within the nine quadrangles surrounding

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the Modified ESP area. All records within a 10-mile radius of the Modified ESP area are located in the rolling hills west of I-580 between Tracy and Livermore, where the habitat is generally much less disturbed than the lands comprising the Modified ESP area on the Valley floor. The California Aqueduct, I-580, and the Delta-Mendota Canal, each of which constitutes a significant barrier for dispersal onto the Modified ESP area, separate those records from the Modified ESP area.

The canals and irrigation ditches within the Modified ESP area are dry and do not provide suitable breeding habitat for this species. Therefore, the California Tiger Salamander is presumed absent from the Modified ESP area. Long-term, ongoing agricultural-related disturbances to the upland habitats (e.g., disking) have significantly degraded potential estivation habitat along the southern and western perimeter of the Modified ESP area.

Western Spadefoot (*Spea hammondi*)

Federal listing status: None; State listing status: Species of Special Concern. The western spadefoot is a toad that inhabits grassland habitats of central California and the southern California coast. It requires temporary pools of water that lack predators such as fish, bullfrogs, or crayfish, for egg laying (Jennings and Hayes 1994). The highly disturbed and dry habitats that exist within the Modified ESP area are unsuitable for western spadefoot, and the species is presumed absent from the Modified ESP area.

Western Pond Turtle (*Emys marmorata*)

Federal listing status: None; State listing status: Species of Special Concern. The western pond turtle is a medium-sized brown or olive-colored aquatic turtle, and is found west of the Sacramento-San Joaquin Delta, and south to northern Baja California, except in desert areas. The pond turtle is normally found in and along riparian areas.

The irrigation ditches and agricultural ponds present within the Modified ESP area are generally dry and do not provide habitat for this species. Western pond turtles were not observed during the September 2004 reconnaissance survey, when all but one irrigation pond was dry or during the August 2006 and April 2012 reconnaissance surveys, when all irrigation ponds were dry. The western pond turtle is presumed absent from the Modified ESP area.

Coast Horned Lizard (*Phrynosoma coronatum frontale*)

Federal listing status: None; State listing status: Species of Special Concern. This lizard requires loose sandy soil in which it can rapidly dig in order to avoid predators. The soils of the Modified ESP area are generally too heavy for this type of digging by horned lizards. In addition, farming practices have disturbed the majority of the topsoil. Therefore, coast horned lizards are presumed absent from the Modified ESP area.

Silvery Legless Lizard (*Anniella pulchra pulchra*)

Federal Status: None; State Status: Species of Special Concern. This lizard is found in sandy or loose loamy soils under the sparse vegetation of beaches, chaparral, pine-oak woodland, or under sycamores, cottonwoods, or oaks that grow on stream terraces. Their adaptation for burrowing, which requires soils with a high sand fraction, makes legless lizards vulnerable to ground disturbing activities such as agriculture. Therefore, the site is unsuitable for silvery legless lizards.

San Joaquin Whipsnake (*Masticophis flagellum ruddocki*)

Federal Status: None; State Status: Species of Special Concern. The San Joaquin whipsnake occurs on the west side of the San Joaquin Valley and on the Valley floor in Kern County in sparse grasslands and saltbush scrub communities with little or no trees (Jennings and Hayes 1994). The whipsnake requires the presence of mammal burrows for refuge, temperature regulation, and possibly egg-laying. The Modified ESP area does not provide suitable habitat for San Joaquin whipsnakes due to the lack of mammal burrows and disturbance caused by agricultural activities.

SPECIAL-STATUS BIRDS

Swainson's Hawk (*Buteo swainsoni*)

Federal listing status: None; State listing status: Threatened. The preferred breeding habitat of this raptor consists of large trees, which serve as nesting sites, near extensive areas of grassland and/or open fields, which serve as foraging habitat. Foraging habitats in the Central Valley include alfalfa, disked and fallow fields, and dryland pasture.

The SJMSCP identified 21 Swainson's Hawk nest sites in the vicinity of Tracy. All of those nest sites are located north of I-205 or east of Tracy, primarily along the San Joaquin River, Old River, Middle River, Tom Paine Slough, French Camp Slough, and Paradise Cut. The Modified ESP area is south and west of those known nests (Jones and Stokes 1990 and Dan Gifford pers. comm.). Trees that would provide suitable nesting habitats are absent from the Modified ESP area. Much of the agricultural habitat (excluding orchards) in the area is suitable foraging habitat for Swainson's Hawks.

Biweekly surveys of the Modified ESP vicinity in July and August of 1994 recorded five Swainson's Hawks (McGinnis 1995). All of these observations were of Swainson's Hawks foraging over recently cut alfalfa fields. In 2003, two nest sites were discovered near the Modified ESP area (CNDDDB 2006). These sites are located approximately 1.5 miles north and 3.5 miles north-northwest of the geographic center of the Modified ESP area, respectively. No Swainson's Hawks have been observed within the Modified ESP area. Moreover, the Modified ESP area lies outside the areas within San Joaquin County that are designated as Swainson's Hawk conservation areas in the SJMSCP.

Northern Harrier (*Circus cyaneus*)

Federal listing status: None; State listing status: Species of Special Concern. The Northern Harrier is commonly found in open grasslands, agricultural areas, and marshes. Nests are built on the ground in areas where long grasses provide cover and protection.

Suitable nesting habitat for this species is absent from the Modified ESP area. This species requires dense, tall emergent, or weedy vegetation in which to build nests. Northern Harriers may occasionally forage or reside during prolonged periods during the winter in the Modified ESP area. A Northern Harrier was observed foraging over the Modified ESP area during a survey in September 2004. Conditions on site have not been altered since 2004. Therefore, foraging habitat for Northern Harriers is presumed to still be present.

Sharp-shinned Hawk (*Accipiter striatus*)

Federal listing status: None; State listing status: Species of Special Concern. The Sharp-shinned Hawk is commonly found in dense woodland or riparian habitats bordering open areas. Nest areas are usually within 90 meters of a water source and located in dense stands of even-aged trees on north facing slopes.

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Sharp-shinned Hawks move through the Modified ESP area in spring and fall, during periods of migration. They may also spend a portion of the winter months foraging for small birds and other prey in the Modified ESP area. Sharp-shinned hawks have not been observed within the Modified ESP area.

Cooper's Hawk (*Accipiter cooperii*)

Federal listing status: None; State listing status; Species of Special Concern. The Cooper's Hawk is larger than the Sharp-shinned Hawk and thus, this species can prey upon medium-sized birds (e.g., jays, doves, and quail) and occasionally takes small mammals and reptiles. The Cooper's Hawk prefers landscapes where wooded areas occur in patches and groves which facilitates the ambush hunting tactics employed by this species. Cooper's Hawks move through the Modified ESP area in spring and fall, during periods of migration. They may also spend a portion of the winter months foraging for small birds and other prey in the Modified ESP area. Cooper's Hawks have not been observed within the Modified ESP area.

Golden Eagle (*Aquila chrysaetos*)

Federal listing status: None; State listing status: Species of Special Concern, Protected. Golden Eagles are an uncommon permanent resident and migrant in California. The home range of breeding pairs of eagles may include a number of alternate nests, usually located on cliffs, in large trees, or on high-tension towers. Eagles, their nests, and eggs are fully protected in the state of California by the California Department of Fish and Game (CDFG). In addition, Golden Eagles and their nests are federally protected under the Bald Eagle Protection Act and the Migratory Bird Treaty Act.

No Golden Eagle nests, or any other raptor nests, were observed within the Modified ESP area during field visits. The ruderal and open agricultural habitats within the Modified ESP area could provide suitable foraging habitat for this species.

Ferruginous Hawk (*Buteo regalis*)

Federal listing status: None; State listing status: Species of Special Concern. This species winters in open habitats throughout central and southern California. The ruderal and open agricultural habitats within the Modified ESP area could provide suitable foraging habitat for this species.

Prairie Falcon (*Falco mexicanus*)

Federal listing status: None; State listing status; Species of Special Concern. This large falcon is found in grasslands, deserts, and other open habitats in southwestern North America. Though the Modified ESP area provides suitable foraging habitat for this species, sheltered cliffs that are required for nesting are absent. Prairie Falcons nesting in nearby areas, as well as wintering or migrant falcons could use the Modified ESP area for foraging.

Burrowing Owl (*Athene cunicularia*)

Federal listing status: None; State listing status: Species of Special Concern. Burrowing Owls are small, terrestrial owls of open country. Burrowing Owls favor flat, open grassland or gentle slopes and sparse shrub-land ecosystems. These owls prefer annual and perennial grasslands, typically with sparse or nonexistent tree or shrub canopies.

In California, Burrowing Owls are found in close association with California ground squirrels. Owls use the abandoned burrows of ground squirrels for shelter and nesting. The only habitat for

Burrowing Owls, at the time of field surveys, occurred along the two canals and the right-of-way for the Southern Pacific railroad tracks. These were the only areas within the Modified ESP area that ground squirrels have become established. Inspection of these ground squirrel burrows revealed no sign (feathers, droppings, or pellets) that would indicate the presence of Burrowing Owls. Burrowing Owls were not observed during surveys conducted during the summer of 1994 (McGinnis 1995), although one sighting occurred during October of 1994. Grassland habitats along the Delta-Mendota Canal and the Southern Pacific railroad right-of-way are the most likely areas for Burrowing Owl occupation in the future. No burrowing owls were observed during the August 2006 and April 2012 surveys. The April 2012 survey found minimally suitable habitat for burrowing owl present within the Modified ESP area. However, there was no sign of burrowing owl within the site.

California Horned Lark (*Eremophila alpestris actia*)

Federal listing status: None; State listing status: Species of Special Concern. This subspecies is a widespread breeder along the coast and in the Central Valley of California and represents the only subspecies that breeds in the region. This species may breed in suitable habitat within the Modified ESP area, such as fallow fields. Several other subspecies of Horned Lark occur in the region during migration and winter.

Loggerhead Shrike (*Lanius ludovicianus*)

Federal listing status: None; State listing status; Species of Special Concern. Loggerhead Shrikes prefer open habitats interspersed with shrubs, trees, poles, fences, or other perches from which they can hunt. Nests are built in densely vegetated shrubs or trees, often containing thorns, which offer protection from predators and upon which prey items are impaled.

They breed between early February and late March with the peak of breeding between mid March and late June. Loggerhead Shrikes were observed foraging on lands adjacent to the Modified ESP area during reconnaissance-level surveys conducted in September 2004 and April 2012. No breeding habitat occurs on site.

Tricolored Blackbird (*Agelaius tricolor*)

Federal listing status: None; State Listing Status: Species of Special Concern. Tricolored Blackbirds are found almost exclusively in the Central Valley, and central and southern coastal areas of California. This species typically nests in tall, dense, stands of cattails or tules, but also nests in blackberry, wild rose bushes, and tall herbs. Nesting colonies are typically located near standing or flowing freshwater. Tricolored Blackbirds form large, often multi-species, flocks during the non-reproductive period and range more widely than during the reproductive season. There is no suitable breeding habitat for this species within the Modified ESP area. However, suitable foraging habitat exists for this species throughout the agricultural and ruderal habitats.

White-tailed Kite (*Elanus leucurus*)

Federal listing status: None; State listing status: Fully Protected. This species prefers habitats with low ground cover and variable tree growth. Kite nests are built near the tops of oaks, willows, or other dense broad-leafed deciduous trees in partially cleared or cultivated fields, grassy foothills, marsh, riparian, woodland, and savannah. White-tailed Kites have been observed within the Modified ESP area; however, no nests of this species were located.

4.4.2 REGULATORY FRAMEWORK

FEDERAL

FEDERAL ENDANGERED SPECIES ACT

Federally listed threatened and endangered species and their habitats are protected under provisions of the Federal Endangered Species Act (ESA). “Take” under the ESA is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct.” “Harm” has been defined by the regulations of the USFWS to include types of “significant habitat modification or degradation.” The U.S. Supreme Court, in *Babbitt v. Sweet Home*, 515 U.S. 687, ruled that “harm” may include habitat modification “...where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” Activities that may result in “take” of individuals are regulated by USFWS.

USFWS produced an updated list of candidate species for listing in June 2002 (Federal Register: Volume 67, Number 114, 50 CFR Part 17). Candidate species are regarded by USFWS as candidates for addition to the “List of Endangered and Threatened Wildlife and Plants.” Although candidate species are not afforded legal protection under the ESA, they typically receive special attention from federal and state agencies during the environmental review process.

MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21).

CLEAN WATER ACT SECTION 404

Areas meeting the regulatory definition of “Waters of the United States” are subject to the regulatory jurisdiction of the U. S. Army Corps of Engineers (USACE) under the Clean Water Act (CWA) (1972). The USACE, under provisions of Section 404 of the CWA, has jurisdiction over “Waters of the United States” (jurisdictional waters). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as Waters of the U.S., tributaries of waters otherwise defined as Waters of the U. S., the territorial seas, and wetlands adjacent to Waters of the U.S. (33 CFR, Part 328, Section 328.3).

Areas generally not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially-irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and, under certain circumstances, water-filled depressions created in dry land incidental to construction activity (51 Federal Register 41217, November 13, 1986).

STATE OF CALIFORNIA

CALIFORNIA FISH AND GAME CODE

State-listed threatened and endangered species are protected under provisions of the California Endangered Species Act (CESA). Activities that may result in “take” of individuals (defined in CESA as; “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) are regulated by CDFG. Habitat degradation or modification is not included in the definition of “take” under CESA. Nonetheless, CDFG has interpreted “take” to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

CALIFORNIA DEPARTMENT OF FISH AND GAME AND UNITED STATES FISH AND WILDLIFE SERVICE SPECIES OF CONCERN

The CDFG has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label species of concern, an informal term that refers to species which might be in need of concentrated conservation actions.

As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

CALIFORNIA DEPARTMENT OF FISH AND GAME CODE SECTION 3503.5

Birds of prey are protected under the California Fish and Game Code. Section 3503.5 of the code states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by CDFG.

CALIFORNIA NATIVE PLANT SOCIETY RARE OR ENDANGERED PLANT SPECIES

Vascular plants listed as rare or endangered by CNPS (2001), but which have no designated status under state or federal endangered species legislation, are defined as follows:

- ◆ List 1B. Plants rare, threatened, or endangered in California and elsewhere.
- ◆ List 2. Plants rare, threatened, or endangered in California, but more numerous elsewhere.
- ◆ List 3. Plants about which we need more information - a review list.
- ◆ List 4. Plants of limited distribution - a watch list.

CALIFORNIA DEPARTMENT OF FISH AND GAME CODE SECTION 1600 ET SEQ.

The California Fish and Game Code establishes CDFG jurisdiction over alterations to streams in Sections 1601-1603. Also known as “Streambed Alteration,” this jurisdiction generally extends to the “hinge points” on the top-of-bank of opposing channel banks and/or the full lateral extent of riparian vegetation beyond the top-of-bank. Definitions used in the identification of the CDFG’s jurisdiction are contained in various documents including the Fish and Game Code, Title 14 of the California

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Code of Regulations (Cal. Code Regs., tit. 14 Section 699.5), and *A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607, California Fish and Game Code* (1994). These areas generally include rivers, streams, creeks, or lakes. In addition, canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife.

CALIFORNIA DEPARTMENT OF FISH AND GAME JURISDICTION

The California Fish and Game Commission has also defined “wetlands” pursuant to section 703 of the Fish and Game Code. The CDFG maintains a specific policy regarding impacts on wetland habitats because these habitats are important to a wide variety of plant and wildlife species. The CDFG considers projects that impact these resources as significant under CEQA if they result in a net loss of wetland acreage or habitat value. When wetland habitat cannot be avoided, impacts on wetlands are required to be compensated for with the creation of new habitat, preferably on site, at a minimum ratio of 1:1. Wetlands that have been inadvertently created by leaks, dams, or other structures, or failures in man-made water systems are not exempt from this policy.

The CDFG potentially extends the definition of stream to include “intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams (USGS), and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream dependent terrestrial wildlife” (CDFG 1994). Such areas on the site were determined using methodology described in *A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607* (CDFG 1994).

Activities that result in the diversion or obstruction of the natural flow of a stream, or which substantially change its bed, channel or bank, or which utilize any materials (including vegetation) from the streambed, may require that a project applicant enter into a Streambed Alteration Agreement with the CDFG.

SAN JOAQUIN COUNTY

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

The SJMSCP intends to provide comprehensive compensation for impacts to threatened, endangered, rare and unlisted SJMSCP covered species and other wildlife, and compensation for some non-wildlife related impacts to recreation, agriculture, scenic values, and other beneficial open space uses (San Joaquin Council of Governments 2000). Comprehensive mitigation for impacts on plants, fish, and wildlife means that open space goals adopted under the SJMSCP are intended to adequately compensate for impacts on plants, fish, and wildlife for SJMSCP permitted activities pursuant to local, state, and federal regulations. At the state and federal levels, the SJMSCP is expected to provide adequate compensation for impacts on plants, fish, and wildlife for SJMSCP pursuant to the CESA, the California Native Plant Protection Act, ESA, Section 404 of the CWA, Section 10 of the Rivers and Harbors Act of 1899, and the MBTA for ESA-listed SJMSCP covered bird species also protected under this Act as these laws relate to the CDFG’s, USFWS’, and the USACE’s responsibilities for covered species with respect to SJMSCP permitted activities located within the boundaries of San Joaquin County.

The plan also promotes preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under ESA or CESA; providing and maintaining multiple-use open spaces which

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contribute to the quality of life of the residents of San Joaquin County; and accommodating a growing population while minimizing costs to project applicants and society at large.

The Modified ESP area occurs within the Central/Southwest Transition Zone of the SJMSCP (San Joaquin Council of Governments 2000). The Central/Southwest Transition Zone was created to reflect that San Joaquin kit foxes might occasionally roam outside of the Southwest Zone and into the area along the common boundary between the Southwest Zone and the Central Zone (San Joaquin Council of Governments 2000).

SJMSCP Approach to Impacts

The SJMSCP takes a habitat-based approach to mitigation for the loss of habitat for covered species. The SJMSCP emphasizes the establishment, enhancement, and management in perpetuity of preserves composed of a single vegetation type or association of vegetation types upon which groups of SJMSCP covered species rely.

Alternatively, the SJMSCP provides a mitigation approach that allows complete avoidance of SJMSCP covered species and habitats. Regardless of the approach, incidental take minimization measures are required for all project activities undertaken pursuant to the SJMSCP. If multiple species and multiple habitats are represented on a single parcel, avoidance of all impacts to all species and all habitats is required for a waiver of the SJMSCP compensation requirements.

Wherever SJMSCP covered species or jurisdictional wetlands are entirely avoided, no compensation is required pursuant to the SJMSCP. When multiple species and multiple habitats are found on a single parcel, implementation of complete avoidance measures for some species and habitats within project boundaries may permit partial waivers of SJMSCP compensation requirements subject to the approval of the Joint Powers Agency (JPA) with the concurrence of the permitting agencies' representatives on the Technical Advisory Committee (TAC). If the JPA or permitting agencies' representatives on the TAC denies reduced compensation, then the compensation/avoidance established for each species and habitat by the SJMSCP shall be implemented.

When impacts are unavoidable, preserves are normally located outside of designated existing and planned urban boundaries predominantly on productive agricultural lands located throughout the County. Once acquired, preserve lands shall be enhanced by the JPA to increase the quality of habitats on preserves and, subsequently, to encourage occupation of a preserve site by SJMSCP covered species or increase the populations of existing SJMSCP covered species on preserves.

Section 5.3.2.3 of the SJMSCP describes the timing of fee payments, in-lieu dedications, and mitigation banking for participants of the Plan. Collection of fees or purchases of Mitigation Banking Credits for projects less than or equal to 350 acres in size would not occur greater than 30 days prior to or at the time of issuance of Building Permits. Land dedications in lieu of mitigation banking are required to occur prior to ground disturbing activities.

CITY OF TRACY

City of Tracy General Plan

The Open Space and Conservation Element of the General Plan contains the following relevant goals, objectives, and policies.

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| | |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Goal OSC-1: | The protection of rare, endangered and threatened plant and animal species. |
| Objective OSC-1.1 | Preserve habitats that may support rare, endangered or threatened plant and animal species. |
| Policy P1. | New development shall meet all federal, State and regional regulations for habitat and species protection. |
| Policy P2. | The City shall continue to participate with the San Joaquin Council of Governments and other agencies to implement and enforce the San Joaquin Multi Species Habitat Conservation and Open Space Plan. |

4.4.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based on Appendix G of the State CEQA Guidelines. Significant impacts on biological resources could result from implementation of the Modified Project if they would:

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

AREAS OF NO PROJECT IMPACT

The following impacts are either not applicable to the Modified Project or not reasonably foreseeable:

- ◆ A substantial adverse effect on federally protected “wetlands” or “Waters of the U.S.” 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.

Wetlands are considered sensitive habitats because by nature they are fragile, and because of their decreasing distribution in the region and throughout the state. In addition, they provide flood control, pollution control, habitat for native plants and animals, and aesthetic and recreational amenities. As

discussed above, there are two features on site that have similar characteristics to wetlands and could be impacted by implementation of the Modified Project.

One area adjacent to the west side of the existing orchard exhibited soils that are mostly moist due to regular flooding from irrigation and leakage from irrigation pipes. Based on habitat of the surrounding field and absence of wetland field characteristics, there is no evidence that these areas are being supported by any other hydrology. Given these characteristics, this area is not considered a wetland.

Three agricultural ponds and one irrigation ditch are located within the Modified ESP boundaries that contain water only during irrigation events. All of the ponds have been excavated on dry, level land to function as irrigation holding ponds or as irrigation water runoff basins. There is no evidence that these areas are being supported by any other hydrology. Given these characteristics, these features are not considered wetlands.

As there are no wetlands located on site, no impacts to wetlands would occur with implementation of the Modified Project.

- ◆ Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

No native trees occur on site and therefore, the Modified Project would not conflict with local policies or ordinances protecting biological resources in particular heritage trees.

POTENTIAL IMPACTS AND MITIGATION MEASURES

SPECIAL STATUS SPECIES OR SENSITIVE STATUS SPECIES

Impact 4.4-1: Implementation of the Modified Project would result in a substantial adverse effect, either directly or through habitat modifications, on a species identified as a candidate, sensitive, or special status species or sensitive natural community identified 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 with Mitigation Incorporation.

Various plant and animal species of special status are identified as historically or currently occurring in the Modified ESP vicinity. No special status plant species are expected to occur within the modified habitats (orchard, vineyard, row crops, and ruderal field) of the Modified ESP area. These habitats support primarily weedy, non-native annual and biennial plant species. These areas are associated with high disturbance from activities such as disking, planting, spraying, and therefore promote low diversity.

Some special status terrestrial vertebrates may be occasional visitors, migrants, or transients to the Modified ESP area. These species include the Northern Harrier, Ferruginous Hawk, Golden Eagle, Prairie Falcon, California Horned Lark, Tricolored Blackbird, Townsend's big-eared bat, pallid bat, California mastiff bat, White-tailed Kite, and badger. Development within the Modified ESP area would result in a minor reduction in the regional availability of foraging habitat for avian species, but is not expected to significantly affect their breeding success.

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Burrowing Owl

Portions of the ruderal habitats and fallow fields within the Modified ESP area represent potential foraging and breeding habitat for Burrowing Owls. Potential breeding habitat for Burrowing Owls occurs in the right-of-way areas adjacent to the canal and railroad tracks that border the Modified ESP area and McGinnis observed Burrowing Owls once during surveys of the adjacent property in the fall of 1994. Conditions on site have deteriorated since 1994 and only minimal suitable habitat is present today. Conversion of agricultural and ruderal habitats within the Modified ESP area would reduce the regional availability of foraging habitat but is not expected to negatively affect breeding success; still, the Modified Project is expected to have a potentially significant effect.

Swainson's Hawk

Swainson's Hawks are known to forage in agricultural fields of San Joaquin County including areas within the Modified ESP area. The Modified ESP area, however, does not include suitable nesting habitat. CDFG's 1994 *Staff Report regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California*, describes the following vegetation types and agricultural crops as foraging habitat for Swainson's Hawks: alfalfa; fallow fields; beet, tomato, and other low-growing row or field crops; dry-land and irrigated pasture; rice land (when not flooded); and cereal grain crops (including corn after harvest). Applying CDFG's definition of foraging habitat, implementing the Modified Project would convert approximately 259 acres of potential Swainson's Hawk foraging habitat. Reductions in the availability of foraging habitat would constitute a potentially significant impact.

San Joaquin Kit Fox

Extensive surveys for kit fox in the Tracy area (Clark et al. 2002a, 2002b) confirm the results of all earlier surveys (Biological Field Services 1992, EIP 1989, 1990, McGinnis 1994a, 1994b, 1994c, 1994d, 1995); the San Joaquin kit fox is present in small numbers in the hills west of Tracy (e.g., west side of the canal), but rarely, if ever, ventures onto the valley floor in the Tracy area (east of the canals and I-580). Interpretation of the evidence suggests that a kit fox population may exist in the grasslands of the inner Coast Range west of the Delta-Mendota Canal (EIP 1991) and that individuals from that area may rarely investigate areas east of the canals.

The USFWS developed survey guidelines in 1999 that were intended to insure that kit foxes in the northern part of the range would be detected, if present. McGinnis' surveys, using these guidelines, did not detect kit foxes within the Modified ESP area or the surrounding area. A review of the historic survey work in the vicinity indicates that, in spite of repeated and increasingly intensive surveys, no kit foxes have been recorded in the Tracy Area. Therefore, agricultural and ruderal habitats within the Modified ESP area that represent potential foraging habitat for kit foxes are unlikely to be used by this species given their current abundance and distribution. The conversion of lands east of the Delta Mendota Canal could adversely affect kit foxes and therefore, would constitute a potentially significant impact.

Orchards and vineyards are classified in the SJMSCP as multi-purpose open space land. Conversion of these lands also reduces the food supply to some SJMSCP covered species and may restrict habitat opportunities for some SJMSCP covered bat species. Consequently, the conversion of orchards within the Modified ESP site may also affect wildlife and contribute to cumulative impacts of eliminating multi-purpose open spaces. Implementation of the mitigation measures, that are consistent with the SJMSCP, would avoid or mitigate impacts resulting from the loss of candidate, sensitive, or special status species to less than significant levels.

Avoidance in Lieu of SJMSCP Compensation Requirements

Because multiple species have the potential to be affected as a result of implementation of the Modified Project, avoidance of all impacts to all species and all habitats is unlikely, unless the Modified is not implemented. Implementation of complete avoidance measures for some species and habitats within the Modified ESP boundaries may permit partial waivers of SJMSCP compensation requirements subject to the approval of the JPA with the concurrence of the permitting agencies' representatives on the TAC. If the JPA or permitting agencies' representatives on the TAC denies reduced compensation, then the compensation/avoidance established for each species and habitat by the SJMSCP shall be implemented. Implementing the following requirements for Burrowing Owl within portions of the Modified ESP site may permit partial waivers of SJMSCP compensation requirements.

Mitigation Measures

4.4-1a Prior to the approval of grading permits or any ground-disturbing activity, preconstruction surveys, as described in Section 5.2.2.5 of the SJMSCP shall be conducted to determine if Burrowing Owls occupy the Modified ESP area. If Burrowing Owls are observed during those surveys, the following measures described in Section 5.5.9(D) of the SJMSCP shall be implemented:

- 1) Establish a setback of at least 250 feet from each owl burrow occupied within the past five years.
- 2) Preserve 6.5 acres of foraging habitat per burrowing owl pair, contiguous to the owl population. Configurations of foraging habitat in relation to owl burrows requires review and approval by the JPA with the concurrence of the permitting agencies' representatives on the TAC.
- 3) Construction and other ground disturbances shall be prohibited within established setbacks and foraging habitat. Natural vegetation shall be maintained within the setback. The use of insecticides, herbicides, and fertilizers shall be not permitted within established setbacks.
- 4) All on-site construction personnel shall be given instruction regarding the presence of listed species and the importance of avoiding impacts to these species and their habitats.
- 5) Setbacks shall be marked by brightly colored fencing or flagging throughout the construction process. Setbacks shall be indicated on recorded maps, whenever projects involve parcel or subdivision maps.
- 6) All setbacks and foraging habitat shall be preserved in perpetuity via recordation of a conservation easement.

The following incidental take minimization measures represent the best management practices known at the time of adoption of the SJMSCP. These measures may be refined throughout the life of the SJMSCP, pursuant to the SJMSCP's Adaptive Management Plan or to reflect improvements and new discoveries in methods of incidental take minimization or other biological factors.

4.4-1b Burrowing Owls may be discouraged from entering or occupying the Modified ESP area prior to construction by discouraging the presence of ground squirrels in accordance with Section 5.2.4.15(A) of the SJMSCP (Appendix D). If Burrowing Owls are known to occupy areas of the Modified ESP area prior to construction, then Sections 5.2.4.15(C) and (D) of the SJMSCP (Appendix D) shall be implemented. This measure may be refined throughout the life of the SJMSCP, pursuant to the SJMSCP's Adaptive Management Plan or to reflect

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improvements and new discoveries in methods of incidental take minimization or other biological factors.

- 4.4-1c Prior to the approval of grading permits or any ground-disturbing activity, preconstruction surveys shall be conducted by a qualified biologist to determine if Northern Harrier, Horned Lark, Loggerhead Shrike, Sharp-Shinned Hawk, Cooper's Hawk, White-tailed Kite, or Ferruginous Hawk occupy the Modified ESP area. If any individuals of these species are observed breeding within the Modified ESP area prior to construction, the incidental take minimization measures described in Sections 5.2.4.17, 18, 19, and 22 of the SJMSCP (Appendix D) shall be applied.
- 4.4-1d Prior to the approval of grading permits or any ground-disturbing activity and in accordance with the SJMSCP, preconstruction surveys shall be conducted for the San Joaquin kit fox as described in Section 5.2.4.25 of the SJMSCP (Appendix D). If surveys identify potential dens as defined by the USFWS's Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (Appendix E), potential den entrances shall be dusted for three calendar days to register tracks of San Joaquin kit foxes that are present.

The primary measure designed to mitigate for the effects of activities permitted under the SJMSCP, in addition to the incidental take minimization measures described above, is the SJMSCP's habitat compensation requirements. The conversion of lands classified as ruderal or non-orchard agricultural habitat within the Modified ESP site requires compensation pursuant to Section 4.1.2 of the SJMSCP. One acre of compensation, in the form of preserve land must be acquired for every one acre of ruderal and non-orchard agricultural habitat converted from open space use (San Joaquin Council of Governments 2000). Because implementation of the specific plans would impact Swainson's Hawk habitat, the establishment of one acre of row and field crop/riparian preserve at a 1:1 mitigation ratio shall mitigate conversion of non-orchard agricultural land and ruderal habitat. Row and field crop/riparian preserves may be established in the Central Zone and Central/Southwest Transition Zone (San Joaquin Council of Governments 2000).

The conversion of orchards, which are classified under the SJMSCP as multi-purpose open space, does not require compensation in the form of establishing preserves (San Joaquin Council of Governments 2000). However, conversion of multi-purpose open space lands triggers a requirement to assist in financing the SJMSCP preserve system by supporting a portion of the enhancement, management, and administration costs associated with the preserve system. The following mitigation measure would reduce impacts associated with the reduction of habitat and open space to a less than significant level:

- 4.4-1e Prior to the approval of grading permits or any ground disturbing activities, the Project Applicant shall preserve or provide compensation of preserve land at a ratio of one acre for every acre of ruderal and non-orchard agricultural habitat converted from open space use, totaling 262.41 acres.

HABITATS

Impact 4.4-2: Implementation of the Modified Project would 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.

Determination: Less than Significant Impact with Mitigation Incorporation.

Animal movements can generally be subdivided into three major behavioral categories: 1) movements within a home range or territory, 2) movements during migration, and 3) movements during dispersal. The Modified Project would result in the loss of agricultural and ruderal habitats as described previously. This loss represents reductions in the home range or territory available for some special-status species, but these impacts were addressed in the previous section and reduced to less than significant levels through the incorporation of mitigation measures consistent with the SJMSCP.

The agricultural and ruderal habitats within the Modified ESP area do not comprise important migration routes for wildlife species. However, a number of migrants may occasionally forage within the Modified ESP area. Impacts on special-status species occasionally foraging within the Modified ESP area were addressed in the impact discussion regarding special status and sensitive status species.

The SJMSCP establishes, as part of the mitigation component of its conservation strategy, special conservation and mitigation requirements for the San Joaquin kit fox. Within the Southwest/Central Transition Zone, in which the Modified ESP area occurs, the SJMSCP requires that development shall be situated to allow the development of stepping stone refugia west of the Delta Mendota Canal between the Delta Mendota Canal and the California Aqueduct. Where possible, the JPA shall work with Project Applicants to incorporate stepping stone refugia within Project designs to link the canal refugia to the Southwest Zone's primary San Joaquin kit fox corridor west of the California Aqueduct and into the Southwest Zone preserve area. The SJMSCP also identifies the need to maintain east-west dispersal habitat throughout the kit fox corridor such as along transmission lines and railroad tracks west of the Delta-Mendota Canal, where practicable.

The Modified ESP area is entirely east of the Delta-Mendota Canal and outside of the area identified within the Southwest/Central Transition Zone as necessary for the development of stepping stone refugia. Impacts on special status species occasionally foraging within the Modified ESP area resulting from the loss of agricultural and ruderal habitats can be reduced to less than significant levels by incorporating Mitigation Measures 4.4-1a to 4.4-1c. Therefore, implementation of the Modified Project would not significantly interfere with the movement of resident or migratory wildlife.

Mitigation Measures

Implement Mitigation Measures 4.4-1a to 4.4-1c

MOVEMENT OF FISH AND WILDLIFE SPECIES

Impact 4.2-3: The Modified Project would not 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.

A wildlife corridor links together areas of suitable wildlife habitat that are otherwise separated by unsuitable habitat or physical barriers. Wildlife corridors are often bottlenecks. For example, two mountain ranges may be linked by natural washes that pass under freeway bridges. If the wash is covered in a boxed culvert or otherwise cut off, then this vital link no longer exists; both seasonal movements and longer term “genetic flow” between terrestrial populations of animals is severed. The casual movement of wildlife through and across a site does not make it a corridor, no matter how persistent this activity may be.

The Modified ESP area is located within the Southwest/Central Transition Zone. The Central/Southwest Transition Zone was created to reflect that San Joaquin foxes might occasionally roam outside of the Southwest Zone and into the area along the common boundary between the Southwest zone and the Central Zone. The SJMSCP requires that development be situated to allow the development of stepping stone refugia west of the Delta Mendota Canal between the Delta Mendota Canal and the California Aqueduct. However, the Modified ESP area is located entirely east of the Delta Mendota Canal and outside of the area identified within the Southwest/Central Transition Zone as necessary for the development of stepping stone refugia.

The Modified ESP area is located adjacent to the developed areas of the City of Tracy and surrounded on three sides by undeveloped land. The site is not a narrow area of wildlife habitat that connects two larger areas of habitat. Terrestrial animals can move freely and unencumbered throughout the undeveloped lands to the west and north of the Modified ESP area. Therefore, implementation of the Modified Project would not significantly interfere with the movement of resident or migratory wildlife.

HABITAT AND NATURAL CONSERVATION PLANS

Impact 4.2-4: The Modified Project may conflict with applicable habitat conservation plans or natural conservation plans.

Determination: Less than Significant Impact.

The Modified ESP area is located within the San Joaquin Multiple Species Conservation Plan (SJMSCP) Area and is located within the Central/Southwest Transition Zone. In addition to providing compensation for conversion of open space to non open space uses, which affect plant and animal species covered by the SJMSCP, the SJMSCP provides compensation to offset impacts of open space conversions on non-wildlife related resources such as recreation, agriculture, scenic values and other beneficial open space uses. Specifically, the SJMSCP compensates for conversions of open space to urban development and the expansion of existing urban boundaries, among other activities, for public and private activities.

Participation in the SJMSCP is voluntary for both local jurisdictions and project applicants. Individual project applicants have two options if their project is located in a jurisdiction participating in the SJMHCPC and would have significant impacts on biological resources: mitigating under the SJMSCP or negotiating directly with the state and/or federal permitting agencies. If a project applicant opts for SJMSCP coverage in a jurisdiction that is participating under the SJMSCP, the following options are available, unless their activities are otherwise exempted: pay the appropriate fee; dedicate, as conservation easements or fee title, habitat lands; purchase approved mitigation bank credits; or, propose an alternative mitigation plan. Because participation in the SJMSCP is voluntary, no conflicts with the SJMSCP would occur. However, as noted in the Modified Specific Plan (Section 2.4), the Project Applicant will work with the City to implement the SJMSCP as it relates to implementation of the Ellis Specific Plan.

The Project Applicant would be required to pay fees at time of ground disturbance permits (such as grading and/or BPs) as set forth in the Plan to implement recommendations (called “minimization measures”) as required by an SJCOG appointed qualified biologist on a case-by-case basis throughout the Modified Ellis Specific Plan Area (or on any area where RGAs are used) prior to ground disturbance of that area. These standard procedures apply to all projects, including the Modified Ellis Specific Plan, that are covered under the SJMSCP.

No significant impacts would occur in this regard.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact 4.2-5: Future development facilitated by the Modified Project could have a cumulatively considerable contribution to the loss of vegetation and wildlife resources.

Determination: Less than Significant Impact with Mitigation Incorporation.

The cumulative impacts analysis for biological resources considered the larger-context of future development of the City of Tracy as envisioned by the General Plan and relied upon the projections of the General Plan and General Plan EIR. Cumulative impacts on biological resources would be impacts that result from incremental changes that degrade habitat or affect other biological resources within the Tracy area.

The General Plan EIR analyzed the long-term development in the Tracy City limits and Sphere of Influence (SOI) and found that no significant impacts relative to the sensitive species and habitat, wetlands, nor conflicts with local policies, ordinances, and habitat conservation plans would occur with implementation of the General Plan. As indicated in the General Plan EIR, the City’s SOI is approximately 42 square miles. The General Plan identifies approximately 241 acres of park land, 221 within the City limits and 20 in the SOI and approximately 7,558 total acres of vacant land, 3,114 acres in the City limits and 4,445 in the SOI. Parkland refers to established public and private open spaces and recreational facilities, such as playing fields, mini-parks, neighborhood, and community parks. Vacant land refers to parcels without any structure or building, or that are used for agriculture.

According to the General Plan EIR future urban development allowed by the proposed General Plan could result in adverse impacts either directly or indirectly to sensitive species identified in the City’s SOI. As specifically discussed in the General Plan EIR, the implementation of the San Joaquin Multi

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Species Habitat Conservation Plan (SJMSCP) provides adequate mitigation for development projects within the City's SOI to reduce impacts to biological resources to a level acceptable to meet State and federal requirements. The General Plan EIR goes on to further state that project proponents that choose not to participate in the SJMSCP, as it is a voluntary plan, would still be required to comply with existing local, State and federal regulations (as in effect at the time of the application), which require similar mitigation to reduce impacts to sensitive species and habitats to a less than significant level. As discussed above, the development of the Modified ESP area would not result in significant unavoidable impacts on biological resources after the implementation of mitigation measures.

Cumulative impacts to biological resources, then, are not considered to be cumulatively considerable and would not result in significant unavoidable cumulative impacts.

Mitigation Measures

Implement Mitigation Measures 4.2-1a through 4.2-1e.

4.5 GEOLOGY AND SOILS

No changes have been made to the geology and soils environmental impact evaluation contained within the Original Ellis EIR as a result of the Modified Project; other background information, analysis of environmental impacts, and mitigation measures contained within Section 3B.12 (Geology and Soils) of the Original Ellis EIR remain valid and are incorporated herein. Please refer to Section 3B.12 (Geology and Soils) in the Original Ellis EIR, certified December 2008. Pursuant to Section 15150 (c) of the State CEQA Guidelines, the following summarizes the impacts and mitigation measures identified in Section 3B.12 (Geology and Soils) of the Original Ellis EIR. As described in Chapter 2 (Introduction), the Original Ellis EIR is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376.

4.5.1 GEOLOGY AND SOILS IMPACT AND MITIGATION SUMMARY

Building new structures for human occupancy would increase the number of people exposed to local and regional seismic hazards. Seismic hazards are a significant risk for most property in California. Implementation of the requirements of the California Building Code and the Tracy General Plan would ensure that impacts on humans associated with seismic hazards would be less than significant. No additional mitigation is required.

As construction occurs, exposed surfaces could be susceptible to erosion from wind and water. Effects from erosion include impacts on water quality and air quality. Risks associated with erosive surface soils can be reduced by using appropriate controls during construction and properly revegetating exposed areas. Identified mitigation that incorporates these controls would reduce the potential for substantial soil erosion or the loss of topsoil. Liquefaction was found to not be a risk factor and, accordingly, no mitigation is required. Because the ESP site contains clay-type soils, on-site soils are potentially expansive. Expansive soil risks would be reduced to less than significant with the implementation of mitigation that requires consultation by a certified geotechnical engineer to evaluate subgrade soils for the extent of their expansive potential and removal of identified expansive material and its replacement with imported non-expansive fill.

The following provides a list of previously identified impacts and their corresponding mitigation measures. It should be noted that the Original Ellis EIR referred to the Original ESP as the proposed ESP and this Revised Draft EIR refers to the currently proposed ESP as the Modified ESP, but all other aspects remain the same.

Impact 3B.12-1: The proposed ESP would expose people or structures to potential substantial adverse effects involving strong seismic ground shaking or seismic related ground failure. Determination: Less Than Significant Impact.

Mitigation Measure 3B.12-1: No mitigation is necessary.

Impact 3B.12-2: The proposed ESP would result in substantial soil erosion or the loss of topsoil. Determination: Less Than Significant Impact.

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Mitigation Measure 3B.12-2: No mitigation is necessary.

Impact 3B.12-3: The proposed ESP would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the ESP, and potentially result in liquefaction. Determination: Less Than Significant Impact.

Mitigation Measure 3B.12-3: No mitigation is necessary.

Impact 3B.12-4: The proposed ESP would be located on expansive soil creating substantial risks to life or property. Determination: Less Than Significant With Mitigation Incorporated.

Mitigation Measure 3B.12-4: During excavation activities and prior to the placement of fill on the site, a certified geotechnical engineer shall be retained by the Project Applicant/future Project Applicants to evaluate subgrade soils for the extent of their expansive potential. For areas found to contain soft, potentially expansive clays, the soil shall be removed (i.e., over excavated) and/or stabilized prior to the placement and compaction of fill. Stabilization techniques include, but are not limited to, the placement of 18 inches of 1/2-inch to 3/4-inch crushed rock over stabilization fabric (such as Mirafi 500X or equivalent), placement of larger, angular stabilization rock (1-inch to 3-inch, clean) and use of chemical treatments such as lime to reduce the soil's expansive potential. In addition, building construction alternatives, such as the use of alternative foundation types (i.e., post-tension, piles, etc.) versus end-bearing foundations, shall be considered and implemented where appropriate. Final techniques shall be (a) developed by a certified geotechnical engineer or engineering geologist and (b) reviewed and approved by the City prior to issuance of a grading permit.

4.6 GREENHOUSE GAS EMISSIONS

As described in Chapter 2 (Introduction), this Revised Draft EIR analyzes the potential environmental effects of the proposed changes associated with the Modified Project, and identifies feasible mitigation measures for potentially significant impacts where applicable. In addition, this Draft Revised EIR also addresses:

- ◆ the Trial Court’s Statement of Decision and Judgment (issued October 31, 2011) on the City of Tracy/Surland Companies Development Agreement and Ellis Specific Plan Applications Draft and Final EIRs (State Clearinghouse No. 2006102092) (Original Ellis EIR); as well as,
- ◆ updates to the ESP area as identified in the 2011 General Plan Update and analysis in the General Plan EIR (certified February 2011).

Other background information, analysis of environmental impacts, and mitigation measures contained within the Original Ellis EIR remain valid, and as described in Chapter 2, that information has been incorporated by reference into this Draft Revised EIR. Thus, the topics covered in this chapter are limited to addressing those aspects described above. Specifically, this section provides:

- 1) an evaluation of greenhouse gas (GHG) emissions associated with the Modified ESP;
- 2) an analysis of the Modified ESP compliance with applicable regulations; and,
- 3) consideration of the Modified ESP’s consistency with applicable plans, policies and regulations, as well as the introduction of new sources of GHGs.

4.6.1 EXISTING CONDITIONS

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 (CO₂). 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. Typical GHGs include the following:²

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).*

- ◆ Water Vapor (H₂O). 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 (CO₂). 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 35 percent.³ Carbon dioxide is the most widely emitted GHG and is the reference gas (GWP of 1) for determining GWPs for other GHGs.
- ◆ Methane (CH₄). Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, 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 (N₂O). 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 (SF₆). 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 Intergovernmental Panel on Climate Change 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 (4 parts per trillion [ppt] in 1990 versus 365 parts per million [ppm], respectively).⁶

³ United States Environmental Protection Agency, *Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2004*, April 2006.

⁴ United States Environmental Protection Agency, *High GWP Gases and Climate Change*, June 22, 2010. <http://www.epa.gov/highgwp/scientific.html#hfc>

⁵ United States Environmental Protection Agency, *High GWP Gases and Climate Change*, June 22, 2010. <http://www.epa.gov/highgwp/scientific.html#pfc>

⁶ United States Environmental Protection Agency, *High GWP Gases and Climate Change*, June 22, 2010. <http://www.epa.gov/highgwp/scientific.html#sf6>

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 (O₃) depleters; 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 United States 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
- ◆ 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 U.S. Environmental Protection Agency's (EPA) Final Rule (57 FR 3374) for the phase out of O₃ 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

4.6.2 REGULATORY FRAMEWORK

Regulatory oversight for air quality in the Basin rests at the regional level with the San Joaquin Valley Air Pollution Control District (SJVAPCD), the California Air Resources Board (CARB) at the State level, and the Environmental Protection Agency (EPA) Region IX office at the Federal level.

FEDERAL

The Federal government is extensively engaged in international climate change activities in areas such as science, mitigation, and environmental monitoring. The EPA actively participates in multilateral and bilateral activities by establishing partnerships and providing leadership and technical expertise. Multilaterally, the United States is a strong supporter of activities under the United Nations Framework Convention on Climate Change (UNFCCC) and the IPCC.

In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus around the evidence that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable.

⁷ United States Environmental Protection Agency, *Protection of Stratospheric Ozone: Listing of Global Warming Potential for Ozone Depleting Substances*, dated November 7, 2006. <http://www.epa.gov/EPA-AIR/1996/January/Day-19/pr-372.html>

⁸ Ibid.

⁹ United States Environmental Protection Agency, *Class I Ozone Depleting Substances*, March 7, 2006. <http://www.epa.gov/ozone/ods.html>

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In December 2007, Congress passed the first increase in corporate average fleet fuel economy (CAFE) standards. These CAFE standards represented an increase to 35 miles per gallon (mpg) by 2020. In March 2009, the Obama Administration announced that for the 2011 model year, the standard for cars and light trucks will be 27.3 mpg, the standard for cars will be 30.2 mpg; and standard for trucks would be 24.1 mpg. Additionally, in May 2009 President Barack Obama announced plans for a national fuel-economy and GHG emissions standard that would significantly increase mileage requirements for cars and trucks by 2016. The new requirements represent an average standard of 39 mpg for cars and 30 mpg for trucks by 2016.

In September 2009, the EPA finalized a GHG reporting and monitoring system that began on January 1, 2010. In general, this national reporting requirement will provide the EPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons (MT) or more of CO₂ per year. This publicly available data will allow the reporters to track their own emissions, compare them to similar facilities, and aid in identifying cost-effective emissions reduction strategies. This new program covers approximately 85 percent of the nation's GHG emissions and applies to approximately 10,000 facilities. The reporting system is intended to provide a better understanding of where GHGs are coming from and will guide development of the best possible policies and programs to reduce emissions.

Currently, the EPA is moving forward with two key climate change regulatory proposals, one to establish a mandatory GHG reporting system and one to address the 2007 Supreme Court decision in *Massachusetts v. EPA* (Supreme Court Case 05-1120) regarding the EPA's obligation to make an endangerment finding under Section 202(a) of the FCAA with respect to GHGs. *Massachusetts v. EPA* was argued before the United States Supreme Court on November 29, 2006. A coalition of 12 U.S. states and cities (including New York and California), in conjunction with several environmental organizations, challenged the EPA's refusal to regulate GHGs as a pollutant under the FCAA. The plaintiffs contended that the FCAA gives the EPA the necessary authority, and the mandate, to address GHGs in light of the scientific evidence on global climate change. The EPA had concluded that it had no authority under existing law to regulate GHGs, and for a variety of policy reasons, it would not use that authority even if it possessed it. The U.S. Supreme Court held that the EPA has statutory authority to regulate GHG emissions from new motor vehicles. Under the FCAA, the EPA is now obligated to issue rules regulating global warming pollution from all major sources. In April 2009, the EPA concluded that GHGs are a danger to public health and welfare, establishing the basis for GHG regulation. However, as of the date of this analysis there are no Federal regulations or policies regarding GHG emissions applicable to the Modified Project.

STATE

CALIFORNIA AIR RESOURCES BOARD

CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the CCAA, which was adopted in 1988. Various statewide and local initiatives to reduce the State'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 under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term.

ASSEMBLY BILL 1493

In response to the transportation sector accounting for more than half of California's CO₂ emissions, Assembly Bill (AB) 1493 (AB 1493, Pavley) was enacted on July 22, 2002. AB 1493 required 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. The bill required that CARB set the GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. In setting these standards, CARB must consider cost effectiveness, technological feasibility, economic impacts, and provide maximum flexibility to manufacturers. CARB adopted the standards in September 2004. (See Title 13, Cal. Code of Regs., § 1900, 1961.) Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR 1900, 1961), and adoption of Section 1961.1 (13 CCR 1961.1) require automobile manufacturers 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), beginning with the 2009 model year. For passenger cars and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 pounds or less, the GHG emission limits for the 2016 model year are approximately 37 percent lower than the limits for the first year of the regulations, the 2009 model year. For light-duty trucks with LVW of 3,751 pounds to gross vehicle weight (GVW) of 8,500 pounds, as well as medium-duty passenger vehicles, GHG emissions would be reduced approximately 24 percent between 2009 and 2016. These standards are intended to reduce emissions of carbon dioxide and other GHGs (i.e., nitrous oxide and methane). Some currently used technologies that achieve GHG reductions include small engines with superchargers, continuously variable transmissions, and hybrid electric drive.

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.*). The automobile-makers' suit in the U.S. District Court for the Eastern District of California, contended California's implementation of regulations that, in effect, regulate vehicle fuel economy, violates various Federal laws, regulations, and policies.

On December 12, 2007, the court found that if California receives appropriate authorization from the EPA (the last remaining factor in enforcing the standard), then these regulations would be consistent with and have the force of Federal law, thus, rejecting the automobile-makers' claim. 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 failed to act on granting California authorization to implement the standards. Then Governor Schwarzenegger and then Attorney General Edmund G. Brown filed suit against EPA for the delay. In December 2007, EPA Administrator Stephen Johnson denied California's request for the waiver to implement AB 1493. Johnson cited the need for a national approach to reducing GHG emissions, the lack of a "need to meet compelling and extraordinary conditions," and the emissions reductions that would be achieved through the Energy Independence and Security Act of 2007 as the reasoning for the denial.

The State of California filed suit against the EPA for its decision to deny the FCAA waiver. The change in presidential administration resulted in the EPA reexamining its position for denial of California's FCAA waiver and for its past opposition to GHG emissions regulation. California received the waiver on June 30, 2009.

ASSEMBLY BILL 32

The Legislature enacted AB 32 (AB 32, Nuñez), the California Global Warming Solutions Act of 2006, which was signed on September 27, 2006 to further the goals of Executive Order S-3-05. (Health & Safety Code, § 38500 et seq.) AB 32 requires CARB to adopt statewide GHG emissions limits to achieve statewide GHG emissions levels realized in 1990 by 2020. A longer-range goal requires an 80 percent reduction in GHG emissions from 1990 levels by 2050. CARB adopted the 2020 statewide target and mandatory reporting requirements in December 2007, and a statewide scoping plan in December 2008 (the AB 32 Scoping Plan). AB 32 represents the first enforceable statewide program to limit GHG emissions from all major industries, with penalties for noncompliance. CARB has been assigned to carry out and develop the programs and requirements necessary to achieve the goals of AB 32. The foremost objective of CARB is to adopt regulations that require the reporting and verification of statewide GHG emissions. This program would be used to monitor and enforce compliance with the established standards.

CARB is required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 allows CARB to adopt market-based compliance mechanisms to meet the specified requirements. In December 2008, CARB adopted a Scoping Plan to achieve reductions in GHG emissions in California. The plan indicates how reductions in significant GHG sources would be achieved through regulations, market mechanisms, and other actions.

On December 16, 2010, CARB endorsed the long-awaited regulation implementing California's GHG cap-and-trade program. Pursuant to AB 32, and subject to a variety of final actions by the Executive Director and approval by the Office of Administrative Law (OAL), the regulations will be included within Title 17 of the California Code of Regulation, sections 95800-96022, entitled "California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms".

The cap-and-trade program covers approximately 80 percent of the State's total GHG emissions and is considered a key element in achieving the overall strategy set forth in the Scoping Plan. The program, as implemented through the regulation, "caps" GHG emissions by issuing annual allowances (each covering the equivalent of one metric ton of carbon dioxide equivalent [MTCO₂eq¹⁰]) to regulated entities. Covered entities include those that meet the inclusion threshold of 25,000 MTCO₂eq per year (MTCO₂eq/yr) and engage in: cement production; cogeneration; glass production; hydrogen production; iron and steel production; lime manufacturing; nitric acid production; oil and natural gas systems; petroleum refining; paper and pulp manufacturing; electricity generating facilities (including operators located in California or electricity importers); and natural gas suppliers. The regulation also allows entities that engage in the above production and manufacturing activities to opt-in even if they do not meet the 25,000 metric ton inclusion threshold. Others may also voluntarily associate into the program. By opening the program to non-covered entities, CARB hopes to create a trading market in which investment banks, citizens groups and the general public would be allowed to hold allowances and would be subject to the registration and reporting requirements. The first compliance phase begins on January 1, 2012 through December 31, 2014, and will cover all major industrial sources, including the electricity industry and large industrial plants that manufacture glass, paper, concrete and other products. The second compliance phase begins On January 1, 2015 through December 31, 2017, and will cover distributors of transportation fuels,

¹⁰ Carbon Dioxide Equivalent (CO₂eq) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

natural gas and other fuels. A third compliance period starts on January 1, 2018 through December 31, 2020.

As noted above, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted. In order to advise the Board, CARB staff convened an Environmental Justice Advisory Committee and an Economic and Technology Advancement Advisory Committee.

EXECUTIVE ORDER S-3-05

The Executive Order S-3-05 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. The Secretary of the California Environmental Protection Agency (the Secretary) is required to coordinate efforts of various agencies in order to collectively and efficiently reduce GHGs. Some of the agencies involved in the GHG reduction plan include Secretary of Business, Transportation, and Housing Agency, Secretary of Department of Food and Agriculture, Secretary of Resources Agency, Chairperson of CARB, Chairperson of the Energy Commission, and the President of the Public Utilities Commission. The Secretary is required to submit a biannual progress report to the Governor and State Legislature disclosing the progress made toward GHG emission reduction targets.

EXECUTIVE ORDER S-1-07

On January 18, 2007, California further solidified its dedication to reducing GHGs by setting a new Low Carbon Fuel Standard for transportation fuels sold within the State. Executive Order S-1-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least ten percent by 2020. The Low Carbon Fuel Standard applies to refiners, blenders, producers, and importers of transportation fuels and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the “fuel cycle” using the most economically feasible methods.

SENATE BILL 97

Senate Bill (SB) 97 of 2007 requires the California Office of Planning and Research (OPR) to develop CEQA guidelines for analysis and, if necessary, the mitigation of effects of GHG emissions to the Resources Agency. These guidelines for analysis and mitigation must address, but are not limited to, GHG emissions effects associated with transportation or energy consumption. On December 30, 2009, the Natural 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. These new guidelines require a survey of existing climate change analyses performed by various lead agencies under CEQA.¹¹

SENATE BILL 375

SB 375 requires metropolitan planning organizations (MPOs) to include sustainable communities strategies in their regional transportation plans. The purpose of SB 375 is to reduce GHG emissions

¹¹ http://ceres.ca.gov/ceqa/docs/Adopted_Text_of_SB97_CEQA_Guidelines_Amendments.pdf. Accessed March 2010.

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from automobiles and light trucks by siting complimentary land uses in closer proximity, thereby reducing vehicle miles traveled; require CARB to provide GHG emission reduction targets from the automobile and light truck sector for 2020 and 2035 by January 1, 2010, and update the regional targets until 2050. SB 375 requires certain transportation planning and programming activities to be consistent with the sustainable communities strategies contained in the regional transportation plan. The bill also requires affected regional agencies to prepare an alternative planning strategy to the sustainable communities strategies if the sustainable communities strategy is unable to achieve the GHG emissions reduction targets. Governor Schwarzenegger signed and approved SB 375 on September 30, 2008.

SB 375 includes the ability to streamline certain projects which are consistent with an MPO's Sustainable Communities Strategy. CARB released its staff report on proposed regional GHG reduction targets for passenger cars and light trucks as well as its CEQA Functional Equivalent Document on August 9, 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 signed in November 2008, which expands the state's Renewable Energy Standard to 33 percent renewable power by 2020.

CARB SCOPING PLAN

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.¹² CARB's Scoping Plan contains the main strategies California will implement to reduce CO₂eq emissions by 174 million metric tons (MMT), or approximately 30 percent, from the state's projected 2020 emissions level of 596 MMT of CO₂eq under a business as usual (BAU)¹³ scenario (this is a reduction of 42 MMT CO₂eq, 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 Irrigated 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

¹² California Air Resources Board, *Climate Change Scoping Plan, A Framework for Change*, December 2008.

¹³ "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 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.

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 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."¹⁴

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.

REGIONAL

The SJVAPCD is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the San Joaquin Valley Air Basin portion of Kern. The City of Tracy and the Project site are located within the jurisdiction of the SJVAPCD. Refer to Section 4.6.3, below, for SJVAPCD guidance to analyzing GHG emissions.

LOCAL

CITY OF TRACY GENERAL PLAN

The City of Tracy *General Plan* provides a number of goals, policies, and objectives would apply to the Modified ESP. The following provides the Goals, Objectives, Policies, and Actions of the City regarding GHG emission regulations:

¹⁴ Superior Court of California, County of San Francisco, *Statement of Decision: Association of Irrigated Residents, et al v. California Air Resources Board*, March 18, 2011.

Goal AQ-1 Improved air quality and reduced greenhouse gas emissions.

Objective AQ-1.1 Improve air quality and reduce greenhouse gas emissions through land use planning decisions.

Policies

- P1. The City shall promote land use patterns that reduce the number and length of motor vehicle trips.
- P2. To the extent feasible, the City shall maintain a balance and match between jobs and housing.
- P3. Higher density residential and mixed-use development shall be encouraged adjacent to commercial centers and transit corridors.
- P4. Employment areas should include a mix of support services to minimize the number of trips.
- P5. Village Centers and other retail and office areas should be located within walking and biking distance of existing and proposed residential developments.

Objective AQ-1.2 Promote development that minimizes air pollutant and greenhouse gas emissions and their impact on sensitive receptors as a result of indirect and stationary sources.

Policies

- P3. Developers shall implement best management practices to reduce air pollutant emissions associated with the construction and operation of development projects.
- P4. New development projects should incorporate energy efficient design features for HVAC, lighting systems and insulation that exceed Title 24.
- P5. Use of solar water and pool heaters is encouraged.
- P6. Installation of solar voltaic panels on new homes and businesses shall be encouraged.
- P7. Trees should be planted on the south- and west-facing sides of new buildings or building undergoing substantial renovation in order to reduce energy usage.
- P8. In accordance with San Joaquin Air Pollution Control District regulations, wood burning fireplaces shall not be installed in new and significantly renovated residential projects.
- P9. New developments shall follow the current requirements of the SJVAPCD with respect to wood burning fireplaces and heaters.
- P10. Stationary air pollutant emission sources (e.g. factories) shall be located an appropriate distance away and downwind from residential areas and other sensitive receptors.
- P11. Residential developments and other projects with sensitive receptors shall be analyzed in accordance with CARB and SJVAPCD requirements.

Actions

- A3. Investigate the feasibility of new development fees to be used on coordination with local air pollution reduction efforts, such as clean air transit projects (e.g. ACE, Park & Ride, TRACER, BART and school buses).
- A4. Develop a green building standard for new development.
- A5. The City shall evaluate the installation of light emitting diodes (LEDs) or similar technology for traffic, street and other outdoor lighting where feasible.

Objective AQ-1.3 Provide a diverse and efficient transportation system that minimizes air pollutant and greenhouse gas emissions.

Policies

- P1. The City shall continue to work with the San Joaquin Council of Governments on regional transportation solutions.
- P3. The City shall encourage employers to establish Transportation Demand Management programs.
- P4. The City shall support efforts to retain the railroad right-of-way for future public transit and bicycle facilities.
- P5. The City shall require direct pedestrian and bicycle linkages from residential areas to parks, schools, retail areas, high-frequency transit facilities and major employment areas.
- P6. The City shall coordinate with regional rideshare and transit incentive programs.

Action

- A1. Pursue funding sources for the planning and development of local and regional transit services.
- A2. Consider measures to increase the capacity of the existing road network prior to constructing additional capacity (e.g. additional lanes, etc.).

Objective AQ-1.4 Support local and regional air quality improvement efforts.

Policy

- P3. The City shall be proactive in reducing greenhouse gas emissions from City operations as well as new or renovated development.

Actions

- A1. Notify local and regional jurisdictions of proposed projects that may affect regional air quality.
- A3. Develop a citywide sustainability strategy that would include a baseline inventory of greenhouse gas emissions from all sources within the City; greenhouse gas emissions reduction targets; and enforceable greenhouse gas emissions reduction measures.

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.

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- ◆ 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 vehicle miles traveled (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.

The City of Tracy prepared a Recirculated Supplemental EIR in July 2010 (Supplemental EIR to the City's adopted General Plan EIR certified in 2006) which included an assessment of the City's proposed SAP. The Supplemental EIR concluded that SAP implementation would reduce GHG emissions by 28 percent, and would not meet the SJVAPCD's 29 percent reduction threshold.

4.6.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

CALIFORNIA ENVIRONMENTAL QUALITY ACT GUIDELINES

The following thresholds of significance are based on Appendix G of the State *CEQA Guidelines*. Greenhouse gas emission impacts resulting from implementation of the Modified Project could be considered significant if they would:

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

SJVAPCD 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

Greenhouse Gas Emissions **Section 4.6**

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.

METHODOLOGY

CalEEMod

Operation of the Modified Project has the potential to create GHG impacts primarily from mobile sources, as well as from area sources, energy consumption, water supply, and solid waste generation. The California Emissions Estimator Model (CalEEMod) version 2011.1.1 software was used to

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quantify the GHG emissions that would occur as a result of implementation of the Modified ESP. According to the *Traffic Study for the Ellis Specific Plan* (prepared by Fehr and Peers, dated December 2007 [updated and validated by RBF Consulting in April 2012]), the Original and Modified ESP would generate 1,535 vehicle trips in the AM peak hour, and 3,393 vehicle trips in the PM peak hour, which results in approximately 20,687 daily trips and 54,959,151 VMT. Emissions from energy, water, and solid waste were calculated using CalEEMod default assumptions. The CalEEMod model outputs are provided in Appendix B.

POTENTIAL IMPACTS AND MITIGATION MEASURES

GREENHOUSE GAS EMISSIONS IMPACTS

Impact 4.6-1 Implementation of the Modified ESP would generate significant greenhouse gas emissions.

Determination: Significant and Unavoidable Impact.

Modified Project-Related Business as Usual Greenhouse Gas Emissions

According to the fifth bullet point of SJVAPCD’s process for evaluating GHG significance (above), as an EIR is required for the Modified for reasons other than solely potential GHG impacts, this analysis quantifies the Modified Project’s “business as usual” GHG emissions as well as the reduced GHG emissions.

The “business as usual” GHG emissions that would occur as a result of implementation of the Modified ESP have been calculated. As previously stated, “business as usual” refers to emissions that would be expected to occur in the absence of GHG reduction measures. The CalEEMod computer model outputs contained within Appendix B were used to calculate direct and indirect GHG emissions associated with the Modified Project. Table 4.6-1 (Business As Usual Greenhouse Gas Emissions) presents the estimated CO₂, N₂O, and CH₄ emissions.

TABLE 4.6-1 BUSINESS AS USUAL GREENHOUSE GAS EMISSIONS

| Source | CO ₂ | CH ₄ | | N ₂ O | | Total Metric Tons of CO ₂ eq ³ |
|------------------------------------------------------|----------------------------------------|-----------------------------|------------------------------------------------|-----------------------------|------------------------------------------------|------------------------------------------------------|
| | Metric Tons/yr ¹ | Metric Tons/yr ¹ | Metric Tons of CO ₂ eq ² | Metric Tons/yr ¹ | Metric Tons of CO ₂ eq ² | |
| Area Source | 3,887.64 | 4.46 | 93.66 | 0.05 | 15.5 | 3,997.86 |
| Energy | 6,268.16 | 0.21 | 4.41 | 0.11 | 34.1 | 6,306.96 |
| Mobile Source | 28,340.25 | 0.70 | 14.7 | 0.00 | 0 | 28,354.98 |
| Solid Waste | 417.87 | 24.70 | 518.7 | 0.00 | 0 | 936.47 |
| Water Demand | 698.95 | 11.08 | 232.68 | 0.29 | 89.9 | 1,020.25 |
| Total Business as Usual Emissions³ | 40,616.52 MTCO₂eq/yr | | | | | |

Notes:

- 1 – Emissions calculated using CalEEMod computer model.
 - 2 – CO₂ Equivalent values calculated using the U.S. EPA Website, *Greenhouse Gas Equivalencies Calculator*, <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>, accessed April 2012.
 - 3 – Totals may be slightly off due to rounding.
- Refer to Appendix B, *Air Quality/Greenhouse Gas Emissions Data*, for detailed model input/output data.

Direct Modified Project-Related Sources of Greenhouse Gases

Mobile Source. The CalEEMod model relies upon trip data within the *Traffic Impact Analysis* and project specific land use data to calculate mobile source emissions. The Modified Project would directly result in 28,354.98 MTCO₂eq/yr of mobile source-generated GHG emissions; refer to Table 4.6-1.

Area Source. Emissions from direct area sources would result in 3,997.86 MTCO₂eq/yr; refer to Table 4.6-1.

Indirect Modified Project Related Sources of Greenhouse Gases

Energy Consumption. Energy Consumption emissions were calculated using the CalEEMod model and Modified Project-specific land use data. Electricity would be provided to the ESP site via the Pacific Gas and Electric Company. The Modified Project would indirectly result in 6,306.96 MTCO₂eq/yr due to energy consumption; refer to Table 4.6-1.

Solid Waste. Solid waste associated with operations of the Modified Project would result in 936.47 MTCO₂eq/yr; refer to Table 4.6-1.

Water Demand. Emissions from indirect energy impacts due to water supply would result in 1,020.25 MTCO₂eq/yr; refer to Table 4.6-1.

Total Modified Project-Related Sources of Greenhouse Gases. As shown in Table 4.6-1, the total amount of “business as usual” GHG emissions from direct and indirect sources combined resulting from the Modified Project would total 40,616.52 MTCO₂eq/yr.

Reduced Greenhouse Gas Emissions

As shown in Table 4.6-1, the “business as usual” GHG emissions that would occur as a result of implementation of the Modified Project would be 40,616.52 MTCO₂eq/yr. The SJVAPCD requires projects to reduce their “business as usual” GHG emissions by 29 percent in order to result in less than significant project level and cumulative GHG impacts. Design features the Modified ESP (also identified as part of Mitigation Measure 4.6-1a) would result in reduced GHG emissions. Design features identified in the Modified ESP which were accounted for in the CalEEMod model include the following:

- ◆ Water-efficient irrigation;
- ◆ High efficiency lighting;
- ◆ Energy efficient appliances (clothes washers, dishwashers, fan, and refrigerators);
- ◆ Increase density;
- ◆ Increase diversity;
- ◆ Improve walkability;
- ◆ Improve destination accessibility;
- ◆ Improve pedestrian network; and
- ◆ Provide traffic calming measures at intersections and on roadways.

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The City's SAP contains additional sustainability measures that would apply to the Modified ESP and further reduce GHG emissions. SAP measures which were accounted for in the CalEEMod model (required as part of Mitigation Measure 4.6-1a) include the following:

- ◆ Measure E-1, Green Building Ordinance: Energy Star appliances, energy efficient lighting at or above Title 24 requirements;
- ◆ Measure E-4, Energy Efficient Products and Retrofits: Energy Star appliances, energy efficient lighting at or above Title 24 requirements, electric lawnmowers;
- ◆ Measure T-13, Reduce Commute Trips: Carpool and rideshare programs;
- ◆ Measure T-14, Parking Cash-Out Programs: Cash-out programs for employees (100 percent of employees eligible); and
- ◆ Measure SW-2, Increased Recycling and Waste Diversion: Increase recycling and waste diversion within the City; City's diversion goal is 75 percent.

Additional measures included in the CalEEMod model to further reduce GHG emissions (required as part of Mitigation Measure 4.6-1a) include the following:

- ◆ No hearths;
- ◆ Install low-flow fixtures (kitchen faucets, bathroom faucets, showers, and toilets)

Table 4.6-2 (Reduced Proposed Greenhouse Gas Emissions), shows the calculated reductions in GHG emissions through implementation of Mitigation Measure 4.6-1a. As seen in Table 4.6-2, implementation of design features and SAP measures required by Mitigation Measure 4.6-1a would result in a decrease in GHG emissions of 10,589.29 MTCO₂eq/yr, which would equate to a 26.07 percent reduction from the "business as usual" condition. Therefore, the Modified Project would not achieve the SJVAPCD's 29 percent GHG significance threshold. Thus, even with implementation of Mitigation Measure 4.6-1a, GHG impacts would be significant.

As the proposed uses within the Modified ESP are primarily residential and the majority of GHG emissions (70 percent) are attributable to mobile sources, there are no other feasible mitigation measures that could reduce Modified ESP GHG emissions by the required 29 percent (it should be noted that the CalEEMod model inherently accounts for regulatory measures such as the Low Carbon Fuel Standard, Pavley, etc.). It should be noted that the variance between the SJVAPCD reduction target and the reduction levels of Modified Project is primarily related with site location and density factors. The Modified ESP would achieve a majority (i.e., 12 percent) of the GHG emissions reductions by implementing pedestrian friendly design, traffic calming measures, connectivity, access to transit, and a mix of land uses. As a result, the measures outlined in Mitigation Measure 4.6-1a and the design features represent all of the reasonably feasible GHG reduction measures that can be applied to the Modified Project. Additional emissions reductions cannot be achieved given that the Modified Project cannot feasibly provide any higher levels of density and the established modes of transit do not include light rail or bus rapid transit. It should be noted that the Modified ESP provides a site for the relocation of the existing Tracy Altamont Commuter Express (ACE) train station should the ACE Rail Agency select this site. Relocation of this train station would further reduce vehicle trips and GHG emissions associated with the Modified Project.

TABLE 4.6-2 REDUCED PROPOSED GREENHOUSE GAS EMISSIONS

| GHG Source | Proposed Business As Usual GHG Emissions (MTCO ₂ eq/yr) ¹ | Design Features Applied in CalEEMod | Proposed Reduced GHG Emissions (MTCO ₂ eq/yr) ¹ |
|-------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Mobile | 28,354.98 | Increase Density | 23,610.10 |
| | | Increase Transit Accessibility | |
| | | Increase Diversity | |
| | | Improve Pedestrian Network (Modified Project includes walkways on-site connecting to off-site sidewalk system) | |
| | | Improve Destination Accessibility | |
| | | Improve Walkability Design (100 intersections per square mile) | |
| | | Implement Trip Reduction Program (100 percent of employees eligible) | |
| | | Provide Ride Sharing Program (100 percent of employees eligible) | |
| | | Provide Traffic Calming Measures (at intersections and along roadways) | |
| Area | 3,997.86 | No Hearths | 19.71 |
| | | Use Low VOC Architectural Coatings | |
| | | Require Electric Lawnmowers | |
| Energy | 6,306.96 | Install Energy Efficient Appliances (clothes washers, dishwashers, fans, and refrigerators) | 5,329.60 |
| | | Install High Efficiency Lighting | |
| Water | 1,020.25 | Install Low Flow Bathroom Faucets | 833.70 |
| | | Install Low Flow Kitchen Faucets | |
| | | Install Low Flow Toilets | |
| | | Install Low Flow Showers | |
| | | Use Water Efficient Irrigation Systems | |
| Waste | 936.47 | Achieve the City's waste diversion goal of 75 percent. | 234.12 |
| TOTAL | 40,616.52 | N/A | 30,027.23 |
| Percent Reduction from Business As Usual | | | 26.07 |

Notes:

1 – Emissions calculated using CalEEMod computer model.

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

Urban Heat Island Effect

The term “heat island” refers to urban air and surface temperatures that are higher than nearby rural areas. Heat islands form as cities replace natural land cover with pavement, buildings, and other infrastructure. These changes contribute to higher urban temperatures in a number of ways:

- ◆ Displacing trees and vegetation minimizes the natural cooling effects of shading and evaporation of water from soil and leaves (evapotranspiration).
- ◆ Waste heat from vehicles, factories, and air conditioners may add warmth to their surroundings, further exacerbating the heat island effect.

Summertime heat islands increase energy demand for air conditioning, raising power plant emissions of harmful pollutants. Additionally, the higher temperatures also accelerate the chemical reaction that produces ground-level ozone, or smog. This threatens public health, the environment, and for some communities may make it harder to meet federal air quality goals.

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Heat island intensities depend on an area's weather and climate, proximity to water bodies, and topography. Urban-rural temperature differences are often largest during calm, clear evenings. The City of Tracy experiences fairly mild weather, with temperatures typically ranging from 56 degrees Fahrenheit (°F) in the winter to 93 °F in the summer. On average, the warmest month is July with a mean temperature of approximately 93 °F. The coolest month is January with a mean temperature of 56 °F. The City experiences the greatest amount of precipitation in the month of January.¹⁵

The extent to which urban areas can benefit from heat island reduction strategies depends on several factors. Some of these factors, like prevailing weather patterns, geography, and pollution transported from up-wind regions, are largely beyond the influence of local policy. However, factors such as land-use patterns, materials used in road and building construction, and the coverage of urban trees and vegetation can easily be implemented into local projects. There are a number of steps that can reduce the impacts of heat islands. These "heat island reduction strategies" include:

- ◆ Installing cool or vegetated green roofs;
- ◆ Planting trees and vegetation; and
- ◆ Switching to cool paving materials.

Heat Island Mitigation with Roofs. On a hot, sunny, summer day, traditional roofing materials may reach summertime peak temperatures of up to 190°F (88°C). By comparison, cool roofs only reach peak temperatures of 120°F (49°C). The term "cool roof" is used to describe roofing material that has high solar reflectance, or albedo. These materials reflect a large portion of the sun's energy. Cool roofs also may have a high thermal emittance, and thus release a large percentage of absorbed heat. This keeps the material cooler and helps to reduce the heat island effect.

Most cool roof applications have light surfaces to reflect solar radiation, reduce heat transfer to the interior, and reduce summertime air conditioning demand. Mitigation Measure 4.6-1a includes the installation of light colored "cool" roofs and cool pavements to reduce the heat island effect.

Heat Island Mitigation with Trees and Vegetation. Increasing the cover of trees and vegetation in a city is a simple and effective way to reduce the urban heat island effect. Trees provide a wide range of other benefits, from increasing property value to reducing storm water runoff. Shade trees also can make homes and buildings significantly more energy efficient. Scientists estimate that strategically planting trees and vegetation reduces cooling energy consumption by up to 25 percent. Mitigation Measure 4.6-1a requires strategically placed shade trees to increase energy efficiency and to reduce the heat island effect.

Various theories concerning the heat island effect abound, as the global temperature data is compiled and analyzed. Attempts to test the urban heat island theory by comparing temperature readings taken on calm nights with those taken on windy nights indicated that temperatures over land have risen as much on windy nights as on calm nights, indicating that the observed overall warming is not a consequence of urban development.¹⁶ As recommended in Mitigation Measures 4.6-1a, the Modified Project would be required to use "cool" roofs and strategically placed shade trees to increase energy efficiency and to reduce the heat island effect. With implementation of Mitigation Measures 4.6-1a, a less than significant impact would result.

¹⁵ The Weather Channel Average Weather for Tracy, California, <http://www.weather.com/weather/wxclimatology/monthly/graph/USCA1155>, accessed June 22, 2012.

¹⁶ Parker, David E., *Climate: Large Scale Warming is Not Urban*, Nature, 432, 290, November 18, 2004.

Conclusion

The SJVAPCD standards require projects to reduce their GHG emissions through the application of BPS or through mitigation measures. For development projects, BPS focuses on measures that improve energy efficiency and those that reduce vehicle miles travelled. 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 GHG emissions related to the Modified Project. However, although the Modified Project would include feasible BPS (as required by Mitigation Measure 4.6-1a), quantification of GHG emissions is required for all projects for which the lead agency has determined that an EIR is required, regardless of whether the project incorporates BPS.

Land use planning decisions, such as creating mixed-use development, discouraging leap-frog development, and creating favorable jobs to housing ratios can significantly reduce VMT and the associated GHG emissions. As indicated in Table 4.6-2, GHG emissions related to the Modified Project primarily occur through vehicular traffic and energy consumption. GHG emissions from energy consumption are reduced through building design features that increase energy efficiency, water conservation, and the use of energy efficient appliances. Additionally, mobile source GHG emissions are reduced through project location and design elements that reduce VMT, promote pedestrian access, and promote the use of public transportation.

Total emissions from the Modified Project would be 40,616.52 MTCO₂eq/year; refer to Table 4.6-1 and Table 4.6-2. As seen in Table 4.6-2, implementation of design features and SAP measures required by Mitigation Measure 4.6-1a would result in a decrease in GHG emissions of 10,589.29 MTCO₂eq/yr, which would equate to a 26.07 percent reduction from the “business as usual” condition. Therefore, the Modified Project would not achieve the SJVAPCD’s 29 percent GHG significance threshold, and implementation of the Modified ESP would result in significant and unavoidable GHG impacts. This finding is consistent with the General Plan EIR conclusion.

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 “business as usual” 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 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 Modified Project. The General Plan EIR determined that GHG emissions under the SAP would not meet SJVAPCD criteria, and impacts would be significant and unavoidable.

Mitigation Measures

4.6-1a The Modified Project shall include, but not be limited to, the following list of potential design features. These features may be incorporated into the design of the Modified Project to ensure consistency with adopted statewide plans and programs. The Project Applicant shall demonstrate the incorporation of design features of the Modified Project prior to the issuance of building or occupancy permits, as noted below.

Transportation

- ◆ Provide pedestrian connections to the off-site circulation network (building permit).
- ◆ Implement a trip reduction program, for which all employees shall be eligible to participate (occupancy permit).
- ◆ Provide a ride sharing program, for which all employees shall be eligible to participate (occupancy permit).
- ◆ Provide amenities for non-motorized transportation (i.e., secure bicycle storage, changing rooms, and showers) (building permit).

Energy Efficiency

- ◆ Design buildings to be energy efficient, 28 percent above Title 24 requirements (building permit).
- ◆ Install “cool” roofs and cool pavements, and strategically placed trees (building permit).
- ◆ Install high efficiency lighting, and energy efficient heating and cooling systems (building permit).
- ◆ Reduce unnecessary outdoor lighting (building permit).

Water Conservation and Efficiency

- ◆ Install water-efficient irrigation systems (building permit).
- ◆ Comply with *Municipal Code* Section 21.20.050, Efficient Landscape Standards (building permit).
- ◆ Install water-efficient fixtures (e.g., faucets, toilets, showers) (building permit).

Solid Waste

- ◆ Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard) (building permit).
- ◆ Provide interior and exterior storage areas for recyclables and adequate recycling containers located in public areas (occupancy permit).

CONSISTENCY WITH APPLICABLE GHG PLANS, POLICIES, OR REGULATIONS

Impact 4.6-2 The Modified ESP would not result in a conflict with an applicable greenhouse gas reduction plan, policy, or regulation.

Determination: Less Than Significant Impact with Mitigation Incorporation.

The City’s SAP establishes a GHG emission reduction target that is based on SJVACPD threshold of a 29 percent reduction from “business as usual” 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 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 Modified ESP includes policies and measures to increase transit usage and opportunities, improve pedestrian traffic accessibility, increase density, provide mixed-use, improve destination accessibility, install high efficiency lighting, and install energy efficient appliances. Mitigation Measure 4.6-1a also requires the implementation of feasible SAP measures and other measures aimed at reducing GHG emissions. Therefore, with implementation of Mitigation Measure 4.6-1a, the Modified ESP would be consistent with SAP and would not hinder its implementation or effectiveness. As the Modified Project would be consistent with the City's SAP, impacts in this regard would be less than significant.

Mitigation Measures

Refer to Mitigation Measure 4.6-1a.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact 4.6-3: Future development facilitated by the Modified Project and other related cumulative projects could have a cumulatively considerable contribution to greenhouse gas emissions.

Determination: Significant and Unavoidable Impact.

As previously stated, despite the implementation of design elements and mitigation measures, the Modified Project would not meet the SJCAPCD reduction threshold for GHG emissions. Although the Modified Project would be consistent with the City's Sustainability Action Plan and would incorporate relevant measures within the Sustainability Action Plan, such project-specific mitigation cannot be imposed upon cumulative projects. Additionally, the GHGs generated by the Modified Project 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 Guidelines* 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*

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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 Modified 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 an individual project of the size and nature of the Modified Project is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory.¹⁷ GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.¹⁸ The additive effect of the Modified Project's GHG emissions would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. For the reasons discussed in this section and because the project would be consistent with the City's Sustainability Action Plan and incorporates GHG reduction measures and design features. However, the project would not meet SJVAPCD reduction requirements and impacts would be significant and unavoidable. As a result cumulative-related GHG emissions would also be considered significant and unavoidable.

Mitigation Measures

Refer to Mitigation Measure 4.6-1a.

¹⁷ 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.

¹⁸ Ibid.

4.7 HAZARDS AND HAZARDOUS MATERIALS

As described in Chapter 2 (Introduction), this Revised Draft EIR analyzes the potential environmental effects of the proposed changes associated with the Modified Project, and identifies feasible mitigation measures for potentially significant impacts where applicable. In addition, this Draft Revised EIR also addresses:

- ◆ the Trial Court's Statement of Decision and Judgment (issued October 31, 2011) on the City of Tracy/Surland Companies Development Agreement and Ellis Specific Plan Applications Draft and Final EIRs (State Clearinghouse No. 2006102092) (Original Ellis EIR); as well as,
- ◆ updates to the ESP area as identified in the 2011 General Plan Update and analysis in the General Plan EIR (certified February 2011).

Other background information, analysis of environmental impacts, and mitigation measures contained within the Original Ellis EIR remain valid, and as described in Chapter 2, that information has been incorporated by reference into this Draft Revised EIR. Thus, the topics covered in this chapter are limited to addressing those aspects described above. Specifically, this section provides:

- 1) an updated discussion of existing conditions;
- 2) an expanded discussion of gas and oil pipelines (an expanded discussion of airport hazards is in Section 4.5 (Land Use); and,
- 3) potential airport hazards and gas and oil pipelines impacts that could occur as a result of the implementation of the Modified ESP.

A Phase I Initial Site Assessment (Phase I) was prepared by RBF Consulting in October 2007 for the Original Ellis DA and Specific Plan (Original Phase I). However, a new Phase I (2012 Phase I) was prepared by ENGE0, Incorporated (ENGE0) on March 29, 2012 (Phase I Environmental Site Assessment Ellis Property Tracy, California) at the request of Project Applicant for the purpose of environmental due diligence; refer to Appendix C for a copy of the 2012 Phase I. The 2012 Phase 1 was peer reviewed by RBF Consulting in May 2012. The objective of the 2012 Phase I is to identify recognized environmental conditions associated with the Modified ESP site. This section of the Draft Revised EIR incorporates the information contained within the 2012 Phase I.

In addition, to address pipeline safety issues raised in the Statement of Decision and Judgment, the Project Applicant commissioned an investigation into the safety of on-site pipelines, which is documented in the Final Report, Safety Aspects of Energy Pipelines Regarding the Proposed Ellis Development, prepared by Kiefner & Associates, May 1, 2012 (Pipeline Safety Report). That report was peer reviewed by V&A, Ellis Specific Plan, Tracy, CA - Safety Aspects of Energy Pipelines Peer Review, May 29, 2012 (Pipeline Safety Report Peer Review). Both reports are summarized in this section and are reproduced in their entirety in Appendix C (Hazards Data).

4.7.1 EXISTING CONDITIONS

CURRENT USE OF PROPERTY/DESCRIPTION OF SITE IMPROVEMENTS

The approximately 321-acre Modified ESP area is identified by the following addresses and Assessor's Parcel Numbers (APN) and characteristics; refer to Figure 4.7-1 (Modified ESP Area APN Map):

- ◆ 27580 South Lammers Road - APN 240-140-16; this parcel is undeveloped agricultural land.
- ◆ 27798 South Lammers Road - APN 240-140-18; this parcel is undeveloped agricultural land.
- ◆ 27710 South Lammers Road - APN 240-140-22; this parcel is undeveloped agricultural land.
- ◆ 27710 South Lammers Road - APN 240-140-23; this parcel is used for residential/storage purposes. Site improvements include a two-story residential house, a warehouse, field trailers, and a connex storage container.
- ◆ 28001 Corral Hollow Road - APN 240-140-31; this parcel is undeveloped agricultural land.
- ◆ 28397 Corral Hollow Road - APN 240-140-30; this parcel is undeveloped agricultural land.

RECORDS REVIEW

PREVIOUS ENVIRONMENTAL REPORTS

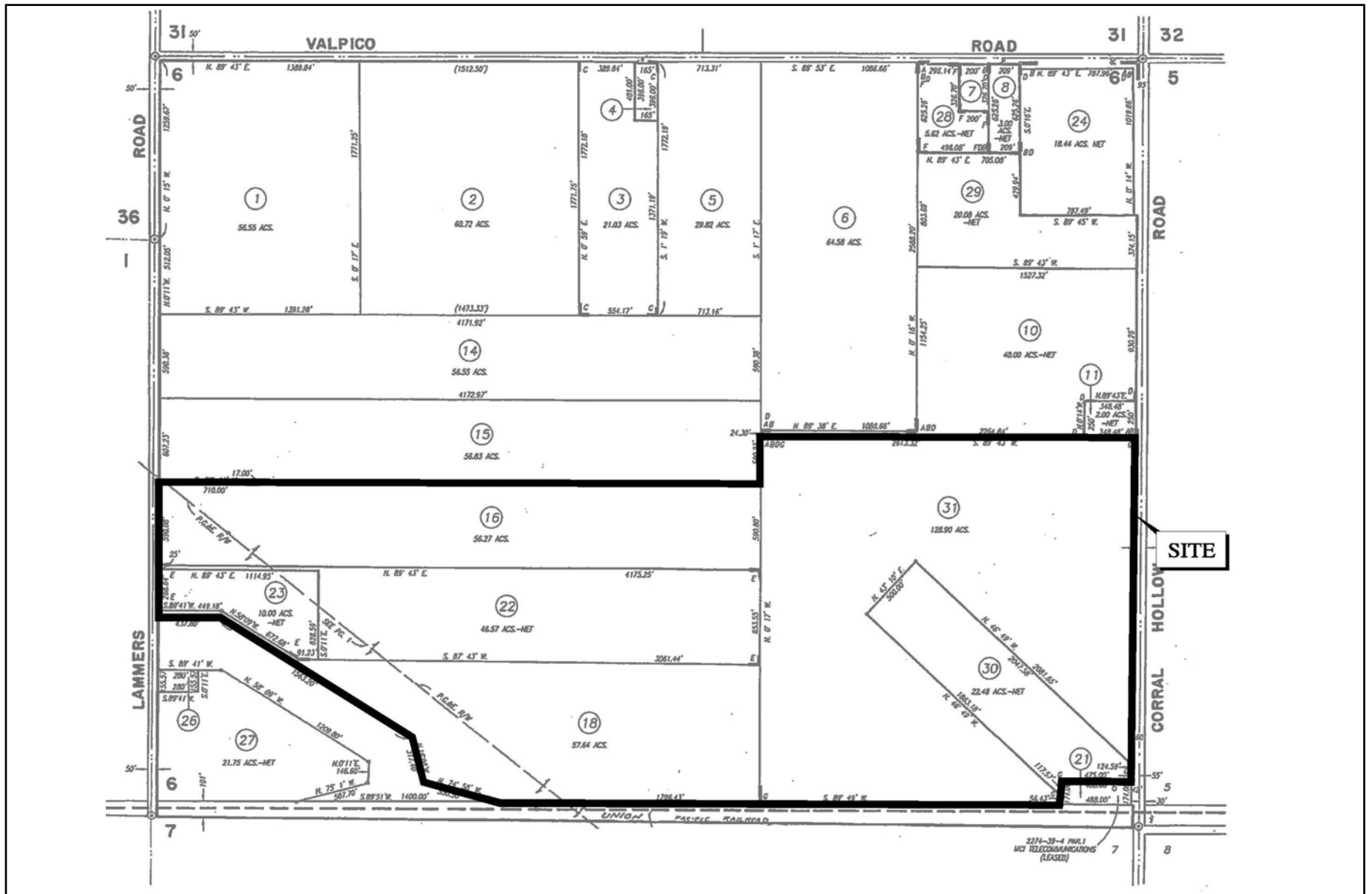
In April 2008, Geocon conducted an Initial Pipeline Location and Depth Assessment for the Original ESP area, which consisted of a subsurface utility survey in the vicinity of the reportedly abandoned Shell pipeline in the central portion of the site. Geocon indicated that the survey was not able to locate any metallic objects in vicinity of the reported area of the pipeline. Geocon also reported that the neighboring property owner indicated that the Shell pipeline that had cross his parcels had been removed in the late 1970s. Geocon's opinion was that it was likely that the pipeline had been removed, and because there was no information regarding the testing of the soil below the removed pipeline, subsurface impacts due to leaks in the pipeline may have occurred.

In February 2008, ENGEO conducted a Phase I Environmental Site Assessment for the "Western Corral Properties", which included two of the six ESP area parcels (APN 240-140-30 and APN 240-140-31). ENGEO recommended additional studies to address the following potential environmental concerns associated with the parcels:

- ◆ Potential agrichemical impact due to past agricultural uses.
- ◆ Potential impacts due to a reportedly abandoned oil pipeline(s).

In November 1994, ENGEO conducted a Phase I Environmental Site Assessment for the "South Schulte Planning Area", which included the six parcels that comprise the Property. ENGEO recommended additional studies to address the following potential environmental concerns associated with the parcels:

- ◆ Potential agrichemical impact due to past agricultural uses.
- ◆ Potential impacts due to a reportedly abandoned Shell oil pipeline



Source: Assessor's Office County of San Joaquin (2012)



PROPERTY RECORDS

Environmental Liens

Questionnaires completed by the Project Applicant and key site manager indicated that they are not aware of any environmental cleanup liens recorded against the Modified ESP area.

HISTORICAL RECORD SOURCES

The purpose of the historical record review is to develop a history of the previous uses or occupancies of the Modified ESP area and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions on the Modified ESP area.

Historical Topographic Maps

Historical USGS topographic maps were reviewed to determine if discernible changes in topography or improvements pertaining to the Modified ESP area had been recorded.

1916 Map

The 1916 map shows the Modified ESP area as undeveloped land. Unnamed roads are mapped in the approximate current locations of South Lammers and Corral Hollow Roads, as well as the rail line currently located south of the area. Elevations on the Modified ESP area are mapped as ranging approximately between 200 feet mean seal level (msl) in the southwest to approximately 140 msl in the northeast. Scattered structures are mapped in the vicinity of the area, including one structure mapped directly north of APN 240-140-16.

1922 and 1947 Maps

The 1922 and 1947 maps appear similar to the previous map with regard to lack of development on the Modified ESP area and scattered structures in the vicinity of the area. The 1947 map shows three unnamed tanks and approximately 16 structures located northwest of the area along the west side of South Lammers Road, where subsequent maps identify the structures as "Oil Tanks".

1954 Map

The 1954 map appears similar to the previous map with the exception of soil disturbances near the two underground pipeline easements. The disturbances are located at the approximate current location of the PG&E/Chevron active pipeline easement and at the reportedly abandoned Shell pipeline easement, within the west-central portion of the Modified ESP area. The Delta Mendota Canal and associated levee also appears near the southwest boundary of the area in the 1954 Map. Lammers Road and Corral Hollow Roads are now named as such.

1968 Map

The 1968 map shows a structure located in the north central portion and a pit located in the northeast corner of APN 240-140-31. Scattered structures are mapped in the vicinity of the Modified ESP area along Corral Hollow Road and South Lammers Road.

1981 Map

The 1981 map appears similar to the previous map with regard to the Modified ESP area and surrounding parcels, with the exception of orchards mapped in the northern portion of APN 240-140-31.

Hazards and Hazardous Materials **Section 4.7**

Aerial Photographs

The following aerial photographs, provided by EDR, were reviewed for information regarding past conditions and land use at the Modified ESP area and in the immediate vicinity.

1949 Photograph

The Modified ESP area is undeveloped pasture land. Scattered structures are evident north of the area, while the oil tanks identified in the topographic maps (1947 onward) are northwest. The Delta Mendota Canal is visible southwest of the area and soil disturbances are shown in the direction of the two underground pipelines noted in the topographic maps.

1952 Photograph

The 1952 photograph is similar to the previous photograph with regard to lack of structures on the Modified ESP area; however, it appears to be used for agricultural purposes, including row crops, dry crops, and an orchard. What appears to be irrigation overflow basins are located in the northwest and northeast corners of APN 240-140-31. Parcels in the vicinity of the area appear to consist of a mix of agricultural uses.

1968 through 1982 Photographs

The 1968 through 1982 photographs are similar to the previous photograph with the exception of one structure shown in the north-central portion of APN 240-140-31 (1968 through 1982 photographs) and one structure shown on the west end of APN 240-140-23 (1982 photograph).

1993 Photograph

The 1993 photograph shows two additional structures on APN 240-140-23. Additional structures are visible in the vicinity of the Modified ESP area.

1998 through 2006 Photographs

The 1998 through 2006 photographs are similar to the previous photograph with regard to the Modified ESP area and surrounding parcels.

Fire Insurance Maps

According to the 2012 Phase 1, no Sanborn Fire insurance maps were available for the Modified ESP area and surrounding properties.

City Directory

City Directories, published since the 18th century for major towns and cities, lists the name of the resident or business associated with each address. The property address of 28001 South Corral Hollow Road is identified as “residential” for the 2000 reporting period, while the property address of 27710 South Lammers Road is identified as “residential” for the 1996 and 2000 reporting periods. The remainder of the addresses associated with the Modified ESP area are not listed.

Government Agencies

The following agencies were contacted by ENGE0 pertaining to possible past development and/or activity at the Modified ESP area.

- ◆ City of Tracy Building/Planning Department
- ◆ San Joaquin County Building/Planning Department

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- ◆ San Joaquin County Fire Prevention Bureau
- ◆ San Joaquin County Department of Environmental Health
- ◆ San Joaquin County Assessor's Office
- ◆ Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR)
- ◆ California Regional Water Quality Control Board
- ◆ Department of Toxic Substances Control

City of Tracy Building/Planning Department

The City of Tracy Building/Planning Department was contacted by ENGEO regarding files for the Modified ESP area. City representatives indicated that files are not retained for parcels outside of the city limits.

San Joaquin County Community Development Department

The San Joaquin County Community Development Department was contacted by ENGEO regarding the Modified ESP area and County representatives indicated no files were available for the Modified ESP area¹.

San Joaquin County Fire Prevention Bureau

The San Joaquin County Fire Department was contacted by ENGEO regarding files for the Modified ESP area; they indicated no files were available for the area.

San Joaquin County Environmental Health Department

The San Joaquin County Environmental Health Department was contacted by ENGEO regarding the Modified ESP area. ENGEO reviewed the following files:

- ◆ 27710 South Lammers Road - Complaint Investigation Form from 1993 regarding the dumping of an unknown substance onto vacant land. The complaint was subsequently resolved.
- ◆ 27710 South Lammers Road - Soil Suitability Study (1992).
- ◆ Tuso Farms - Domestic Water Well Analysis (1992).

San Joaquin County Assessor's Office

The San Joaquin County Assessor's Office website was viewed by ENGEO for information regarding the acreage and zoning for the Modified ESP area. The area is zoned as "AU-20" (Agricultural- Urban Reserve).

Department of Conservation, Division of Oil, Gas, and Geothermal Resources

The DOGGR online database was reviewed by ENGEO. One well is documented on the Modified ESP area in the southern portion of APN 240-140-31. The well, which is identified by API Number 07700382, is reported to have been drilled and abandoned as a "dry well" in 1964; therefore, the well was not developed for active production.

ENGEO reviewed the Geotracker Database maintained by the State Water Resource Control Board (SWRCB) to identify ongoing environmental site assessment and remedial activities within the immediate vicinity of the Modified ESP area. The Geotracker database did not identify any sites

¹ Departmental records only date back to 1980. Records prior to 1980 require an archive search.

within the immediate vicinity of the area that would be considered to become an environmental concern.

ENGEO reviewed the Envirostor Database maintained by Department of Toxic Substances Control (DTSC) to identify ongoing environmental site assessment and remedial activities within the immediate vicinity of the Modified ESP area. The Envirostor database did not identify any sites within the immediate vicinity of the area that would be considered an environmental concern.

ENVIRONMENTAL RECORD SOURCES

Federal, State, and Local American Society for Testing and Materials Standard/Supplemental Sources

The Modified ESP area is not on the Federal, State, or local ASTM Standard or supplemental sources or databases. No properties within appropriate ASTM search distances of the Modified ESP area were identified on Federal ASTM Supplemental sources. However, nearby properties are listed on the following State ASTM Supplemental sources databases.

State ASTM Standard/Supplemental Sources

UST - Underground Storage Tank

The UST database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's (SWRCB) Hazardous Substance Storage Container Database. MCI Telecommunications Corporation located 28499 Corral Hollow Road is identified on this database.

HIST UST - Historical UST Registration Database

This database lists historical USTs registered with the State. The Charles Spatafore Jr. property located at 27880 S Lammers Road is on this database, as is the Five-T Ranch located at 27369 South Lammers Road.

Local ASTM Supplemental Sources

The following databases were identified on Local ASTM Supplemental sources and located within appropriate ASTM search distances of the Modified ESP area.

FUDS - Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Site properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions. One location, without an address is listed in this database, the Tracy Auxiliary Field No. 5.

CA FID - California Facility Inventory Database

The CA FID contains active and inactive underground storage tank locations. The source is the SWRCB. One site is listed on this database, the MCI Telecommunications Corporation at 28499 Corral Hollow Road.

SWEEPS - Statewide Environmental Evaluation and Planning System

This underground storage tank listing was updated and maintained by a company contacted by the SWRCB. The listing is no longer updated or maintained. The local agency is the contact for more

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information on a site on the SWEEPS list. One site is on this list, the MCI Telecommunications Corporation, located at 28499 Corral Hollow Road.

WMUDS/SWAT

The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the SWRCB. One site is on this database, the Tracy Airport Land Treatment Facility at Corral Hollow Road.

As noted above, the MCI telecommunications warehouse, which is located adjacent to the Modified ESP area at 28455 South Corral Hollow Road, is listed on several databases including UST, CA FID, and SWEEPS UST. All registered USTs are either inactive or closed. The MCI facility is not listed as a contaminated site and would not be considered a current environmental concern to the Modified ESP area. Regarding the parcel at 27800 South Lammers Road, a 500-gallon UST had been installed in 1970 and for the parcel located at 27369 South Lammers Road, a 600-gallon UST had been installed in 1969. The parcels at the above-referenced addresses are not listed as contaminated sites and would not be considered a current environmental concern to the Modified ESP area.

As described above, the Tracy Airport Land Treatment Facility, which is located approximately 500 feet southeast of the Modified ESP area at Corral Hollow Road, is listed on several databases including WMUDS/SWAT and FUDS. All registered USTs are either inactive or closed. The Tracy Airport Land Treatment Facility is not listed as a contaminated site and would not be considered a current environmental concern to the Modified ESP area. The Tracy Auxiliary Field No. 5, which is located approximately 0.9 miles southeast of the Modified ESP area, appears to be beyond appropriate ASTM search distances; therefore, would not be considered a current environmental concern to the Modified ESP area.

SITE RECONNAISSANCE

ENGEO conducted a reconnaissance of the Modified ESP area on February 21, 2012. The area was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The site was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks.

EXISTING USES

The general site setting is characterized as a predominately level site that is primarily used for agricultural purposes with one residence located at 27710 South Lammers Road. The following structures were observed at 27710 South Lammers Road (APN 240-140-23):

- ◆ One 2-story residential house, which consists of stucco walls and a tile roof. The back yard is landscaped with a pool.
- ◆ One metal-sided barn (approximately 2000 square feet), which was approximately 30% filled with office furniture.
- ◆ Three field trailers (approximately 550 square feet each). The trailers were locked at the time of the reconnaissance.
- ◆ Two metal connex storage containers (approximately 500 square feet each). The containers were locked at the time of the reconnaissance.

EXTERIOR OBSERVATIONS

The following hazardous substances or petroleum products were observed within the Modified ESP area during the reconnaissance:

- ◆ One approximately 100-gallon polyurethane above ground storage tank (AST) was observed behind the residential structure at APN 240-140-23. The AST was approximately 50% filled with water.
- ◆ One approximately 50-gallon metal (back of truck) AST was observed at the east end of APN 240-140-23. The AST appeared empty.

Other than the above mentioned containers, no other above-ground storage tanks or evidence of existing underground storage tanks was observed during the reconnaissance. Four basins were observed at the northern end of APN 240-140-16 and 240-140-31. The basin volumes ranged in size from approximately 2,500 cubic yards (CY) to approximately 6,000 CY and appeared to be used in connection with irrigation runoff. No other pits, ponds, or lagoons were observed. In addition, two wells were observed and it is believed that an additional, inoperable irrigation well is located within the Modified ESP area. However, during the site reconnaissance none of the following were observed:

- ◆ Odors indicative of hazardous materials or petroleum material impacts;
- ◆ Pools of potentially hazardous liquid;
- ◆ Drums
- ◆ Signs of leakage of possible Polychlorinated Biphenyls (PCB)-containing materials in the five pole mounted transformers at APN 240-140-23 and one pole-mounted transformer on the west side of APN 240-140-31 (the transformers appeared to be in good condition);
- ◆ Stained Soil/Pavement;
- ◆ Stressed Vegetation;
- ◆ Solid Waste/Debris; however, several farm implements in varied stages of decay, as well as debris associated with farming activities (i.e. pvc and metal irrigation piping, tires, an engine block, metal and wood fencing material, empty boxes from irrigation supplies) were observed;
- ◆ Wastewater conveyance systems; or,
- ◆ Septic Systems; however, according to the Project Applicant the residence located at 27710 South Lammers Road is connected to an on-site septic system.

ASBESTOS CONTAINING MATERIALS AND LEAD BASED PAINT

An asbestos and lead-based paint (LBP) survey was not conducted; however, given the newer age of the existing structures at APN 240-140-23, it is unlikely that asbestos or LBP exists. Prior to demolition, the San Joaquin County Building Department would be contacted regarding demolition requirements.

INDOOR AIR QUALITY

An evaluation of indoor air quality, mold, or radon was not conducted. However, review of the California Department of Health Services studies of radon risks throughout the state indicate that two tests were conducted within the Modified ESP area zip code, with no tests exceeding the current Environmental Protection Agency (EPA) action level of 4 picocuries per liter [pCi/L]².

In accordance with ASTM E2600-10 (Tier 1) (Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions); there are no potential petroleum hydrocarbon sources

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for vapor intrusion within 1/10 mile of the Modified ESP area or volatile organic compound (VOCs) sources within 1/3 mile of the Modified ESP area.

UNDERGROUND PIPELINES

The following information regarding underground pipelines was obtained from the Final Report, Safety Aspects of Energy Pipelines Regarding the Proposed Ellis Development, prepared by Kiefner & Associates, May 1, 2012 and the peer review of that report, Ellis Specific Plan, Tracy, CA - Safety Aspects of Energy Pipelines Peer Review, conducted by V&A, May 29, 2012.

ENERGY PIPELINES IN THE UNITED STATES AND CALIFORNIA

Pipelines are fairly ubiquitous throughout California, as well as the rest of the US. Table 4.7-1 (Miles of Onshore Pipelines in California and the US) lists the quantity of pipelines of various types present in the US and California. There are nearly 300,000 miles of natural gas transmission pipelines in service and over 180,000 miles hazardous liquid transmission pipelines in service in the US.

TABLE 4.7-1 MILES OF ONSHORE PIPELINES IN CALIFORNIA AND THE US

| Type of Pipeline | California | US |
|---------------------------------------|------------|-----------|
| Hazardous Liquids ¹ | 6,523 | 160,868 |
| Natural Gas Transmission ² | 12,006 | 312,952 |
| Natural Gas Distribution ³ | 102,659 | 2,095,690 |

1. Includes crude oil, refined petroleum products, and other liquids.
 2. Includes natural gas gathering pipelines.
 3. Includes both mains and service lines.

Table 4.7-2 (California Transmission Pipeline Mileage by County) lists the transmission pipeline mileage by county in California. San Joaquin County contains several hundred miles of transmission pipelines comprising 2.2 percent of the transmission pipeline mileage in the State.

TABLE 4.7-2 CALIFORNIA TRANSMISSION PIPELINE MILEAGE BY COUNTY

| County | Natural Gas Miles | Liquid Miles |
|--------------|-------------------|--------------|
| Alameda | 171 | 126 |
| Amador | 21 | 0 |
| Butte | 131 | 29 |
| Calaveras | 18 | 0 |
| Colusa | 207 | 0 |
| Contra Costa | 376 | 469 |
| El Dorado | 4 | 0 |
| Fresno | 596 | 305 |
| Glenn | 150 | 0 |
| Humboldt | 97 | 0 |
| Imperial | 204 | 121 |
| Kern | 1,286 | 1,276 |
| Kings | 247 | 84 |
| Lassen | 101 | 0 |
| Los Angeles | 779 | 1,797 |
| Madera | 118 | 29 |

TABLE 4.7-2 CALIFORNIA TRANSMISSION PIPELINE MILEAGE BY COUNTY (CONTINUED)

| County | Natural Gas Miles | Liquid Miles |
|--------------------|-------------------|--------------|
| Marin | 41 | 0 |
| Mendocino | 50 | 0 |
| Merced | 160 | 143 |
| Modoc | 197 | 0 |
| Monterey | 235 | 2 |
| Napa | 50 | 0 |
| Nevada | 17 | 25 |
| Offshore | 19 | 107 |
| Orange | 187 | 180 |
| Placer | 73 | 99 |
| Riverside | 861 | 104 |
| Sacramento | 244 | 48 |
| San Benito | 184 | 0 |
| San Bernardino | 1,840 | 473 |
| San Diego | 301 | 78 |
| San Francisco | 19 | 0 |
| San Joaquin | 294 | 120 |
| San Luis Obispo | 229 | 178 |
| San Mateo | 104 | 8 |
| Santa Barbara | 212 | 154 |
| Santa Clara | 181 | 14 |
| Santa Cruz | 55 | 0 |
| Shasta | 187 | 0 |
| Sierra | 0 | 12 |
| Siskiyou | 41 | 0 |
| Solano | 321 | 117 |
| Sonoma | 126 | 0 |
| Stanislaus | 199 | 115 |
| Sutter | 154 | 11 |
| Tehama | 182 | 0 |
| Trinity | 36 | 0 |
| Tulare | 151 | 54 |
| Ventura | 297 | 179 |
| Yolo | 213 | 44 |
| Yuba | 63 | 22 |
| Totals | 12,006 | 6,523 |

UNDERGROUND PIPELINES WITHIN THE MODIFIED ESP AREA

Two PG&E natural gas pipelines and one Chevron active crude oil pipeline cross the southwest edge of the Modified ESP area along an approximately 3,600-foot long easement at an approximately 45-degree angle. The gas pipelines are separated by approximately 32 feet (centerline distance). The Chevron pipeline is located between the two gas lines separated 26 feet from one and six feet from the other. All three pipelines run approximately parallel to each other within a 50 foot easement. A former Shell Oil pipeline crosses the Modified ESP approximately 1,400 to 2,000 feet to the east of the other pipelines at a similar angle. In the early 1970s, the Shell line was taken out of service, abandoned in place, and will not be returned to service.

PG&E Natural Gas Pipelines

The rupture and fire resulting from the PG&E natural gas transmission pipelines in San Bruno which occurred in September 2010 involved pipelines quite different from the PG&E gas pipelines running through the Modified ESP Area. The San Bruno pipeline was 30 inches in diameter and installed in 1948, with a section rerouted in 1956. Some of the short pieces of pipe used in the 1956 rerouting

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were different from and uncharacteristic of the qualities of the rest of the pipeline. It was one of these short pieces of nonstandard pipe that failed causing the rupture². The manufacturer of the pipe that failed, why it was manufactured in the way that it was and how the particular substandard material came into PG&E's possession or was installed as a part of the pipeline is unknown. However, the Pipeline Safety Report that analyzed this failure determined that the likely cause of the incident was that the pipe was not manufactured as prime line pipe.³

The two PG&E pipelines existing in the Modified ESP Area, as indicated below, are significantly different from the San Bruno pipeline. Line 002 was constructed in 1972, and Line 401 was constructed in 1993. Both pipelines were pressure tested at the pipe mill and subjected to pressure tests after installation, prior to being entered into service.

Natural Gas Pipelines in Modified ESP Area

The two PG&E natural gas pipelines are designated Line 002 and Line 401. Line 002 runs 118 miles from a PG&E facility near the town of Brentwood, California to a PG&E facility near the town of Panoche, California. Line 401 runs 429 miles from the Oregon state line south of Malin, Oregon to Panoche, California. Approximately 22.2 miles of the pipeline are adjacent to what are called High Consequence Areas (HCAs), which are composed of uses similar to those proposed by the Modified ESP. HCA is defined in 49 CFR 192, Subpart O. The basic technical parameters of the two pipelines are summarized in Table 4.7-3 (Description of Active Lines Crossing the Modified ESP Area).

TABLE 4.7-3 DESCRIPTION OF ACTIVE LINES CROSSING THE MODIFIED ESP AREA

| Attribute | PG&E Line 002 | PG&E Line 401 | Chevron KLM |
|---------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------|
| Diameter (inches) | 26 | 36 | 18 |
| Wall Thickness (inches) | 0.322 | 0.372 | 0.250 |
| Pipe Grade | API 5L X70 | API 5L X60 | (1) |
| Year of Installation | 1972 | 1993 | 1945 |
| Specified Minimum Yield Strength (kips/square inch [ksi]) | 70.0 | 60.0 | (1) |
| Maximum Allowable Operating Pressure (pound-force per square inch gauge [psig]) | 1,040 | 890 | (1) |
| Hydrostatic Test Pressure (psig) | 1,560 | 1,480 | (1) |
| Test Level (% Specified Minimum Yield Strength [SMYS]) | 90.0 | 99.6 | (1) |
| Length (miles) | 118 | 429 | (1) |

² Pacific Gas & Electric Company, Natural Gas Transmission Pipeline Rupture and Fire, San Bruno, California, September 9, 2010, "Accident report in TSB-PAR-11/01, PB 2011-916501, National Transportation Safety Board, adopted August 30, 2011."

³ The rolling direction of the plate was transverse to the pipe axis, indicating that it was rolled as a short piece. The plate strength was lower than standard strengths for large outside diameter pipe and the longitudinal seam only penetrated to half the thickness of the pipe wall. The random pieces of nonstandard pipe almost certainly were not subjected to a pressure test to a high level at the pipe mill, and reportedly were not subjected to a pressure test in the field before or after installation. In 1956 there were no regulations governing the design and construction of pipelines and industry standards for pipeline construction were still evolving. Thus, a commissioning hydrostatic pressure test was not necessarily a uniformly observed practice at that time. While PG&E's records do not identify the source or specifications of the short pieces of pipe installed at the time of the 1956 rerouting, it is likely that if they had been aware of the details of the quality of pipe, it never would have been installed or, if discovered later, would have been replaced.

TABLE 4.7-3 DESCRIPTION OF ACTIVE LINES CROSSING THE MODIFIED ESP AREA (CONTINUED)

| Attribute | PG&E Line 002 | PG&E Line 401 | Chevron KLM |
|---------------------------------------------|----------------------------------|---------------------|-------------|
| Depth of Burial (feet) | 4-5 | 4-5 | (1) |
| Coating Type | Double wrapped polyethylene tape | Fusion bonded epoxy | Somastic |
| In Line Inspection | 2006 | 2005 | (1) |
| Governing Regulation | 49 CFR 192 | 49 CFR 192 | 49 CFR 195 |
| (1) Information not provided by Chevron Oil | | | |

The two PG&E natural gas pipelines are 26-inch and 36-inch outside diameter (OD). Industry-wide 40 percent of natural gas transmission pipelines are 20 inches in diameter or larger. Thus, the two PG&E natural gas pipelines are typical in terms of pipe size.

Natural gas pipelines currently in operation in the US have been constructed throughout the 20th Century. Around 40 percent of the natural gas pipelines currently in service were constructed prior to 1960. Line 002, which was constructed in 1972, is newer than 62 percent of gas transmission pipelines in service in the US. Line 401, which was constructed in 1993, is newer than 82 percent of the gas pipelines in service in the US. Thus, it could be expected that Lines 002 and 401 would have a lower inherent risk than many pipelines operating throughout the US because they incorporate newer technology in all aspects of their design and construction⁴. Both pipelines are capable of being internally inspected using in-line inspection (ILI) tools.

General Integrity Considerations

Both pipelines were constructed in the modern era of gas pipeline technology, using pipe manufactured from high-strength, low-alloy steel. Both lines were designed, constructed, and are operated and maintained in accordance with requirements of Federal pipeline safety regulations (49 CFR 192). Every piece of pipe used in both natural gas lines was pressure tested at the pipe mill to at least 90 percent of the specified yield strength (SMYS) as a proof of the pipe's integrity. The pipelines were then subjected to a pressure test to a high proportion of their specified strength after construction and prior to entering service as a final proof of the integrity of the completed pipelines and of their capability to carry the intended pressure with the margin of safety specified in Federal regulations, or greater. Line 002 was pressure tested to a hoop stress of 90 percent SMYS, while Line 401 was pressure tested to a hoop stress of 99.6 percent SMYS.

The pipeline facilities are protected against deterioration in the soil environment by high integrity coatings backed up by cathodic protection systems. The standard operating practices of PG&E also involve periodic surveys of the pipeline from above ground using electrical measurements to detect coating damage and regular periodic checks on the functioning of the cathodic protection system.

⁴ Age alone does not determine a pipeline's fitness for service, but age does affect susceptibility to some kinds of pipeline integrity threats. This assertion is supported by analysis of reportable incident data showing an increased rate of occurrence of failures per operating mile year due to external corrosion and pipe manufacturing defects, both of which are affected by pipeline attributes tied to the pipeline technology characteristic of the era of construction. These factors can be recognized and accounted for in the pipeline's integrity management plans.

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Recent Integrity Assessments

Both pipelines have recently undergone an in-line inspection. PG&E shared the results of the recent ILI of Line 002 performed in 2006 the ILI of Line 401 performed in 2005. The ILI included the line segments which cross the Modified ESP area. The ILI results indicated that the pipelines are in overall sound condition. Areas of corrosion ranged from superficial to minor in the segments of both lines that cross the western edge of the Modified ESP area.

The ILI indicated minor imperfections identified as having originated with the manufacture of the pipe. The standards for the manufacture of pipe products allow minor imperfections which are not injurious. The ILI runs indicated no anomalies representing actionable conditions in either pipeline in the sections crossing the Modified ESP area or within a couple of miles in either direction (the extent of the data reviewed). PG&E has experienced no leaks or failures and reported no safety-related conditions for the segment within the Ellis Development. PG&E reported that one investigative dig on Line 002 and two digs on Line 401 were performed in July 2007 and confirmed that no corrosion was occurring; no digs have been necessary in the segments of interest with either pipeline.

Establishment of Residential Building Setback as Pipeline Protection

The Statement of Decision and Judgment determined that the Original EIR was deficient in that there was no discussion or analysis of environmental impacts related to the proposed 100-foot setback from the center line of the pipeline easement and a 660 to 1,000-foot setback allegedly required or recommended under appropriate governmental regulations. Federal pipeline safety regulations, including the Pipeline Safety, Regulatory Certainty, and Job Creation act of 2011, along with industry codes and standards do not establish any minimum setback requirements from natural gas or hazardous liquid underground pipelines. Pipeline operators generally stipulate a setback of at least 25 feet as discussed below in Section 4.4.2, Pipeline Safety. Nowhere in the literature on pipeline safety and hazard mitigation has anyone responsibly suggested pipeline setbacks of 660 to 1,000 feet. Commentators on the Original EIR who advocated such setbacks were confusing the methods employed under the Federal Pipeline Safety Standards to locate and define High Consequence Areas which, under the federal regulations, are subject to formal Integrity Management Plans.

The mitigation of hazards and assurance of pipeline safety is not achieved through the National Pipeline Safety Standards by setting aside huge swaths of underused property but instead through the application and implementation of conventional gas pipeline risk-informed design criteria. As stated in the Pipelines and Informed Planning Alliance Final Report of November, 2010⁵: Reducing transmission pipeline risks and enhancing safety is best achieved through proper pipeline operation and maintenance by pipeline operators. Comprehensive and effective public awareness and damage prevention programs, risk-informed planning, design and construction of industrial, commercial and residential developments near transmission pipelines, and effective regulatory oversight of operators for compliance with applicable pipeline safety regulations can also contribute significantly to reducing pipeline risks. The PIPA Final Report goes on to state:

Transmission pipeline failures present risks that may impact people and property beyond the edge of the pipeline rights-of-way (ROW). To address these risks, some communities have imposed zoning restrictions, including fixed distance building setbacks for development along transmission pipeline ROW. Building setbacks are typically used by local governments to provide separation between the community and potential

⁵ Partnering to Further Enhance Pipeline Safety in Communities through Risk-Informed Land Use Planning Final Report of Recommended Practices, November 2010, Pipelines and Informed Planning Alliance.

risks, in this case pipelines. However, fixed distance setbacks commonly don't consider the risks involved with a specific pipeline and the physical environment in which the pipeline operates. Individual transmission pipelines differ in character – some are large diameter, high pressure and cross country pipelines traversing mostly rural areas while others are located in urban areas and densely populated urban centers. Transmission pipelines operated within urban areas may be located underneath public streets and roadways in areas that are already well developed. Federal regulations attempt to mitigate the risk of transmission pipelines located in more densely populated areas by imposing more stringent requirements. For example, gas transmission pipelines located in heavily populated urban areas are generally required to adhere to additional design operation and maintenance requirements. However, each situation is unique relative to the pipeline characteristics and the areas surrounding the pipeline ROW. Thus, PIPA recommends that implementing a risk informed approach to land planning and development and establishing good communication with the transmission pipeline operator is more appropriate than establishing a fixed distance setback to be applied in all situations.

The Modified ESP proposes a setback to habitable structures of 100 feet on either side of the center line of the existing 50-foot wide pipeline easement. As pointed out in the Pipeline Safety Report and acknowledged in the Pipeline Safety Report Peer Review, this is a larger setback than traditionally required by utility companies in the construction and operation of pipelines. The key to providing pipeline safety is not the establishment large building setback requirements, but instead the establishment of a meaningful and effective setback coupled with the adoption and effective implementation of an Integrity Management Plan by the developer and land owner in conjunction with the appropriate utility.

Petroleum Pipeline

Overview

The Chevron pipeline is designated the KLM line. It transports crude oil from Kettleman, California to Los Medanos, California. The available technical parameters are listed in Table 4.4-3, above. Chevron withheld other information citing national security reasons.

The Chevron line is 18 inches in diameter with a capacity of 90,000 barrels per day. Industry-wide hazardous liquid transmission pipelines range in size from four-inch Nominal Pipe Size (NPS) to 48-inch OD, but about half are between eight-inch and 12-inch NPS, so the Chevron line is a little larger than average, but not unusually so.

Liquid transmission pipelines operating in the US have been constructed throughout the 20th Century and have a similar age profile to natural gas pipelines. The Chevron KLM line, constructed in 1945, is older than most. Nevertheless, there are 14,270 miles of petroleum pipelines currently in service that were constructed in the same decade as the KLM line, and an estimated 14,000 miles of petroleum pipelines in service that pre-date those. Despite its age, the Chevron line will have been retrofitted with many modern features, including cathodic protection systems to prevent corrosion, modifications to allow running ILI tools, and supervisory control and data acquisition systems for monitoring its operation and responding to emergencies.

The Chevron pipeline reportedly consists of line pipe manufactured using electric-resistance welded (ERW) seams. Nationwide, there are 8,012 miles of ERW pipe of the vintage of the KLM line.

Pipeline Integrity

The Chevron crude oil pipeline was reported to have had a major release on March 11, 1995, near Huron, CA, about 135 miles from the City of Tracy. The release was caused by 100-year flooding conditions severe enough to wash out an overpass on I-5 about one-mile upstream from the site of the pipeline failure. Accumulated debris from the washout may have caused the pipeline to fail at a girth weld. The incident report filed with PHMSA described the affected pipe as having been installed in 1969, which indicates that it was not part of the original construction. The pipelines cross the Corral Hollow Creek approximately two miles southeast of the southeast corner of Ellis. Small 100-year floodplain zones have been defined near where the pipelines intersect the creek and extending to the east. These zones do not encompass Ellis. Another reportable incident may have been associated with the KLM pipeline due to excavator damage in Fresno County in 1988.

ERW seams as old as the KLM pipeline are generally reliable but are known to have susceptibility to unique degradation mechanisms. No failures associated with seam-related conditions have been reported in this pipeline, which is consistent with either a low inherent susceptibility to this problem, or with any problem having been eliminated in the past.

4.7.2 REGULATORY FRAMEWORK

The management of hazardous materials is regulated by various Federal, State, and local agencies. Federal and State agencies include the US Environmental Protection Agency (EPA), US Department of Transportation (DOT), California Environmental Protection Agency (Cal EPA), Cal EPA Department of Toxic Substance Control (DTSC), California State Water Resources Control Board (SWRCB), Regional Water Quality Control Board (RWQCB), and the California Highway Patrol. Local agencies include the City of Tracy Fire Department, which regulates hazardous materials use, storage, and disposal within the City.

At the Federal level, the EPA is the principal regulatory agency, while at the State level, the Department of Toxic Substances Control (DTSC) is the primary agency governing the storage, transportation, and disposal of hazardous wastes. Regional Water Quality Control Boards (for the Modified ESP site, the Central Valley Regional Water Quality Control Board) have jurisdiction over discharges into waters of the State. The Federal Occupational Safety and Health Administration (OSHA) and the State Cal-OSHA regulate many aspects of worker safety.

The San Joaquin County Environmental Health Department (EHD) was approved by the State as the State Certified Unified Program Agency (CUPA) for San Joaquin County in January 1997. The purpose of the Unified Program is to consolidate, coordinate, and make consistent the administrative requirements, permitting, inspection activities, enforcement activities, and fees for hazardous waste and hazardous materials programs in each jurisdiction. The EHD administers the Hazardous Waste Generator, Hazardous Waste On-site Treatment (Tiered Permitting), and Underground Storage Tank (UST) programs.

The San Joaquin County Office of Emergency Services (SJCOES) is a Participating Agency administering the Hazardous Material Release Response Plan and Inventories and the Accidental Release Prevention programs. Under State law, the SJCOES requires businesses that store more than 55 gallons, 200 cubic feet, or 500 pounds of hazardous substances to file a Risk Management Plan with the SJCOES. These plans are coordinated into a countywide planning and response plan.

San Joaquin County Public Works Department operates a collection point for Conditionally Exempt Small Quantity Generators (CESQG), which are businesses that generate less than 27 gallons of hazardous waste a month.

In the General Plan, policies addressing protection of Tracy's residents from exposure to harmful hazardous materials and waste are in the Safety Element. The General Plan includes policies requiring adequate separation of "sensitive uses" (e.g. schools, residences and public facilities) and areas where hazardous materials are present; appropriate levels of environmental investigation for any new development or redevelopment proposals; measures to regulate the use, storage, production, and safe transport of hazardous materials through Tracy; and recommendations to coordinate and cooperate with San Joaquin County to inventory businesses or facilities involved in the transportation, use, and storage of hazardous materials. The General Plan also includes actions to continue public education programs regarding the safe disposal of household hazardous waste and to encourage the reduction of solid and hazardous wastes generated within the City.

UNDERGROUND PIPELINES

Natural gas pipelines and hazardous liquid pipelines are regulated for safety by the US Department of Transportation (DOT), Pipeline and Hazardous Materials Safety Administration (PHMSA, formerly the Office of Pipeline Safety or OPS). Governing regulations for natural gas pipelines are found in 49 Code of Federal Regulations (CFR) 192 and for hazardous liquid pipelines in 49 CFR 195. In the state of California, natural gas pipelines are regulated by the California Public Utilities Commission (CPUC) and hazardous liquid pipelines by the California State Fire Marshal (CSFM). Regulations and standards concerning operation and maintenance of pipelines apply to all pipelines regardless of the year of installation.

CONVENTIONAL GAS PIPELINE RISK-INFORMED DESIGN BASIS

Natural gas pipelines incorporate a risk-informed design basis that ties the pipe wall thickness and operating stress level (as a percentage of the specified minimum yield strength) to the density of development adjacent to the pipeline. This approach is embodied in the Location Class, which was introduced by ASME B31.8 and adopted by Federal pipeline safety standards. From the General Provisions of Part 840 "Design, Installation, and Testing" of ASME B31.8:

"The most significant factor contributing to the failure of a gas pipeline is damage to the line caused by the activities of people along the route of the line. Damage will generally occur during construction of other facilities associated with providing the services associated with human dwellings and commercial or industrial enterprises. These services, such as water, gas and electrical supply, sewage systems, drainage lines and ditches, buried power and communication cables, streets and roads, etc., become more prevalent and extensive, and the possibility of damage to the pipeline becomes greater with larger concentrations of buildings intended for human occupancy. Determining the Location Class provides a method of assessing the degree of exposure of the line to damage.

A pipeline designed, constructed, and operated in accordance with the requirements of Location Class 1 ... is basically safe for pressure containment in any location; however, additional measures are necessary to protect the integrity of the line in the presence of activities that might cause damage. One of the measures required by this Code is to lower the stress level in relation to increased public activity. This activity is quantified by determining Location Class and relating the design of the pipeline to the appropriate design factor."

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The description and limitations associated with various Location Classes are listed in Table 4.7-4 (Location Class Description and Design Limits). Location Classes are defined by the density of development adjacent to and near the pipeline. Pipeline segments adjacent to more densely developed areas are restricted to lower operating stresses due to internal pressure than segments of the same pipeline adjacent to less developed areas. For a continuous pipeline of a given diameter, the reduction in stress level corresponding to more densely developed locations is achieved by installing heavier wall (or higher strength) pipe.

TABLE 4.7-4 LOCATION CLASS DESCRIPTION AND DESIGN LIMITS

| Class | Description | Criterion¹ | Stress % of SMYS | Minimum Ratio, Test to Operating Pressure |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|-------------------------|--------------------------------------------------|
| 1 | Rural, unpopulated | < 11 buildings | 72% max | 1.10 |
| 2 | Outskirts of populated area | 11-45 buildings | 60% max | 1.25 |
| 3 | Developed suburbs and commercial areas | 46+ buildings | 50% max | 1.50 |
| 4 | Urban, heavy traffic, tall buildings | buildings > 3 stories tall | 40% max | 1.50 |
| 1. Number of buildings intended for human occupancy (e.g. a dwelling or workplace) within a reference area quarter mile wide centered on the pipeline and one mile long. | | | | |

When an area adjacent to an existing Class 1 or Class 2 pipeline becomes Class 3, the operating pressure of the pipe in the Class-change location must be revalidated for the new Class designation, typically by retesting the pipe to a higher margin above its operating stress or by replacing it with heavier-wall or stronger-grade pipe. Retesting or replacement involves shutting down the pipeline, and interrupting continuous service. Because of the need to plan such events, the regulations allow 18 months to fulfill these requirements. The pipe does not need to be retested or replaced if the pipe has been previously tested to a sufficiently high margin, and the change in Class is only one Class increment. Alternatively, the operator may apply to PHMSA for a waiver from the requirement to retest or replace pipe in accordance with an established protocol which has been implemented elsewhere in the US. Under this scenario, PHMSA may allow a line segment to operate more than "one Class out" contingent upon the pipe meeting certain criteria for overall quality of construction and condition of the pipe, and the operator implementing certain risk-based pipeline integrity management processes designed to assure that overall risk levels are no greater than meeting conventional requirements via pipe replacement.

NATURAL GAS PIPELINE INTEGRITY MANAGEMENT PLANS

Natural gas pipelines located in designated HCAs must be subjected to formal Integrity Management Plans (IMP) under Part 192, Subpart O. The IMP process involves the following key components:

- ◆ Identification of HCAs;
- ◆ Determination of the length of pipeline segments affecting HCAs;
- ◆ Consideration of all attributes of a pipeline with respect to listed integrity threats;
- ◆ Performing risk assessment to identify risk-driving factors, prioritize HCA pipeline segments for condition assessment, select condition assessment methods, and weigh mitigation strategies;
- ◆ Assess the condition of the HCA pipeline segment with respect to the identified integrity threats;
- ◆ Respond to conditions identified by the condition assessment within specified time limits;
- ◆ Develop long-term mitigations to lower risk associated with identified integrity threats;
- ◆ Repeat assessments for time-dependent integrity threats at specified intervals;

- ◆ Apply findings from assessments in HCA's to segments of pipeline beyond the HCA's; and,
- ◆ Develop plans for management of change, measurement of program effectiveness, continuous improvement, and communication.

The integrity threats are identified with respect to 21 failure root causes cataloged by pipeline incident reports made to the DOT. The threats are categorized as time-dependent if they can worsen over time, time-stable if they do not worsen, or time-independent if they occur randomly. The categorization establishes the strategy employed to assess the condition of the pipeline in terms of whether the assessment must be repeated periodically at some interval, is required onetime only, or should be primarily prevention-based, respectively.

The above rules apply to any pipeline segment adjacent to or which could affect an HCA. Nationwide, 20,109 miles, amounting to 6.7% of natural gas transmission pipelines, could affect HCAs and are therefore subject to formal IMP requirements. PG&E operates 1,031 miles amounting to 18 percent of its natural gas transmission pipeline system that are subject to IMP requirements.

Two methods to identify HCA pipeline segments are defined in Federal pipeline safety regulations. Method 1 includes all Class 3 and Class 4 areas, as well as identified indoor or outdoor sites located within a Potential Impact Radius (PIR) in Class 1 or Class 2 areas that result in concentrations of people on a regular basis, or where it would be difficult to evacuate people owing to the nature of the property use (e.g., a hospital). Method 2 includes anywhere that 20 or more buildings intended for human occupancy or identified sites occur within the PIR. Where the PIR exceeds 660 ft, the number of buildings is prorated to the area of a circle defined by the PIR. The pipeline operator may elect to apply either method; PG&E applies Method 2. The purpose of the PIR is specifically to define the length of the pipeline segment that could affect an adjacent identified site in the unlikely event that a pipeline rupture was to occur, based on the line's proximity to it.

In addition to defining the pipeline segment warranting a higher standard of care in managing the integrity of a pipeline throughout its life cycle (via IMP), the PIR may be useful toward those same goals when contemplating land uses adjacent to the pipeline. Recommendations for reducing risk through appropriate consideration of land uses adjacent to pipelines have been developed by Pipelines and Informed Planning Alliance (PIPA), an organization sponsored by PHMSA for representing the spectrum of stakeholder interests in pipelines and community planning. PIP A recommends defining a "consultation zone" surrounding existing pipelines as a mechanism for communication and sharing of critical information between land developers and pipeline operators. PIPA also recommends defining a "planning area" for implementing additional measures in the activities of both the pipeline operator and the land developer to lower risk. The PIR is suggested for defining the width of each of these regions.

The PIR is not intended to define minimum setback distances inside of which development should be prohibited. In the words of the Transportation Research Board, using the PIR as a setback criterion only "considers the consequences of an event without accounting for its probability ... and does not attempt to weigh the risk-reduction benefits of such a measure against the considerable cost that such a provision would entail."

Identification of Integrity Threats

The integrity threats which pipeline operators must consider in their assessment of risks and hazards are listed in Table 4.7-5 (Pipeline Integrity Threats). The actual attributes of a pipeline, encompassing all aspects of manufacturing of the pipe, design parameters, construction and inspection standards,

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integrity test history, operation and maintenance, and the environment the pipeline operates in, determine to which threats a given segment of pipeline may be susceptible.

TABLE 4.7-5 PIPELINE INTEGRITY THREATS

| Root Cause | Integrity Threat | Category | Assessment |
|----------------------------|---------------------------------------|----------------|--------------------------------------------------------------------------|
| Internal Corrosion | Internal Corrosion | Time Dependant | Periodic, repeated at intervals (e.g., ILLI |
| External Corrosion | External Corrosion | | |
| Stress Corrosion Cracking | Stress Corrosion Cracking | | |
| Pipe Seam Defect | Manufacturing Defects | Time Stable | One time only (e.g., hydrostatic pressure test) unless conditions change |
| Pipe Body Defect | | | |
| Girth Weld Defect | Defective Construction or Fabrication | | |
| Wrinkle Bend | | | |
| Broken Thread or Coupling | Equipment | | |
| Gasket or O-ring Failure | | | |
| Pressure Control Equipment | | | |
| Seal or Packing Failure | | | |
| Miscellaneous Equipment | | | |
| Immediate Damage to Pipe | Mechanical Damage | | |
| Previously Damaged Pipe | | | |
| Vandalism | | | |
| Incorrect Operation | Incorrect operation | | |
| Cold Weather | Natural Events | | |
| Lightening | | | |
| Flooding or Heavy Rain | | | |
| Soil Movement | | | |

Mitigation of Integrity Threats

Federal regulations and industry standards require pipeline operators to perform the following actions to mitigate the threat of damage, including:

- ◆ Conduct surveillance of the line to become alert to activities along the right of way that could suggest excavation has recently or is about to occur;
- ◆ Implement public education programs to notify owners of property crossed by or adjacent to their pipelines about the presence of the lines, appropriate procedures before digging, and emergency contact information;
- ◆ Respond in a timely manner to direct calls from landowners, contractors, and other utilities to mark line locations in areas where excavations may take place;
- ◆ Participate in a "one-call" system that enables anyone to make a toll-free call to a clearing center to get all underground utilities marked prior to digging.

LIQUID TRANSPORTATION PIPELINES

Liquid transportation pipelines are required to implement prescriptive integrity management plans for segments that could affect HCAs, in accordance with 49 CFR 195.452. Nationwide, there are 77,865 miles of liquid transmission pipelines designated as HCA segments. Chevron operates 603 miles of crude oil pipeline in California, 206 miles of which are HCA and therefore, subject to the requirements of IMP.

LIQUID TRANSPORTATION PIPELINES INTEGRITY MANAGEMENT

The IMP process for liquid pipelines is conceptually similar to that for natural gas pipelines, with some differences due to the nature of the transported product and its effects in the event of a release. HCAs for liquid pipelines are defined based on whether a spill could cause pollution of water sources or environmentally sensitive areas, as well as the proximity to populated areas, and therefore differ from those for natural gas pipelines. Most of the pipeline integrity threats operative for natural gas pipelines are present with liquids pipelines, but the concept of "stable defects" used with natural gas pipelines is not applicable to liquid pipelines due to their operational characteristics.

Federal regulations under Part 195 require liquid pipelines to be cathodically protected and the line's integrity must be assessed every seven years in HCAs in accordance with IMP requirements in Part 195 (49 CFR 195). Federal regulations specifically require that integrity threats, such as the ERW seams as old as the KLM pipeline, be addressed in the integrity assessment process of the IMP. While Chevron has not shared the details of their plans, such plans are necessary to comply with regulations.

NO MINIMUM SETBACK REQUIREMENTS

Federal pipeline safety regulations, including the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, and industry codes and standards establish no minimum setback requirements from natural gas or hazardous liquid underground pipelines.

AB 1511 - REAL PROPERTY: DISCLOSURES: TRANSMISSION PIPELINES.

Existing law requires certain natural hazard disclosures to be made upon the transfer of residential real property, as specified, and prescribes the manner and the form of the disclosures. Assembly Bill 1511 would require all contracts for the sale of residential real property entered into on or after July 1, 2013, to contain a specified notice pertaining to gas and hazardous liquid transmission pipelines. The bill would provide that nothing in the notice requirement would alter any existing duty under any other statute or decisional law imposed upon the seller or broker of the residential real property, as specified. The following text describes the requirements of the bill:

SECTION 1. Section 2079.10.5 is added to the Civil Code, to read:

2079.10.5. (a) Every contract for the sale of residential real property entered into on or after July 1, 2013, shall contain, in not less than 8-point type, a notice as specified below:

NOTICE REGARDING GAS AND HAZARDOUS LIQUID TRANSMISSION PIPELINES

This notice is being provided simply to inform you that information about the general location of gas and hazardous liquid transmission pipelines is available to the public via the National Pipeline Mapping System (NPMS) Internet Web site maintained by the United States Department of Transportation at <http://www.npms.pbmsa.dot.gov/>. To seek further information about possible transmission pipelines near

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the property, you may contact your local gas utility or other pipeline operators in the area. Contact information for pipeline operators is searchable by ZIP Code and county on the NPMS Internet Web site.

(b) Upon delivery of the notice to the transferee of the real property, the seller or broker is not required to provide information in addition to that contained in the notice regarding gas and hazardous liquid transmission pipelines in subdivision (a). The information in the notice shall be deemed to be adequate to inform the transferee about the existence of a statewide database of the locations of gas and hazardous liquid transmission pipelines and information from the database regarding those locations.

(c) Nothing in this section shall alter any existing duty under any other statute or decisional law imposed upon the seller or broker, including, but not limited to, the duties of a seller or broker under this article, or the duties of a seller or broker under Article 1.5 (commencing with Section 1102) of Chapter 2 of Title 4 of Part 4 of Division 2.

4.4.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

CALIFORNIA ENVIRONMENTAL QUALITY ACT GUIDELINES

The following thresholds of significance are based on Appendix G of the State CEQA Guidelines. The Modified ESP would have a significant impact related to hazards and hazardous materials if it would:

- ◆ Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment; or,

As noted previously, the purpose of this section of the Revised Draft EIR is to provide an updated discussion of existing conditions; an expanded discussion of gas and oil pipelines; and, potential gas and oil pipelines impacts that could occur as a result of the implementation of the Modified ESP. Other background information, analysis of environmental impacts, and mitigation measures contained within the Original Ellis EIR remains valid, and as described in Chapter 1, that information has been incorporated by reference into this Draft Revised EIR. Thus, the topics covered in this chapter are limited to addressing those aspects described above. Please refer to the Original Ellis EIR for a discussion of other potential hazards and hazardous materials impacts. Hazard impacts associated with the Tracy Municipal Airport are discussed in Section 4.5 (Land Use).

POTENTIAL IMPACTS AND MITIGATION MEASURES

ACCIDENTAL RELEASE OF HAZARDOUS MATERIALS

Impact 4.7-1: Implementation of the Modified ESP may create a significant hazard to the public or the environment through reasonably foreseeable upset and accidental conditions involving the release of hazardous materials into the environment.

Determination: Less than Significant Impact with Mitigation Incorporation.

2012 Phase I Findings

The 2012 Phase I investigation included a review of local, State, and Federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources, a reconnaissance of the Modified ESP area to review use and current conditions and to check for the storage, use, production or disposal of hazardous or potentially hazardous materials and interviews with persons knowledgeable about current and past site use.

The reconnaissance and records research did not find documentation or physical evidence of soil or groundwater impairments associated with the use of the Modified ESP area. A review of regulatory databases maintained by County, State, and Federal agencies found no documentation of hazardous materials violations or discharge on the Modified ESP area. A review of regulatory agency records and available databases did not identify any documented soil or groundwater contamination associated with abutting properties that would be expected to impact the Modified ESP area.

ENGEO performed the 2012 Phase I in general conformance with the scope and limitations of ASTM E 1527-05. Based on the findings of the Phase I, no Recognized Environmental Conditions (RECs) and no historical RECs were identified for the Modified ESP area; however, the following potential environmental concerns were noted.

Residual Agricultural Pesticide Risk

The Modified ESP area, either in part or whole, has historically been used for agricultural purposes, including row crops and orchards, since at least 1957. Historical records indicating the types and quantities of chemicals and pesticides, which may have been used on the Modified ESP area, are not readily available from the County. It is conceivable that persistent agrichemicals may have been applied in the past, which could have adversely affected near-surface soils.

A combination of several commonly-used pesticides (e.g., dichlorodiphenyldichloroethane [DDD], dichlorodiphenyltrichloroethane [DDT], dichlorodiphenyldichloroethylene [DDE – breakdown product of DDT]), which are now banned, may have been used throughout the Modified ESP area (particularly from the 1940s through the 1960s). The historical use of agricultural pesticides may have resulted in pesticide residues of certain persistence in soil at concentrations that are considered to be hazardous based on established Federal regulatory levels. The primary concern with historical pesticide residues is human health risk from inadvertent ingestion of contaminated soil, particularly by children. The presence of moderately elevated pesticide residuals in soil presents potential health and marketplace concerns.

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Development at the Modified ESP area could expose construction workers (during site disturbance activities) and the public (during operations) to hazardous materials. Future development at the Modified ESP area would be required to conduct soil sampling within the portions of the site that have historically been utilized for agricultural purposes and may contain pesticide residues in the soil (as determined by a qualified Phase II/Site Characterization specialist). The sampling, conducted in consultation with the EHD, would determine if pesticide concentrations exceed established regulatory requirements and would identify further site characterization and remedial activities, if necessary. Should further site characterization/remedial activities be required, these activities would be required to be conducted per the applicable regulatory agency requirements, as directed by the EHD. With implementation of Mitigation Measure 4.7-1a, impacts pertaining to past agricultural uses would be reduced to less than significant levels.

Abandoned Shell Oil Pipeline

No records relating to the pipeline removal or post-removal conformational soil sampling were readily available from either Shell or the EHD. Because historical pipelines throughout the western Central Valley are known to have had issues with leakage, and no information regarding any post-removal conformational sampling was readily available from either Shell or the EHD, this is considered a potential environmental concern.

With implementation of Mitigation Measure 4.7-1b, a qualified Site Characterization specialist would be required to conduct updated site characterization at the Modified ESP site regarding the abandoned Shell Oil pipeline prior to issuance of building permits, in consultation with Shell Oil and EHD. Upon completion of site characterization activities, remedial activities, if necessary, would be recommended in consultation with EHD. With implementation of Mitigation Measure 4.4-1b, potential impacts associated with the abandoned Shell Oil pipeline would be reduced to less than significant levels.

Active Pipelines

As described above, two PG&E natural gas pipelines and one Chevron active crude oil pipeline cross the southwest edge of the Modified ESP area along an approximately 3,600-foot long easement at an approximately 45-degree angle. According to the Phase I, natural gas lines generally do not present an environmental concern. However, as noted above, historical pipelines throughout the western Central Valley area known to have had issues with leakage, which is considered a potential environmental concern. Mitigation Measure 4.7-1c requires a qualified Site Characterization specialist to conduct updated site characterization at the Modified ESP site regarding the active pipelines prior to issuance of building permits, in consultation with PG&E, Chevron, and EHD. Upon completion of site characterization activities, remedial activities, if necessary, would be recommended in consultation with EHD. With implementation of Mitigation Measure 4.7-1c, potential impacts associated with accidental leakage from the active pipelines would be reduced to less than significant levels.

Refer to the discussion below (Pipeline Safety) regarding the safety of development facilitated by the Modified ESP adjacent to the three active on-site pipelines.

Mitigation Measures

- 4.7-1a Prior to issuance of grading permits, soil sampling shall occur within the portions of the Modified ESP area that have historically been utilized for agricultural purposes and may contain pesticide residues in the soil, as determined by a qualified Phase II/Site Characterization specialist. The sampling, conducted in consultation with the San Joaquin County Environmental Health Department (EHD), shall determine if pesticide

concentrations exceed established regulatory requirements and shall identify further site characterization and remedial activities, if necessary. Should further site characterization/remedial activities be required, these activities shall be conducted per the applicable regulatory agency requirements, as directed by the EHD.

- 4.7-1b A qualified Site Characterization specialist shall conduct updated site characterization at the Modified ESP area prior to issuance of building permits, in consultation with Shell Oil and the San Joaquin Environmental Health Department (EHD), with regard to Shell Oil's abandoned crude oil pipeline. Upon completion of site characterization activities, the Site Characterization specialist shall recommend remedial activities, if necessary, in consultation with EHD.
- 4.7-1c A qualified Site Characterization specialist shall conduct updated site characterization at the Modified ESP area prior to issuance of building permits, in consultation with PG&E, Chevron, and the San Joaquin Environmental Health Department (EHD), with regard to potential contaminated soils from pipeline leaks. Upon completion of site characterization activities, the Site Characterization specialist shall recommend remedial activities, if necessary, in consultation with EHD.

PIPELINE SAFETY

Impact 4.7-2: Implementation of the Modified ESP would facilitate the development of a variety of land uses near two PG&E natural gas pipelines and one Chevron active crude oil pipeline.

Determination: Less than Significant Impact with Mitigation Incorporation.

As described in the Existing Conditions discussion pertaining to the underground pipelines present within the Modified ESP area, a variety of risk factors are found in association with natural gas and hazardous liquid underground pipelines, which are elaborated on below.

PG&E Pipelines

General Integrity Considerations

As described previously, both PG&E pipelines were designed, constructed, and are operated and maintained in the modern era of gas pipeline technology in accordance with requirements of Federal pipeline safety regulations (49 CFR 192). The standards used to manufacture the pipe installed in both pipelines required a pressure test of each length of pipe to 90 percent of SMYS at the pipe mill. The regulations in force nationally and in California required a hydrostatic pressure test to at least 1.25 times the operating pressure in Location Class 1 and 2 areas, or to 1.5 times the operating pressure in Location Class 3 and 4 areas.

PG&E believes that records of the construction, including the pre-service pressure tests, are complete and accurate. The segments of interest in either gas pipeline are not part of PG&E's response to the CPUC Decision (D.)11-06-017 ordering operators of natural gas pipelines within the State of California to replace or pressure test pipelines that were never pressure tested or for which verifiable documents of such testing do not exist. The risk of an accident caused by an incorrectly manufactured piece of pipe or a non-standard piece of pipe in the line segments adjacent to the

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Modified ESP area has been effectively mitigated because those line segments have been verified to have already passed pressure tests to specified margins above the operating pressures.

Moreover, the pipeline facilities are protected against deterioration in the soil environment by high integrity coatings backed up by cathodic protection systems. The standard operating practices of PG&E also involve periodic surveys of the pipeline from above ground using electrical measurements to detect coating damage and regular periodic checks on the functioning of the cathodic protection system. The results of the recent ILL of Line 002 performed in 2006 the ILL of Line 401 performed in 2005 indicated that the pipelines are in overall sound condition. Areas of corrosion ranged from superficial to minor in the segments of both lines that cross the western edge of the Modified ESP area.

According to the Pipeline Safety Report, minor corrosion is not at all unusual in a buried pipeline that has been in service for many years. The corrosion in Line 002 would have to be more than three times more severe than it currently is to cause a pipeline failure, while the corrosion in Line 401 would have to be five times more severe than it currently is to cause a pipeline failure. Given the length of time the lines have been in service, there is no evidence that the corrosion rates associated with these flaws are unusually high. In fact, it is possible that the corrosion occurred at some time in the past and is no longer active due to the CP corrosion prevention system. (For example, it is not unusual for a new pipeline to experience corrosion when it first enters the soil environment during construction and prior to installation of the permanent CP system, particularly when other pipelines are already present. This could explain the few corrosion indications present on Line 401.) In any case, PG&E would be able to monitor the condition of the pipelines using normal practices including CP surveys and subsequent ILL runs, and if conditions appear to have changed, identify sites for remediation.

In addition, as described in the Existing Conditions section, the recent ILL also indicated minor imperfections identified as having originated with the manufacture of the pipe, but the standards for the manufacture of pipe products allow minor imperfections which are not injurious. According to the Pipeline Safety Report, the fact that any such features passed both the mill pressure test and the commissioning hydrostatic test at pressure levels well above the operating pressure proves that they are not injurious at the operating pressure.

Risk Informed Design Basis

As noted in the Regulatory Framework section, location Classes are defined by the density of development adjacent to and near the pipeline. Pipeline segments adjacent to more densely developed areas are restricted to lower operating stresses due to internal pressure than segments of the same pipeline adjacent to less developed areas. For a continuous pipeline of a given diameter, the reduction in stress level corresponding to more densely developed locations is achieved by installing heavier wall (or higher strength) pipe.

Nationwide, 33,809 miles of natural gas transmission pipelines are designated as Class 3, representing 11.3 percent of the transmission pipeline mileage. In other words, according to the Pipeline Safety Report, there are already more than enough miles of gas transmission pipelines adjacent to land uses just like the Modified ESP to circle the globe. In addition to that, there are 1,368 miles of natural gas transmission pipelines in Class 4 areas, which by definition are more heavily built-up and densely populated than the Modified ESP area would be. PG&E operates 1,650 miles or 29 percent of its 5,727-mile system adjacent to or within Class 3 areas. There are approximately 200 schools and a similar number of hospitals within 300 feet of their pipelines. From this, the Pipeline Safety Report concludes that the development facilitated by the Modified ESP adjacent to the pipelines is far from a

unique situation and that the overall experience with such installations is that the hazard to the public can be effectively and reliably managed through routine and accepted practices.

The area where the uses proposed by the Modified ESP would be developed is currently designated as Class 1 corresponding to rural land use. If built, the Modified ESP would likely represent a Class 3 area. As noted in the Regulatory Framework section, when an area adjacent to an existing Class 1 or Class 2 pipeline becomes Class 3, the operating pressure of the pipe in the Class-change location must be revalidated for the new Class designation, typically by retesting the pipe to a higher margin above its operating stress or by replacing it with heavier-wall or stronger-grade pipe. Retesting or replacement involves shutting down the pipeline, and interrupting continuous service. Because of the need to plan such events, the regulations allow 18 months to fulfill these requirements. The pipe does not need to be retested or replaced if the pipe has been previously tested to a sufficiently high margin, and the change in Class is only one Class increment. This would be the case for Line 002 because it already operates as a Class 2 line, it was tested to 1.5 times its current MAOP, and the change to Class 3 is only a one-class increment. Line 401 will not meet this description as it is operating as a Class 1 line. Alternatively, PG&E may apply to PHMSA for a waiver from the requirement to retest or replace pipe in accordance with an established protocol which has been implemented elsewhere in the US. Under this scenario, PHMSA may allow a line segment to operate more than "one Class out" contingent upon the pipe meeting certain criteria for overall quality of construction and condition of the pipe, and PG&E implementing certain risk-based pipeline integrity management processes designed to assure that overall risk levels are no greater than meeting conventional requirements via pipe replacement. According to the Pipeline Safety Report, Line 401 is almost certainly eligible for a Class change waiver on engineering considerations, but PG&E has indicated that a waiver for the Modified ESP would not be requested so the Line 401 pipe traversing the Modified ESP area would be replaced. The City of Tracy has met with PG&E on several occasions to confirm PG&E's protocol (per Federal Regulations identified in 49 CFR 192) as well as their intent to replace this line should the Modified Project be approved and ultimately constructed.

Natural Gas Pipeline Integrity Management

As described in the Regulatory Framework section, natural gas pipelines located in designated High Consequence Areas (HCAs) must be subjected to formal Integrity Management Plans (IMP) under Federal Regulations Chapter 49, Part 192, Subpart O. The Modified ESP area would likely become an HCA, and if so, Line 002 and Line 401 traversing the area would be subject to the enhanced requirements of IMP.

Integrity Threats Affecting PG&E Line 002 and Line 401

According to the Pipeline Safety Report, many pipeline integrity threats are eliminated by an absence of the factors which could give rise to a threat. (For example, modern pipe made with a double-submerged arc-welded seam is not susceptible to certain conditions known to affect some varieties of older-vintage pipe manufactured using now-obsolete techniques associated with electric-resistance-welded (ERW) seams.) Since the pipe has been successfully pressure tested to a specified margin, the integrity threat of pipe manufacturing defects is considered to be adequately mitigated in gas pipelines.

Most pipelines buried in soil are considered to be susceptible to the threats of external corrosion and mechanical damage from excavator hits. In fact, these two categories account for around 28 percent and 20 percent of significant gas transmission pipeline incidents, respectively. These same categories account for 30 percent and 23 percent of significant hazardous liquid transmission pipeline incidents, respectively.

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The external corrosion threat is mitigated by several measures, including:

- ◆ External coatings on all steel pipe,
- ◆ Installation of a cathodic protection (CP) system,
- ◆ Routine inspections of the functioning of the CP system,
- ◆ Periodic electrical surveys along the right-of-way to detect areas where electrical potentials or flow of currents suggest corrosion could be occurring, and
- ◆ Periodic in-line inspections to identify, locate, and size areas of metal loss occurring on the pipe, which are then evaluated against acceptance criteria.

While some corrosion has occurred on both pipelines as discussed earlier, this is not necessarily unusual, and having performed ILL, PG&E is in a good position to monitor and evaluate the condition of the lines.

While ILL is capable of finding latent damage on a pipeline, approximately 90 percent of damage related pipeline failures occur at the time that a pipeline has been struck, and running ILL provides no protection against a random event occurring afterward. That is why the mechanical damage threat is mitigated by several measures aimed at prevention.

Over the past several years, most states have made it mandatory for any contractor or landowner to use a state-wide "one-call" system before digging. Where one-call systems have been implemented and vigorously enforced, incidents of pipeline accidents due to excavators hitting lines have been reduced. California has one-call systems in place for northern and southern portions of the State. The Pipeline Safety Study did not review the damage prevention programs implemented by PG&E, but PG&E is a participant in the Common Ground Alliance, which is a nation-wide association dedicated to promoting best practices to avoid excavation damage to pipelines.

No other significant risk factors from Table 4.4-5 (Pipeline Integrity Threats) (aside from external corrosion and excavator damage) appear to be applicable to Line 401 within the section crossing the Modified ESP area, due to an absence of attributes which would give rise to specific integrity threats. The same can be said for Line 002 with the exception of a potential threat associated with stress-corrosion cracking (SCC), as a result of characteristics of the tape coating. This threat would only arise if the coating disbonds from the pipe while remaining intact and allowing moisture to accumulate underneath it. Double-wrapping of the tape as used on Line 002 should enhance the coating's durability. Moreover, PG&E does examine for the presence of SCC when performing other routine examinations of this line and has had no observation of the condition.

Chevron Pipeline

General Integrity Considerations

As described under the Existing Conditions section, the Chevron crude oil pipeline had a major release, on March 11, 1995 near Huron, CA, about 135 miles from Tracy, CA that was caused by 100-year flooding conditions. The pipelines cross the Corral Hollow Creek approximately two miles southeast of the southeast corner of Ellis. Small 100-year floodplain zones have been defined near where the pipelines intersect the creek and extending to the east. These zones do not encompass the Modified ESP area and would not be expected to affect the portions of the lines within the Modified ESP area. Another reportable incident may have been associated with the KLM pipeline due to excavator damage in Fresno County in 1988.

ERW seams as old as the KLM pipeline are generally reliable but are known to have susceptibility to unique degradation mechanisms. No failures associated with seam-related conditions have been reported in this pipeline, which is consistent with either a low inherent susceptibility to this problem, or with any problem having been eliminated in the past.

The Modified ESP area would probably become an HCA with respect to the Chevron line. The IMP process for liquid pipelines is conceptually similar to that for natural gas pipelines, with some differences due to the nature of the transported product and its effects in the event of a release. HCAs for liquid pipelines are defined based on whether a spill could cause pollution of water sources or environmentally sensitive areas, as well as the proximity to populated areas, and therefore differ from those for natural gas pipelines. Most of the pipeline integrity threats operative for natural gas pipelines are present with liquids pipelines, but the concept of "stable defects" used with natural gas pipelines is not applicable to liquid pipelines due to their operational characteristics.

The Chevron line will be susceptible to external corrosion and encroachment damage the same as with the gas pipelines or any other buried steel pipe. In order to mitigate the external corrosion risk, the pipeline is externally coated with Somastic (a durable coating consisting of sand aggregate in an asphaltic binder) and is required by Federal regulations under Part 195 to be cathodically protected. The line's integrity must be assessed every 7 years in HCAs in accordance with IMP requirements in Part 195. While Chevron did not discuss details, ILL is almost certainly performed to satisfy this requirement, which is a standard approach for liquid pipelines. Chevron also must have a damage prevention program.

Collocation of Pipelines

The two natural gas pipelines and one crude oil pipeline are collocated in a common corridor or right-of-way (ROW). This is not only fairly common, but it is frequently encouraged by siting authorities for new pipeline construction projects because it minimizes environmental damage and disturbance of property use associated with pipeline construction and future pipeline maintenance activities. There are both benefits and drawbacks to collocation from the standpoint of risk.

The presence of the common corridor promotes planning for adjacent development in a manner that can reduce the likelihood of encroachment, such as placement in a green space. The Modified ESP places the corridor in a combination green space and boulevard arrangement. This approach is in keeping with the recommendations of PIPA. Locating the pipelines in a common corridor minimizes the number of individual properties crossed by the aggregate lengths of installed pipelines. Since individual land parcels (usually under the separate control of individual owners) each represent independent potential encroachment risks, the common corridor minimizes the likelihood of damage to the pipelines caused by uncontrolled excavation activity. Locating the corridor in a public space further reduces the risk by moving excavation activity associated with individual lots away from the pipelines. It also reduces risk by increasing the visibility of the pipeline corridor. As a result any unauthorized activity, pipeline leak, or other abnormal condition (for example, exposure of the pipe due to erosion) is more readily observed either by the pipeline operator's routine surveillance or by an alert public than if the pipelines are located behind privacy fences or hedges, or where residents may not be home to observe and report a problem. The operator is thus better able to respond promptly.

It is possible for the cathodic protection systems of one pipeline to interfere with the cathodic protection system of an adjacent pipeline, reducing its effectiveness. This risk is mitigated in two ways. Parts 192 and 195 each provide for required periodic checks of the functioning of CP systems. Also, any metal loss or corrosion activity that could be caused by interference of CP systems is detectable

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by standard in-line inspection or above-ground electrical surveys conducted periodically to meet integrity assessment requirements. Thus the potential threat is easily mitigated in the course of standard procedures practiced by both PG&E and Chevron. There is no evidence that such interference has occurred in the gas pipelines, based on the results of the ILL of those lines.

Excavation of a pipeline by the pipeline operator or his contractor for purposes of maintenance and inspection always carries some risk of damaging the pipeline. Consequently, a pipeline collocated with another is exposed to a slight risk of being hit during excavation of the adjacent pipeline. This is usually only a concern where pipelines are very close together. The spacing between these pipelines is sufficient to avoid this problem. Industry practices have been developed to help avoid the problem.

Concerns are sometimes expressed that a failure of one pipeline could cause an adjacent pipeline to fail thereby compounding the severity of the event. Tens of thousands of miles of pipelines are collocated in a common corridor, but compound-failure incidents are extremely rare. A notable incident occurred in Manitoba, Canada in 1995 where a failure in one pipeline precipitated a failure in a second line. This incident may be unique in terms of the compound nature of the event.

Studies have determined that spacing pipelines 25 feet apart provides adequate protection against the effects of an adjacent pipeline rupture, which is generally supported by experience, the Manitoba incident notwithstanding. A review of crater dimensions from incident reports, including the one created in the San Bruno incident, suggest that exposure of either gas pipeline due to a rupture of the other gas pipeline is unlikely. The pipeline in Manitoba that failed first produced 68 percent greater heat flux intensity than the larger PG&E gas line (Line 401) would produce, while the adjacent line that failed operated at 28 percent higher relative stress level than the adjacent Line 002. PG&E reported that the valve spacing is commensurate with the expected change in Location Class, which is much closer than was the case in the Manitoba incident, so gas would not discharge for as long a period of time. The size of the initial failed pipe, the operating stress level of the affected pipe, and the valve spacing are significantly different in the Manitoba incident compared with the PG&E pipelines at the Modified ESP site, and therefore are not indicative of a similar risk there. It is noted that the Chevron line does lie close to one of the PG&E lines, and could be exposed by a rupture of that line. The steady flow of ground-temperature crude oil inside the pipe would help to minimize thermal effects on the crude oil pipeline.

Building Setback

Pipeline operators prefer a setback of at least 25 ft, or more if possible, in order to facilitate access to the pipeline either during its installation or later in service. If an operator must examine and repair a pipeline, it will be necessary to haul in an excavator and a bulldozer, scrape off and set aside topsoil for site restoration afterward, and dig a trench or pit (called a "bellhole") as deep as the bottom of the pipeline and as wide as the pipeline plus an excavator bucket width on each side. The excavation must have sufficient cutback of the sides to assure stable trench walls and meet trench work safety requirements, resulting in a wider excavation at the ground surface. The setback of 25 feet is a practical minimum for safe and efficient activity without encroaching on a landowner's primary property use. While narrower setbacks are often unavoidable in built-up areas, they result in slower and more complicated operations and could interfere with the landowner's property usage. Whenever possible, a pipeline operator would prefer a larger setback than 25 feet primarily as a matter of convenience. Larger setbacks make it easier to set aside topsoil, stage and move materials and equipment, excavate safely, and negotiate around other buried utilities or difficult terrain features.

There is little that a land developer can do to positively affect either the likelihood or consequence components of risk associated with the integrity threat of corrosion, or in fact most of the other integrity threats discussed above that a pipeline might be susceptible to, with one important exception. The one integrity threat that a developer can positively influence is that associated with mechanical damage to the pipeline. This is especially true during the land development phases including but not limited to any of the following activities:

- ◆ site grading and contouring;
- ◆ operation of heavy equipment;
- ◆ installation of buried services;
- ◆ excavation of foundations;
- ◆ construction of roads;
- ◆ hauling and delivery of materials; and,
- ◆ final site preparation.

All of the above activities are potential opportunities for damage to be incurred to a pipeline if the activities take place over the pipe. Increased setback distances minimize the amount of any of the above activities that need to occur within the right of way or directly over the pipeline. They also minimize that chance that unplanned or unsupervised excavating or contouring activities occur inadvertently over the line. The increased setbacks also reduce the likelihood that similar activities being conducted by landowners on their own initiative at some time in the future would occur directly over the pipe. Thus increased setbacks beyond 25 ft can be expected to lower risk to anybody involved in the Modified ESP area, either as a site worker or later as a resident.

Other Risk Mitigation Measures

The PIPA report on risk-informed land use provides a checklist of measures that can reduce or mitigate risk and which should be considered by local governments, land developers, pipeline operators, and real estate commissions. Notable actions that already appear to have been considered in the plans for the Modified ESP include:

- ◆ ND06, consider transmission pipeline facilities in land development design;
- ◆ ND08, collaborate on alternate use and development of transmission pipeline ROW;
- ◆ ND12, reduce transmission pipeline risk through design and location of new roads; and
- ◆ ND17, reduce transmission pipeline risk in new development for residential, mixed-use, and commercial land use.

("ND" refers to "new development". Some other measures are listed as "BL" for "baseline", applicable to existing developments.) Additional measures to consider (as appropriate and if not already so done) include:

- ◆ ND04, coordinate property development design and construction with transmission pipeline operator;
- ◆ NDI3, reduce transmission pipeline risk through design and location of new utilities and related infrastructure;
- ◆ ND 14, reduce transmission pipeline risk through design and location of aboveground water management infrastructure;
- ◆ ND 15, plan and locate vegetation to prevent interference with transmission pipeline activities;

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- ◆ ND 16, locate and design water supply and sanitary systems to prevent contamination and excavation damage;
- ◆ ND22, reduce transmission pipeline risk through design and location of new places of mass public assembly;
- ◆ ND23, consider site emergency response plans in land use development;
- ◆ ND24, install temporary markers on edge of transmission pipeline right-of-way prior to construction adjacent to right-of-way; and
- ◆ ND25, contact transmission pipeline operator prior to excavating or blasting.

Perspective on Risk

Pipeline incidents are infrequent, although they can and do occur. Pipeline operators are required to report all incidents involving a release of natural gas or hazardous liquid and: injury, fatality, fire or explosion, property damage in excess of \$50,000 (in 1984 dollars, including value of product lost), spill of high-vapor-pressure liquid in excess of 5 barrels, spill of other liquids in excess of 50 barrels, or other event that an operator considers significant. While "reportable" pipeline incidents do occur, the majority involve no casualties. Most casualties involve someone actually doing work on or around a pipeline, although this generalization was not the case with the San Bruno incident.

Summary

- ◆ The pipelines of interest are essentially similar to a large number of other pipelines making up the energy product transportation infrastructure prevalent throughout California and elsewhere in the US and operating in locations similar to the Modified ESP.
- ◆ The gas pipelines overall are in sound condition based on the results of recent integrity assessments by in-line inspection.
- ◆ The crude oil pipeline can be presumed to be in sound overall condition because the pipeline will have been assessed for its integrity in order to conform to regulatory requirements.
- ◆ The pipelines can be expected to continue to operate reliably and safely assuming that the pipeline operators continue to observe normal good practices in accordance with applicable safety regulations and established industry standards.
- ◆ The pipelines are exposed to a limited range of potential integrity threats which are mitigated by conventional pipeline operating practices which include periodic inspections, evaluation of identified conditions, and repairs if necessary.
- ◆ Building setback distances are not controlled by applicable pipeline safety regulations or standards.
- ◆ The pipelines do not impose hazards to persons in the proposed development above and beyond those which are already commonly present and associated with these same pipelines and other pipelines already in place throughout adjacent communities and counties in the State of California. The pipelines also present lower risk compared to many other widely-present societal factors including motor vehicle accidents, household accidents, recreational accidents, natural events, disease, or crime, to name a few.
- ◆ Proposed site development plans incorporate important features that reduce the risk associated with the most important integrity threat (damage to the pipe caused by encroachment).
- ◆ The sale of homes after July 1, 2013 will be required to notify homebuyers of the National Pipeline Management System (NPMS) Internet website that contains information about the general location of gas and hazardous liquid transmission pipelines available to the public, which will further increase public knowledge and understanding of their surroundings.

Recommendations

The Modified ESP incorporates an important risk management feature, which is to locate the pipelines within a public space that is not under the control of a multitude of individual landowners. The reduction in risk mainly comes from reducing the likelihood that the pipelines could be damaged during land development activities or by individual landowners later on. The plan also assures that buildings are set back well beyond the common 25 foot practice (setback is 100 feet). No recommendation for a specific setback is made, but any increase from the standard 25 feet reduces risks associated with that specific integrity threat.

It is recommended that the Project Applicant work with PG&E and Chevron to implement and observe a site damage-prevention plan, as identified in Mitigation Measure 4.7-2 below.

Mitigation Measure

4.7-2 Prior to issuance of grading permits, the Project Applicant shall work with PG&E and Chevron to implement and observe a site damage-prevention plan. This may potentially include the following:

- ◆ designing a site development plan incorporating permanent land use over the pipeline right-of-way that minimizes the potential for damage to the lines (as discussed above, this is already an integrated plan design feature, but is listed here because it is an important component of a damage prevention plan);
- ◆ prominently marking the line locations prior to site development, maintaining markings throughout the development process, and final marking after work is complete;
- ◆ communicate plans for significant excavation or land contouring work;
- ◆ identify changes in land contour that could significantly reduce the soil cover over the pipelines;
- ◆ evaluate the effects of heavy construction vehicles crossing the lines, designate areas for heavy construction vehicles to cross the lines, and provide temporary fill or other temporary protection over the lines where necessary;
- ◆ minimize installations of new buried utilities and services across the existing pipelines;
- ◆ evaluate whether the existing lines should be lowered to increase vertical separation between the pipelines and new surface features; and
- ◆ develop other damage-prevention measures as may be necessary.

In addition to the damage prevention measures listed above, the Project Applicant and the pipeline operators should consider other measures for reducing risk suggested in the Pipelines and Informed Planning Alliance (PIPA) recommended practices on informed land use. Many of PIPA's recommendations appear to already have been accounted for in site plans, but additional details for consideration (if they have not been considered already) include:

- ◆ select landscaping vegetation to avoid root structures that damage pipeline coatings,
- ◆ avoid planting trees that prevent direct observation of the pipelines by aerial patrol,
- ◆ manage storm runoff to prevent erosion of pipeline bedding,
- ◆ consider accessibility to pipeline personnel and first responders in the event of an emergency,
- ◆ incorporate escape routes from areas within the Potential Impact Radius (PIR).

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact 4.7-3: Future development facilitated by the Modified Project and other related cumulative projects could have a cumulatively considerable contribution to hazard impacts.

Determination: Less than Significant Impact with Mitigation Incorporation.

The cumulative impacts analysis for hazards and hazardous materials relied upon the projections of the General Plan and General Plan EIR. Cumulative impacts relative to hazards and hazardous materials would be impacts that result from incremental impacts relative to hazardous and hazardous materials that, cumulatively, would result in significant impacts.

The General Plan EIR analyzed the long-term development of the City of Tracy and found that no significant impacts relative to hazards and hazardous materials would occur with implementation of the General Plan as General Plan policies and existing programs would prevent the occurrence of significant impacts.

The baseline for the evaluation of cumulative impacts relies on the General Plan and General Plan EIR. In addition, the Modified Project is consistent with the intent of the TR-Ellis General Plan Land Use designation, which will ultimately be implemented (with minor text modifications) by the Modified ESP. Based on the Project's conformity with the General Plan, the lack of significant unavoidable impacts associated with implementation of the Modified ESP, and the absence of cumulative impacts associated with buildout of the General Plan, cumulative impacts relative to hazards and hazardous materials are considered less than significant with mitigation with implementation of the Modified ESP.

Mitigation Measures

Refer to Mitigation Measures 4.7-1a through 4.7-1c and 4.7-2.

4.8 HYDROLOGY, DRAINAGE, AND WATER QUALITY

Changes have been made to the hydrology, drainage, and water quality environmental impact evaluation contained within the Original Ellis EIR and are reflected in Section 4.14 (Water Supply and Other Public Utilities) of this Draft Revised EIR. Although the Trial Court's Statement of Decision and Judgment issued on the Original Ellis EIR did not find the discussion and analysis of potential stormwater environmental effects in Original Ellis EIR to be objectionable, impacts associated with increased surface runoff and its effect on the conveyance and capacity of the City's storm drainage system are re-evaluated in this Revised Draft EIR. This is because subsequent to the Original Ellis EIR entitlement approvals: (1) the City has implemented a variety of capital improvements to its storm drainage systems; and, (2) the Project Applicant has refined further the engineering design of the Modified ESP's proposed storm drainage facilities. In addition, the evaluation of the potential for a substantial depletion of groundwater supplies is re-evaluated in this Revised Draft EIR in compliance with the Statement of Decision and Judgment. Please refer to Section 4.14 (Water Supply and Other Public Utilities) of this Draft Revised EIR.

4.8.1 ANALYSIS INCORPORATED BY REFERENCE THAT HAS NOT CHANGED

The hydrology, drainage, and water quality environmental impact evaluation contained within the Original Ellis EIR that has not changed is the evaluation of flooding impacts that could occur as a result of the failure of a levee or dam, and the evaluation of the potential for the Original ESP to negatively affect stormwater quality. Thus, the background information, analysis of environmental impacts, and mitigation measures associated with these areas contained within Section 3B.10 (Hydrology, Drainage, and Water Quality) of the Original Ellis EIR remain valid and are incorporated herein. Please refer to Section 3B.10 (Hydrology, Drainage, and Water Quality) in the Original Ellis EIR, certified December 2008.

UNCHANGED IMPACT AND MITIGATION SUMMARY

Pursuant to Section 15150 (c) of the State CEQA Guidelines, the following summarizes the impacts and mitigation measures identified in Section 3B.10 (Hydrology, Drainage, and Water Quality) of the Original Ellis EIR that are incorporated herein and have not changed. As described in Chapter 2 (Introduction), the Original Ellis EIR is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376.

The Original ESP would not 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. As no impact was identified, mitigation is not necessary. Potentially significant water quality and stormwater discharge impacts could result as a consequence of the increased development facilitated by the Original ESP. The implementation of mitigation measures would reduce potential impacts on water quality and stormwater discharge to a less than significant level by preventing construction-related erosion and reducing pollutants in stormwater discharges from the Original ESP area to the maximum extent practicable. Future development facilitated by the ESP would increase the potential for erosion and/or siltation. Such increases in runoff could potentially cause increases in erosion, and/or siltation, of the ESP site. With implementation of mitigation measures noted above, in addition to design features, such as specific Best Management Practices (BMPs) and green building design

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considerations, potential drainage and erosion impacts would be reduced to a less than significant level.

The following provides a list of previously identified impacts and their corresponding mitigation measures. It should be noted that the Original Ellis EIR referred to the Original ESP as the proposed ESP and this Revised Draft EIR refers to the currently proposed ESP as the Modified ESP, but all other aspects remain the same.

Impact 3B.10-1 Implementation of the proposed ESP would 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: No Impact.

Mitigation Measure 3B.10-1: No mitigation is necessary.

Impact 3B.10-3 Implementation of the proposed ESP would result in violations to water quality standards or waste discharge requirements. Determination: Less Than Significant Impact With Mitigation Incorporated.

Mitigation Measure 3B.10-3a Prior to approval of Final Subdivision Maps, the Project Applicant shall provide a detailed hydrology report that specifies the expected stormwater volumes, projected peak storage capacity of temporary basins, and percolation characteristics of soil. The hydrology report shall demonstrate that adequate stormwater conveyance and capacity is available in either the region, onsite or offsite basins, depending on the chosen option. The hydrology report would be subject to review and approval by the City Engineer.

Mitigation Measure 3B.10-3b: Prior to issuance of a grading or building permit, whichever occurs first, and following the preparation of ESP site grading plan, the Project Applicant shall demonstrate to the City of Tracy compliance with NPDES General Construction Activities Storm Water Permit Requirements established by the Clean Water Act (CWA), including the preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall identify specific types and sources of stormwater pollutants, determine the location and nature of potential impacts, and specify appropriate control measures to eliminate any potentially significant impacts on receiving water quality from stormwater runoff. The SWPPP shall comply with the most current standards established by the Central Valley RWQCB. Best Management Practices shall be selected from a menu according to site requirements and shall be subject to approval by the City Engineer and Central Valley RWQCB.

Mitigation Measure 3B.10-3c: Prior to issuance of a grading or building permit, whichever occurs first, and following the preparation of the ESP site grading plan, the Project Applicant shall submit to the City Engineer for review a draft copy of the Notice of Intent (NOI)

and SWPPP. After approval by the City, the NOI and SWPPP shall be sent to the State Water Resources Control Board for approval.

Mitigation Measure 3B.10-3d: After Project completion, the Project Applicant or successor shall properly maintain parking lots and other common paved areas, by sweeping or other appropriate means, to prevent the majority of litter from washing into storm drains.

Impact 3B.10-4 Implementation of the proposed ESP would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or offsite. Determination: Less Than Significant Impact With Mitigation Incorporated.

Mitigation Measure 3B.10-4: Refer to Mitigation Measure 3B.10-3a through 3d.

Impact 3B.10-5 Implementation of the proposed ESP would 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 offsite. Determination: Less Than Significant Impact With Mitigation Incorporated.

Mitigation Measure 3B.10-5: Refer to Mitigation Measure 3.10-3a through 3.10-3d.

Impact 3B.10-7 Implementation of the proposed ESP would otherwise substantially degrade water quality. Less Than Significant Impact With Mitigation Incorporated.

Mitigation Measure 3B.10-7: Refer to Mitigation Measure 3B.10-3a through 3B.10-3d.

4.8.2 SUMMARY OF REVISED IMPACTS AND MITIGATION

Discussion and analysis of these impacts is provided in Section 4.14, Water Supply and Other Public Utilities:

Impact 3B.10-2 Implementation of the proposed ESP would 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.

Mitigation Measure 3B.10-2: No mitigation is necessary.

Impact 3B.10-6 Implementation of the proposed ESP would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Less Than Significant Impact With Mitigation Incorporated.

Mitigation Measure 3B.10-6: Refer to Mitigation Measure 3B.10-3a through 3B.10-3d.

4.9 LAND USE AND PLANNING

As noted in the Introduction (Chapter 2), the City of Tracy (City) determined that Land Use and Planning would be addressed in this Draft Revised Environmental Impact Report (Draft Revised EIR) based on comments submitted on the Notice of Preparation (NOP). In particular, the City received a comment letter from the San Joaquin Council of Governments (SJCOG), acting as the Airport Land Use Commission (ALUC) (*RE: ALUC Review for Notice of Preparation Ellis Specific Plan and Development Agreement*, March 9, 2012), requesting a complete consistency analysis of the land uses proposed by the Ellis Specific Plan (Modified ESP) relative to the 2009 Airport Land Use Compatibility Plan (2009 ALUCP) zones for the Tracy Municipal Airport, as well as an analysis of environmental effects, as determined by the outcome of the 2009 ALUCP consistency determination. Thus, to address the comments of this letter, this section of the Draft Revised EIR provides an analysis of the Modified ESP's consistency with the ALUCP and also provides an analysis of environmental effects resulting from the consistency determination.

In addition, this Draft Revised EIR also addresses:

- ◆ the Trial Court's Statement of Decision and Judgment (issued October 31, 2011) on the City of Tracy/Surland Companies Development Agreement and Ellis Specific Plan Applications Draft and Final EIRs (State Clearinghouse No. 2006102092) (Original Ellis EIR); as well as,
- ◆ updates to the ESP area as identified in the 2011 General Plan Update and analysis in the General Plan EIR (certified February 2011).

Thus, the topics covered in this chapter are limited to addressing those aspects described above. Specifically, this chapter provides:

- 1) an expanded discussion related to land use, growth management, and the loss of farmland; and,
- 2) assessment of airport-related impacts as they pertain to land use and the implementation of the Modified ESP.

The Statement of Decision and Judgment determined that the conversion of agricultural land was an impact not adequately examined in the Original EIR. The Statement of Decision and Judgment also asserts that adequate land is available within the City limits to accommodate the proposed units, and the position by the City that the annexation of the ESP area is a "Policy Issue," not an environmental issue that will be considered by decision makers. Based on this, the Revised Draft EIR discusses the land use issues associated with agricultural land conversion and how they relate to the goals, objectives, and policies within the 2011 Tracy General Plan.

Other background information, analysis of environmental impacts, and mitigation measures contained within the Original Ellis EIR regarding land use and planning and airport hazards remain valid, and as described in Chapter 2, that information has been incorporated by reference into this Draft Revised EIR. This includes an exhaustive review of the Original ESP consistency with all applicable land use plans, policies or regulations of an agency with jurisdiction over the project site and impacts associated with the project site's potential annexation. Thus, the topics covered in this section are limited to those described above.

4.9.1 EXISTING CONDITIONS

ENVIRONMENTAL SETTING

ESP AREA

As described in Chapter 3 (Project Description), the ESP area is largely undeveloped with some agricultural uses present. The minor amount of development consists of a residence, barn, and a small tree nursery. Existing conditions in the ESP area remain largely unchanged from 2008 when the Original Ellis EIR was prepared.

The majority of land uses in the vicinity of the ESP area are industrial and agricultural. Large-scale aggregate mining and concrete production industries are located to the south, active agricultural lands are present to the north, and Tracy Municipal Airport operates to the southeast. An MCI Telecommunications facility (switching station) is located adjacent to the southeastern corner of the ESP area. The Edgewood residential development is located east of the ESP area, across Corral Hollow Road. West of the ESP area, across Lammers Road, is characterized by sparse rural residential development such as small-acreage ranches and farmsteads along with the appurtenant structures such as barns, storage sheds etc., on parcels of approximately four acres or more. The area is partially bounded to the south by the Delta Mendota Canal, which supplies water to the Central Valley. Refer to Figure 3-3 (Aerial Photograph) in Chapter 3 (Project Description).

The site is currently used for agricultural purposes; however, it is not currently under a Williamson Contract. The site is currently identified in the City's Open Space and Conservation Element of the General Plan as prime farmland.

TRACY MUNICIPAL AIRPORT

According to the San Joaquin County's Aviation System Airport Land Use Compatibility Plan update of 2009, the Tracy Municipal Airport is owned and operated by the City of Tracy, California. Located within the City limits, this general aviation airport provides a range of aviation services including general aviation and jet fuel sales, and hangar and tie down rentals. The fixed base operator (FBO) at the airport provides aircraft maintenance services, flight training, and aircraft rental services for both standard aircraft and Light Sport Aircraft. Directly southeast of the airport, International Aerobatic Club Chapter 38 sponsors a designated aerobatic box in which aerobatic maneuvers are performed.

Tracy Municipal Airport is served by two runways¹: 8-26 and 12-30. Runway 8-26 is 3,438 feet long and 100 feet wide, and oriented east-west. Runway 12-30 is 4,002 feet long and 100 feet wide, and aligned to the northwest-southeast. Both runways are constructed of asphalt. The airport has several published instrument approach procedures, to aid pilots in navigation. Both runways are equipped with medium-intensity runway lights to indicate the pavement edge.

The existing operations² for the airport total 59,701, including 20,475 local operations³ and 39,226 itinerant operations⁴. A majority of the local operations are performed by single engine piston aircraft

¹ According to the Federal Aviation Administration, the Tracy Municipal Airport currently has a Notice to Airmen (NOTAM) that indicates Runway 8/26 is 3,438 feet in length, and Runway 12/30 is 3,996 feet in length. Refer to Section 6.0 Alternatives of this document for an analysis of the runway's recently measured length as it relates to the ESP area.

² Airport Operations are defined as either aircraft arrival to or departure from an airport facility.

involved in-flight training at the airport. In addition, aerobatic activities occur frequently within the confines of the designated aerobatic box located directly east of the airport⁵. Itinerant operations are also dominated by single-engine piston aircraft, with a small percentage of operations performed by turboprop and business jet aircraft, aerial applicators, powered parachutes, ultralight aircraft, and helicopters.

The long range forecast for Tracy Municipal Airport indicates a total of 107,200 annual operations. The Master Plan (1998) also indicated the fleet mix distribution for operations at the airport would be 66 percent single-engine piston, 29.4 percent multi-engine piston, 3 percent turboprop, and 1.4 percent business jet. These percentages were applied to the itinerant operations.

ESP AGRICULTURAL RESOURCES

According to the Open Space and Conservation Element of the 2011 Tracy General Plan, approximately 41,087 acres of land are identified as Prime Farmland, Unique Farmland, Farmland of Statewide Importance, and Farmland of Local Importance within the City's Planning Area, Sphere of Influence, and City limits combined. The 321-acre ESP site is identified as Prime Farmland, which is approximately 0.78 percent of the City's farmland resources.

4.9.2 REGULATORY FRAMEWORK

The ESP area is currently under the jurisdiction of the County and within the City's Sphere of Influence (SOI) and Planning Area. Implementation of the Modified ESP is conditioned on the ESP area being annexed into the City of Tracy. Once that occurs, the County of San Joaquin General Plan would no longer govern the ESP area.

CITY OF TRACY SPHERE OF INFLUENCE AND PLANNING AREA

The City's SOI is the area that lies directly outside the City limits that the City expects to annex, grow into, and provide urban services to in the future. A Local Agency Formation Commission (LAFCo) of a county determines a city's SOI at the request of the city. LAFCos are responsible for coordinating logical and timely changes in local government boundaries.

The City Planning Area is the portion of County land outside the City's SOI where development could have an impact on the City's planning efforts. The City's Planning Area is larger than its SOI, as it extends well beyond the area that the City expects to grow into in the future. The County is responsible for planning the anticipated growth and development patterns of the lands that are outside of City's SOI, but inside the City's Planning Area.

³ Operate in the local traffic pattern or within sight of the airport, know to depart or arrive from flight in local practice areas within a 20-mile radius, and/or execute simulated instrument approaches or low passes at the airport.

⁴ Originate at a different airport or operations that occur outside the local traffic pattern.

⁵ San Joaquin County's Aviation System Airport Land Use Compatibility Plan Update, July 2009. Location discrepancies regarding the aerobatic box are acknowledged, however this information was obtained from the ALUCP adopted in 2009. (Refer to Footnote 1)

CITY OF TRACY GENERAL PLAN

OVERVIEW

Since the preparation of the Original Ellis EIR, the City updated its General Plan. The City approved the update to the General Plan on February 1, 2011. The General Plan provides a vision for the future and establishes a framework for how the City of Tracy should grow and change over the next two decades. The General Plan establishes goals, objectives, policies, and actions to guide this change in a desired direction. The General Plan presents existing conditions in the City, including physical, social, cultural, and environmental resources and opportunities. The General Plan looks at trends, issues, and concerns that affect the region. The General Plan articulates a vision for the City's long-term physical form and development. It also brings a deliberate overall direction to the day-to-day decisions of the City Council, its commissions, and City staff.

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

PLAN CONTENTS

The City of Tracy General Plan is guided by its vision statement, and the remainder of the General Plan is comprised of nine separate "elements" that set goals, objectives, policies, and actions for a given subject. The goals, objectives, policies, and actions provide guidance to the City on how to accommodate growth and manage its resources over the next 20 years. The goals, objectives, policies, and actions in each element are derived from a number of sources including: the 1993 General Plan, the background information collected for the General Plan Update, discussions with the City Council and Planning Commission, public workshops, and meetings with property owners. Many of the recommendations from the Tracy Tomorrow 2000 final report are also brought forward into the General Plan. In addition to the goals, objectives, policies, and actions, each element contains background information that describes current conditions in the City of Tracy relative to the subject of the element.

Five of these elements cover six topics required by State law, while the remaining four elements have been prepared by the City to meet local needs and concerns. Some elements also have additional sections that are specific to them. For example, the Land Use Element contains a series of land use designations that guide overall development in the City and the Circulation Element contains information on the network and hierarchy of streets in the City. The elements that form the General Plan Update are briefly described below:

Land Use Element

The required Land Use Element designates all lands within the City for a specific use such as residential, office, commercial, industry, open space, recreation, or public uses. The Land Use Element provides policy direction for each land use category, and also provides overall land use policies for the City.

Community Character Element

The Community Character Element is not required by State law. However, due to the importance of maintaining and enhancing Tracy's hometown feel and the related importance of urban design for the City, this optional element has been included.

Economic Development Element

This optional element contains goals, objectives, policies, and actions to encourage the development of desired economic activities throughout the City. The information in this element is derived from the City's Economic Development Strategy prepared in 2002.

Circulation Element

This required element specifies the general location and extent of existing major streets, level of service, transit facilities, and bicycle and pedestrian network. As required by law, all facilities in the Circulation Element are correlated with the land uses foreseen in the Land Use Element.

Open Space and Conservation Element

The Open Space Element and the Conservation Element are required under State law and are combined in this General Plan. Issues addressed include the preservation of open space and agricultural land, the conservation, development, and utilization of natural resources, and the provision of parks and recreational facilities. Open space goals for public health and safety are covered in the Safety Element. Goal OSC-2 within this element focuses on "Identification, preservation and protection of significant agricultural resources," which directly relates to agricultural land conversion. Under this goal the following objective and policies are identified:

- ◆ Objective OSC-2.1: Support San Joaquin County efforts to preserve existing agricultural lands in the Planning Area and outside of the Sphere of Influence
 - Policy (P1): The City shall support San Joaquin County's efforts to preserve agricultural uses in the Tracy Planning Area.
 - Policy (P2): The City shall support San Joaquin County policies and zoning actions that maintain agricultural lands in viable farming units for those areas not currently designated for urban uses.
 - Policy (P3): The City shall support the preservation of Williamson Act lands and Farmland Security Zone lands within the Tracy Planning Area.
 - Policy (P4): The City shall encourage the continued agricultural use of land within the Planning Area and outside the Sphere of Influence that is currently being farmed.
 - Policy (P5): The City shall work cooperatively with non-profit organizations, such as land trusts, to preserve agricultural land in the Planning Area.
- ◆ Objective OSC-2.2: Minimize Conflicts between agricultural and urban uses
 - Policy (P1): Development projects shall have buffer zones, such as roads, setbacks and other physical boundaries, between agricultural uses and urban development. These buffer zones shall be of sufficient size to protect the agriculture operations from the impacts of incompatible development and shall be established based on the proposed land use, site conditions and anticipated agricultural practices. Buffers shall be located on the land where the use is being changed, and shall not become the maintenance responsibility of the City.
 - Policy (P2): Land uses allowed near agricultural operations should be limited to those not negatively impacted by dust, noise and odors.
 - Policy (P3): The City shall review, maintain and update, as necessary, its Right-to-Farm Ordinance.

Public Facilities and Services Element

This optional element covers a wide range of topics related to the provision of public services and infrastructure in the City. Topics covered include law enforcement, fire protection, schools, public buildings, solid waste, and the provision of water, wastewater, and stormwater infrastructure.

Safety Element

State law requires the development of a Safety Element to protect the community from risks associated with the effects of flooding, seismic and other geologic hazards, and wildland fires.

Noise Element

This required element addresses noise in the community and analyzes and quantifies current and projected noise levels from a variety of sources, such as traffic, industry, rail, and the airport. The Noise Element includes goals, objectives, policies, and actions to address current and foreseeable noise issues.

Air Quality Element

This element, which is required for all jurisdictions in the San Joaquin Air Pollution Control District, outlines goals, objectives, policies, and actions to mitigate the air pollution impacts of land use, the transportation system, and other activities that occur in the City of Tracy.

In addition, the City has prepared a Housing Element under a separate cover. Each city and county has an obligation to contribute its part by including a Housing Element as one of the seven mandatory elements of the General Plan. The Housing Element provides a long-term, comprehensive plan to address the housing needs for all economic segments of the community. The Housing Element addresses existing and projected housing demand and establishes goals, objectives, policies, and actions to assist the City in implementing the plan in accordance with other General Plan policies. It is not included with the remainder of the General Plan because it was prepared under a separate timeline and under detailed State criteria.

ESP AREA LAND USE DESIGNATION

The ESP area land use designation has changed since the preparation of the Original Ellis EIR. At the time of the preparation of the Original Ellis EIR, the General Plan designated the ESP area as Urban Reserve 10 (UR 10). Based on the General Plan Update that has occurred since this time, the ESP area is now designated as Traditional Residential-Ellis (TR-Ellis). The description of this designation from the General Plan is provided below.

Traditional Residential Ellis (TR-Ellis)

The Traditional Residential – Ellis (TR-Ellis) designation applies to the majority of, but not all of, former Urban Reserve 10. The TR designation requires that the specific TR-Ellis designation establish at least four residential criteria. In order for development of the TR-Ellis property to proceed, it is a mandatory obligation of this TR-Ellis designation that the City first adopt a Specific Plan that implements the following criteria. The first criterion requires a determination of the minimum and maximum number of residential units. The TR-Ellis designation shall include between 1,200 and 2,250 total residential units, for an overall site density of between 4 and 7 units per gross acre. (The General Plan establishes an average of 3.21 persons per household, as set forth in the Land Use and Housing Elements.) The second criterion requires a determination of the density ranges allowed, measured in terms of dwelling units per acre, and the maximum and minimum number of units of each such residential density type allowed. The TR-Ellis designation shall include three residential sub-designations (Zoning Districts): "Residential Mixed Low," "Residential Mixed

Medium," and "Residential Mixed High." Between 256 and 976 residential units and approximately 122 acres shall be allowed for the Residential Mixed Low designation (2.1 – 8 units per gross acre), between 372 and 1488 residential units and approximately 93 acres shall be allowed for the Residential Mixed Medium designation (4 – 16 units per gross acre), and between 250 and 780 residential units and approximately 31 acres shall be allowed for the Residential Mixed High designation (8 – 25 units per gross acre).

The foregoing densities overlap by design in order to allow for flexibility of housing types, and to ensure a wider mix of residential types within close proximity of each other throughout the Ellis site. Additionally, up to 50 of the 2250 residential units shall be allowed in the adjacent Village Center (4 to 16 units per gross acre for approximately 7 acres). Finally, the TR-Ellis area shall include approximately 18 acres of parks. Also, there is a possibility of an additional 16 acres (approximately) of Community Park. The Community Park can informally accommodate active recreational programming needs such as, but not limited to, ball fields and a multi-use soccer field, as well as tennis, volleyball, basketball courts, and a family-oriented swim center ("Swim Center"). The third criterion requires the adoption of a "Design Book" to ensure design quality, interesting and diverse architectural treatments, and an attractive streetscape. The "Ellis Pattern Book," which sets forth the architectural and site design guidelines for the TR-Ellis area consistent with the requirements set forth herein, shall be adopted by the City Council in connection with the Council's adoption of the TR-Ellis designation. The fourth criterion requires that the TR-Ellis designation establish the location/mix of residential design and housing types in the Traditional Residential area to encourage an interesting and compatible neighborhood and to discourage the domination of a sub-area with only one or a few residential housing types and designs. TR-Ellis shall consist of three residential neighborhoods, each with its own distinct sense of place, reinforcing the traditional, hometown feel. Blocks shall be sized to support a mix of housing types – modest to compact single-family homes, townhouses, secondary residential units, apartments, and condominiums, all designed to accommodate a wide range of incomes and family needs. The TR-Ellis area will be constructed using traditional neighborhood design principles, creating a pedestrian-friendly network of streets and parks. In most cases, garages will be located off the street and will be accessed by way of rear alleys. Other land uses adjacent to, and compatible with, the TR-Ellis area shall include, but not be limited to, an approximately 7-acre Village Center (with up to 50 of the 2250 residential units and up to 60,000 square feet of commercial uses), and up to 120,000 additional square feet of commercial uses (the General Plan establishes a maximum FAR for commercial uses of 1.0). The Tracy Airport "outer approach zone" shall be limited in uses to those authorized in the San Joaquin County Airport Land Use Plan as amended in 1998.

The owner of the Ellis property is willing to provide the City a substantial financial contribution towards the design, construction, operation and maintenance of the Swim Center (that far exceeds the owner's fair share responsibility and therefore what the City could otherwise legally require the owner to contribute towards the Swim Center) in return for certain City commitments that the City is not otherwise legally required to provide. For example, the City's Growth Management Ordinance and Guidelines recognize that a process can be established through a freely entered statutory development agreement whereby the City could provide commitments to the owner to potentially issue up to a set maximum amount of residential growth allocations (RGAs) to a project that absent that development agreement the City might not have to issue. The Ellis property owner and the City have negotiated a proposed statutory development agreement that would set forth the Ellis property owner's Swim Center contribution as well as the City's commitments in exchange for that Swim Center contribution. It shall be in the parties' sole and exclusive discretion as to whether to execute such an agreement.

Residential Medium and Residential High designations are most often located near commercial uses and high activity areas or near or within Village Center and the Downtown designations. These locations provide the best access to goods and services. These designations are also often located near transit amenities such as the

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ACE station and the future multi-modal terminal in the Downtown. Issues of pedestrian orientation of buildings, direct and safe connections with nearby uses, access to transit facilities and integration with residential neighborhoods of different densities are critical with Residential Medium and Residential High designations.

Based on the current designation, the Modified Project proposes to modify the TR-Ellis designation in the General Plan from what was approved in February 2011 to reflect specific mix and density/intensity of uses proposed by the Modified Project. These modifications are listed in Chapter 3 (Project Description) and are reiterated below for ease of reading.

- A. Section 2 of the Land Use Element at page 2-14: Table 2-2 General Plan Land Use Designations (City Limits and SOI); the Land Use Designation row labeled “Commercial”, shall hereby be amended to say:

768 City Limits (Acres); 500 SOI (Acres); 1268 Total

- B. Section 2 of the Land Use Element at page 2-14: Table 2-2 General Plan Land Use Designations (City Limits and SOI); the Land Use Designation row labeled “Village Center”, shall hereby be amended to say:

121 City Limits (Acres); 6 SOI (Acres); 127 Total

- C. Section 2 of the Land Use Element at pages 2-18 and 2-19: Traditional Residential (TR) is hereby amended to read as follows:

TR areas consist of a mix of residential densities and housing types reminiscent of traditional neighborhoods (often seen in older urban and suburban settings), ranging from single-family detached housing to attached medium and high density housing types, sometimes adjacent to (or above) retail, commercial or other compatible uses. TR allows a mix of a wider range of housing types, lot sizes, and density ranges compared with typical Residential Very Low (RVL), Residential Low (RL), Residential Medium (RM), and Residential High (RH). TR also allows the establishment of building and design criteria that allows for a more traditional look, including items such as moderate building setbacks, picket fences and sitting porches, an interconnected street network, pedestrian accessibility and trail systems, and the organization of residential units around a series of centrally-located active and passive "themed" neighborhood parks and/or recreation uses. TR areas are intended to be used primarily for residential Urban Reserves, though not exclusively, and are encouraged to be located near Village Centers. At least four (4) important residential criteria shall be established at the time a property is designated to "TR" through a General Plan Amendment so that dwelling unit and population density, design, and neighborhood compatibility standards can be established: (1) The maximum and minimum number of residential units allowed in the TR area and the average number of people per unit; (2) The density ranges allowed in terms of dwelling units per acre; (3) A "Design Book" to ensure design quality, interesting and diverse architectural treatments, and an attractive streetscape; and (4) The criteria that will be used to establish the location/mix of residential design and housing types in the TR area to encourage an interesting and compatible neighborhood and to discourage the domination of a sub-area with only one or a few residential housing types and designs. Park and recreation uses shall be established as part of the TR planning process. The re-designation of a property to the TR designation shall be implemented only in combination

with the particular project's development-level planning process (e.g., Specific Plan process, or if no Specific Plan is required, through the City's zoning process) that addresses the residential criteria set forth above. In other words, a property shall not be re-designated to the TR designation unless and until a particular project's residential criteria as set forth above are known and determined. Once a property secures a TR designation, the designation shall be known as "TR-[the name of the project]."

- D. Section 2 of the Land Use Element at pages 2-19 through 2-22: Traditional Residential - Ellis (TR-Ellis) is hereby amended to read as follows:

The Traditional Residential – Ellis (TR-Ellis) designation applies to the Ellis Specific Plan. The TR-Ellis designation shall include between 1000 and 2250 total residential units, for an overall site density of between 4 and 7 units per gross acre. (The General Plan establishes an average of 3.21 persons per household, as set forth in the Land Use and Housing Elements.) The TR-Ellis designation includes one residential sub-designation (Zoning District): "Residential Mixed." Additionally, up to 50 of the 2250 residential units shall be allowed in the adjacent Village Center (4 to 16 units per gross acre for approximately 6 acres). Finally, the TR-Ellis area shall include a park dedication of 4 acres per 1,000 people. TR-Ellis will feature 3 park acres per 1,000 population generated for Neighborhood Parks and 1 park acre per 1,000 population generated for Community Parks (4 acres per 1,000 population generated total). Also, there is a possibility of an additional 16 acres (approximately) for a family-oriented swim Center ("Swim Center"), which would serve as a credit for Ellis' Community Park requirement. The "Ellis Pattern Book," which sets forth the architectural and site design guidelines for the TR-Ellis area has been adopted by the City Council in connection with the Council's adoption of the TR-Ellis designation. TR-Ellis shall consist of residential neighborhoods, each with its own distinct sense of place, reinforcing the traditional, hometown feel. Blocks shall be sized to support a mix of housing types all designed to accommodate a wide range of incomes and family needs. The TR-Ellis area will be constructed using traditional neighborhood design principles, creating a pedestrian-friendly network of streets and parks. In some cases, garages will be located off the street and will be accessed by way of rear alleys. Other land uses adjacent to, and compatible with, the TR-Ellis area, shall include, but not be limited to, an approximately 7-acre Village Center (with up to 50 of the 2250 residential units and up to 60,000 square feet of commercial uses), and up to 120,000 additional square feet of commercial uses (the General Plan establishes a maximum FAR for commercial uses of 1.0). The Tracy Airport "outer approach zone" shall be limited in uses to those authorized in the San Joaquin County Airport Land Use Plan. The owner of the Ellis property is willing to provide the City a substantial financial contribution towards the design, construction, operation and maintenance of the Swim Center (that far exceeds the owner's fair share responsibility and therefore what the City could otherwise legally require the owner to contribute towards the Swim Center) in return for certain City commitments that the City is not otherwise legally required to provide. For example, the City's Growth Management Ordinance and Guidelines recognize that a process can be established through a freely-entered statutory development agreement whereby the City could provide commitments to the owner to potentially issue up to a set maximum amount of residential growth allocations (RGAs) to a project that absent that development agreement the City might not have to issue.

- E. Section 2 of the Land Use Element at page 2-23: The term, "future multi-modal terminal," shall hereby be amended to say: "Tracy Transit Station."

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- F. Section 2 of the Land Use Element at page 2-26; 5. Village Center (VC): the portion of the sentence that says, "...Village Centers generally range in size from 10 to 20 acres..." is hereby amended to say: "...Village Centers generally range in size from 5 to 20 acres..."
- G. Section 2 of the Land Use Element, Policy P3, page 2-36, 1st paragraph: The term, "Applications," shall hereby be amended to say: "Approvals," and, the term, "considered," shall hereby be amended to say: "issued."
- H. Section 2 of the Land Use Element, Objective LU-1.5, Policy P3, page 2-39, is hereby amended to read as follows:

A new, mixed-use, high density Village Center should be developed along the Union Pacific Railroad.

SAN JOAQUIN COUNTY AIRPORT LAND USE COMPATIBILITY PLAN

Since the preparation of the Original Ellis EIR, the San Joaquin Council of Governments (SJCOG), which serves as the Airport Land Use Commission (ALUC) for San Joaquin County, adopted an update to its 1993 Airport Land Use Compatibility Plan, the 2009 Airport Land Use Compatibility Plan (2009 ALUCP). The intention of the 2009 ALUCP is to protect and promote the safety and welfare of residents and airport users near the public use airports in San Joaquin County (County), while promoting the continued operation of those airports. Specifically, the plan seeks to protect the public from the adverse effects of airport, noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities encroach upon or adversely affect the use of navigable airspace.

The 2009 ALUCP includes all components of the Updated Comprehensive Land Use Plan for five of the six public-use airports within San Joaquin County. Stockton Metropolitan Airport is in the process of an Airport Master Plan Update. The 2009 ALUCP will be amended to include the Stockton Metropolitan Airport after the Master Plan has been through the approval process. Additionally, policies are provided for the portion of the County affected by the operations at Byron Airport located in neighboring Contra Costa County.

State of California Public Utilities Code Section 21676 grants the ALUC the authority to review amendments to general plans, specific plans, zoning amendments, and building regulations that apply within the airport planning boundary.

4.9.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based on Appendix G of the State CEQA Guidelines. Significant impacts related to airport hazards could result from implementation of the Modified Project if they would result in the following:

- ◆ 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?

- ◆ 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, result in a safety hazard for people residing or working in the Project site.
- ◆ Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

POTENTIAL IMPACTS AND MITIGATION MEASURES

CONFLICTS WITH THE CITY OF TRACY 2011 GENERAL PLAN OR ZONING ORDINANCE

Impact 4.9-1: The Modified ESP would result in no conflicts with the City's 2011 General Plan land use strategy, goals, or policies.

Determination: No Impact.

No impact is anticipated regarding conflict with the General Plan as a result of the Modified Project. The recent update of the General Plan (2011) identified the potential development allowed within the TR-Ellis land use designation (formerly Urban Reserve 10). Based on the revised land use designation, the Modified ESP is consistent with the anticipated development associated with the TR-Ellis designation. As part of the Modified Project implementation, a General Plan Amendment is proposed, which makes text modifications (identified above) to the General Plan to ensure consistency with the Modified ESP. These modifications are intended to address the following:

- ◆ Modifications to acreages of land use (reflecting the changes associated with the Modified ESP);
- ◆ Simplifying the land use designation text to better reflect the Modified ESP and ensure that the General Plan complies with recent changes that have occurred since adoption; and
- ◆ Text changes to reflect Modified ESP terminology

The text modifications would result in no direct or indirect change to the existing physical environment, and no conflicts with the City's General Plan or zoning designation. Thus, no environmental impact would result. As noted in the introduction to Section 4.9, all other background information, analysis of environmental impacts, and mitigation measures contained within the Original Ellis EIR regarding land use and planning remain valid. As noted throughout this Draft Revised EIR, the Original Ellis EIR is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376.

AIRPORT HAZARDS

Impact 4.9-2: Implementation of the Modified ESP would result in the placement of people and structures within the flight approach to Tracy Municipal Airport.

Determination: Less than Significant Impact.

A portion of the ESP site is located within the 2009 ALUCP Outer Approach/Departure Zone 4. This has the potential to create a significant impact if incompatible development is allowed. Development within an airport safety zone requires land use restrictions to minimize risks to both people working and residing in this area, and aircraft utilizing the airport.

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The two principal methods for reducing these risks are to limit the number of persons in an area, and to limit the area covered by occupied structures. Development within the airport's sphere of influence, including approach and safety zones, would be subject to Federal Aviation Administration (FAA) regulations and the 2009 ALUCP and the City's 1998 Airport Master Plan – Tracy Municipal Airport. According to the ALUCP, the following conditions are applicable in Safety and Compatibility Zone 4:

- ◆ residential units should be limited to one dwelling unit per five acres;
- ◆ the maximum non-residential intensity should be no more than 180 persons per acre;
- ◆ 20 percent of the land is required to remain in open space;
- ◆ several uses are prohibited (children's schools, day care centers, libraries, hospitals, nursing homes, buildings with more than three aboveground habitable floors, highly noise sensitive outdoor non-residential uses, and hazards to flight);
- ◆ a minimum noise level reduction (NLR) of 25 dB in residences (including mobile homes) and office buildings is required; and,
- ◆ airspace review is required for objects greater than 70 feet tall.

The portion of the ESP area that is within the 2009 ALUCP Outer Approach/Departure Zone 4 is designated as Limited Use and Residential Mixed. As defined by the Modified ESP, the Limited Use land use designation would permit the following:

- ◆ all uses permitted in the Outer Approach Zone per the Tracy Municipal Airport Master Plan (July 8, 1998) including, but not limited to:
 - agricultural production and sales,
 - botanical gardens/demonstration gardens,
 - low intensity active recreation (e.g., jogging trails, tennis courts),
 - construction business,
 - nurseries,
 - outdoor storage for recreational vehicles, boats, equipment, and vehicles, and indoor storage for all of the preceding as well as personal storage units, including a habitable space for up to two persons to be occupied by a property manager. Abandoned and inoperable vehicles, or uses allowed in an automobile wrecking yard, are not permitted; and,
 - art studios.

As defined by the Modified ESP, the Residential Mixed land use designation would permit the following:

- Civic, Quasi-Civic, and Cultural Uses
- Multi-Family Housing with Common Entry
- Attached Single-Family Housing with Individual Entry
- Detached Single-Family Housing

For the Residential Mixed area of the Modified ESP located within the 2009 ALUCP Outer Approach/Departure Zone 4 the following requirement applies and supersedes:

The Outer Approach/Departure Zone is defined in Section 3.1.1. (d) of the 2009 San Joaquin County Airport Land Use Compatibility Plan (ALUCP), as Zone 4, Outer Approach/ Departure Zone situated along extended runway centerline beyond Zone 3. Approaching aircraft are usually at less than traffic pattern altitude in Zone 4. Permitted Uses within the Outer Approach/Departure Zone

are limited to those identified in Appendix B, Table B2 San Joaquin County Airport Land Use Plan Airspace Restrictions of the 2009 San Joaquin County Aviation System Airport Land Use Compatibility Plan⁶, or the plan in effect at the time of the application.

This designation and its allowable uses would be in conformance with the 2009 ALUCP. Uses permitted within this designation would include low intensity active recreation (i.e., jogging trails), agriculture production and sales (with restrictions on gathering), construction business, nurseries, storage units, and art studios (with restrictions on gathering).

Given the special design considerations included in the 2009 ALUCP, as well as the low intensity of the proposed Limited Use designation, it is anticipated that implementation of the Modified ESP would not expose people or property to significant airport-related hazards. Furthermore, development within the airport sphere of influence would be subject to review and approval by affected regulatory agencies with jurisdiction over that portion of the Modified ESP site. However, it should be noted that for any discretionary reviews and /or approvals subsequent to the adoption of the Modified Ellis Specific Plan, the Project Applicant reserves the right to require that the land uses be subjected to the ALUCP in effect at the time of the application⁷. As the Modified ESP would be in conformance with the 2009 ALUCP, and consistent with the special design considerations included in the ALUCP, impacts related to the placement of people and structures within the Outer Approach/Departure Zone would be considered less than significant. No mitigation measures are required.

AGRICULTURAL LAND CONVERSION

Impact 4.9-3: Implementation of the Modified ESP would result in agricultural land conversion.

Determination: Significant and Unavoidable Impact.

Implementation of the 2011 Tracy General Plan is anticipated to cause significant and unavoidable impacts associated with:

- ◆ Conversion of prime farmland, unique farmland, and farmland of statewide importance to urban uses;
- ◆ Conversion of land under Williamson Act contracts to urban uses;
- ◆ Development of incompatible urban uses adjacent to agricultural uses resulting in the conversion of those lands from farmland; and
- ◆ A cumulative impact associated with the contribution of implementation of the General Plan to the ongoing loss of agricultural lands in the region as a whole.

The Modified ESP proposes the loss of 321 acres of Prime Farmland within the City's SOI, which is area contemplated for development within the 2011 General Plan. Therefore the impacts associated with implementation of the Modified ESP were contemplated and accounted for in the City's General Plan EIR. As indicated in General Plan Objective OSC-2.1, the City is focused on preserving

⁶ The current ALUCP requires residential densities of 1 dwelling unit per five acres within Zone 4, Outer Approach/Departure Zone.

⁷ Modified Ellis Specific Plan, July 2012, Section 3 LAND USE, Subsection 3.5.12, page 17.

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agricultural resources within the Tracy Planning Area and outside of the Sphere of Influence. The Modified ESP is consistent with this objective and corresponding policies.

Since the 2011 General Plan is unable to mitigate impacts associated with agricultural land conversion, the City has established an Agricultural Mitigation Fee (Chapter 13.28 of the Municipal Code), which implements a fee program to mitigate for the loss of farmland as development occurs, especially for projects using water from the SSJID. The Ordinance is also in response to policies in the General Plan to preserve productive farmland, including the development of a program to secure permanent agriculture on lands designated for agriculture in the City and/or County General Plan.⁷

The fee is intended to mitigate a CEQA determination of significant, unavoidable impacts to the loss of farmland as a result of proposed development, which would be approved by the City with a statement of overriding consideration. The fees are collected and administered by the City before the issuance of building permits, and used for acquiring farmland, farmland conservation easements or farmland deed restrictions from willing sellers. As a result of this requirement, the Project Applicant will be required to comply with the following mitigation measure.

Mitigation Measure

4.9-3: Prior to issuance of building permits, future project applicants shall pay the appropriate Agricultural Mitigation Fee to the City of Tracy, in accordance with Chapter 13.28 of the Tracy Municipal Code.

With implementation of Mitigation Measure 4.9-2 as well as adherence to General Plan Goal OSC-2 and corresponding objectives and policies, impacts associated with agricultural land conversion would still remain significant and unavoidable, which is consistent with the Tracy General Plan EIR.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact 4.9-4: Future development of the ESP area facilitated by the Modified ESP could result in potential land use conflicts.

Determination: Significant and Unavoidable Impact.

The geographic scope of this impact is cumulative development generally located within the City of Tracy and the Tracy Planning area.

The Modified ESP would be an extension of the existing residential uses located in the Project vicinity and would not create substantial land use impacts. The past, present, and reasonably foreseeable future projects anticipated by the General Plan, as most recently updated, could contribute incrementally to changes in the character of the City and surrounding area. However, it is anticipated that a majority of cumulative development would take place within areas previously contemplated for development within the 2011 General Plan and would not require significant land use changes, potentially resulting in land use conflicts.

⁷ Tracy Municipal Code, 13.28.020, May 17, 2005.

Impacts associated with airport hazards and airport land use compatibility are considered less than significant, since the 2009 Airport Land Use Compatibility Plan was recently adopted and incorporated the anticipated future development associated with the project into consideration as part of their analysis. In addition, all future developments within the Airport's Sphere of Influence would be required to adhere to the regulations and requirements within the 2009 ALUCP as well as Federal Aviation Administration (FAA) regulations, and the City's 1998 Airport Master Plan – Tracy Municipal Airport. Based on this, impacts associated with airport hazards are not considered cumulatively considerable.

Impacts associated with agricultural land conversion are considered significant and unavoidable. Although the ESP area is approximately 0.78 percent of the total agricultural area located within the City's Planning Area (including SOI and City Limits), any loss of agricultural land (especially Prime Farmland) is considered a significant cumulative impact. In addition, the 2011 General Plan found impacts associated with agricultural land conversion significant and unavoidable even with adherence to the goals, objectives, and policies outlined within the Open Space and Conservation Element and implementation of the City's Agricultural Mitigation Fee (Municipal Code Chapter 13.28). Based on this, impacts associated with cumulative agricultural land conversion associated with implementation of the Modified ESP are considered significant and unavoidable.

Mitigation Measures

Refer to Mitigation Measures 4.9-3.

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4.10 NOISE

As described in Chapter 2 (Introduction), this Revised Draft EIR analyzes the potential environmental effects of the proposed changes associated with the Amended and Restated Ellis DA and the minor amendments to the Original Ellis Specific Plan (Modified Ellis Specific Plan or Modified ESP), and identifies feasible mitigation measures for potentially significant impacts where applicable. In addition, this Draft Revised EIR also addresses:

- ◆ the Trial Court’s Statement of Decision and Judgment (issued October 31, 2011) on the City of Tracy/Surland Companies Development Agreement and Ellis Specific Plan Applications Draft and Final EIRs (State Clearinghouse No. 2006102092) (Original Ellis EIR); as well as,
- ◆ updates to the ESP area as identified in the 2011 General Plan Update and analysis in the General Plan EIR (certified February 2011).

Other background information, analysis of environmental impacts, and mitigation measures contained within the Original Ellis EIR remain valid, and as described in Chapter 2, that information has been incorporated by reference into this Draft Revised EIR. Thus, the topics covered in this chapter are limited to addressing those aspects described above. Specifically, this section provides:

- 1) an analysis of noise source impacts onsite and on surrounding land uses generated by implementation of the Modified ESP;
- 2) an evaluation of short-term construction-related impacts, as well as long-term buildout operational conditions; and,
- 3) recommended mitigation measures to avoid or lessen identified impacts.

Information in this section is based on the City of Tracy General Plan, City of Tracy Municipal Code, traffic information contained in the *Transportation Impact Analysis for the Ellis Specific Plan in the City of Tracy*, prepared by Fehr & Peers, dated December 2007 (updated and validated by RBF Consulting in April 2012); and the *Updated Railroad Train Noise and Vibration Mitigation Study*, prepared by Illingworth and Rodkin, Inc., dated May 25, 2012. Refer to Appendix D (Noise Data) for the assumptions utilized in this analysis.

4.10.1 EXISTING CONDITIONS

NOISE SCALES AND DEFINITIONS

Human response to sound is highly individualized. Annoyance is the most common issue regarding community noise. The percentage of people claiming to be annoyed by noise will generally increase with the environmental sound level. However, many factors will also influence people’s response to noise. The factors can include the character of the noise, the variability of the sound level, the presence of tones or impulses, and the time of day of the occurrence. Additionally, non-acoustical factors, such as the person’s opinion of the noise source, the ability to adapt to the noise, the attitude towards the source and those associated with it, and the predictability of the noise, will influence people’s response. As such, response to noise varies widely from one person to another and with any particular noise, individual responses will range from “highly annoyed” to “not annoyed.”

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Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud, 20 dBA higher is four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples of various sound levels in different environments are illustrated on Figure 4.10-1 (Sound Levels and Human Response).

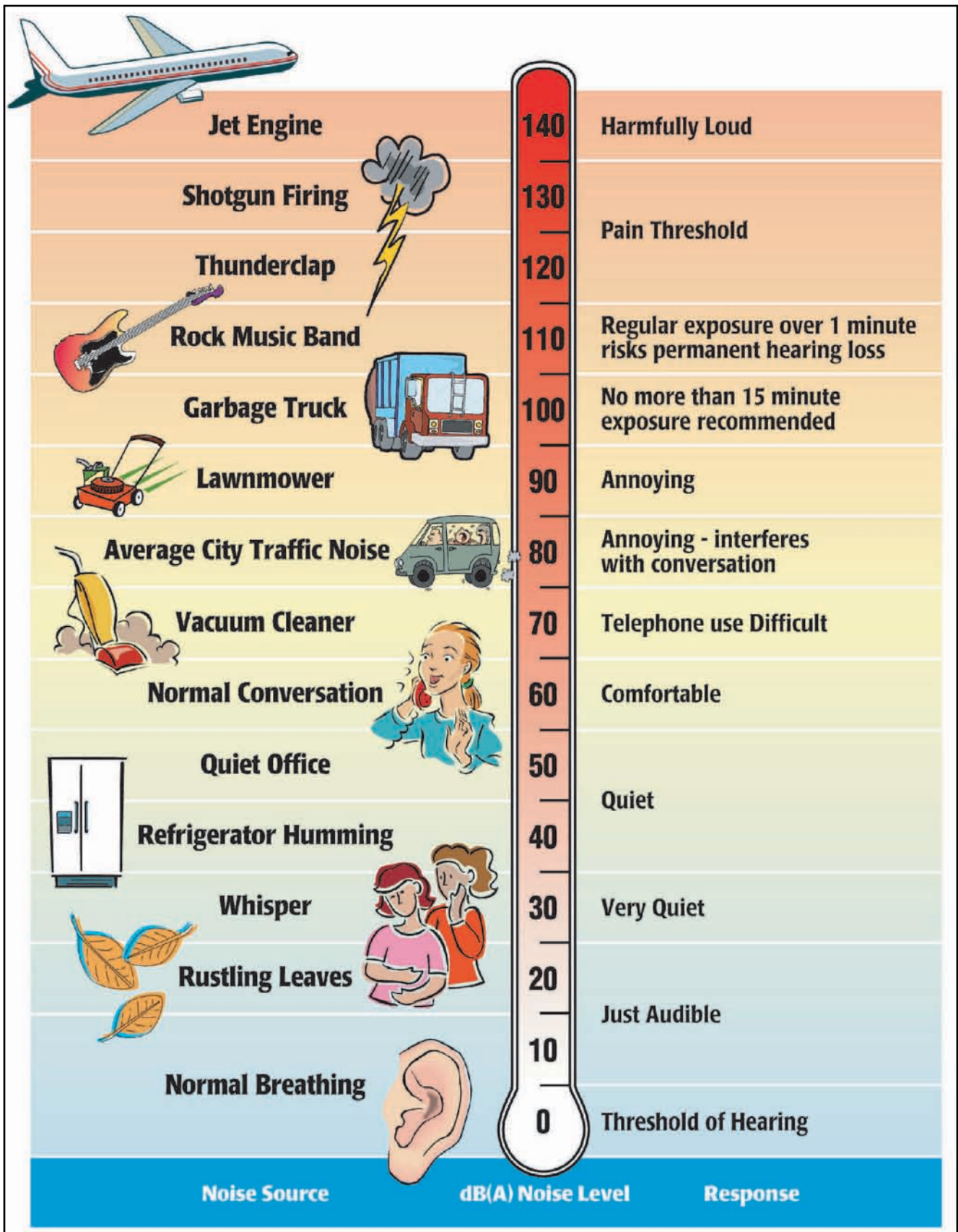
Many methods have been developed for evaluating community noise to account for, among other things:

- ◆ The variation of noise levels over time;
- ◆ The influence of periodic individual loud events; and
- ◆ The community response to changes in the community noise environment.

Numerous methods have been developed to measure sound over a period of time. Table 4.10-1 (Noise Descriptors) provides a listing of methods to measure sound.

TABLE 4.10-1 NOISE DESCRIPTORS

| Term | Definition |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Decibel (dB) | The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals). |
| A-Weighted Decibel (dBA) | A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz). |
| Equivalent Sound Level (L_{eq}) | The sound level containing the same total energy as a time varying signal over a given time period. The L_{eq} is the value that expresses the time averaged total energy of a fluctuating sound level. |
| Maximum Sound Level (L_{max}) | The highest individual sound level (dBA) occurring over a given time period. |
| Minimum Sound Level (L_{min}) | The lowest individual sound level (dBA) occurring over a given time period. |
| Community Noise Equivalent Level (CNEL) | A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening (7:00 PM to 10:00 PM) and +10 dBA for the night (10:00 PM to 7:00 AM). |



Source: Melville C. Branch and R. Dale Beland (1970), Environmental Protection Agency (1974), RBF Consulting (2012)



TABLE 4.10-1 NOISE DESCRIPTORS (CONTINUED)

| Term | Definition |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Day/Night Average (L_{dn}) | The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the L_{eq} . The L_{dn} is calculated by averaging the L_{eq} 's for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 PM to 7:00 AM), by 10 dBA to account for the increased sensitivity of people to noises that occur at night. |
| L_{01} , L_{10} , L_{50} , L_{90} | The fast A-weighted noise levels equaled or exceeded by a fluctuating sound level for 1 percent, 10 percent, 50 percent and 90 percent of a stated time period. |

Source: Cyril M. Harris, *Handbook of Noise Control*, 1979.

HEALTH EFFECTS OF NOISE

When the noise level of an activity rises above 70 dBA, the chance of receiving a complaint is possible, and as the noise level rises, dissatisfaction among the public steadily increases. However, an individual's reaction to a particular noise depends on many factors, such as the source of the sound, its loudness relative to the background noise, and the time of day. The reaction to noise can also be highly subjective; the perceived effect of a particular noise can vary widely among individuals in a community.

The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on the community can be organized into six broad categories:

- ◆ Noise-Induced Hearing Loss;
- ◆ Interference with Communication;
- ◆ Effects of Noise on Sleep;
- ◆ Effects on Performance and Behavior;
- ◆ Extra-Auditory Health Effects; and
- ◆ Annoyance.

Although it often causes discomfort and sometimes pain, noise-induced hearing loss usually takes years to develop. Noise-induced hearing loss can impair the quality of life through a reduction in the ability to hear important sounds and to communicate with family and friends. Hearing loss is one of the most obvious and easily quantified effects of excessive exposure to noise. While the loss may be temporary at first, it could become permanent after continued exposure. When combined with hearing loss associated with aging, the amount of hearing loss directly caused by the environment is difficult to quantify. Although the major cause of noise-induced hearing loss is occupational, substantial damage can be caused by non-occupational sources.

According to the United States Public Health Service, nearly ten million of the estimated 21 million Americans with hearing impairments owe their losses to noise exposure. Noise can mask important sounds and disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television in the home. It can also disrupt effective communication between teachers and

pupils in schools, and can cause fatigue and vocal strain in those who need to communicate in spite of the noise.

Interference with communication has proved to be one of the most important components of noise-related annoyance. Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern, or level of sleep. It can produce short-term adverse effects on mood changes and job performance, with the possibility of more serious effects on health if it continues over long periods. Noise can cause adverse effects on task performance and behavior at work, and non-occupational and social settings. These effects are the subject of some controversy, since the presence and degree of effects depends on a variety of intervening variables. Most research in this area has focused mainly on occupational settings, where noise levels must be sufficiently high and the task sufficiently complex for effects on performance to occur.

Recent research indicates that more moderate noise levels can produce disruptive after-effects, commonly manifested as a reduced tolerance for frustration, increased anxiety, decreased incidence of “helping” behavior, and increased incidence of “hostile” behavior. Noise has been implicated in the development or exacerbation of a variety of health problems, ranging from hypertension to psychosis. As with other categories, quantifying these effects is difficult due to the amount of variables that need to be considered in each situation. As a biological stressor, noise can influence the entire physiological system. Most effects seem to be transitory, but with continued exposure some effects have been shown to be chronic in laboratory animals.

Annoyance can be viewed as the expression of negative feelings resulting from interference with activities, as well as the disruption of one’s peace of mind and the enjoyment of one’s environment. Field evaluations of community annoyance are useful for predicting the consequences of planned actions involving highways, airports, road traffic, railroads, or other noise sources. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed above. In a study conducted by the United States Department of Transportation, the effects of annoyance to the community were quantified. In areas where noise levels were consistently above 60 dBA CNEL, approximately nine percent of the community is highly annoyed. When levels exceed 65 dBA CNEL, that percentage rises to 15 percent. Although evidence for the various effects of noise have differing levels of certainty, it is clear that noise can affect human health. Most of the effects are, to a varying degree, stress related.

GROUND-BORNE VIBRATION

Vibration is an oscillatory motion through a solid medium in which the motion’s amplitude can be described in terms of displacement, velocity, or acceleration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration amplitudes. PPV is defined as the maximum instantaneous peak or vibration signal, while RMS is defined as the square root of the average of the squared amplitude of the signal. PPV is typically used for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 500 feet or less) from the source.

Both construction and operation of development projects can generate ground-borne vibration. In general, demolition of structures preceding construction generates the highest vibrations. Construction equipment such as vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible vibration during construction activities. Heavy trucks can also generate ground-borne vibrations that vary depending on vehicle type, weight, and pavement conditions.

4.10.2 LAWS, ORDINANCES, REGULATIONS, AND STANDARDS

This section summarizes the laws, ordinances, regulations, and standards that are applicable to the Modified ESP. Regulatory requirements related to environmental noise are typically promulgated at the local level. However, Federal and State agencies provide standards and guidelines to the local jurisdictions.

STATE OF CALIFORNIA GUIDELINES

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA was enacted in 1970 and requires that all known environmental effects of a project be analyzed, including environmental noise impacts. Under CEQA, a project has a potentially significant impact if the project exposes people to noise levels in excess of standards established in the local general plan or noise ordinance. Additionally, under CEQA, a project has a potentially significant impact if the project creates a substantial increase in the ambient noise levels in the project vicinity above levels existing without the project. If a project has a potentially significant impact, mitigation measures must be considered. If mitigation measures to reduce the impact to less than significant are not feasible due to economic, social, environmental, legal, or other conditions, the most feasible mitigation measures must be considered.

CALIFORNIA GOVERNMENT CODE

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of their comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services.

The guidelines rank noise land use compatibility in terms of “normally acceptable,” “conditionally acceptable,” and “clearly unacceptable” noise levels for various land use types. Single-family homes are “normally acceptable” in exterior noise environments up to 60 CNEL and “conditionally acceptable” up to 70 CNEL. Multiple-family residential uses are “normally acceptable” up to 65 CNEL and “conditionally acceptable” up to 70 CNEL. Schools, libraries, and churches are “normally acceptable” up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

SAN JOAQUIN COUNTY AIRPORT LAND USE COMPATIBILITY PLAN NOISE STANDARDS

The *San Joaquin County Airport Land Use Compatibility Plan Update* (ALUCP) was prepared in July 2009. The ALUCP was prepared in accordance with the California Department of Transportation’s *California Airport Land Use Planning Handbook* (July 2002). The ALUCP is intended to protect and promote the safety and welfare of residents and airport users. Specifically, the ALUCP seeks to protect the public from the adverse effects of airport noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities encroach upon or adversely affect the use of navigable airspace. The ALUCP states the maximum CNEL considered normally acceptable for new residential land uses in the vicinity of airports is 60 dBA CNEL. Similar standards apply to other types of land uses (refer to Table 3B of the ALUCP).

The maximum aircraft-related interior noise level that is considered acceptable for land uses near airports is 45 dBA CNEL in any habitable room of single- or multi-family residences, hotels and motels, hospitals, nursing homes, religious areas, meeting halls, theaters, mortuaries, office buildings, schools, libraries, and museums. ALUCP Table 3B includes sound insulation requirements for land uses within airport noise contours of 55 to 75 dBA CNEL.

CITY OF TRACY NOISE STANDARDS

General Plan

The City of Tracy General Plan provides a number of goals, policies, and objectives that would apply to the Modified ESP. The following provides the goals, objectives, policies, and actions of the City regarding noise regulations:

Goal N-1 A Citizenry protected from excessive noise.

Objective N-1.1 Ensure appropriate exterior and interior noise levels for new land uses.

Policies

- P1. Noise sensitive land uses shall not be located in areas with noise levels that exceed those considered normally acceptable for each land use unless measures can be implemented to reduce noise to acceptable levels.
- P2. Land uses shall require appropriate interior noise environments when located in areas adjacent to major noise generators.
- P3. Recognizing that some new single-family residential uses may be located adjacent to non-residential uses, new single-family residential development shall not exceed 60 L_{dn} (day/night average noise level) for exterior noise in private use areas.
- P4. New residential uses exposed to noise levels exceeding 60 L_{dn} shall be analyzed following protocols in the operative California Building Code or other operative code.
- P5. For new residential land uses, noise from external sources shall not cause building interiors to exceed 45 L_{dn} .
- P6. New multi-family residential land uses, noise from external sources shall not cause the community outdoor recreation areas to exceed 65 L_{dn} . This policy shall not apply to balconies.
- P7. New residential development affected by noise from railroads or aircraft operations shall be designed to limit typical maximum instantaneous noise levels to 50 dBA in bedrooms and 55 dBA in other rooms.
- P8. Measures to attenuate exterior and/or interior noise levels to acceptable levels shall be incorporated into all development projects. Acceptable, conditionally acceptable and unacceptable noise levels are presented in [the General Plan Noise Element] Figure 9-3.
- P9. If the primary noise sources are train pass-bys then the standard for outdoor noise levels in single- and multi-family residential outdoor activity areas shall be 70 L_{dn} .

Objective N-1.2 Control sources of excessive noise.

Policies

- P1. The City's Noise Ordinance, as revised from time to time, shall prohibit the generation of excessive noise.

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- P2. Mitigation measures shall be required for new development projects that exceed the following criteria:
- ◆ Cause the L_{dn} at noise-sensitive uses to increase by 3 dB or more and exceed the “normally acceptable” level.
 - ◆ Cause the L_{dn} at noise-sensitive uses to increase 5 dB or more and remain “normally acceptable.”
 - ◆ Cause new noise levels to exceed the City of Tracy Noise Ordinance limits.
- P3. Pavement surfaces that reduce noise from roadways should be considered as paving or repavement opportunities arise.
- P4. All construction in the vicinity of noise sensitive land uses, such as residences, hospitals, or convalescent homes, shall be limited to daylight hours or 7:00 AM to 7:00 PM. In addition, the following construction noise control measures shall be included as requirements at construction sites to minimize construction noise impacts:
- ◆ Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
 - ◆ Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
 - ◆ Utilize “quiet” air compressors and other stationary noise sources where technology exists.

Actions

- A1. Enforce Section 27007 of the California Motor Vehicle Code that prohibits amplified sound that can be heard 50 or more feet from a vehicle.
- A2. Enforce Section 27150 of the California Motor Vehicle Code that addresses excessive exhaust noise.
- A3. Develop noise abatement flight procedures for large aircraft accessing Tracy Municipal Airport.

Objective N-1.3 Consider noise issues in the Development Review process.

Policies

- P1. Development projects shall be evaluated for potential noise impacts and conflicts as part of the Development Review process.
- P2. Significant noise impacts shall be mitigated as a condition of project approval.
- P3. New development projects shall have an acoustical specialist prepare a noise analysis with recommendations for design mitigation if a noise-producing project is proposed near existing or planned noise-sensitive uses.
- P4. Proposed noise sensitive projects within noise-impacted areas shall submit acoustical studies and provide necessary mitigation from noise.
- P5. Site design techniques shall be considered as the primary means to minimize noise impacts as long as they do not conflict with the goals of the Community Character Element. Techniques include:

- ◆ Designing landscaped building setbacks to serve as a buffer between the noise source and receptor.
- ◆ Placing noise-tolerant land uses, such as parking lots, maintenance facilities, and utility areas between the noise source, such as highways and railroad tracks, and receptor.
- ◆ Orienting buildings to shield noise sensitive outdoor spaces from a noise source.
- ◆ Locating bedrooms or balconies on the sides of buildings facing away from noise sources.
- ◆ Utilizing noise barriers (e.g., fences, walls, or landscaped berms) to reduce adverse noise levels in noise-sensitive outdoor activity areas.

P6. The City shall seek to reduce impacts from groundborne vibration associated with rail operations by requiring that vibration-sensitive buildings (e.g., residences) are sited at least 100 feet from the centerline of the railroad tracks whenever feasible. The development of vibration-sensitive buildings within 100 feet from the centerline of the railroad tracks would require a study demonstrating that ground borne vibration issues associated with rail operations have been adequately addressed (i.e., through building siting or construction techniques).

In addition to the goals and objectives, the General Plan also includes the City's noise standards for different land uses within the City's jurisdiction. According to Figure 9-3 of the General Plan, "normally acceptable" noise standards for single-family residential units and institutional land uses such as schools, libraries, museums, hospitals, personal care, meeting halls, and churches is 60 dBA Ldn. For multi-family residential, hotels, motels, and outdoor recreational areas, a 65 dBA Ldn is "normally acceptable." For office buildings, commercial, and professional land uses, a "normally acceptable" noise level is 70 dBA Ldn.

Municipal Code

In addition to the standards set forth within the General Plan, Title 4.12, Article 9, *Noise Control Ordinance*, the City's Municipal Code provides the following General Sound Level Limits (Section 4.12.750):

- ◆ Residential Districts have a noise limit of 55 dBA
- ◆ Commercial Districts have a noise limit of 65 dBA
- ◆ Industrial Districts have a noise limit of 75 dBA
- ◆ Agricultural Districts have a noise limit of 75 dBA
- ◆ Aggregate Mineral Overlay Zones have a noise limit of 75 dBA

The City's Municipal Code, Title 4.12, Article 9, *Noise Control Ordinance*, provides the following construction and operational noise standards (Section 4.12.820):

Construction Noise Prohibition

The operation between the hours of 10:00 PM and 7:00 AM of any pneumatic or air hammer, pile driver, steam shovel, derrick, steam, or electric hoist, parking lot cleaning equipment, or other appliance, the use of which is attended by loud or unusual noise.

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Business and Residential Relationships

1. Delivery vehicles shall have their engines turned off when stationary during the regular business hours (6:00 AM to 11:00 PM).
2. It is unlawful for stores to be loading, unloading, opening or other handling of boxes, crates, containers, building materials, garbage cans, other similar objects and trash compactor operations between the hours of 10:00 PM and 7:00 AM in an area between a business and residential in such a manner to cause a noise disturbance across a residential property line or at any time to violate the general sound level limits.
3. Store deliveries by motorized refrigeration systems shall not be left running between the hours of 10:00 PM and 7:00 AM within seventy-five feet of a residential zone, residential use, or sleeping quarters.

Note that the noise ordinance requirements cannot be applied to mobile noise sources, such as heavy trucks, when traveling on public roadways. Federal and State laws preempt control of mobile noise sources on public roads and airports.

SENSITIVE RECEPTORS

Human response to noise varies widely depending on the type of noise, time of day, and sensitivity of the receptor. The effects of noise on humans can range from temporary or permanent hearing loss to mild stress and annoyance due to such things as speech interference and sleep deprivation. Prolonged stress, regardless of the cause, is known to contribute to a variety of health disorders. Noise, or the lack of it, is a factor in the aesthetic perception of some settings, particularly those with religious or cultural significance. Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours. Table 4.10-2 (Sensitive Receptors) lists the sensitive receptors within one mile of the ESP site.

TABLE 4.10-2 SENSITIVE RECEPTORS

| Type | Name | Distance (miles) | Direction |
|-------------------|--------------------------------------------|------------------|-----------|
| Residential | Single Family Residential | 0.03-1 | Various |
| | Anthony Traina Elementary School | 0.5 | East |
| | Amazing Kids Childcare | 0.6 | East |
| | Tender Loving Care Preschool | 0.5 | East |
| | Bundles of Joy Day Care | 0.25 | East |
| | AquarianKids PreSchool & ChildCare Program | 0.5 | East |
| Hospitals | NA | NA | NA |
| Religious Centers | Jesus Christ of Latter-Day Saints | 0.25 | North |
| | Church of the Resurrection | 0.9 | East |
| | Calvary Chapel Tracy | 0.5 | East |
| | New Creation Bible Fellowship | 0.5 | East |

NA = not applicable

Sources: <http://yp.yahoo.com> (Yellow Pages). Sensitive Receptor population utilized in this analysis are those within a 1-mile radius of the ESP site.

AMBIENT NOISE MEASUREMENTS

In order to quantify existing ambient noise levels within the Modified ESP site, RBF Consulting conducted noise measurements on April 18, 2012; refer to Table 4.10-3 (Noise Measurements), and Figure 4.10-2 (Noise Measurement Locations), which provides the location of the measurements. Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjør Hand-held Analyzer Type 2250 equipped with a 4189 pre-polarized freefield microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute for Type I (precision) sound level meters.

The noise measurement sites indicated in Table 4.10-3 are representative of typical existing noise exposure within and immediately adjacent to the Modified ESP site. Ten-minute measurements and one instantaneous measurement were taken at three sites, between 11:00 AM and 1:00 PM. Meteorological conditions were typical, with light wind speeds (0 to 5 miles per hour), low humidity, and clear skies. Existing measured noise levels on site range from approximately 57.7 Leq to 72.9 Leq. The highest on-site noise level measurement (72.9 dBA) was taken at the northeastern portion of the ESP site along Corral Hollow Road.

TABLE 4.10-3 NOISE MEASUREMENTS

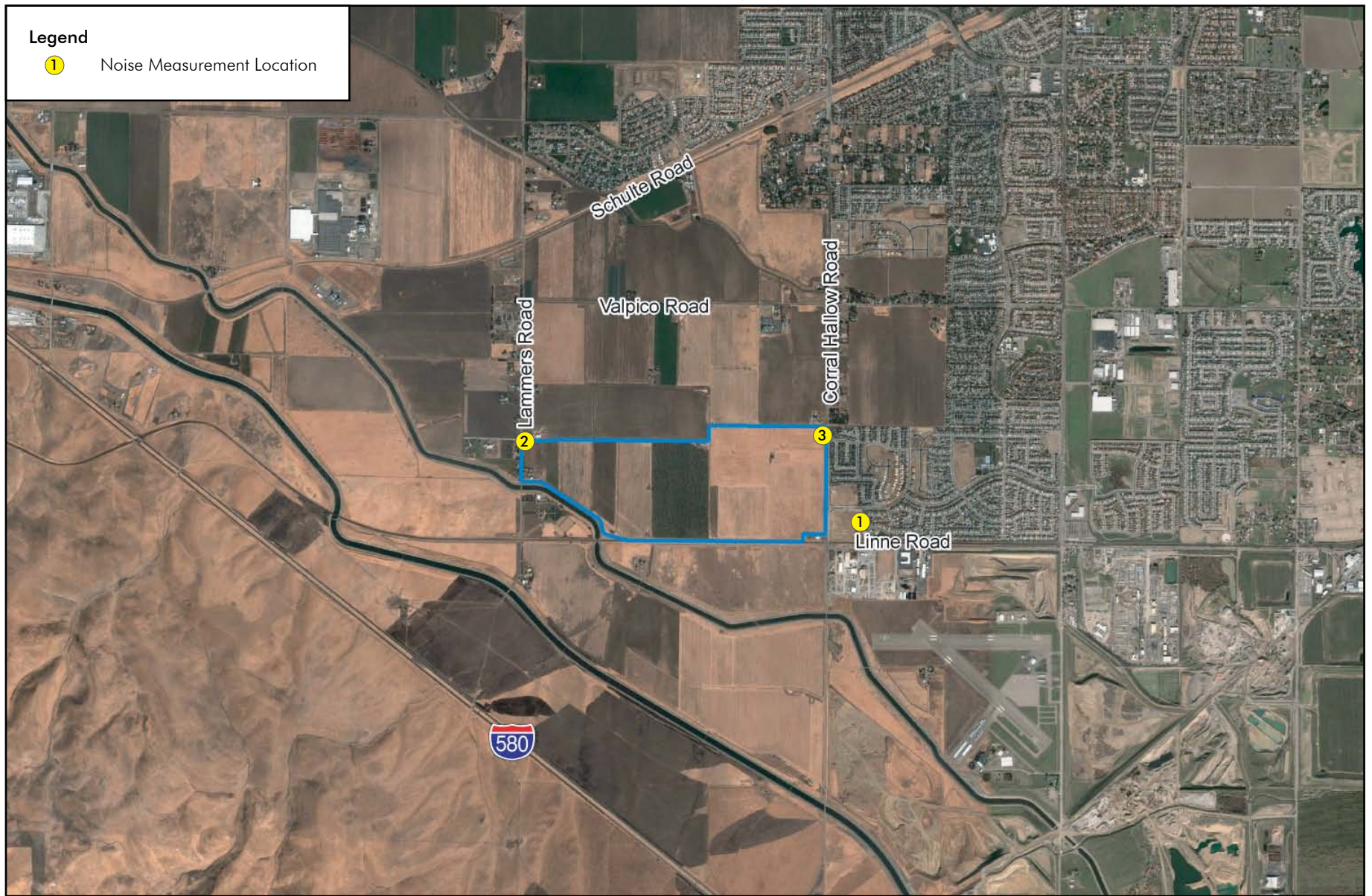
| Site | Location | Time | L _{eq} | L ₁₀ | L ₅₀ | L ₉₀ |
|------|-------------------------------------------------------------------|----------|-----------------|-----------------|-----------------|-----------------|
| 1 | Southeast of the project site at Encanto Lane and Whirlaway Lane. | 11:37 AM | 57.7 | 56.2 | 49.3 | 46.6 |
| 2 | Lammers Road (Northwest Portion of ESP Site) | 12:45 PM | 69.4 | 53.2 | 44.7 | 39.2 |
| 3 | Northeaster portion of the ESP site along Corral Hollow Road. | 12:23 PM | 72.9 | 72.3 | 53.1 | 43.9 |

Source: Noise Monitoring Survey conducted by RBF Consulting, April 18, 2012.

MOBILE NOISE SOURCES

Vehicular Noise Sources

The Modified ESP site is in a relatively undeveloped area consisting of mostly agricultural land with residential properties dispersed throughout the area. These types of land uses typically generate little noise. Vehicles using local roadways generate the majority of noise within the Modified ESP site. To assess the potential for project-generated noise impacts, it is necessary to quantify the existing traffic-generated noise. Noise models were run using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108) together with several roadway and site parameters. These parameters determine the projected impact of vehicular traffic noise and include the roadway cross-section (e.g., number of lanes), roadway width, average daily traffic (ADT), vehicle travel speed, percentages of auto and truck traffic, roadway grade, angle-of-view, and site conditions ("hard" or "soft"). The model does not account for ambient noise levels (i.e., noise from adjacent land uses) or topographical differences between the roadway and adjacent land uses. Noise projections are based on modeled vehicular traffic as derived from the *Transportation Impact Analysis for the Ellis Specific Plan in the City of Tracy*, prepared by Fehr & Peers, December 2007 (updated and validated by RBF Consulting in April 2012). Refer to Appendix E.



Source: RBF Consulting (2012)



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Noise Measurement Locations

Figure 4.10-2

CITY OF TRACY MUNICIPAL AIRPORT NOISE

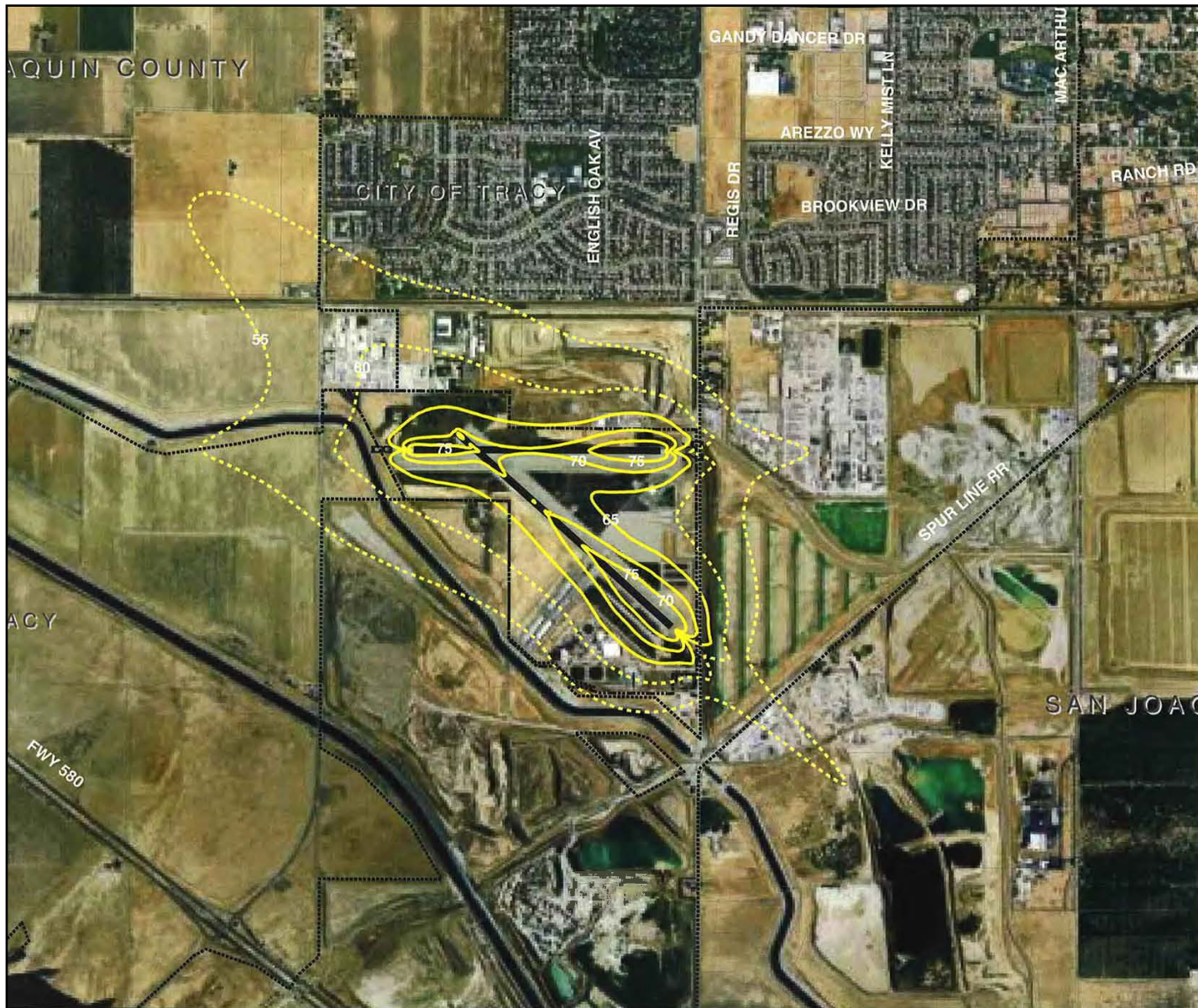
The Tracy Municipal Airport is located in the southern portion of the City between Tracy Boulevard and Corral Hollow Road, and is a source of noise in its vicinity. According to the *San Joaquin County Airport Land Use Compatibility Plan Update* (ALUCP) (prepared in July 2009), the existing and forecast operations for the airport total 59,701 (including 20,475 local operations and 39,226 itinerant operations). A majority of the local operations are performed by single-engine piston aircraft involved in flight training at the airport. In addition, aerobatic activities occur frequently within the confines of the designated aerobatic box located directly east of the airport. Itinerant operations are also dominated by single-engine piston aircraft, with a small percentage of operations performed by turboprop and business jet aircraft, aerial applicators, powered parachutes, ultralight aircraft, and helicopters.

The long range forecast for Tracy Municipal Airport indicates a total of 107,200 annual operations. The Master Plan (1998) also indicated the fleet mix distribution for operations at the airport would be 66 percent single-engine piston, 29.4 percent multi-engine piston, 3 percent turboprop, and 1.4 percent business jet. These percentages were applied to the itinerant operations.

The ALUCP contains CNEL noise contours for Tracy Municipal Airport, as shown in Figure 4.10-3 (Tracy Municipal Airport 2008 Noise Exposure Contours), and Figure 4.10-4 (Tracy Municipal Airport 2028 Noise Exposure Contours). As shown in these Figures, a portion of the Modified ESP would be within the 60 dBA and 55 dBA CNEL noise contours. Table 4.10-4 (Existing Traffic Noise Levels) identifies traffic noise levels within the vicinity of the ESP.

TABLE 4.10-4 EXISTING TRAFFIC NOISE LEVELS

| Roadway Segment | ADT | dBA @ 100 feet from Roadway Centerline | Distance from Roadway Centerline to: (Feet) | | |
|----------------------------------|--------|----------------------------------------------|---------------------------------------------|-------------------------|-------------------------|
| | | | 60 Ldn Noise Contour | 65 Ldn Noise Contour | 70 Ldn Noise Contour |
| Corral Hollow Road | | | | | |
| North of Eastbound Ramps | 6,482 | 68.5 | 818 | 259 | 82 |
| North of Westbound Ramps | 7,746 | 69.3 | 977 | 309 | 98 |
| South of Linne Road | 7,592 | 69.2 | 957 | 303 | 96 |
| North of Linne Road | 6,153 | 68.3 | 776 | 245 | 78 |
| South of Valpico Road | 7,527 | 69.2 | 950 | 300 | 95 |
| North of Valpico Road | 8,785 | 69.9 | 1,109 | 351 | 111 |
| South of 11 th Street | 28,503 | 74.9 | 3,597 | 1,138 | 360 |
| North of 11 th Street | 29,986 | 75.2 | 3,784 | 1,197 | 378 |
| South of Grant Line Road | 22,717 | 74.0 | 2,864 | 906 | 286 |
| North of Grant Line Road | 10,778 | 70.7 | 1,358 | 430 | 136 |
| Schulte Road | | | | | |
| West of Lammers Road | 8,050 | 69.7 | 1,015 | 321 | 102 |
| Lammers Road | | | | | |
| South of Schulte Road | 5,134 | 67.8 | 648 | 205 | 65 |
| North of Schulte Road | 9,301 | 70.3 | 1,174 | 371 | 117 |
| Linne Road | | | | | |
| East of Corral Hollow Road | 4,650 | 67.3 | 587 | 186 | 59 |
| Valpico Road | | | | | |
| East of Corral Hollow Road | 8,669 | 67.0 | 547 | 173 | 55 |
| West of Corral Hollow Road | 6,353 | 65.7 | 4,010 | 127 | 40 |



LEGEND

- Airport Property
- Municipal Boundary
- 2008 Noise Exposure Contour-Marginal Effect
- 2008 Noise Exposure Contour-Significant Effect

Source: Aerial Photography dated 2006.
 San Joaquin Geographic Information System, February 2008.
 Coffman Associates analysis.

Source: San Joaquin County Aviation System Airport Final Land Use Compatibility Plan Update (July 2009)



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Tracy Municipal Airport 2008 Noise Exposure Contours

Figure 4.10-3



LEGEND

- Airport Property
- Municipal Boundary
- 2028 Noise Exposure Contour-Marginal Effect
- 2028 Noise Exposure Contour-Significant Effect

Source: Aerial Photography dated 2006.
 San Joaquin Geographic Information System, February 2008.
 Coffman Associates analysis.

Source: San Joaquin County Aviation System Airport Final Land Use Compatibility Plan Update (July 2009)



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Tracy Municipal Airport 2028 Noise Exposure Contours

Figure 4.10-4

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TABLE 4.10-4 EXISTING TRAFFIC NOISE LEVELS (CONTINUED)

| Roadway Segment | ADT | dBA @ 100 feet from Roadway Centerline | Distance from Roadway Centerline to: (Feet) | | |
|-------------------------------|--------|----------------------------------------------|---------------------------------------------|-------------------------|-------------------------|
| | | | 60 Ldn Noise Contour | 65 Ldn Noise Contour | 70 Ldn Noise Contour |
| 11th Street | | | | | |
| East of Corral Hollow Road | 25,742 | 76.8 | 5,699 | 1802 | 570 |
| West of Corral Hollow Road | 24,091 | 76.5 | 5,331 | 1686 | 533 |
| Grant Line Road | | | | | |
| East of Corral Hollow Road | 18,679 | 72.9 | 2354 | 744 | 235 |
| West of Corral Hollow Road | 24,091 | 74.0 | 3,039 | 961 | 304 |
| East of Byron Road | 15,029 | 72.0 | 1,896 | 600 | 190 |
| Byron Road | | | | | |
| South of Grant Line Road | 8,340 | 66.8 | 526 | 166 | 53 |
| North of Grant Line Road | 12,739 | 68.8 | 803 | 254 | 80 |

Source: Traffic modeling is based upon data contained within the *Transportation Impact Analysis for the Ellis Specific Plan in the City of Tracy*, prepared by Fehr & Peers, December 2007 (updated and validated by RBF Consulting in April 2012).

Railroad Noise

According to the City of Tracy General Plan, the Altamont Commuter Express (ACE) provides passenger rail service between Stockton and San Jose. The ACE Station for the City of Tracy is located on Tracy Boulevard at Linne Road. There are currently three ACE trains per day which arrive in the City of Tracy between 4:00 AM and 7:00 AM and return between 5:00 PM and 7:00 PM.

There are three major rail lines that enter the City from the east, two of which merge and subsequently exit to the west. The rail lines are owned by Union Pacific Railroad (UPRR). The main line runs through south Tracy along Linne Road. This line is used both as an industrial (10 freights per day) and commuter (via ACE train service) rail. Train noise contour distances are shown in Table 4.10-5 (Train Noise Contour Distances).

TABLE 4.10-5 TRAIN NOISE CONTOUR DISTANCES

| Railroad Facility | Distance to Noise Contour (Feet) | | |
|--------------------------------------------------------------------|----------------------------------|--------------------|--------------------|
| | 70 L _{dn} | 65 L _{dn} | 60 L _{dn} |
| UPRR Railroad (approximately 10 freight and ACE trains per day) | 60 | 120 | 260 |
| UPRR Railroad Local Freight to Stockton | 60 | 120 | 260 |
| UPRR Railroad Leased to California Northern Railroad | 60 | 120 | 260 |

Source: City of Tracy, *City of Tracy General Plan*, Noise Element, Table 9-5, Train Noise Contour Distances.

Stationary Noise Sources

The primary sources of stationary noise in the ESP vicinity are urban-related and rural related activities (i.e., mechanical equipment, loading and unloading areas, parking lots, landscape maintenance, conversations [normal to loud], farming equipment, and recreational areas) and residential activities (i.e., air conditioners, pool and spa equipment, landscape maintenance, and conversations). Noise associated with these sources may represent a single-event noise occurrence, short-term, or long-term/continuous noise.

4.10.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based on Appendix G of the State CEQA Guidelines. Noise impacts resulting from implementation of the proposed Project could be considered significant if they would:

- ◆ Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- ◆ Expose persons to or generate excessive ground borne vibration or ground borne noise levels;
- ◆ Substantially permanently increase ambient noise levels in the Project vicinity above levels existing without the Project;
- ◆ A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project;
- ◆ For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project site to excessive noise levels; and,
- ◆ For a project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project site to excessive noise levels.

SIGNIFICANCE OF CHANGES IN AMBIENT NOISE LEVELS

An off-site traffic noise impact typically occurs when there is a discernable increase in traffic and the resulting noise level exceeds an established noise standard. In community noise considerations, changes in noise levels greater than 3 dB are often identified as substantial, while changes less than 1 dB will not be discernible to local residents. A 5 dB change is generally recognized as a clearly discernable difference.

As traffic noise levels at sensitive uses approach or exceed the 65 CNEL standard, a 3.0 dB increase as a result of the project is used as the increase threshold for the project. Thus, the project would result in a significant noise impact when a permanent increase in ambient noise levels of 3.0 dB occurs upon project implementation and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

VIBRATION IMPACTS

With respect to ground-borne vibration from construction activities, the Federal Transit Administration (FTA) has adopted guidelines/recommendations to limit ground-borne vibration based on the age and/or condition of the structures that are located in close proximity to construction activity.

A technical discussion of construction activity-related vibration is provided in the FTA publication titled *Transit Noise and Vibration Impacts Assessment* (May 2006). As described therein, a ground-borne vibration level of 0.2 inch-per-second peak particle velocity (PPV) should be considered as damage threshold criterion for structures deemed “fragile,” and a ground-borne vibration level of 0.12 inch-per-second PPV should be considered as damage criterion for structures deemed “extremely fragile,” such as historic buildings. With respect to structures that are considered “well engineered,” a ground-borne vibration damage threshold criterion of 2.0 inch-per-second PPV should be considered as damage criterion. The analysis has assumed a conservative threshold of 0.2 inch-per-second PPV.

POTENTIAL IMPACTS AND MITIGATION MEASURES

ON-SITE LONG-TERM OPERATIONAL IMPACTS

Impact 4.10-1 Implementation of the Modified ESP would result in an increase in ambient noise levels due to operational noise impacts.

Determination: Significant and Unavoidable Impact for Railroad Noise.

The following analysis is in two parts. First, it analyzes “Stationary Source Impacts,” which includes discussion of noise-related impacts of the proposed Project on the surrounding environment as a result of proposed on-site uses. Second, it analyzes “Mobile Source Impacts,” which includes a discussion of the noise-related impacts from existing noise sources such as noise from vehicles, trains, and the airport on future occupants of the Project site. It should be noted that based on recent case law, this latter analysis of Mobile Noise Impacts is not required by CEQA, insofar as CEQA is intended to require analysis of a project’s impact on the environment, but not the impact of the existing environment on the proposed project. Nonetheless, this EIR provides this analysis for informational purposes, as well as to ensure full compliance with the October 31, 2011 Statement of Decision and Judgment referenced above.

Stationary Source Impacts

Implementation of the ESP would both create new noise sources and would eliminate/relocate existing noise sources. The major noise sources associated with the Modified ESP that may impact nearby residences include the following:

- ◆ Mechanical equipment (i.e., trash compactors, air conditioners, etc.);
- ◆ Slow moving delivery/supply trucks on the ESP site, approaching and leaving the loading docks;
- ◆ Activities at the loading docks (i.e., maneuvering and idling trucks, banging and clanging of equipment);
- ◆ Parking lots (i.e., car door slamming, car radios, engine start-up, and car pass-by);
- ◆ Landscape maintenance;
- ◆ Athletic fields (i.e., practices, games, and athletic tournaments);
- ◆ Tennis courts; and
- ◆ Outdoor pool.

Although several noise sources would be introduced, many of them would operate for very brief time periods, such as delivery truck movements, trash compactors, and parking lot sweepers. These types of sources usually do not operate concurrently. Other noise sources, such as air conditioning equipment, parking lot traffic, and loading dock activities, operate for comparatively longer periods of time. Further, it is noted that the projected noise levels presented below do not account for any noise attenuation due to existing walls, berms, intervening structures, or topography.

Implementation of the Modified ESP would encourage development of mixed-use developments along key corridors, transit-oriented districts, and neighborhood activity centers where noise levels may be appropriate for commercial uses but either “conditionally acceptable” or “normally unacceptable” for residential use. However, compliance with City Municipal Noise Ordinance limits and General Plan policies would reduce the potential for noise compatibility conflicts in mixed-use developments to a less than significant level.

Residential Areas

Noise that is typical of residential areas includes children playing, pet noise, amplified music, car repair, pool and spa equipment, woodworking, and home repair. Noise from residential stationary sources would primarily occur during the “daytime” activity hours of 7:00 AM to 10:00 PM. Furthermore, the residences would be required to comply with the noise standards set forth in the City’s General Plan and Municipal Code.

Mechanical Equipment

Mechanical equipment (heating, ventilation, and air conditioning [HVAC] units) would be located throughout the Modified ESP site in residential, industrial, institutional, and commercial land uses. HVAC units typically generate 55 dBA at 50 feet from the source. Noise generated by mechanical equipment on the ESP site could exceed the City’s noise standards unless mitigated. Compliance with the General Plan policies and Municipal Code would reduce noise impacts from mechanical equipment. Noise levels from mechanical equipment would be further reduced with implementation of the recommended mitigation requiring orientation of equipment away from any sensitive receptors, proper selection of equipment, and installation of equipment with proper acoustical shielding. Following compliance with Mitigation Measure 4.10-1b, a less than significant impact is anticipated.

Slow-Moving Trucks (Deliveries) and Loading Docks

Noise sources at loading docks may include maneuvering and idling trucks, truck refrigeration units, forklifts, banging and clanging of equipment (i.e., hand carts and roll-up doors), noise from public address systems, and voices of truck drivers and employees. The maximum noise levels of slow-moving heavy and small trucks range between 70 and 73 dBA at 50 feet. Noise sources at loading areas may include maneuvering and idling trucks, truck refrigeration units, forklifts, banging and clanging of equipment (i.e., hand carts and roll-up doors), noise from public address systems, and voices of truck drivers and employees. The maximum noise level associated with loading docks is typically 73 dBA at 75 feet.

Final location of loading docks have not been determined. Loading docks would be designed per the final end users, and configurations may vary. To mitigate noise levels resulting from activities at loading docks, loading docks constructed within 250 feet of a residential use shall be designed to have either a depressed (i.e., below grade) loading dock area, an internal bay, or a wall to break the line of sight between residential land uses and other noise-sensitive uses and loading operations. Prior to issuance of conditional use permits, an acoustical analysis shall be performed to demonstrate that operation of potential loading docks does not result in noise levels that exceed the City’s Municipal Code standard of 55 dBA at the exteriors of nearby residences’ living areas or other sensitive uses. It is anticipated that with the implementation of Mitigation Measure 4.10-1a, impacts would be less than significant.

Parking Areas

Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys may be an annoyance to adjacent noise-sensitive receptors. Conversations in parking areas may also be an annoyance to adjacent sensitive receptors.

Parking lot noise levels at or beyond the property line of the specified use could exceed the City’s noise standards within the Municipal Code. This impact is considered potentially significant unless

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mitigated. Mitigation is recommended requiring future applicants to demonstrate that all feasible sound attenuation has been incorporated into proposed parking areas (e.g., landscaping and brushed driving surfaces), so that noise from the parking areas is minimized to the greatest extent practicable. Following implementation of the proposed mitigation measures, noise generated by parking lots is not expected to exceed the Municipal Code noise standards.

Landscape Maintenance

Development of the proposed uses would introduce new landscaping requiring periodic maintenance. Noise generated by a gasoline-powered lawnmower is estimated to be approximately 70 dBA at a distance of five feet. Maintenance activities would operate during daytime hours for brief periods of time and would increase ambient noise levels in the ESP vicinity. Section 4.12.840 of the Municipal Code exempts minor maintenance to real property (i.e., use of lawn mowers, power brushes, leaf blowers, etc.) from the noise standards, provided activities take place between the hours of 7:00 AM and 10:00 PM. Therefore, with adherence to the Municipal Code, a less than significant impact is anticipated in this regard.

Neighborhood Park

Activities at future parks within the ESP site could expose surrounding sensitive receptors to noise generated from people gathering. Potential impacts from park activities would be minimized with adherence to the City's Municipal Code, which prohibits the use of all public parks and recreation areas within the City limits between the hours of 11:00 PM to 6:00 AM. Impacts in this regard are considered less than significant.

Community Pool

Pool Equipment Noise

Mechanical equipment, such as pool pumps and filters, typically produce noise levels of 55 dBA at 50 feet from the source. Since the equipment noise would be a constant noise source, it would require compliance with the City standards. The pool equipment would be enclosed, which would provide an approximately 20 dBA reduction in noise levels. Therefore, the noise level would be reduced to 35 dBA. This projected noise level is within the City's noise standards, and therefore impacts in this regard would be less than significant.

Pool Activity Noise

Peak pool activity noise typically ranges from 65.6 dBA L_{max} to 87.5 dBA L_{max} at 35 feet. Although pool activity may result in peak noise instances of 87.5 dBA L_{max} at 35 feet, the continuous noise level is not anticipated to exceed the City's noise standard. Noise from pool activities would be further attenuated by distance and intervening structures. As a result, the continuous noise level is not anticipated to exceed the City's noise standards. Impacts would be less than significant.

Conclusion

Overall, analysis has concluded that with mitigation and/or adherence to Municipal Code requirements, stationary noise impacts from mechanical equipment, deliveries, loading/unloading activities, parking lot noise, landscape maintenance, neighborhood parks, and community pool would be reduced to a less than significant level.

Mobile Source Impacts

As noted in Table 4.10-11 (Cumulative Exterior Noise Exposure Adjacent to Nearby Roadways), the 65 and 70 dBA traffic noise contour lines along Corral Hollow Road and Lammers Road would extend onto the Modified ESP area. Thus, future residential uses introduced along these roadways could be exposed to mobile source noise levels that exceed the City's established maximum acceptable exterior noise level of 60 dBA for single-family residential uses and 65 dBA for multi-family residential uses.

No detailed site plans associated with the Modified ESP are available at this time to determine specific noise impacts to future residential uses. Thus, at this time, traffic noise impacts to future residential uses along Corral Hollow Road and Lammers Road are considered to be significant. Mitigation has been recommended requiring subsequent noise studies for proposed development along Corral Hollow Road and Lammers Road that would be within the 65 or 70 dBA traffic noise contours to demonstrate that noise levels have been properly accounted for and attenuated in accordance with established City standards; refer to Mitigation Measure 4.10-1f. The analysis would verify that residences are adequately shielded and/or located at an adequate distance from mobile noise sources. In addition, proper noise attenuation such as Title 24 (Noise Insulation Standards), sound walls, and proper building orientation would help meet the City's interior and exterior noise standards.

Railroad Train Noise

The following train noise analysis is based on the *Updated Railroad Train Noise and Vibration Mitigation Study*, prepared by Illingworth and Rodkin, Inc. (dated May 25, 2012). This study was peer reviewed by RBF Consulting in May 2012. Applicable findings and mitigation measures are included below.

During the site visit, noise levels adjacent to the railroad tracks were measured to be 59.4 dBA with no trains present, and 94.8 dBA as a train passed. The train noise contour distances set forth in Table 4.10-5 (Table 9-5 of the Tracy Noise Element) shows the noise exposure is 70 Ldn at a distance of 60 feet from the tracks, 65 Ldn 120 feet from the tracks, and 60 Ldn 260 feet from the rail tracks. Based on the General Plan data, residential outdoor activity areas within 60 feet of the railroad tracks would exceed the noise threshold of 70 Ldn for single- and multi-family outdoor areas near railroad trains established in General Plan Policy P9. Residential buildings within 260 feet of the railroad tracks would require an analysis of interior noise levels and the incorporation of the measures necessary to attenuate interior noise to acceptable levels established in General Plan Policy P7.

The maximum noise levels from individual train pass-bys vary depending upon the location and duration of use of railroad train warning horns. Because of the proximity of at-grade crossings, warning horns are used in the site's vicinity. Maximum noise levels at a distance of approximately 100 feet from the tracks would be expected to range from about 85 to 95 dBA based on measurements within the General Plan and Table 4.10-3.

Long-term noise measurement data was developed as part of the General Plan. Approximately 13 train movements were identified along this rail line in a 24-hour period. The trains were distributed throughout a 24-hour day, with seven of the trains occurring during the daytime period (7:00 AM to 10:00 PM) and six of the trains in the nighttime period (between 10:00 PM and 7:00 AM). It is only the daytime trains that affect the noise environment in the private outdoor activity areas of a residential development. When the average noise level during the daytime from the daytime trains is calculated separately from the nighttime trains or the 24-hour average, the average daytime noise level

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is 57 dBA Leq,¹ which is below the City's noise limits for residential uses adjacent to rail tracks (General Plan Policy P9). The seven daytime trains only affect the noise environment for a time period of less than 10 minutes throughout the entire 15-hour period. Therefore, railroad train noise along this corridor would not have a significant effect on outdoor activity areas.

The City's noise policies specifically address exterior noise in private use areas in new single-family residential developments. One option would be to maintain a buffer distance of at least 60 feet between the railroad tracks and the private use areas to comply with General Plan Policy P9. Another option would be to orient the homes so that they would face the railroad tracks placing the private outdoor use areas behind the homes. This could be accomplished with a single-loaded street that parallels the railroad tracks, possibly with a landscaping strip along the railroad track side and a sidewalk and the front yards of the homes located on the opposite side of the street. In this instance, the rear yard noise exposure would comply with the 70 Ldn standard because of the shielding provided by the buildings and the extra buffer distance provided by the street. Such a plan also has the further advantage of orienting bedrooms away from the railroad tracks.

The residential interior noise standards would apply to all units located where the noise exposure is 60 dBA or greater for dwelling units located within approximately 260 feet of the railroad corridor. The residential buildings would be exposed to a day/night noise level of about 65 Ldn at a building setback about 110 to 120 feet from the railroad tracks.² Standard residential construction with closed windows provides at least 20 dBA of noise reduction when going from outside to inside,³ so the 45 Ldn interior noise standard would likely be met with standard construction.

The issue is with the maximum instantaneous noise from each individual train pass-by. The City requires that typical noise levels not exceed 50 dBA in bedrooms and 55 dBA in other rooms to minimize speech, sleep, and activity interference indoors (refer to General Plan Policy P7). Noise measurements along the rail line indicate that maximum exterior noise levels would be expected to range from 85 to 95 dBA at the building facades. This means that approximately 35 to 45 dBA of outdoor-to-indoor noise reduction would be required at bedrooms and 30 to 40 dBA of outdoor-to-indoor noise reduction for other rooms. The analysis of the building sound insulation requirements is somewhat complex. There are two noise sources that affect this, the train horn which is in the mid-frequency range, and the noise of the engine and cars that is at a lower amplitude but lower in frequency. Normally, to achieve 35 to 45 dBA of noise reduction from railroad train noise, exterior walls must incorporate special noise control treatments such as staggered studs or resilient channels, stucco or an alternative heavy cement board siding, and high-performance sound-rated windows and doors. Similar but slightly lesser treatments would be required in other rooms oriented towards or perpendicular to the railroad tracks. The facades of the buildings facing away from the railroad tracks would require standard or slightly better than standard building elements. All dwelling units would require forced air mechanical ventilation or air conditioning, as appropriate for the climate, so that the occupants can control the noise intrusion by keeping the windows closed if they so chose. Where a row of homes would shield the subsequent row of homes, a lesser degree of treatment would be required. This level of analysis would occur during the detailed design phase of the project's buildings.

¹ Illingworth and Rodkin, Inc., *Ellis Property, Tracy, CA – Updated Railroad Train Noise and Vibration Mitigation Study*, May 25, 2012.

² Ibid.

³ United States Department of Housing and Urban Development, *The Noise Guidebook*, March 1995 (updated February 2009).

No detailed site plans, grading plans, floor plans, elevations, building orientation diagrams, building material palettes, or mechanical drawings associated with the Modified ESP are available at this time to determine specific noise impacts to future residential uses. Thus, at this time, noise impacts to future residential uses along the Union Pacific Railroad are considered to be significant. Mitigation Measure 4.10-1g would be required to ensure that subsequent noise studies are prepared for proposed development within 260 feet of the Union Pacific Railroad to ensure that residences are adequately shielded and/or located at an adequate distance from railroad noise sources.

Supplementary Safety Measures

Supplementary Safety Measures (SSMs) are engineering improvements installed at highway-rail grade crossings within a quiet zone that would reduce the risk of a collision at the crossing. SSMs are installed to reduce the risk level either to the level that would have existed if the train horn were sounded (compensating for the lack of the train horn) or to a level below the Nationwide Significant Risk Threshold. The Nationwide Significant Risk Threshold is an average of the risk indexes for all of the gated crossings nationwide where train horns are routinely sounded.

Approved SSMs include:

- ◆ Four quadrant gates;
- ◆ Gates with medians or channelization devices, also known as traffic separators;
- ◆ One-way streets equipped with gates that fully block the street;
- ◆ Temporary closure (i.e., nighttime closure); and/or
- ◆ Permanent closure.

Airport

The Tracy Municipal Airport is located southeast of the Modified ESP site bordering Corral Hollow Road and Linne Road. As indicated in Figure 4.10-3, the southeast portion of the Modified ESP site is located within areas of the 55 to 60, and 60 to 65 CNEL Airport Noise Contours. As the ALUCP notes that the maximum CNEL considered normally acceptable for new residential land uses is 60 dBA, the areas of the Modified ESP located within the 60 to 65 dBA CNEL contour are of the greatest concern. Limited Use and Residential Mixed Low land uses are proposed in an area that is within the 60 to 65 CNEL Airport Noise Contour. Uses that would be developed within the Limited Use area would include uses such as agricultural production and sales, construction business, nurseries, boat storage, and art studios. The ALUCP and City's noise standards for these types of uses are 70 dBA, and therefore do not require further study or mitigation.

Residential uses proposed in the Residential Mixed zone located within the 60 to 65 dBA CNEL contour could be exposed to noise levels that exceed both the ALUCP and the City's maximum acceptable exterior noise levels of 60 dBA for single-family residential uses and 65 dBA for multi-family residential uses, as well as the ALUCP and City's interior noise standard of 45 dBA. No detailed site plans associated with the Modified ESP are available at this time to determine specific noise impacts from airport noise to future residential uses. Thus, at this time, noise impacts to future residential uses within the 60 to 65 dBA CNEL contour are considered to be significant. However, implementation of Mitigation Measure 4.10-1h would require future residential uses proposed within the 60 to 65 dBA CNEL airport noise contour to adhere to the ALUCP, which requires residential

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uses to incorporate sound insulation to reduce exterior-to-interior noise levels by at least 25 dBA⁴, and also requires an avigation easement and a fair disclosure statement as conditions of development approval. Implementation of Mitigation Measure 4.10-1h would ensure both the ALUCP and City noise standards are achieved. Thus, impacts from airport noise to future on-site sensitive uses would be less than significant with implementation of Mitigation Measure 4.10-1h.

Conclusion

Implementation of the Modified ESP would both create new noise sources and would eliminate/relocate existing noise sources. The analysis above determined that impacts related to on-site stationary sources would be reduced to a less than significant level with compliance with the City's Municipal Code and implementation of Mitigation Measures 4.10-1a through 4.10-1e. Mobile source noise impacts related to roadway (traffic) noise and airport noise would also be reduced to a less than significant level with implementation of Mitigation Measure 4.10-1f and Mitigation Measure 4.10-1h, respectively. However, despite the implementation of Mitigation Measure 4.10-1g, railroad train noise would remain significant and unavoidable, as there are no detailed site plans available at this time to determine specific noise impacts to future residential uses. Thus, at this time, noise impacts to future residential uses along the Union Pacific Railroad are considered to be significant.

Mitigation Measures

- 4.10-1a: Prior to issuance of a Building Permit, the Project Applicant/future applicants shall demonstrate, to the satisfaction of the City of Tracy, that stationary noise sources are placed such that noise levels would not exceed the standards indicated in Tracy Municipal Code Section 4.12.750 (General Sound Level Limits).
- 4.10-1b: Prior to issuance of any Building Permit, the Project Applicant/future applicants shall demonstrate, to the satisfaction of the City of Tracy, compliance with the following:
- ◆ To the extent possible, all mechanical equipment shall be oriented away from the nearest noise-sensitive receptors; and
 - ◆ All mechanical equipment shall be screened and enclosed to minimize noise.
- 4.10-1c: Where an institutional or commercial zone abuts a residential zone or residential use, all deliveries of goods and supplies, trash pick-up (including the use of parking lot trash

⁴ According to *The Noise Guidebook* (updated February 2009), prepared by the United States Department of Housing and Urban Development, a typical building can reduce noise levels by 20 dBA with the windows closed. *The Noise Guidebook* states that additional construction measures such as increasing the width of airspace, increasing the spacing between studs, using staggered studs, using resilient materials to hold studs and panels together, using dissimilar layers in walls, adding acoustical blankets, and sealing cracks and edges can each reduce sound transmission up to an additional 10 dB. Furthermore, in 1979, the U.S. Congress authorized the Federal Aviation Administration to devise technology and programs to attempt to insulate homes near airports (Aviation Safety and Noise Abatement Act of 1979). The program has been effective for residential and school interiors, and some of the first airports at which the technology was applied were San Francisco International Airport, Seattle-Tacoma International Airport, and San Jose International Airport. Some of the methods that have been used to reduce aircraft noise under this program have been building retrofit strategies such as roof upgrading, window glazing improvement, fireplace baffling, and caulking construction seams. Many existing airports also have voluntary residential noise mitigation programs which provide building retrofits for sensitive uses in areas with high levels of aircraft noise (i.e., Los Angeles International Airport [http://www.lawa.org/welcome_LAWA.aspx?id=1092]).

sweepers), and the operation of machinery or mechanical equipment which emits noise levels in excess of 65 dBA, as measured from the closest property line to the equipment, shall only be allowed between the hours of 7:00 AM and 10:00 PM, unless otherwise specified in an approved conditional use permit or other discretionary approval.

4.10-1d: Directional speakers shall be shielded and/or oriented away from off-site residences to the satisfaction of the City of Tracy.

4.10-1e: All feasible sound attenuation shall be incorporated into the parking areas (i.e., landscaping and brushed driving surfaces), such that parking lot noise would not exceed the standards indicated in Tracy Municipal Code Section 4.12.750 (General Sound Level Limits).

4.10-1f: Prior to the issuance of Grading Permits, any development along the following segments of Corral Hollow Road and Lammers Road that falls within the 65 and 70 dBA traffic noise contours shall be designed in compliance with the Uniform Building Code (UBC), and an Acoustical Noise Analysis shall be prepared to ensure that the City of Tracy's exterior and interior noise level standards defined in General Plan Figure 9-3, *Land Use Compatibility for Community Noise Environment*, are met at all residential, commercial, and recreational land uses:

- ◆ Corral Hollow Road
 - North of I-580 Eastbound Ramps
 - North of I-580 Westbound Ramps
 - South of Linne Road
 - North of Linne Road
 - South of Valpico Road
 - South of Valpico Road
 - North of Grant Line Road
- ◆ Lammers Road
 - South of Schulte Road
 - North of Schulte Road
- ◆ Linne Road
 - East of Corral Hollow
- ◆ Grant Line Road
 - East of Byron Road
- ◆ Byron Road
 - South of Grant Line Road

Residential buildings or structures shall be designed to ensure interior noise levels do not exceed 45 dBA. In addition, individual developments shall, to the extent feasible, implement site-planning techniques such as the following:

- ◆ Increasing the distance between the noise source and the receiver;
- ◆ Using non-noise sensitive structures such as garages to shield noise-sensitive areas;
- ◆ Orienting buildings to shield outdoor spaces from a noise source;
- ◆ Incorporating architectural design strategies, which reduce the exposure of noise-sensitive spaces to stationary noise sources (i.e., placing bedrooms or balconies on the side of the house facing away from noise sources). These design strategies shall be implemented as required by the City to comply with City noise standards;
- ◆ Incorporating noise barriers, walls, or other sound attenuation techniques, as required by the City to comply with City noise standards; and

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- ◆ Modifying elements of building construction (i.e., walls, roof, ceiling, windows, and other penetrations) as necessary to provide sound attenuation. This may include sealing windows, installing thicker or double-glazed windows, locating doors on the opposite side of a building from the noise source, or installing solid-core doors equipped with appropriate acoustical gaskets.

4.10-1g: Prior to the issuance of Grading Permits, any residential development located within 260 feet of the Union Pacific railroad corridor shall have a Focused Acoustical Analysis prepared to fully analyze acoustical impacts and develop measures, if required, to ensure that the City's exterior standards of 70 dBA for residential areas, 50 dBA for interior bedrooms, and 55 dBA for other interior rooms would be achieved for the proposed land uses that are subject to noise from train pass-bys.

4.10-1h: Prior to the issuance of Building Permits, the Project Applicant/future project applicants shall demonstrate, to the satisfaction of the City of Tracy, that any residential development located within the future 60 to 65 dBA CNEL noise contour area for the Tracy Municipal Airport (as depicted in Exhibit 2TM-3 of the ALUCP) shall adhere to the noise compatibility criteria in ALUCP Table 3B. Specifically, any residential uses within the future 60 to 65 dBA CNEL noise contour area shall:

- ◆ Incorporate sound insulation to reduce exterior-to-interior noise levels by at least 25 dBA⁵;
- ◆ Require an avigation easement as a condition of development approval or building permit issuance; and
- ◆ Require a fair disclosure statement as a condition of development approval or building permit issuance.

SHORT-TERM CONSTRUCTION IMPACTS

Impact 4.10-2 Grading and construction within the area would result in temporary noise and/or vibration impacts to nearby noise-sensitive receivers.

Determination: Significant and Unavoidable Impact.

The Modified ESP proposes the development of numerous types of land uses throughout the Project site and a buildout or horizon year of 2030. This analysis presents a screening-level analysis to determine areas of potential noise impacts based on the proximity of sensitive receptors, typical noise levels associated with construction equipment, the potential for construction noise levels to interfere with daytime and nighttime activities, and whether construction noise audible to nearby receptors would occur outside of construction time limits specified in local ordinances.

The final construction scheduling of specific land uses within the Modified ESP site could lead to combined or collective impacts resulting from construction of specific overlapping phases or multiple land uses. Another factor considered in assessing whether a noise impact is significant or not is the frequency with which noise levels associated with Project construction might exceed the established standards. If exceedance of a noise standard may happen very rarely and/or briefly, this may not constitute a significant impact. This factor of noise frequency is not considered as part of this impact

⁵ Ibid.

analysis since there is not yet enough detailed information about the construction scenario for each phase of the Modified ESP to assess the potential construction noise impacts. This factor will be considered as part of the separate impact analysis to be conducted as further site specific plans are approved by the City of Tracy. Based on more detailed information about project construction activities and schedule, and site-specific information on the proximity of sensitive receptors, the site specific acoustical analysis may determine that impacts considered to be potentially significant and unavoidable at this program-level of review are instead significant but mitigable or less than significant for the project-specific level.

On-Site Construction Activities

Ground-borne noise and other types of construction-related noise impacts would typically occur during the initial site preparation, which can create the highest levels of noise but is also generally the shortest of all construction phases. High ground-borne noise levels and other miscellaneous noise levels can be created by the operation of heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, compactors, scrapers, and other heavy-duty construction equipment. Table 4.10-6 (Maximum Noise Levels Generated by Construction Equipment) indicates the anticipated equipment noise levels during the construction period. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

TABLE 4.10-6 MAXIMUM NOISE LEVELS GENERATED BY CONSTRUCTION EQUIPMENT

| Type of Equipment | Sound Levels at Maximum Engine Power with Mufflers at Indicated Distance (dBA) | | | |
|---------------------------|-----------------------------------------------------------------------------------|---------|----------|----------|
| | 25 Feet | 50 Feet | 100 Feet | 200 Feet |
| Air Compressor | 87 | 81 | 75 | 69 |
| Backhoe | 91 | 85 | 79 | 73 |
| Concrete Mixer | 91 | 85 | 79 | 73 |
| Crane, Mobile | 89 | 83 | 77 | 71 |
| Dozer | 86 | 80 | 74 | 68 |
| Grader | 91 | 85 | 79 | 73 |
| Jack Hammer | 94 | 88 | 82 | 76 |
| Loader | 85 | 79 | 73 | 67 |
| Paver | 95 | 89 | 83 | 77 |
| Pneumatic Tool | 91 | 85 | 79 | 73 |
| Pump | 82 | 76 | 70 | 64 |
| Roller | 80 | 74 | 68 | 62 |
| Saw | 84 | 78 | 72 | 66 |
| Scraper | 94 | 88 | 82 | 76 |
| Truck | 97 | 91 | 85 | 79 |
| Impact Pile Driver (peak) | 107 | 101 | 95 | 89 |

Note: Assumes a drop-off rate of 6 dBA per doubling of distance, which is appropriate for use in characterizing point-source (such as construction equipment) sound attenuation over a hard surface propagation path.

Source: Bolt, Beranek, and Newman, *Noise Control for Buildings and Manufacturing Plants*, 1987.

Table 4.10-7 (Typical Outdoor Construction Noise Levels) provides a description of construction noise levels during specific construction stages. The average noise levels presented in Table 4.10-7 are based on the quantity, type, and usage factors for each type of equipment that would be used during each construction stage. A reasonable worst-case assumption is that the three loudest pieces of

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equipment would operate simultaneously and continuously over at least one hour within a focused area of 15 yards of each other.

TABLE 4.10-7 TYPICAL OUTDOOR CONSTRUCTION NOISE LEVELS

| Construction Phase | Noise Level at 50 feet with Mufflers (dBA L_{eq}) | Noise Level at 100 feet with Mufflers (dBA L_{eq}) | Noise Level at 150 feet with Mufflers (dBA L_{eq}) | Noise Level at 200 feet with Mufflers (dBA L_{eq}) |
|--------------------|------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| Ground Clearing | 82 | 76 | 70 | 64 |
| Excavation/Grading | 86 | 80 | 74 | 68 |
| Foundations | 77 | 71 | 65 | 59 |
| Structural | 83 | 77 | 71 | 65 |
| External Finishing | 86 | 80 | 74 | 68 |

Source: Bolt, Beranek, and Newman, *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances*, 1971.

As shown in Table 4.10-7, the average construction period noise level is expected to range from 77 dBA to 86 dBA at a reference distance of 50 feet. For noise levels throughout the duration of construction activity, these conservative worst-case noise levels would be reduced to account for the percentage of time that the equipment actually operates on the construction site. Based on a standard noise attenuation rate of 6 dBA per doubling of distance for point sources, the worst-case construction-period noise level of 86 dBA at a distance of 50 feet would be approximately 80 dBA at 100 feet, and 74 dBA at 200 feet. Noise source control is the most effective method of controlling construction noise. Source controls, which limit noise, are the easiest to oversee on a construction project. Mitigation at the source reduces the problem everywhere, not just along one single path or for one receiver. The specification of equipment noise limits forces the use of modern equipment having improved engine insulation and mufflers; refer to Mitigation Measure 4.10-2.

As stated above, noise sensitive receptors near the construction site would, at times, experience excessive noise levels from construction activities; however, excessive construction-related noise levels generally would occur in the daytime hours only. The City of Tracy Municipal Code prohibits construction or repair work between the hours of 10:00 PM and 7:00 AM. Additionally, implementation of the recommended mitigation (i.e., engine muffling, placement of construction equipment, and strategic stockpiling and staging of construction vehicles), and compliance with the City of Tracy Municipal Code requirements, would serve to further reduce exposure to significant noise levels.

For construction noise, a “substantial” noise increase can be defined as interference with activities during the day and night. One indicator that construction noise could interfere with daytime activities would be speech interference, and an indicator that construction noise could interfere with nighttime activities would be sleep interference. This analysis uses the following criteria to define the significance of potential noise impacts:

- ◆ *Speech Interference.* Speech interference is an indicator of impact on typical daytime and evening activities. A speech interference criterion, in the context of impact duration and time of day, is used to identify substantial increases in noise from temporary construction activities. Noise peaks generated by construction equipment could result in speech interference in adjacent buildings if the noise level in the interior of the building exceeds 45 to 60 dBA. A typical building can reduce

noise levels by 20 dBA with the windows closed. This noise reduction could be maintained only on a temporary basis in some cases, since it assumes windows must remain closed at all times. Assuming a 20-dBA reduction with the windows closed, an exterior noise level of 70 dBA (Leq) at receptors would maintain an acceptable interior noise environment of 50 dBA. It should be noted that such noise levels would be sporadic rather than continuous in nature, because different types of construction equipment would be used throughout the construction process.

- ◆ *Sleep Interference.* Based on available sleep criteria data, an interior nighttime level of 35 dBA is considered acceptable. Assuming a 20-dBA reduction with the windows closed, an exterior noise level of 55 dBA at receptors would maintain an acceptable interior noise environment of 35 dBA. Since a 15-dBA reduction would occur with windows open, an exterior noise level of 50 dBA (Leq) would be required to maintain an acceptable interior noise environment of 35 dBA.

In general, most construction noise would exceed the speech interference criterion when heavy equipment is operated within approximately 500 feet of a sensitive receptor (distance ranges between 150 and 500 feet depending on the type of equipment operated). The sleep interference criterion would be exceeded at distances closer than approximately 3,000 feet with windows open or 900 feet with the windows closed (with operation of most types of construction equipment; greater setback distances would be required if trucks and impact equipment were to be operated at night). The nearest sensitive receptors (residential uses) are located approximately 150 feet from the boundaries of the ESP. Therefore, based on the conclusions above, a significant and unavoidable noise impact could occur. However, when construction hours and activities are defined for each site specific phase of the Modified Ellis Specific Plan, additional acoustical analysis would be conducted to determine potential construction noise impacts for specific facility locations and whether impacts could be mitigated to a less-than-significant level.

Vibration

Construction can generate varying degrees of ground-borne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Ground-borne vibrations from construction activities rarely reach levels that damage structures. The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. The peak particle velocities for construction equipment pieces anticipated to be used during Project construction are listed in Table 4.10-8 (Typical Vibration Levels for Construction Equipment).

As indicated in Table 4.10-8, based on the Federal Transit Administration data, vibration velocities from typical heavy construction equipment operations that would be used during Project construction range from 0.003 to 0.644 inch-per-second peak particle velocity (PPV) at 25 feet from the source of activity. At 75 feet from the source of activity, vibration velocities range from 0.001 to 0.124 inch-per-second PPV. With regard to the Modified ESP, ground-borne vibration would be generated primarily during site clearing and grading activities on-site and by off-site haul-truck travel. The PPV from bulldozer and heavy truck operations is shown to be 0.089 inch-per-second PPV and 0.076 inch-per-second PPV, respectively, at a distance of 25 feet. As each of these values is below the 0.2 inch-per-second PPV significance threshold, vibration impacts associated with construction would be less than significant, and no mitigation measures are required.

TABLE 4.10-8 TYPICAL VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

| Equipment | Approximate peak particle velocity at 25 feet (inches/second) | Approximate peak particle velocity at 75 feet (inches/second) |
|--------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| Impact Pile Driver | 0.644 | 0.124 |
| Sonic Pile Driver | 0.170 | 0.033 |
| Large Bulldozer | 0.089 | 0.017 |
| Caisson Drilling | 0.089 | 0.017 |
| Loaded trucks | 0.076 | 0.015 |
| Jackhammer | 0.035 | 0.007 |
| Small Bulldozer | 0.003 | 0.001 |

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

Mitigation Measures

4.10-2: Prior to the issuance of Grading Permits and to the satisfaction of the City of Tracy, the Project Applicant/future project applicants shall be required to implement feasible noise control measures to reduce daytime construction noise levels to meet the daytime speech interference criterion of 70 dBA for projects located within 500 feet of any noise-sensitive receptors (e.g., residences, schools, childcare centers, churches, hospitals, and nursing homes). Such control measures could include any of the following, as appropriate:

- ◆ Best available noise control techniques (including mufflers, intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) shall be used for all equipment and trucks in order to minimize construction noise impacts;
- ◆ If impact equipment (e.g., jack hammers, pavement breakers, and rock drills) is used during ESP construction, hydraulically or electric-powered equipment shall be used wherever feasible to avoid the noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used (a muffler can lower noise levels from the exhaust by up to about 10 dBA);
- ◆ Operation of equipment requiring use of back-up beepers shall be avoided near sensitive receptors to the extent feasible during nighttime hours (10:00 PM to 7:00 AM);
- ◆ Stationary noise sources shall be located as far from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used to ensure local noise ordinance limits are met to the extent feasible. Enclosure opening or venting shall face away from sensitive receptors. If any stationary equipment (e.g., ventilation fans, generators, dewatering pumps) is operated beyond the time limits specified by the pertinent noise ordinance, this equipment shall conform to the affected jurisdiction's pertinent day and night noise limits to the extent feasible;
- ◆ Material stockpiles as well as maintenance/equipment staging and parking areas shall be located as far as feasible from residential and school receptors; and
- ◆ A designated Project liaison shall be responsible for responding to noise complaints during the construction phases. The name and phone number of the liaison shall be conspicuously posted at construction areas and on all advanced notifications. This person shall take steps to resolve complaints, including periodic noise monitoring, if necessary. Results of noise monitoring shall be presented at regular Project meetings with the Project contractor, and the liaison shall coordinate with the contractor to modify any construction activities that generated excessive noise levels to the extent feasible.

OFF-SITE LONG-TERM OPERATIONAL (MOBILE SOURCE) IMPACTS

Impact 4.10-3 Traffic generated by the Modified ESP could result in significant impacts related to existing traffic noise in the planning area.

Determination: Significant and Unavoidable Impact.

The following discussion presents the potential off-site mobile source noise impacts on the surrounding environment as a result of project implementation. This analysis does not combine the stationary source analysis (refer to Impact 4.10-1) with the off-site mobile noise impact analysis, as stationary source noise levels are compared to standards within the Municipal Code which do not apply to mobile noise sources. Mobile noise levels are weighted differently than stationary source noise levels and thus, the two cannot be quantitatively combined and compared against the applicable standards.

Future development within the area would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of existing and proposed land uses. The “Existing Without Project” and “Existing With Project” conditions were compared to analyze interim conditions, while the “Cumulative Without Project” and “Cumulative With Project” were compared for long-term conditions (refer to Impact 4.10-4). As previously discussed, an increase of 3 dBA or greater in noise levels occurring from Project-related activities would be significant when the “No Project” noise level exceeds the applicable exterior standard at a noise sensitive use.

In Table 4.10-9 (Existing Conditions Noise Exposure Adjacent to Nearby Roadways), the dBA at 100 feet from the roadway centerline depicts the noise level perceived at 100 feet perpendicular to the centerline. Within the Modified ESP site, this is the typical distance to the midpoint of a rear yard for a receptor adjacent to a roadway. According to Table 4.10-9, under the “Existing Without Modified ESP” scenario, noise levels at a distance of 100 feet from centerline would range from approximately 65.7 dBA to 76.8 dBA. The highest noise levels under future “Existing Without Project” conditions would occur along 11th Street east of Corral Hollow Road. Noise levels along this roadway segment would be 76.8 dBA at 100 feet from the roadway centerline.

Under the “Existing With Modified ESP” scenario, noise levels at a distance of 100 feet from centerline would range from approximately 65.7 to 77.1 dBA. The highest noise levels under “Existing With Project” conditions would occur along 11th Street east of Corral Hollow Road. Noise levels along this roadway segment would be 77.1 dBA at 100 feet from the roadway centerline.

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TABLE 4.10-9 EXISTING CONDITIONS EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS

| Roadway Segment | Existing | | | | | Existing Plus Project | | | | | Difference in dBA @ 100 Feet from Roadway |
|----------------------------------|----------|-------------------------------------------------|------------------------------------------------|----------------------------|----------------------------|-----------------------|-------------------------------------------------|------------------------------------------------|----------------------------|----------------------------|----------------------------------------------------|
| | ADT | dBA @ 100 feet from Roadway Centerline | Distance from Roadway Centerline to: (Feet) | | | ADT | dBA @ 100 feet from Roadway Centerline | Distance from Roadway Centerline to: (Feet) | | | |
| | | | 60 Ldn Noise Contour | 65 Ldn Noise Contour | 70 Ldn Noise Contour | | | 60 Ldn Noise Contour | 65 Ldn Noise Contour | 70 Ldn Noise Contour | |
| Corral Hollow Road | | | | | | | | | | | |
| North of Eastbound Ramps | 6,482 | 68.5 | 818 | 259 | 82 | 9,649 | 70.4 | 1,218 | 385 | 122 | 1.9 |
| North of Westbound Ramps | 7,746 | 69.3 | 977 | 309 | 98 | 12,887 | 71.5 | 1,625 | 514 | 162 | 2.2 |
| South of Linne | 7,592 | 69.2 | 957 | 303 | 96 | 11,771 | 71.3 | 1,485 | 470 | 148 | 2.1 |
| North of Linne | 6,153 | 68.3 | 776 | 245 | 78 | 14,274 | 72.0 | 1,802 | 570 | 180 | 3.7 |
| South of Valpico | 7,527 | 69.2 | 950 | 300 | 95 | 17,480 | 72.9 | 2,207 | 698 | 227 | 3.7 |
| North of Valpico | 8,785 | 69.9 | 1,109 | 351 | 111 | 15,603 | 72.4 | 1,967 | 622 | 197 | 2.5 |
| South of 11 th Street | 28,503 | 74.9 | 3,597 | 1138 | 360 | 34,417 | 75.8 | 4,345 | 1374 | 435 | 0.9 |
| North of 11 th Street | 29,986 | 75.2 | 3,784 | 1197 | 378 | 34,062 | 75.8 | 4,295 | 1358 | 430 | 0.3 |
| South of Grant Line | 22,717 | 74.0 | 2,864 | 906 | 286 | 24,942 | 74.4 | 3,148 | 995 | 315 | 0.4 |
| North of Grant Line | 10,778 | 70.7 | 1,358 | 430 | 136 | 11,881 | 71.2 | 1,500 | 474 | 150 | 0.5 |
| Schulte Road | | | | | | | | | | | |
| West of Lammers | 8,050 | 69.7 | 1015 | 321 | 102 | 10,997 | 71.2 | 1,386 | 438 | 139 | 1.5 |
| Lammers Road | | | | | | | | | | | |
| South of Schulte | 5,134 | 67.8 | 648 | 205 | 65 | 13,429 | 72.0 | 1,693 | 535 | 169 | 4.2 |
| North of Schulte | 9,301 | 70.3 | 1,174 | 371 | 117 | 6,315 | 68.8 | 797 | 252 | 80 | -1.5 |
| Linne Road | | | | | | | | | | | |
| East of Corral Hollow | 4,650 | 67.3 | 587 | 186 | 59 | 8,591 | 70.1 | 1,083 | 342 | 108 | 2.8 |
| Valpico Road | | | | | | | | | | | |
| East of Corral Hollow | 8,669 | 67.0 | 547 | 173 | 55 | 12,436 | 68.6 | 785 | 248 | 78 | 1.6 |
| West of Corral Hollow | 6,353 | 65.7 | 4,010 | 127 | 40 | 6,366 | 65.7 | 401 | 127 | 40 | 0.0 |
| 11th Street | | | | | | | | | | | |
| East of Corral Hollow | 25,742 | 76.8 | 5,699 | 1802 | 570 | 27,419 | 77.1 | 6,065 | 1918 | 606 | 0.3 |
| West of Corral Hollow | 24,091 | 76.5 | 5,331 | 1686 | 533 | 26,742 | 76.9 | 5,913 | 1870 | 591 | 0.4 |
| Grant Line Road | | | | | | | | | | | |
| East of Corral Hollow | 18,679 | 72.9 | 2354 | 744 | 235 | 19,389 | 73.1 | 2,448 | 774 | 245 | 0.2 |
| West of Corral Hollow | 24,091 | 74.0 | 3,039 | 961 | 304 | 24,504 | 74.1 | 3,089 | 977 | 309 | 0.1 |
| East of Byron | 15,029 | 72.0 | 1,896 | 600 | 190 | 15,461 | 72.2 | 1,949 | 616 | 195 | 0.0 |
| Byron Road | | | | | | | | | | | |
| South of Grant Line | 8,340 | 66.8 | 526 | 166 | 53 | 9,088 | 67.2 | 574 | 181 | 57 | 0.4 |
| North of Grant Line | 12,739 | 68.8 | 803 | 254 | 80 | 13,055 | 68.9 | 823 | 260 | 82 | 0.1 |

Source: Traffic modeling is based upon data contained within the *Transportation Impact Analysis for the Ellis Specific Plan in the City of Tracy*, prepared by Fehr & Peers, December 2007.

Table 4.10-9 also compares the “Existing With Modified ESP” scenario to the “Existing Without Modified ESP” scenario. The highest noise level increases would occur along Corral Hollow Road. Changes in traffic noise levels in excess of the thresholds established are indicated in bold in Table 4.10-9. As indicated in Table 4.10-9, a potentially significant noise increase would occur along various segments of Corral Hollow Road, Schulte Road, Lammers Road, and Valpico Road. As indicated in Table 4.10-9, noise levels would increase by a maximum of 4.2 dBA. Typically, feasible mitigation measures for off-site roadway noise impacts includes repairing the roads with rubberized asphalt and developing sound walls or attenuation barriers to minimize noise impacts. Mitigation Measure 4.10-1f would reduce traffic noise impacts. However, this mitigation can only be imposed on on-site roadways. As impacts would also occur on off-site roadways and properties, it is usually infeasible for the applicant to implement these measures. Therefore, impacts to off-site uses from traffic noise would be considered significant and unavoidable since feasible mitigation measures would not be available to mitigate noise levels on all surrounding roadways to below thresholds.

Mitigation Measures

Refer to Mitigation Measure 4.10-1f.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact 4.10-4: Future development facilitated by the Modified ESP and other related cumulative projects could result in cumulatively considerable noise impacts.

Determination: Significant and Unavoidable Impact.

Cumulative Stationary Noise

The Modified ESP would introduce the use of stationary equipment that would increase noise levels within the area. Based on the long-term stationary noise analysis, impacts from sources such as mechanical equipment, delivery trucks, parking lots, residential uses, landscape maintenance, and recreational uses would be less than significant with adherence to the Municipal Code and Mitigation Measures 4.10-1a and 4.10-1b. Because noise dissipates as it travels away from its source, noise impacts from on-site stationary sources would be limited to each of the respective sites and their vicinities. Additionally, existing community walls, sound walls, and intervening structures between the stationary noise source and the receptor would reduce potential noise impacts. Therefore, it is anticipated that existing sensitive receptors would not be exposed to stationary noise levels in excess of the Municipal Code standards from the project in combination with other foreseeable stationary noise sources. Future development proposals within the City of Tracy would also require separate discretionary approval and CEQA assessment, which would require the study of potential noise impacts. Therefore, in conjunction with cumulative projects, the Modified ESP would not have the potential to result in cumulatively significant stationary noise impacts.

Cumulative Mobile Noise

In Table 4.10-10 (Cumulative Exterior Noise Exposure Adjacent to Nearby Roadways), the dBA at 100 feet from the roadway centerline depicts the noise level perceived 100 feet perpendicular to the centerline. Note that both of the following cumulative noise analyses were based on the traffic impact analysis for the ESP, which considered the overall buildout of the City’s General Plan.

TABLE 4.10-10 CUMULATIVE CONDITIONS EXTERIOR NOISE EXPOSURE ADJACENT TO NEARBY ROADWAYS

| Roadway Segment | Existing Without ESP | | | | | | Cumulative Plus ESP | | | | |
|----------------------------------|----------------------|----------------------------------------|---------------------------------------------|----------------------|----------------------|--------|----------------------------------------|---------------------------------------------|----------------------|----------------------|-------------------------------------------|
| | ADT | dBA @ 100 feet from Roadway Centerline | Distance from Roadway Centerline to: (Feet) | | | ADT | dBA @ 100 feet from Roadway Centerline | Distance from Roadway Centerline to: (Feet) | | | Difference in dBA @ 100 Feet from Roadway |
| | | | 60 Ldn Noise Contour | 65 Ldn Noise Contour | 70 Ldn Noise Contour | | | 60 Ldn Noise Contour | 65 Ldn Noise Contour | 70 Ldn Noise Contour | |
| Corral Hollow Road | | | | | | | | | | | |
| North of Eastbound Ramps | 6,482 | 68.5 | 818 | 259 | 82 | 16,770 | 72.6 | 2,113 | 668 | 211 | 4.1 |
| North of Westbound Ramps | 7,746 | 69.3 | 977 | 309 | 98 | 22,188 | 73.6 | 2,799 | 885 | 280 | 4.3 |
| South of Linne | 7,592 | 69.2 | 957 | 303 | 96 | 30,315 | 75.1 | 3,819 | 1,208 | 382 | 5.9 |
| North of Linne | 6,153 | 68.3 | 776 | 245 | 78 | 22,511 | 74.0 | 2,838 | 897 | 284 | 5.7 |
| South of Valpico | 7,527 | 69.2 | 950 | 300 | 95 | 25,284 | 74.4 | 3,192 | 1,009 | 319 | 5.2 |
| North of Valpico | 8,785 | 69.9 | 1,109 | 351 | 111 | 26,381 | 74.5 | 3,327 | 1,052 | 333 | 4.6 |
| South of 11 th Street | 28,503 | 74.9 | 3,597 | 1,138 | 360 | 39,410 | 76.3 | 4,966 | 1,570 | 497 | 1.4 |
| North of 11 th Street | 29,986 | 75.2 | 3,784 | 1,197 | 378 | 45,021 | 77.0 | 5,675 | 1,795 | 568 | 1.8 |
| South of Grant Line | 22,717 | 74.0 | 2,864 | 906 | 286 | 31,218 | 75.3 | 3,935 | 1,245 | 394 | 1.3 |
| North of Grant Line | 10,778 | 70.7 | 1,358 | 430 | 136 | 28,509 | 74.9 | 3,597 | 1,138 | 360 | 4.2 |
| Schulte Road | | | | | | | | | | | |
| West of Lammers | 8,050 | 69.7 | 1015 | 321 | 102 | 4,773 | 67.4 | 602 | 190 | 60 | -2.3 |
| Lammers Road | | | | | | | | | | | |
| South of Schulte | 5,134 | 67.8 | 648 | 205 | 65 | 26,768 | 74.9 | 3,378 | 1,068 | 338 | 7.1 |
| North of Schulte | 9,301 | 70.3 | 1,174 | 371 | 117 | 23,994 | 74.5 | 3,024 | 956 | 302 | 4.2 |
| Linne Road | | | | | | | | | | | |
| East of Corral Hollow | 4,650 | 67.3 | 587 | 186 | 59 | 21,608 | 74.0 | 2,727 | 862 | 273 | 6.7 |
| Valpico Road | | | | | | | | | | | |
| East of Corral Hollow | 8,669 | 67.0 | 547 | 173 | 55 | 8,837 | 67.1 | 557 | 176 | 56 | 0.1 |
| West of Corral Hollow | 6,353 | 65.7 | 4,010 | 127 | 40 | 1,032 | 57.9 | 65 | 21 | 6 | -7.8 |
| 11th Street | | | | | | | | | | | |
| East of Corral Hollow | 25,742 | 76.8 | 5,699 | 1,802 | 570 | 35,604 | 78.2 | 7,885 | 2,493 | 788 | 1.4 |
| West of Corral Hollow | 24,091 | 76.5 | 5,331 | 1,686 | 533 | 29,606 | 77.4 | 6,543 | 2,069 | 654 | 0.9 |
| Grant Line Road | | | | | | | | | | | |
| East of Corral Hollow | 18,679 | 72.9 | 2354 | 744 | 235 | 29,993 | 75.0 | 3,783 | 1,196 | 378 | 2.1 |
| West of Corral Hollow | 24,091 | 74.0 | 3,039 | 961 | 304 | 30,767 | 75.1 | 3,880 | 1,227 | 388 | 1.1 |
| East of Byron | 15,029 | 72.0 | 1,896 | 600 | 190 | 32,895 | 75.4 | 4,148 | 131 | 415 | 3.4 |
| Byron Road | | | | | | | | | | | |
| South of Grant Line | 8,340 | 66.8 | 526 | 166 | 53 | 26,381 | 72.0 | 1,662 | 526 | 166 | 5.2 |
| North of Grant Line | 12,739 | 68.8 | 803 | 254 | 80 | 5,612 | 65.1 | 652 | 112 | 35 | -3.7 |

Source: Traffic modeling is based upon data contained within the *Transportation Impact Analysis for the Ellis Specific Plan in the City of Tracy*, prepared by Fehr & Peers, December 2007.

According to Table 4.10-10, under the “Existing Without Modified ESP” scenario, noise levels at a distance of 100 feet from centerline would range from approximately 65.7 dBA to 76.8 dBA. The highest noise levels under “Existing Without Modified ESP” conditions would occur along 11th Street east of Corral Hollow Road. Noise levels along this roadway segment would be 76.8 dBA at 100 feet from the roadway centerline.

Under the “Cumulative Plus Modified ESP” scenario, noise levels at a distance of 100 feet from centerline would range from approximately 57.9 dBA to 78.2 dBA. Similar to the “Existing Without Modified ESP” scenario, the highest noise levels under “Cumulative Plus ESP” conditions would occur along 11th Street east of Corral Hollow Road. Noise levels along this roadway segment would be 78.2 dBA at 100 feet from the roadway centerline.

Table 4.10-10 also compares the “Cumulative Plus Modified ESP” scenario to the “Existing Without Modified ESP” scenario. As indicated in Table 4.10-10, the highest noise level increase of 7.1 dBA would occur on Lammers Road, south of Schulte. This would be considered a significant increase in ambient noise levels. As indicated in Table 4.10-10, noise levels with the implementation of the proposed Project would slightly decrease. Therefore, noise impacts would also decrease. However, as shown in Table 4.10-10, cumulative noise impacts would be considered significant and unavoidable with implementation of the Modified ESP.

Mitigation Measures

Refer to Mitigation Measure 4.10-1f.

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4.11 POPULATION AND HOUSING

No changes have been made to the population and housing environmental impact evaluation contained within the Original Ellis EIR as a result of the Modified Project; other background information, analysis of environmental impacts, and mitigation measures contained within Section 3B.2 (Population and Housing) of the Original Ellis EIR remain valid and are incorporated herein. Please refer to Section 3B.2 (Population and Housing) in the Original Ellis EIR, certified December 2008. Pursuant to Section 15150 (c) of the State CEQA Guidelines, the following summarizes the impacts and mitigation measures identified in Section 3B.2 (Population and Housing) of the Original Ellis EIR. As described in Chapter 2 (Introduction), the Original Ellis EIR is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376.

4.11.1 POPULATION AND HOUSING IMPACT AND MITIGATION SUMMARY

The amount of new residential growth facilitated by the Original ESP (2,250 housing units) would be within the range of housing development planned for in the City of Tracy General Plan and thus would result in less than significant impacts on housing growth. Because the population growth associated with the Original ESP is within the estimates projected by SJCOG, and was also considered in the General Plan, the Original ESP would not exceed the amount of growth projected for the City for the year 2025, and thus would result in less than significant impacts on population growth. Jobs generated by the Original ESP would result in less than significant indirect increases in population growth. Due to the small number of existing housing units that would need to be replaced and to the fact that no residents would be displaced, impacts relative to displacement of substantial numbers of existing housing are considered to be less than significant. No mitigation measures were identified, as all impacts are considered to be less than significant.

The following provides a list of previously identified impacts and their corresponding mitigation measures. It should be noted that the Original Ellis EIR referred to the Original ESP as the proposed ESP and this Revised Draft EIR refers to the currently proposed ESP as the Modified ESP, but all other aspects remains the same.

Impact 3B.2-1 Implementation of the proposed ESP would directly induce substantial population growth in the planning area. Determination: Less Than Significant Impact.

Mitigation Measure 3B.2-1: No mitigation is necessary.

Impact 3B.2-2 Implementation of the proposed ESP would indirectly induce substantial population growth. Determination: Less than Significant Impact.

Mitigation Measure 3B.2-2: No mitigation is necessary.

Impact 3B.2-3: Implementation of the proposed ESP would displace substantial numbers of existing housing. Determination: Less Than Significant Impact.

Mitigation Measure 3B.2-3: No mitigation is necessary.

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4.12 PUBLIC SERVICES

No changes have been made to the public services environmental impact evaluation contained within the Original Ellis EIR as a result of the Modified Project; other background information, analysis of environmental impacts, and mitigation measures contained within Section 3B.9 (Public Services) of the Original Ellis EIR remain valid and are incorporated herein. Please refer to Section 3B.9 (Public Services) in the Original Ellis EIR, certified December 2008. As described in Chapter 2 (Introduction), the Original Ellis EIR is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376.

4.12.1 PUBLIC SERVICES IMPACT AND MITIGATION SUMMARY

Development facilitated by the Original ESP would result in increases in population that would increase demand for public schools, parks, and police and fire protection services. The Project Applicant would pay statutory fees for school impacts, which would therefore be considered less than significant with the fee payment. No additional mitigation measures would be required.

Impacts on parks and recreational facilities were determined to be less than significant, as in lieu fees would be paid at a ratio of four acres per 1,000 residents in order to comply with the Quimby Act.

Police and fire service impacts would be less than significant with the implementation of mitigation that requires individual project applicants of individual projects within the ESP site to consult with the Police Department during preliminary stages of site design to review safety features, determine their adequacy, and suggest design and/or physical improvements to the proposed site plan and/or to police facilities and equipment to ensure adequate service is maintained, and also requires the Project Applicant to work with the City and the South County Fire Authority to identify a possible location for a future fire station to serve the ESP site and surrounding areas, and to establish adequate emergency response services to the ESP site through the construction of a new fire sub-station, and EMT sub-station, temporarily stationed emergency response personnel, or other means as reviewed and approved by the South County Fire Authority. Additionally, the Project FIP (Finance and Implementation Plan) shall include a Public Buildings Mitigation Fee. Subsequent to preparation of the Original EIR, the Project Applicant has prepared a Draft Project FIP with the anticipation that the Project would proceed with implementation. This Draft Project FIP includes a Public Building Mitigation Fee as required by the Original Ellis EIR mitigation requirements and corresponding Conditions of Project Approval.

The following provides a list of previously identified impacts and their corresponding mitigation measures. It should be noted that the Original Ellis EIR referred to the Original ESP as the proposed ESP and this Revised Draft EIR refers to the currently proposed ESP as the Modified ESP, but all other aspects remain the same.

Impact 3B.9-1: The ESP would result in substantial adverse physical impacts associated with the provisions of new or physically altered government facilities, and/or the 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 school services. Determination: Less Than Significant Impact.

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Mitigation Measure 3B.9-1: No mitigation is necessary.

Impact 3B.9-2: The ESP would 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: Less Than Significant Impact.

Mitigation Measure 3B.9-2: No mitigation is necessary.

Impact 3B.9-3: The ESP would include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. Determination: Less Than Significant Impact.

Mitigation Measure 3B.9-3: No mitigation is necessary.

Impact 3B.9-4: The ESP would result in substantial adverse physical impacts associated with the provisions of new or physically altered government facilities, and/or the 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 police protection services. Determination: Less Than Significant Impact With Mitigation Incorporated.

Mitigation Measure 3B.9-4: The Project Applicant of individual projects within the ESP site shall consult with the Police Department during preliminary stages of site design to review safety features, determine their adequacy, and suggest design and/or physical improvements to the proposed site plan and/or to police facilities and equipment to ensure adequate service is maintained. This is achieved through the City's development review process, which currently is coordinated with various City Departments' review of new development proposals.

Impact 3B.9-5: The ESP would result in substantial adverse physical impacts associated with the provisions of new or physically altered government facilities, and/or the 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 fire protection services. Determination: Less Than Significant Impact with Mitigation.

Mitigation Measure 3B.9-5a: The Project Applicant shall work with the City and the South County Fire Authority to help identify a possible location for a future fire station to serve the ESP site and surrounding areas.

Mitigation Measure 3B.9-5b: Prior to the issuance of Building Permits, the Project Applicant shall work with the City and the South County Fire Authority to establish adequate emergency response services to the ESP site through the construction of a new fire sub-station, and EMT sub-station, temporarily stationed emergency response personnel, or other means as reviewed and approved by the South County Fire Authority. Additionally, the Project FIP shall include a Public Buildings Mitigation Fee.

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4.13 TRAFFIC AND CIRCULATION

The purpose of this section is to establish the conditions of existing roadways and transportation systems, identify potentially significant impacts, and recommend mitigation measures to reduce the significance of such impacts. Information in this section is based on the findings, conclusions, and recommendations of the Transportation Impact Analysis (TIA) for the Ellis Specific Plan in the City of Tracy dated December 2007, as well as the City of Tracy General Plan (adopted February 1, 2011) and the City of Tracy General Plan EIR (May 2006). The 2006 Traffic Study was peer reviewed, updated, and validated by RBF Consulting in April 2012 to reflect the Modified Ellis Specific Plan and updated 2011 City of Tracy General Plan and found to characterize and identify the Existing, Project, and Cumulative Conditions with sufficient accuracy for purposes of CEQA compliance. Since 2006, traffic volumes in the City of Tracy have generally decreased due to the economic slowdown. A comparison of traffic volumes between 2006 and 2011 indicates an average citywide decrease of 2 percent. Thus the analysis conducted in 2006 depicts slightly worse conditions compared to today and the results of the 2006 analysis.

The City of Tracy has also undertaken the update of the Transportation Master Plan pursuant to the direction in the General Plan. This Plan and subsequent Development Impact Fee Program determines the roadway infrastructure and sets the funding mechanisms in place for the future transportation demand in the City of Tracy. This document is in Draft Form and currently undergoing environmental review.

Since preparation of the 2006 TIA, improvements have been identified and funded but not constructed at the intersection of Grant Line Road and Byron Road. At the time the Project is constructed, the improvement is expected to be implemented. This intersection is identified herein, and as result, the mitigation measures specific to this intersection improvement (previously adopted as a condition of Project approval) has now been eliminated. Under Cumulative conditions, the peer review concluded that there is no change in the traffic mitigation measures previously identified in the TIA. The following sections provide the updated and validated analysis, organized as follows:

- ◆ **Traffic Study Methodology and Background (Pg. 4.13-1)**
- ◆ **Environmental Analysis of Project Impacts (Pg. 4.13-33)**
 - Impacts to City and San Joaquin County (Pg. 4.13-33 through 4.13-47)
 - Impacts to Alameda County (Pg. 4.13-48 through 4.13-49)
 - Mitigation Measures (Pg. 4.13-46 through 4.13-49)
- ◆ **Analysis of Cumulative Impacts (Pg. 4.13-49)**
 - Impacts to City and San Joaquin County (Pg. 4.13-49 through 4.13-56)
 - Impacts to Alameda County (Pg. 4.13-57)

4.13.1 TRAFFIC STUDY METHODOLOGY AND BACKGROUND

The process for conducting the traffic analysis in this section began by identifying background traffic volumes, which were developed for the Existing No Project Conditions scenario (described below) by collecting traffic counts, and generating, distributing, and assigning trips from approved projects. The cumulative scenario was developed in consultation with City staff, and is consistent with the “Preferred” alternative of the 2006 Tracy General Plan Update EIR. The Cumulative No Project scenario assumes the residential units and commercial square footage that could develop in the

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Modified ESP area would otherwise develop elsewhere in the City. The areas of potential development are indicated in Figure 4.13-1, Location of Dwelling Units Transferred to the Modified ESP Site, which include the Chetal, Westside Residential, Tracy Hills, and Kagehiro properties. Figure 4.13-1 identifies the reduced number of housing units in pink where units were reduced and the added units to the Modified ESP in green. The City has adopted a residential growth ordinance; this residential unit exchange results in a net zero addition of homes to the City for General Plan buildout conditions. The exchange of residential units does, however, result in a change in traffic flow patterns on the road network and thus potentially generates traffic impacts as indicated in this section.

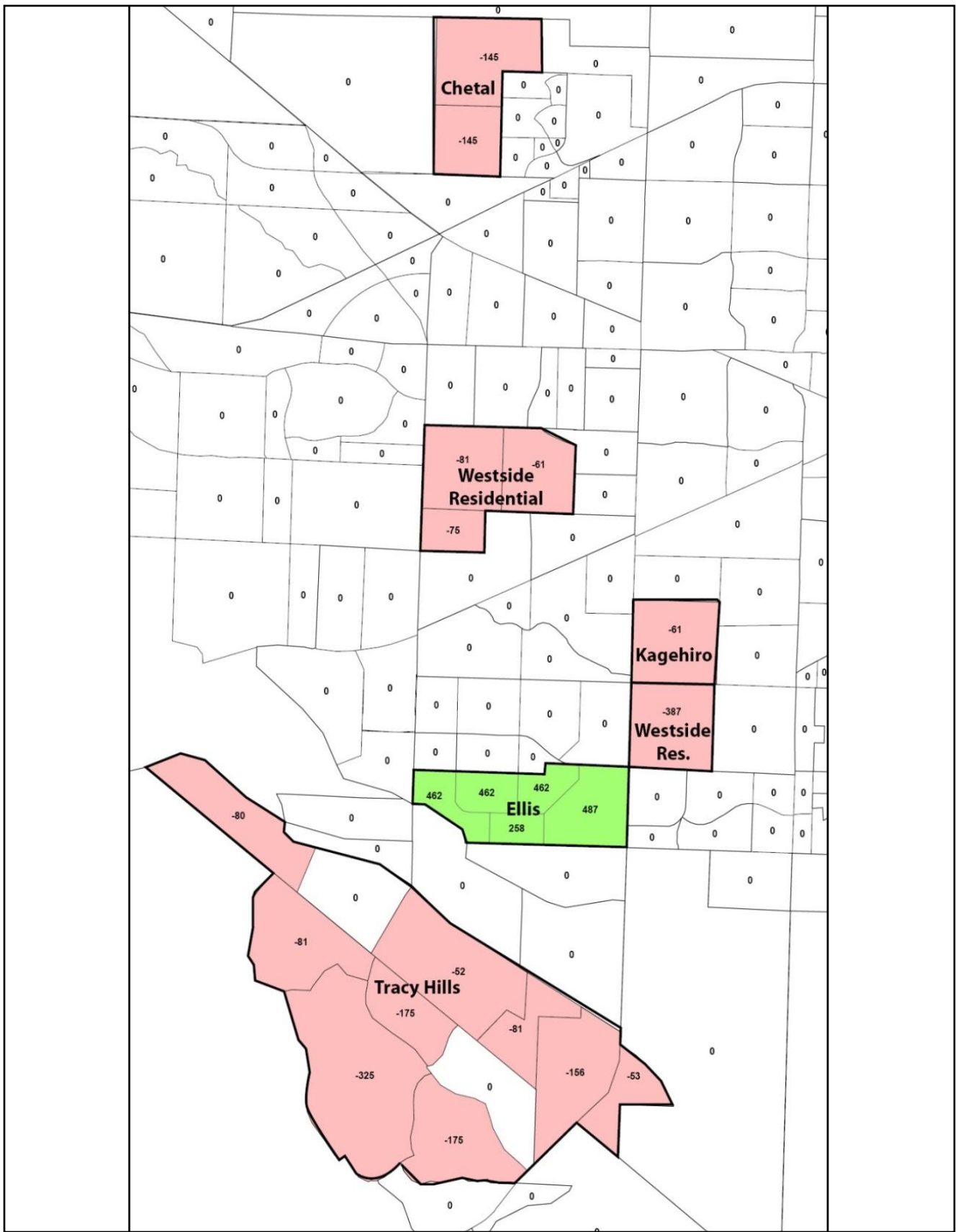
Outside the Tracy Planning Area, the development assumptions used in preparing the traffic forecasts are consistent with the 2030 scenario of the SJCOG traffic model, as updated by the 2005 Regional Transportation Plan.

The residential dwelling unit growth assumption for the cumulative development assumptions within the City's Sphere of Influence (SOI) is consistent with the City's Growth Management Ordinance (GMO) limits on residential permits. The GMO limits residential permits to an average of 600 units per year, with a maximum of 750 units in any single year. The employment level being analyzed is consistent with the 2011 Tracy General Plan. These development assumptions were integrated into the Tracy Citywide Traffic Model to estimate future traffic generation and future cumulative travel within the City of Tracy and across the Altamont Pass into Alameda County. For more information, refer to the Transportation Impact Analysis located in Appendix F.

ANALYSIS SCENARIOS

For this study, the following four scenarios were evaluated:

- ◆ **Scenario 1: Existing No Modified ESP Conditions** – Existing volumes obtained from counts.
- ◆ **Scenario 2: Existing Plus Modified ESP Conditions** – This scenario used the same traffic volumes as Scenario 1 for the same roadway system with the addition of the estimated traffic generated by the Modified ESP.
- ◆ **Scenario 3: Cumulative No Modified ESP Conditions** – This scenario assessed future forecast conditions using the 2004 Tracy General Plan Travel Demand Model as the basis for generating regional cumulative background traffic forecasts. For this analysis, growth to year 2030 in the City of Tracy was assumed to occur in accordance with General Plan policies and residential growth limits. The No Project scenario assumes no development on the Modified ESP site, but rather, development elsewhere in the City per General Plan policies on residential growth limits.
- ◆ **Scenario 4: Cumulative Plus Modified ESP Conditions** – This scenario assumes full buildout of the Modified ESP, with 2,250 residential dwelling units and 180,000 square feet of commercial space. The same number of units is not assumed to be developed elsewhere in the City, maintaining the same citywide level of growth to year 2030 as Scenario 3.



Source: City of Tracy (2012)



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Location of Dwelling Units Transferred to the Modified ESP

Figure 4.13-1

ANALYSIS METHODS & SIGNIFICANCE CRITERIA

The analysis methods outlined in the Transportation Research Board's Highway Capacity Manual (HCM) (2000) were used in this study. The results of this analysis on operational performance of a roadway network are commonly described using a grading system called level of service, or LOS. LOS is a description of intersection operating conditions, ranging from LOS A (free flow traffic conditions with little or no delay) to LOS F (oversaturated conditions where traffic flows exceed design capacity, resulting in long queues and delays). The HCM methods for calculating LOS and significance criteria for signalized intersections, unsignalized intersections, and freeway segments are described below.

FREEWAY SEGMENTS

The level of service for a freeway section is based on measures of density (passenger cars/lane/mile) and travel speed (miles per hour [MPH]). Freeway LOS is a qualitative description of traffic flow based on speed, travel time, delay, and freedom to maneuver. Table 4.13-1 (Level of Service Criteria for Freeway Segments) presents a summary of the relationship between LOS, density, and travel speed for freeway sections.

TABLE 4.13-1 LEVEL OF SERVICE CRITERIA FOR FREEWAY SEGMENTS

| LOS | Maximum Density (Passenger cars/mile/lane) | Maximum Speed (MPH) |
|-----|-----------------------------------------------|------------------------|
| A | 11 | 70 |
| B | 18 | 70 |
| C | 26 | 68.2 |
| D | 35 | 61.5 |
| E | 45 | 53.3 |
| F | > 45 | < 53.3 |

Source: 2000 Highway Capacity Manual (Transportation Research Board).

TWO-LANE HIGHWAYS

On two-lane highways, LOS is measured as a function of percent time-spent-following and average travel speed. Percent time-spent-following is the percentage of time that a vehicle will spend following another vehicle. Percent time-spent-following represents the freedom to maneuver and the comfort and convenience of travel. The freedom to maneuver and the comfort and convenience of travel is compromised when a vehicle is forced to slow down and follow a slower moving vehicle. This typically occurs on two-lane highways where there are few opportunities to pass slower moving vehicles. Other factors that can further compromise the freedom to maneuver and the comfort and convenience of travel include curves, steep grades, and slow truck traffic. Average travel speed reflects vehicle mobility on a two-lane highway. Both measures impact the operational performance of two-lane highways that are primarily used for long-distance commute travel.

Generalized LOS tables indicating service volume thresholds based on area type, roadway facility type, and analysis time period have been produced based on extensive data collection. Table 4.13-2 (Level of Service Criteria for Two-Lane Highways) summarizes the LOS criteria for two-lane uninterrupted flow highways. The criteria presented are based on a combination of research and generalized assumptions on percent-time-following.

TABLE 4.13-2 LEVEL OF SERVICE CRITERIA FOR TWO-LANE HIGHWAYS

| LOS | Directional Capacity (vph) |
|--------------------------------------------------------------------------|----------------------------|
| A | 120 |
| B | 250 |
| C | 410 |
| D | 650 |
| E | 1,060 |
| Note: LOS F applies whenever the flow rate exceeds the segment capacity. | |

Source: Table 4-9, Generalized Peak Hour Peak Directional Volumes (Quality/Level of Service Handbook, FDOT).

UNSIGNALIZED INTERSECTIONS

For unsignalized (all-way stop-controlled and side-street stop-controlled) intersections, the 2000 HCM (Transportation Research Board, National Research Council) methodology for unsignalized intersections is utilized. For unsignalized intersections, operations are defined by the average control delay for the entire intersection (measured in seconds per vehicle). The delay at an unsignalized intersection incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. Table 4.13-3 (Level of Service Criteria for Unsignalized Intersections) summarizes the relationship between delay time and LOS for unsignalized intersections.

TABLE 4.13-3 LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

| LOS | Description | Average Control Delay (Seconds Per Vehicle) |
|-----|------------------------------------------------------------|---------------------------------------------|
| A | Little or no delays | < 10.0 |
| B | Short traffic delays | 10.1 to 15.0 |
| C | Average traffic delays | 15.1 to 25.0 |
| D | Long traffic delays | 25.1 to 35.0 |
| E | Very long traffic delays | 35.1 to 50.0 |
| F | Extreme traffic delays with intersection capacity exceeded | > 50.0 |

Source: 2000 Highway Capacity Manual (Transportation Research Board); Fehr & Peers, 2006.

SIGNALIZED INTERSECTIONS

The 2000 HCM methodology is also utilized for signalized intersections. With this methodology, operations are defined by the average control delay per vehicle (measured in seconds). For a signalized intersection, control delay is the portion of the total delay attributed to traffic signal operation. This includes delay associated with deceleration, acceleration, stopping, and moving up in the queue. Table 4.13-4 (Level of Service Criteria for Signalized Intersections) summarizes the relationship between delay time and LOS for signalized intersections.

TABLE 4.13-4 LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

| LOS | Description | Average Control Delay (Seconds Per Vehicle) |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| A | Operations with very low delay occurring with favorable progression and/or short cycle length. | < 10.0 |
| B | Operations with low delay occurring with good progression and/or short cycle lengths. | 10.1 to 20.0 |
| C | Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear. | 20.1 to 35.0 |
| D | Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. | 35.1 to 55.0 |
| E | Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay. | 55.1 to 80.0 |
| F | Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths. | > 80.0 |

Source: Highway Capacity Manual 2000, Fehr & Peers, 2006.

ASSUMPTIONS

TRAFFIC CONDITIONS AND OPERATIONS

Morning (7:00 AM to 9:00 AM) and evening (4:00 PM to 6:00 PM) weekday peak periods were analyzed as the worst-case scenario for both freeway segments and local intersections, as general area traffic levels are highest during these weekday periods. A Saturday analysis was considered to address potentially higher trip generation on Saturdays for the retail uses, compared to weekdays. However, traffic volumes on the surrounding roadways during the Saturday peak hour are generally about half of weekday PM peak-hour volumes due to the absence of major local (within and immediately adjacent to the Project site) Saturday retail trip generators such as Wal-Mart or Costco. For example, measured volumes on Corral Hollow Road east of I-580 are over 600 vehicles during the weekday PM peak hour and fewer than 300 vehicles on a Saturday peak hour (AM/PM). This, coupled with generally lower traffic generation from residential units on a Saturday, offsets the potential for higher trip generation and impacts related to Saturday traffic. Therefore, the highest one-hour weekday morning and evening volumes were used for this traffic analysis and present the highest peak-hour analysis.

STUDY LOCATIONS

Rational screening criteria were applied to determine which intersections and freeway elements to include in the traffic analysis. PM peak-hour trips generated by the Modified ESP site were used to screen potential study locations since the proposed Modified ESP site would generate the most trips during the PM peak hour. The initial screening was based on General Plan allowable densities on the Modified ESP site, and used the following screening criteria:

- ◆ Intersections operating near unacceptable conditions, and with Modified Project trips adding more than 5 percent of total trips (existing plus project plus other cumulative future trips), and
- ◆ Freeway and regional roadway segments that have Modified Project trips adding more than 1 percent of total volume (existing plus project plus other cumulative trips).

The screening process resulted in the following intersections in the City of Tracy and San Joaquin County:

1. Patterson Pass/I-580 EB Ramps
2. Patterson Pass/I-580 WB Ramps
3. Corral Hollow Road/I-580 EB Ramps
4. Corral Hollow Road/I-580 WB Ramps
5. Lammers Road/Valpico Road
6. Lammers Road/Schulte Road
7. Corral Hollow Road/Linne Road
8. Corral Hollow Road/Valpico Road
9. Corral Hollow Road/Schulte Road
10. Corral Hollow Road/Eleventh Street
11. Corral Hollow Road/Grant Line Road
12. Tracy Boulevard/Linne Road
13. Tracy Boulevard/Valpico Road
14. MacArthur Drive/Linne Road
15. MacArthur Drive/Valpico Road
16. Chrisman Road/Linne Road
17. Chrisman Road/Valpico Road
18. Chrisman Road/Schulte Road
19. Chrisman Road/Eleventh Street
20. Lammers Road/Eleventh Street
21. Byron Road/Grant Line Road
22. Lammers Road/I-580 EB Ramps (Future)
23. Lammers Road/I-580 WB Ramps (Future)
24. Project Access locations from the City street system

The following intersections were also screened and found not to meet the criteria for further analysis because the Project does not distribute more than 5% of the generated traffic volumes to these intersections:

- ◆ Mountain House Parkway/I-205 interchange
- ◆ Lammers Road/I-205 interchange
- ◆ Mountain House Parkway/Schulte Road
- ◆ Schulte Road/Hansen Road

FREEWAY STUDY SEGMENTS

Operating conditions along the following regional segments along I-580, and across the Altamont Pass:

- ◆ I-580 – Pleasanton Area
- ◆ I-580 – Livermore Area
- ◆ I-580 – Altamont Pass to I-205/I-580 Diverge
- ◆ I-580 – I-205/I-580 Diverge to Patterson Pass
- ◆ I-580 – Patterson Pass to Corral Hollow Road
- ◆ I-580 – Corral Hollow Road to Chrisman Road
- ◆ Tesla Road
- ◆ Patterson Pass Road

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The following roadway segments were also screened and found not to meet the criteria for further analysis due to the insignificant distribution of project-generated traffic (less than 5%) to these roadways:

- ◆ Schulte Road from Mountain House Parkway to Lammers Road
- ◆ Mountain House Parkway from I-580 to I-205
- ◆ Hansen Road from Schulte Road to Von Sosten Road

Fehr & Peers analyzed the study locations listed above under Existing conditions and with maximum General Plan allowable densities on the Modified ESP site. Three segments on I-580 and Tesla and Patterson Pass Roads in Alameda County, along with six intersections plus the I-580 interchanges at Patterson Pass Road and at Corral Hollow Road, were found to be deficient.

Deficient roadway segments:

- A. I-580 – Pleasanton Area
- B. I-580 – Livermore Area
- C. I-580 – Altamont Pass to I-205/I-580 Diverge
- G. Tesla Road
- H. Patterson Pass Road

Deficient Intersections:

- 1. Patterson Pass/I-580 EB Ramps
- 2. Patterson Pass/I-580 WB Ramps
- 3. Corral Hollow Road/I-580 EB Ramps
- 4. Corral Hollow Road/I-580 WB Ramps
- 6. Lammers Road/Schulte Road
- 7. Corral Hollow Road/Linne Road
- 8. Corral Hollow Road/Valpico Road
- 10. Corral Hollow Road/Eleventh Street
- 11. Corral Hollow Road/Grant Line Road
- 21. Byron Road/Grant Line Road

4.13.2 REGULATORY FRAMEWORK

CITY OF TRACY GENERAL PLAN

The City of Tracy General Plan was approved and adopted in February 2011. The Circulation Element identifies the location and extent of existing and planned circulation and transportation facilities, consistent with the existing and planned land uses described in the Land Use Element. Relevant objectives and policies related to roadways and circulation are listed 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.
 - Impacts to City and San Joaquin County
 - Impacts to Alameda County
 - Mitigation Measures

- P1. The City should develop context-based street designs that allow for variations based on the expected function and location of the facility, and the surrounding land use context. These context-sensitive designs should have the following aims:
 - Create aesthetically attractive streetscapes.
 - Enhance multi-modal transportation by increasing mobility and improving safety for autos, trucks, transit, pedestrians and bicyclists.
- P2. The City shall preserve rights-of-way needed for future roadway and freeway interchange improvements through dedication or acquisition as adjacent properties develop or redevelop.
- P3. The City shall continue to apply traffic mitigation fee programs to fund transportation infrastructure, based on a fair share of facility use.
- ◆ Objective CIR-1.2: Provide a high level of street connectivity.
 - P1. The City shall ensure that the street system results in a high level of connectivity, especially between residences and common local destinations, such as schools, Village Centers, retail areas and parks. The standard for roadway (vehicular) connectivity is defined as appropriate spacing of arterials and collectors and local roads as detailed above in Section B of this Element "Roadway Classifications and Standards."
 - P2. The City shall implement a connected street pattern with multiple route options for vehicles, bikes and pedestrians.
 - P3. New development shall be designed to provide vehicular, bicycle and pedestrian connections with adjacent developments.
 - P4. The City should develop residential street alignments and designs that provide connectivity while discouraging high speed cut-through traffic.
 - P5. New development shall be designed with a grid or modified grid pattern to facilitate traffic flows and to provide multiple connections to arterial streets.
- ◆ 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.
 - P1. To the extent feasible, the City shall strive for LOS D on all streets and intersections, with the LOS standard for each facility to be defined in the Transportation Master Plan in accordance with the opportunities and constraints identified through the traffic projections and analysis performed for that Plan. The following exceptions to the LOS D standard may be allowed:
 - LOS E or lower shall be allowed on streets and at intersections within one-quarter (1/4) mile of any freeway. This lower standard is intended to discourage inter-regional traffic from using Tracy streets.
 - LOS E or lower shall be allowed in the Downtown and Bowtie area of Tracy, in order to create a pedestrian-friendly urban design character and densities necessary to support transit, bicycling and walking.
 - P2. 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.
 - P6. For project-specific development approvals, the LOS at major street intersections shall be determined based on the direct estimation of peak-hour conditions and should reflect the average condition prevailing throughout the peak hour of a typical weekday for all traffic using the intersection.
 - P7. Traffic studies for new developments within the City may be prepared if necessary and appropriate to determine the impacts of the project's traffic on the transportation system.

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- ◆ Objective CIR-1.5 Protect residential areas from through traffic and high travel speeds by facilitating free flow of traffic on major streets.
- ◆ Objective CIR-1.6 Maximize traffic safety for automobile, transit, bicycle users, and pedestrians.
 - P1. The City shall design streets using context-sensitive design principles that enhance safety for all modes of travel.
 - P2. New development shall implement traffic calming measures where necessary so long as connectivity is not diminished.
- ◆ Objective CIR-1.7 Minimize traffic-related impacts such as noise and emissions on adjacent land uses.
 - P1. Appropriate buffering and screening mechanisms shall be incorporated in development projects to limit the impacts associated with traffic. These buffering and screening mechanisms may include setbacks, landscaping, berms, sound walls or other methods as appropriate.
 - P2. Soundwalls shall only be used next to major arterials, and other high-speed, high-volume facilities in accordance with the policies in the Community Character Element.
- ◆ Objective CIR-1.8 Minimize transportation-related energy use and impacts on the environment.
- ◆ Objective CIR-3.1 Achieve a comprehensive system of citywide bikeways and pedestrian facilities.
 - P6. New development shall include pedestrian and bicycle facilities internal to the development and that connect to city-wide facilities, such as parks, schools and recreational corridors, as well as adjacent development and other services.
- ◆ Objective CIR-4.1 Promote public transit as an alternative to the automobile.
- ◆ P5. The City shall require development to provide for transit and transit-related increased modal opportunities, such as adequate street widths and curb radii, bus turnouts, bus shelters, park-and-ride lots and multi-modal transit centers through the development and environmental review processes, if appropriate. 2011 Regional Transportation Plan

The San Joaquin Council of Governments (SJCOG) produces the Regional Transportation Plan (RTP). The RTP is a roadmap to guide the region's transportation development for a 25-year period. The RTP is updated every four years to reflect changes, such as changes in funding availability and growth patterns. The RTP offers a multi-modal strategy to improve congestion and provide a range of transportation choices. Since the RTP needs to take into consideration the availability of funding, projects are prioritized. Tier 1 projects are those anticipated to be financed and completed. Tier I and Tier II projects create a list of projects that show the shortfall of transportation needs in the area, but for which funding is not identified.

ALAMEDA COUNTY CONGESTION MANAGEMENT AGENCY

The Alameda County Congestion Management Agency (ACCMA) 2007 Congestion Management Plan (CMP), a state-mandated program, is a mechanism employing growth management techniques, including traffic level of service requirements, development mitigation programs, transportation systems management, and capital improvement programming, for the purpose of controlling and/or reducing the cumulative regional impacts of development. Caltrans uses the ACCMA LOS standards on the freeway segments within Alameda County. The following provisions of the CMP are relevant to the Modified ESP:

- ◆ The Alameda County Congestion Management Program, administered by the Alameda County Congestion Management Agency (CMA), requires a LOS E standard be maintained on all CMP routes in Alameda County, except for those areas designated as "infill opportunity zones" or

those segments on the CMP system that were already operating at LOS F in the 1991 CMP baseline year.

2007 SAN JOAQUIN COUNTY CONGESTION MANAGEMENT PROGRAM

The San Joaquin County Congestion Management Plan (CMP), a state-mandated program, is a mechanism employing growth management techniques, including traffic level of service requirements, development mitigation programs, transportation systems management, and capital improvement programming, for the purpose of controlling and/or reducing the cumulative regional impacts of development. Caltrans utilizes the SJCOG LOS standards on the freeway segments within San Joaquin County. The following provisions of the CMP are relevant to the Modified ESP:

- ◆ The CMP system (Figure 4.13-2, 2007 CMP Roadways Map) includes Interstate 205, Interstate 580, Interstate 5, Eleventh Street, Lammers Road, Corral Hollow Road, Linne Road, and Tracy Boulevard; LOS thresholds for local freeways are set at “D,” except that on I-205 between the Alameda County Line and Tracy Boulevard, LOS “F” is permissible, and on I-205 between MacArthur Drive and I-5, LOS “E” is permissible;
- ◆ Bus pull-outs for future transit service on new streets should be provided as part of Project planning; and
- ◆ “New communities” must connect to existing transit service.

Interstate 205 is listed in the Capital Improvement Program (CIP) by the San Joaquin COG. The CMP requires a deficiency plan if roadway segment LOS falls below LOS “D” after calculating required exclusions.

SAN JOAQUIN COUNTY GENERAL PLAN

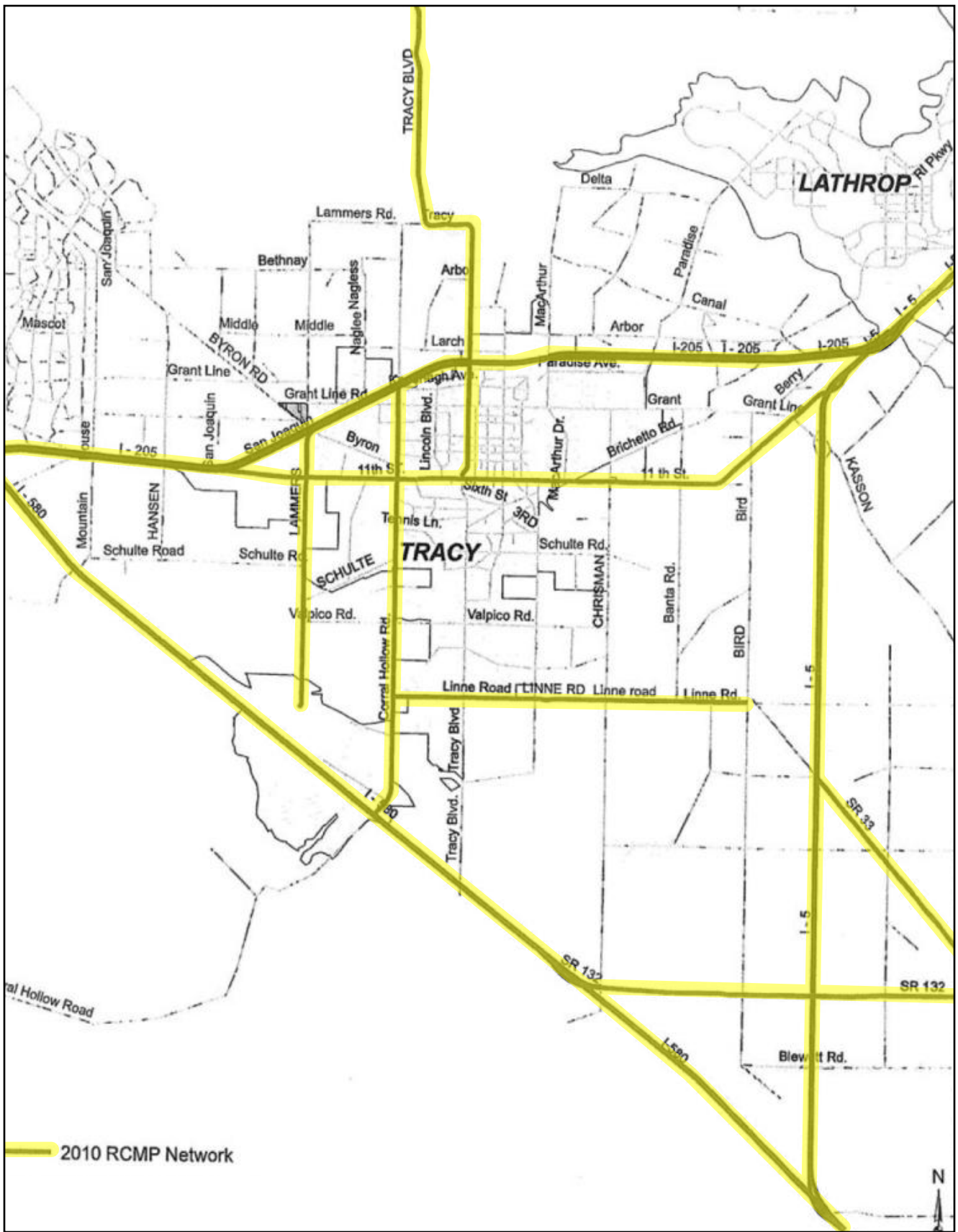
The San Joaquin County General Plan includes a range of objectives and policies that address the provision of adequate roadway, transit, and bicycle systems. This policy direction applies to areas outside the incorporated City of Tracy city limits. The County of San Joaquin has established LOS D as the minimum acceptable LOS for roadway and intersection operations.

TRACY ROADWAY MASTER PLAN

In 1994, the City of Tracy adopted a Roadway Master Plan (RMP) and Conceptual Design Standards for the Master Plan. The purpose of the RMP is to implement the transportation policies of the General Plan. The RMP identifies roadway improvements required at the citywide level to support the long-range buildout of the City. Roadway improvements identified include, but are not limited to: alignments, cross-sections, roadway and intersection design, and access controls for expressways, arterials, collectors, and industrial streets. In addition, the RMP allocates widths for bike lanes, sidewalks, landscaped setbacks, and median widths. As development takes place, project-specific traffic analyses are utilized to determine the degree of roadway improvement required, as RMP roadway improvements are generally a subset of the ultimate roadway network required to support the buildout of the General Plan.

TRACY TRUCK ROUTE ORDINANCE

The City of Tracy has a specific City ordinance relating to truck routes. Ordinance 1068 defines weight restrictions, specifies the circumstances under which trucks may enter areas not designated as truck routes, and defines the truck routes within the City. The weight restrictions that apply to trucks are specified in Section 3.08.300 of the Tracy Municipal Code. This section of the code states



Source: City of Tracy (2012)



Figure 4.13-2

that trucks with a gross vehicle weight larger than 5 tons must stay on designated truck routes. Passenger buses under the jurisdiction of the Public Utilities Commission are exempt from this restriction. Section 3.08.300 also provides that trucks are allowed to temporarily deviate from the designated truck routes for purposes of loading and unloading. Otherwise, trucks should remain on the designated routes specified in Section 3.08.310 of the City of Tracy Municipal Code.

OVERVIEW OF CITY AND REGIONAL TRANSPORTATION FUNDING

CITY OF TRACY FINANCE AND IMPLEMENTATION PLANS

Within the City of Tracy, there are multiple specific financing plans, otherwise known as “Finance and Implementation Plans” (FIPs), to fund required roadway improvements. The purpose of an FIP is to provide estimates of the funds required to mitigate each impact and to update the City’s Capital Improvement Program Construction Schedule. An FIP also identifies an estimated obligation for roadway improvements. FIPs are periodically updated to keep pace with construction cost increases. In order to ensure that the Project fully funds its fair share of required improvements, the draft FIP prepared for the Ellis Specific Plan (as modified) will be required for the Modified ESP and will be updated as necessary to keep pace with construction costs.

The FIP calculates the Project’s proportionate fair share contribution to required improvements. Future traffic growth throughout the City will cumulatively fund the required improvements. As fees are collected, the City will use the fees to implement the improvements. If the City has not collected enough of the fees to fund an improvement at the time an impact is caused, the Project Applicant will have to fund the required improvement upfront and enter into a reimbursement agreement with the City for the portion of fair share payments that are attributed to other cumulative traffic growth.

SAN JOAQUIN COG REGIONAL TRANSPORTATION IMPACT FEE (RTIF)

The City is a member agency of the San Joaquin Council of Governments (SJCOG), a joint powers agency consisting of the County of San Joaquin and the seven cities situated in San Joaquin County. Acting in concert, the member agencies of SJCOG developed the RTIF Program whereby the shortfall in funds needed to expand the capacity of the Regional Transportation Network could be made up in part by a Regional Transportation Impact Fee (RTIF Program Fee) on future residential and non-residential development. The RTIF Program Fee will augment other funding sources and help assure that needed improvements to the Regional Transportation Network are completed. The City adopted this fee on January 3, 2006. The latest RTIF update was completed in December 2011. The following Project study roadways are included in the RTIF:

- ◆ **Interstate 580:** Interchange at Lammers Extension Road
- ◆ **Interstate 580:** Interchange at Corral Hollow Road
- ◆ **Corral Hollow Road:** Parkside Drive to Linne Road
- ◆ **Linne Road:** Corral Hollow Road to Chrisman Road

SAN JOAQUIN COUNTY TRAFFIC FEE PROGRAM

San Joaquin County has adopted a traffic mitigation fee program for the purpose of collecting fees to finance transportation facilities needed to accommodate new development within unincorporated San Joaquin County. The program includes a fee schedule for projects that occur in the unincorporated areas around Tracy. The following Project study roadways are included in the County Traffic Fee Program:

- ◆ **Tesla Road** south of I-580 within San Joaquin County
- ◆ **Patterson Pass** south of I-580 within San Joaquin County
- ◆ **Patterson Pass Interchange with I-580**
- ◆ **Grant Line Road/Byron Road**
- ◆ **Lammers Road/Valpico Road**
- ◆ **MacArthur Drive/Linne Road**
- ◆ **Chrisman Road/Schulte Road**
- ◆ **Chrisman Road/Linne Road**

4.13.3 EXISTING CONDITIONS

This section describes the existing roadway network, traffic volumes and lane configurations, and existing intersection operations.

REGIONAL ROADWAYS

Freeways and major roads in the Project study area include the following:

- ◆ **Interstate 580** provides the most direct regional access to the planning area via full access interchanges at Mountain House Parkway/Patterson Pass Road and Corral Hollow Road. I-580 also provides access west to the Bay Area (via the Altamont Pass), and connects to I-5 south of the City of Tracy. I-580 currently has four lanes (two lanes in each direction) along the segments adjacent to the City of Tracy with a posted speed limit of 70 miles per hour.
- ◆ **Interstate 205** provides direct access to the central portion of the City of Tracy. It extends between I-580 and I-5 and runs east-west through the northern portion of the City of Tracy. Interchanges are provided at West Eleventh Street, Grant Line Road, Tracy Boulevard, and MacArthur Drive. I-205 consists of six lanes (three lanes in each direction) and a posted speed limit of 70 miles per hour east of the City of Tracy and 65 miles per hour through the City of Tracy and to the west.
- ◆ **Interstate 5** provides access south to Los Angeles and north to Sacramento and Redding. It connects to I-205 northeast of the City of Tracy and to I-580 southeast of the Modified ESP site.
- ◆ **Tesla Road** is a two-lane regional road that extends from Corral Hollow Road to Livermore Avenue, connecting Livermore and the City of Tracy. Tesla Road is used as an alternate route to I-580 for motorists crossing the Altamont Pass during peak commute times.
- ◆ **Patterson Pass Road** is a two-lane regional road that extends from Livermore to I-580 where it becomes Mountain House Parkway. Patterson Pass Road leads to Lawrence Livermore National Laboratory in Alameda County.

LOCAL ROADWAYS

- ◆ **Corral Hollow Road** extends from the San Joaquin/Alameda County border south of I-580 to north of I-205 with a posted speed limit varying between 40 and 45 miles per hour. In the segment between Schulte Road and Grant Line Road, the roadway includes four lanes and a raised median. North of Grant Line Road and south of Parkside Drive, the roadway has two lanes with no median. Class-II bike lanes are provided on Corral Hollow Road between Schulte Road and Grant Line Road. This roadway also serves as a major truck route leading to nearby aggregate mining operations.
- ◆ **Lammers Road** borders the Modified ESP site on the west. Lammers Road is a major roadway originating just south of the Modified ESP site and serves as the western boundary of the existing

developed area of the City of Tracy. The City is currently reconstructing a six-lane facility between the south end of John Kimball High School and 11th Street. The remainder of the street to the south is a two-lane undivided facility. The posted speed limit within the City is 45 miles per hour. Lammers Road is designated within the City of Tracy Roadway Master Plan (RMP) as an urban expressway and future freeway connection between I-205 and I-580.

- ◆ **Valpico Road** originates at Lammers Road and continues east into the City of Tracy, where it changes from two to four lanes at Cagney Way. The RMP designates this roadway as a 4-lane major arterial. The posted speed limit on Valpico Road is 40 miles per hour.
- ◆ **Linne Road** originates at Corral Hollow Road at the Modified ESP's eastern limit, extends eastward serving agricultural and aggregate mining areas, and passes adjacent to the Tracy Municipal Airport. Linne Road is designated within the RMP as part of the expressway network designed to bypass the freeways. The posted speed limit on Linne Road is 35 miles per hour.
- ◆ **Old Schulte Road** is a discontinuous roadway extending from Mountain House Parkway to Chrisman Road. For a short segment of the roadway (east of Mountain House Parkway and adjacent to the Safeway Warehouse Terminal), Schulte Road is a five-lane truck route. East of this segment, Schulte Road narrows to two travel lanes. Schulte Road terminates at the intersection with Lammers Road. The roadway commences again at Corral Hollow Road, approximately one-quarter mile north of its westerly segment. East of Corral Hollow Road, the roadway has been widened to four travel lanes. Old Schulte Road is identified within the RMP as a major arterial. The posted speed limit on Old Schulte Road is 45 miles per hour.

EXISTING LEVELS OF SERVICE

REGIONAL ROADWAY SEGMENTS

Existing freeway segment peak-hour volumes were taken from Caltrans Freeway Volume data averaged across counts observed on Tuesdays, Wednesdays, and Thursdays in 2003 and 2004. Existing traffic volumes on Tesla Road and Patterson Pass Road were counted in May 2006. Table 4.13-5 (Existing Segment Peak Hour Levels of Service on Regional Roadways) reports the existing regional roadway segment LOS based on an assumed capacity of 2,200 vehicles per lane per hour for I-580 freeway segments and capacity/LOS ratios for Tesla and Patterson Pass Roads. The freeway segments along I-580 west of I-205 are operating at LOS E or F. East of the I-205, I-580 operates at LOS C during the PM peak hour and LOS B during the AM peak hour. Tesla Road and Patterson Pass Road carry 760 and 1,000 vehicles, respectively, in the westbound direction during the AM peak hour.

TABLE 4.13-5 EXISTING SEGMENT PEAK HOUR LEVELS OF SERVICE ON REGIONAL ROADWAYS

| Study Segments | Jurisdiction and LOS Threshold | Existing Number of Lanes (By Direction) | AM Volume ¹ (WB) | AM Density/LOS ² | PM Volume ¹ (EB) | PM Density/LOS ² |
|------------------------------------------------------------|--------------------------------|-----------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Freeway Analysis – Interstate 580³ | | | | | | |
| A. I-580: Pleasanton Area (Hopyard Rd. to El Charro Rd.) | Caltrans & ACCMA/E | 4 + HOV EB | 8,800 | > 45/F | 7,200 | F ⁴ |
| B. I-580: Livermore Area (El Charro Rd. to Greenville Rd.) | Caltrans & ACCMA/E | 4 + HOV EB | 8,200 | F ⁴ | 7,400 | 33/D |
| C. I-580: Altamont Pass to I-205/I-580 Merge/Diverge | Caltrans & SJ COG/F | 4 | 7,000 | 34/D | 8,000 | F ⁴ |

TABLE 4.13-5 EXISTING SEGMENT PEAK HOUR LEVELS OF SERVICE ON REGIONAL ROADWAYS
(CONTINUED)

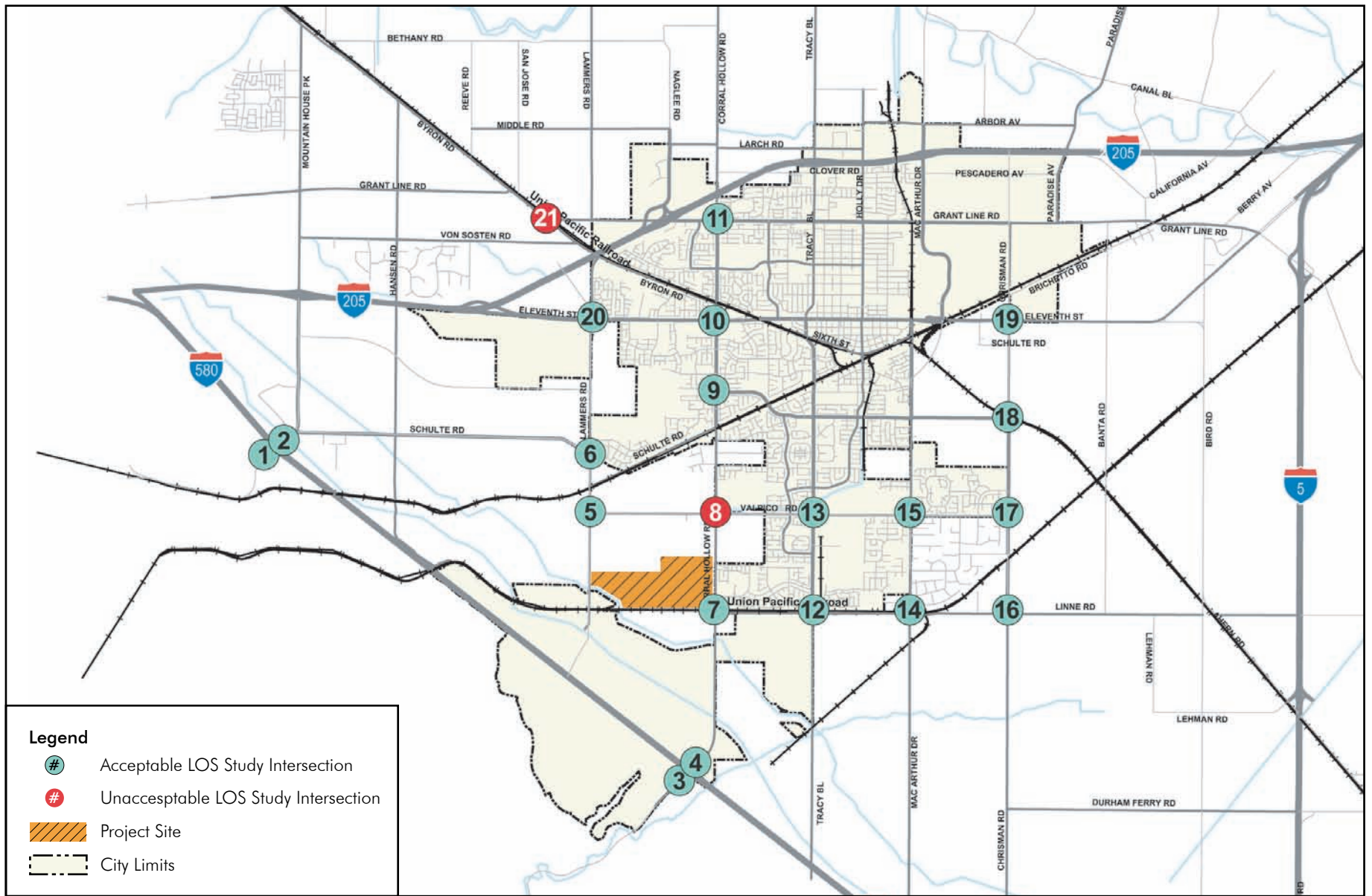
| Study Segments | Jurisdiction and LOS Threshold | Existing Number of Lanes (By Direction) | AM Volume ¹ (WB) | AM Density/LOS ² | PM Volume ¹ (EB) | PM Density/LOS ² |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| D. I-580: I-205/I-580 Diverge to Patterson Pass | Caltrans & SJ COG/D | 2 | 1,500 | 12/B | 2,000 | 17/B |
| E. I-580: Patterson Pass to Corral Hollow Road | Caltrans & SJ County/D | 2 | 1,500 | 12/B | 2,100 | 17/B |
| F. I-580: Corral Hollow Road to Chrisman Road | Caltrans & SJ County/D | 2 | 1,600 | 13/B | 2,300 | 19/C |
| County Road Analysis | | | | | | |
| G. Tesla Road south of I-580 | SJ County/D | 1 | 760 | E | 450 | D |
| H. Patterson Pass Road south of I-580 | SJ County/D | 1 | 1,000 | E | 450 | D |
| Notes: Shading indicates LOS threshold is exceeded. | | | | | | |
| 1. Peak hour volumes on I-580 segments from Caltrans (2002-2004). Peak hour volumes on Tesla Road and Patterson Pass Road are average of counts conducted on Tuesday and Wednesday in May 2006. | | | | | | |
| 2. Reported LOS based on peak-hour peak direction volume: Westbound for AM, Eastbound for PM. Unless otherwise noted, freeway segment LOS is based on vehicle density, according to the <i>2000 Highway Capacity Manual</i> . County road LOS based on volumes, according to <i>FDOT Quality/Level of Service Handbook</i> . | | | | | | |
| 3. Assumed per-lane capacity of 2,200 vehicles per hour and free-flow speed of 70 miles per hour on freeway facilities. | | | | | | |
| 4. Source: <i>2006 Level of Service Monitoring on the Congestion Management Program Roadway Network</i> (Alameda County CMA, July 2006). | | | | | | |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

Weekday peak-hour traffic counts were conducted in May and August of 2006 at the study intersections. In order to verify the accuracy of the 2006 traffic counts, additional Existing AM and PM peak-hour intersection and roadway traffic counts were conducted in December 2011. The 2011 traffic counts were found to be two percent lower than the 2006 traffic volumes. Due to the decrease in traffic volumes from 2006 to 2011 it can be concluded that the 2006 traffic volumes are valid. Refer to Figure 4.13-3 (Existing Study Intersection Level of Service).

EXISTING INTERSECTION OPERATIONS

Intersection turning movement counts were collected in May and August 2006 for the morning (7:00 AM to 9:00 AM) and evening (4:00 PM to 6:00 PM) peak periods at the study intersections. A comparison of traffic volumes between 2006 and 2011 indicates an average citywide decrease of two percent. Thus the analysis conducted in 2006 depicts slightly worse conditions compared to today and the results of the 2006 analysis. The 2006 single hour with the highest traffic volume was identified and used for the peak-hour analysis. The August counts were adjusted (based on adjacent roadway counts collected in August and May) to account for lower volumes in the summer months. Table 4.13-6 (Existing AM and PM Peak Hour Intersection Level of Service) shows the existing intersection analysis results based on the 2000 HCM methodology. Currently, all study intersections are operating acceptably during the morning peak hour, and all except for two (Corral Hollow Road/Valpico Road and Byron Road/Grant Line Road) operate acceptably during the evening peak hour. The Corral Hollow Road/Valpico Road intersection is all-way stop controlled, and meets the PM peak-hour volume signal warrant. The northbound and southbound approaches to the Byron Road/Grant Line Road intersection located in San Joaquin County are controlled by stop signs. This intersection also meets the peak-hour volume signal warrant.



Source: Fehr & Peers Traffic Impact Assessment (2006), RBF Consulting (2012)



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City of Tracy Modified Ellis Project Draft Revised EIR
Existing Study Intersection Level of Service

Figure 4.13-3

City of Tracy Modified Ellis Project
Draft Revised EIR

TABLE 4.13-6 EXISTING AM AND PM PEAK HOUR INTERSECTION LEVEL OF SERVICE

| Study Intersection | Jurisdiction and LOS Threshold | Type of Control ¹ | AM Peak Hour | | PM Peak Hour | |
|---------------------------------------------|--------------------------------|------------------------------|---------------------------|-----------------------|---------------------------|--------------------|
| | | | Delay ² in Sec | LOS | Delay ² in Sec | LOS |
| 1. Patterson Pass/I-580 EB | Caltrans/D | SSS | 3 (18 EB) | A (C EB) | 12 (41 EB) | B (EEB) |
| 2. Patterson Pass/I-580 WB | Caltrans/D | SSS | 5 (21 WB) | A (C WB) | 1 (14 WB) | A (B WB) |
| 3. Corral Hollow Rd./I-580 EB | Caltrans/D | SSS | 2 (14 EB) | A (B EB) | 6 (22 EB) | A (C EB) |
| 4. Corral Hollow Rd./I-580 WB | Caltrans/D | SSS | 6 (17 WB) | A (C WB) | 2 (11 WB) | A (B WB) |
| 5. Lammers Rd./Valpico Rd. | Tracy/D | SSS | 9 (10 WB) | A (A WB) | 8 (10 WB) | A (A WB) |
| 6. Lammers Rd./Schulte Rd. | Tracy/D | AWS | 14 | B | 14 | B |
| 7. Corral Hollow Rd./Linne Rd. | Tracy/D | SSS | 6 (16 WB) | A (C WB) | 3 (13 WB) | A (B WB) |
| 8. Corral Hollow Rd./Valpico Rd. | Tracy/D | AWS | 16 | C | 44 | E |
| 9. Corral Hollow Rd./Schulte Rd. | Tracy/D | Signal | 21 | C | 17 | B |
| 10. Corral Hollow Rd./Eleventh St. | Tracy/D | Signal | 32 | C | 36 | D |
| 11. Corral Hollow Rd./Grant Line Rd. | Tracy/D | Signal | 23 | C | 31 | C |
| 12. Tracy Blvd./Linne Rd. | Tracy/D | AWS | 11 | B | 10 | B |
| 13. Tracy Blvd./Valpico Rd. | Tracy/D | Signal | 27 | C | 24 | C |
| 14. MacArthur Drive/Linne Road | SJ County/ D | AWS | 10 | A | 10 | A |
| 15. MacArthur Drive/Valpico Road | Tracy/D | Signal | 19 | B | 21 | C |
| 16. Chrisman Road/Linne Road | SJ County /D | AWS | 10 | B | 10 | A |
| 17. Chrisman Road/Valpico Road ³ | SJ County/D | AWS | 9 | A | 8 | A |
| 18. Chrisman Road/Schulte Road | Tracy/D | SSS | 10 (38 EB) | A (E EB) | 5 (24 EB) | A (C EB) |
| 19. Chrisman Road/Eleventh Street | Tracy/D | Signal | 9 | A | 13 | B |
| 20. Lammers Road/Eleventh Street | Tracy/D | Signal | 17 | B | 18 | B |
| 21. Byron Road/Grant Line Road | SJ County D | SSS | 44 (>50 SB) | E (F SB) | >50 (>50 SB) | F (F SB) |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

SJCOG CMP BACKGROUND

The purpose of the CMP is to monitor the cumulative transportation impacts of growth of the regional roadway system, establish a level of service standard, identify deficient regional roadways and develop plans to mitigate the deficiencies, and facilitate travel demand management and operational preservation strategies for existing and planned development.

To be consistent with the SJCOG CMP, this analysis identifies potential impacts of the Modified Project on CMP roadways, includes identification and implementation of mitigation measures to resolve or mitigate identified impacts (including estimated cost), and details how the Modified Project will be compliant with the Regional Travel Demand Management Action Plan.

MODIFIED PROJECT EIR CMP ANALYSIS

The SJCOG CMP uses the “Florida Level of Service Method” for its evaluation of roadway level of service. Developed by the Florida Department of Transportation, this method is comprised of generalized LOS maximum volume tables for different roadway facility types. The tables are based on the 2000 Highway Capacity Manual methodology.

This analysis identifies a substantial number of Project trips using 11th Street, Lammers Road, Corral Hollow Road, and Linne Road. Segment analysis of the CMP roadways was conducted for the Existing Plus Project and Cumulative Plus Project Conditions. As shown in Table 4.13-7 (SJCOG Regional Congestion Management Program Level of Service), all the CMP roadways studied would operate at an acceptable level of service (LOS D or better) without mitigation.

TABLE 4.13-7 SJCOG REGIONAL CONGESTION MANAGEMENT PROGRAM LEVEL OF SERVICE

| Roadway | Segment | Peak Hour | Existing Plus Project Volume | Existing Plus Project LOS | Cumulative Plus Project Volume | Cumulative Plus Project LOS |
|---------------------------|------------------------------------|-----------|------------------------------|---------------------------|--------------------------------|-----------------------------|
| Eleventh Street | West of Lammers Road | AM | 2,031 | C | 3,100 | C |
| | | PM | 2,291 | C | 5,260 | D |
| Lammers Road | | | | | | |
| Lammers Road | Eleventh Street to Schulte Road | AM | 410 | C | 1,620 | C |
| | | PM | 463 | C | 3,010 | C |
| | Schulte Road to Valpico Road | AM | 567 | C | 1,705 | C |
| | | PM | 641 | C | 3,290 | C |
| | Valpico Road to Ellis Drive | AM | 17 | B | 1,600 | C |
| | | PM | 32 | B | 3,500 | C |
| Ellis Drive to I-580 | AM | 0 | B | 2,050 | C | |
| PM | 0 | B | 3,010 | C | | |
| Corral Hollow Road | | | | | | |
| Corral Hollow Road | Grant Line Road to Eleventh Street | AM | 1,769 | D | 2,035 | D |
| | | PM | 2,317 | D | 3,875 | D |
| | Eleventh Street to Schulte Road | AM | 2,038 | D | 2,180 | D |
| | | PM | 2,136 | D | 3,960 | D |
| | Schulte Road to Valpico Road | AM | 946 | C | 1,900 | D |
| | | PM | 1,065 | C | 3,370 | D |
| | Valpico Road to Ellis Drive | AM | 555 | C | 1,400 | C |
| | | PM | 612 | C | 2,520 | D |
| | Ellis Drive to Linne Road | AM | 508 | C | 1,290 | C |
| | | PM | 446 | C | 2,400 | D |
| | Linne Road to I-580 | AM | 608 | C | 1,435 | C |
| | | PM | 582 | C | 2,635 | D |

TABLE 4.13-7 SJCOG REGIONAL CONGESTION MANAGEMENT PROGRAM LEVEL OF SERVICE (CONTINUED)

| Roadway | Segment | Peak Hour | Existing Plus Project Volume | Existing Plus Project LOS | Cumulative Plus Project Volume | Cumulative Plus Project LOS |
|-------------------|----------------------------------------|-----------|------------------------------|---------------------------|--------------------------------|-----------------------------|
| Linne Road | | | | | | |
| Linne Road | Corral Hollow Road to Tracy Boulevard | AM | 351 | C | 1,285 | C |
| | | PM | 363 | C | 2,225 | C |
| | Tracy Boulevard to MacArthur Boulevard | AM | 486 | C | 820 | C |
| | | PM | 429 | C | 1,275 | C |
| | MacArthur Boulevard to Chrisman Road | AM | 384 | C | 460 | C |
| | | PM | 425 | C | 520 | C |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

TRIP GENERATION

Traffic forecasts were prepared using the City of Tracy General Plan Traffic Model, which was updated in 2004 to be consistent with the current SJCOG regional transportation model, and to reflect the most recent information on future projects and planned roadway improvements in the City of Tracy per the City's General Plan.

MODIFIED ELLIS SPECIFIC PLAN DEVELOPMENT ASSUMPTIONS

The City's traffic model was refined to reflect the Modified Ellis Specific Plan. In essence, the model has been updated to include additional Traffic Analysis Zones (TAZs) to more accurately depict proposed land uses and roadway modifications specific to the Modified ESP site. These TAZs are small subsets of land use data compiled in tabular form. Table 4.13-8 (Modified Ellis Specific Plan Development Assumptions) summarizes the information contained within these TAZs.

TABLE 4.13-8 MODIFIED ELLIS SPECIFIC PLAN DEVELOPMENT ASSUMPTIONS

| Land Use Category | Acreage | Dwelling Units or Square Footage |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------|
| Residential Mixed | 284.7 | 1,000 to 2,250 du |
| Village Center ¹ | 5.7 total | 0 to 50 du 60,000 sq. ft. |
| Commercial | 4.4 | 40,000 sq. ft. |
| Limited Use | 26.2 | 80,000 sq. ft. |
| Total | 321 | 1,000 to 2,250 du 180,000 sq. ft. commercial |
| Notes: | | |
| 1. Assumed permitted uses include retail shops, art galleries, personal services, banking, professional office, cafes and restaurants, post office and/or civic facilities, and administrative offices. | | |

Source: Modified Ellis Specific Plan Density Table, Amended March 2012. Validated by RBF Consulting, April 2012.

TRIP DISTRIBUTION AND ASSIGNMENT

The City of Tracy 2004 General Plan Travel Demand Model was used to develop trip distributions for the proposed Project. Project-specific roadway improvements were added to the existing model to represent future Project access and internal circulation elements, and the land use described in Table 10 was used to represent Modified ESP trip generators. The traffic analysis includes an overall higher trip generation compared to the maximum buildout of the Modified ESP (2,250 dwelling units) for

the highest peak hour and thus presents a worst case scenario of traffic operations. Note that the transit center portion of the site is assumed to be non-operational within the timeframe of this analysis. At this time, it is uncertain if the Rail Commission would approve the site as a transit station site, or when permitting for development of the transit center would occur. Therefore no adjustments in traffic generation were made to account for transit-oriented components of the Modified ESP.

EXISTING BICYCLE AND TRANSIT NETWORK

EXISTING BICYCLE NETWORK

Currently, no bicycle facilities are provided within the immediate Modified ESP site. The rural nature of the area's roadways generally requires that bicycles share the roadways with motor vehicles.

Within the City limits some Class I bikeway facilities exist. Class I facilities are paved bicycle paths that are physically separated from the vehicular travel lane. The longest continuous Class I Bike Path is located east of Corral Hollow Road and extends from West Eleventh Street to south of Valpico Road. A second Class I facility runs parallel to North MacArthur Drive and extends from East Eleventh Street to I-205. Lammers Road is not currently designated as a bicycle facility.

Class II facilities, which are striped bike lanes along the street, are generally found along the western portion of the existing urbanized area of the City. There are Class II bike lanes along portions of Corral Hollow Road and Tracy Boulevard.

Class III bicycle facilities are bike routes denoted by signs that are shared with vehicles along the roadway. Class III bicycle facilities are located mainly in the Central Tracy area.

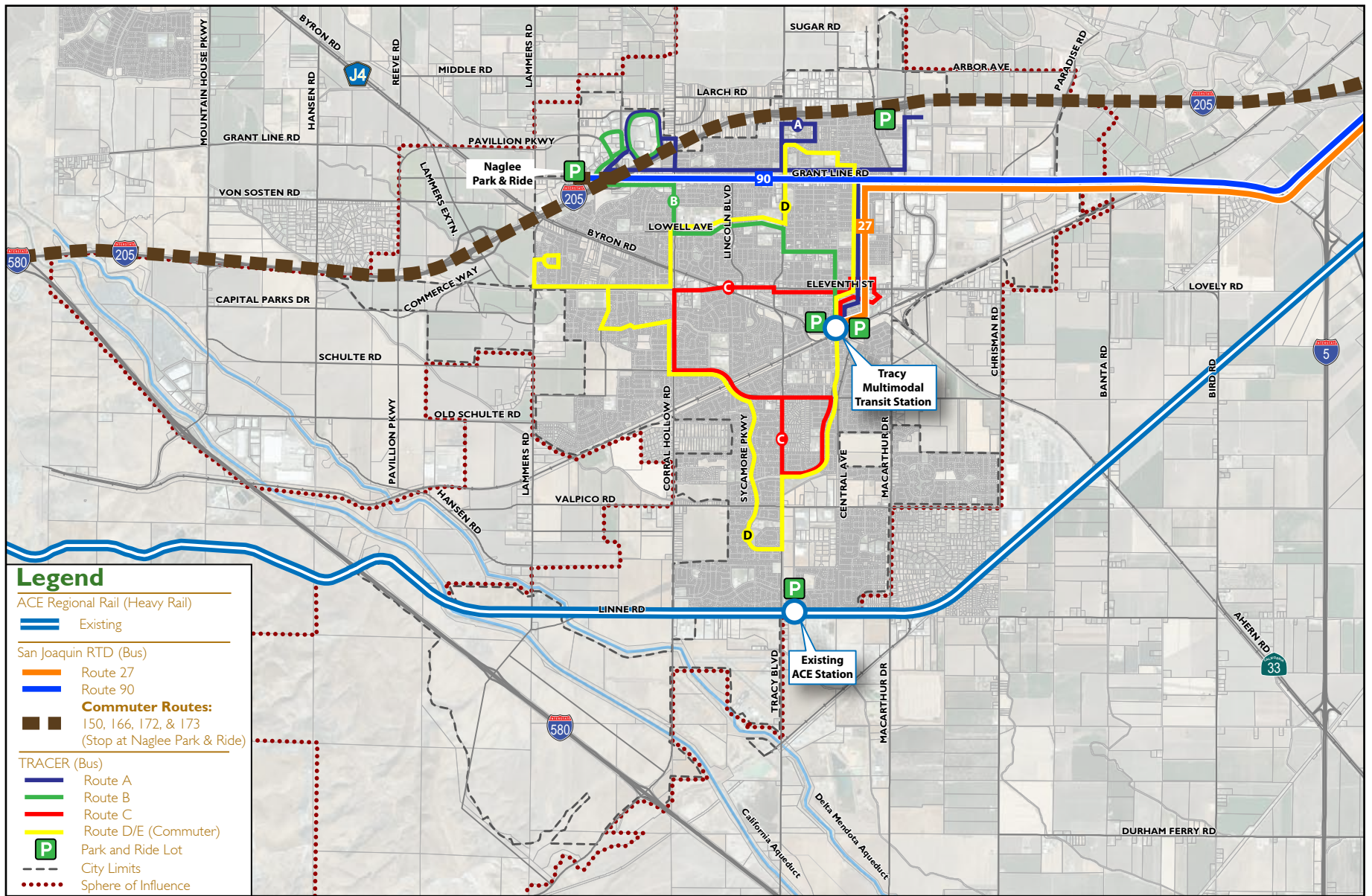
While bicycle facilities are located throughout the City, gaps in the existing bicycle network make it difficult to travel east-west or north-south through the City.

Existing pedestrian facilities such as sidewalks, crosswalks, and pedestrian signals are absent within the Modified ESP site, except for sidewalks along the eastern border where housing development is located adjacent to Corral Hollow Road.

EXISTING TRANSIT SERVICES

The public transit system includes both bus and rail passenger components. The bus and rail system provides local and regional connectivity to residents of the City of Tracy. Figure 4.13-4a and Figure 4.13-4b display the existing bus transit system the ACE rail service map within the City.

- ◆ Local fixed-route and commuter bus services operated by the City (TRACER)
- ◆ Regional intercity fixed-route bus service operated by the San Joaquin Regional Transit District (SJRTD)
- ◆ County Hopper Service operated by SJRTD
- ◆ Commuter express bus service operated by SJRTD
- ◆ Altamont Commuter Express (ACE) rail service

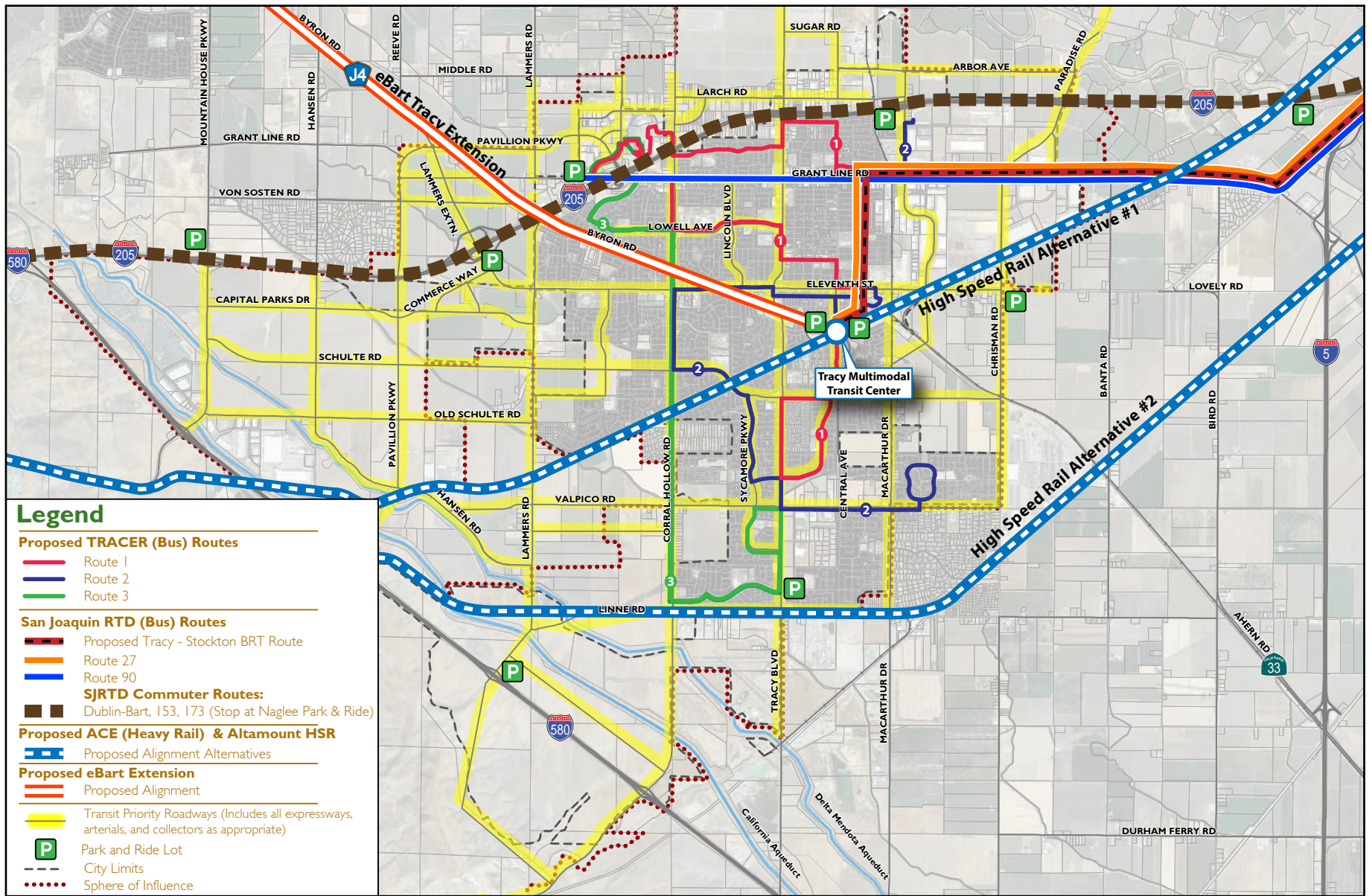


Legend

- ACE Regional Rail (Heavy Rail)
 - Existing
- San Joaquin RTD (Bus)
 - Route 27
 - Route 90
- Commuter Routes:**
 - 150, 166, 172, & 173 (Stop at Naglee Park & Ride)
- TRACER (Bus)
 - Route A
 - Route B
 - Route C
 - Route D/E (Commuter)
- P Park and Ride Lot
- - - City Limits
- Sphere of Influence

Source: City of Transportation Master Plan (2012), RBF Consulting (2012)





Source: City of Transportation Master Plan (2012), RBF Consulting (2012)



**City of Tracy Modified Ellis Project
Draft Revised EIR**

Local Fixed-Route Bus Service (Tracer)

Fixed-route services run on a set route and time with fixed stops. TRACER offers five fixed bus routes, Routes A-E. Routes A, B, and C run Monday through Friday from approximately 6:30 AM to 7:40 PM and Saturday from 9:00 AM to 5:00 PM. Routes D and E run only on weekdays when school is in session. TRACER does not operate on Sundays and holidays.

Route A provides service to/from the Tracy Transit Station to West Valley Mall, and runs along East Street, MacArthur Drive, Grant Line Road, Tracy Boulevard, and Corral Hollow Road. It also provides services to other major destinations within the City, including Prime Outlets, the Civic Center, and West Valley Mall. It operates between 6:30 AM to 7:15 PM on weekdays, and between 9:15 AM to 4:28 PM on Saturday. This service is provided with approximately 90-minute headways on both weekdays and Saturday.

Route B also provides service to/from the Tracy Transit Station to West Valley Mall, and runs along Holly Drive, Eaton Avenue, Tracy Boulevard, Lowell Avenue, Corral Hollow Road, Grant Line Road, and Naglee Road. Major destinations served along this route include Sutter Tracy Community Hospital, the Civic Center, Wal-Mart, and West Valley Mall. It operates between 7:10 AM to 7:40 PM on weekdays, and between 9:20 AM to 5:30 PM on Saturday. This service is provided with approximately 60-minute headways during the AM peak hour and PM peak hour, and 90-minute headways during the day.

Route C provides service to/from the Tracy Transit Station to the south Tracy residential area, along 10th Street, Eleventh Street, Corral Hollow Road, Schulte Road, Tracy Boulevard, and Central Avenue. Major destinations served along this route include the Civic Center, the U.S. Post Office, Williams Middle School, and SaveMart. It operates between 6:30 AM to 7:10 PM on weekdays, and between 9:10 AM to 4:55 PM on Saturday. This service is provided with approximately 60-minute headways on both weekdays and Saturday.

Route D and Route E are commuter routes and provide service only on weekdays. These routes provide a clockwise and counterclockwise loop around the City limits and run along East Street, Holly Drive, Kavanagh Avenue, Tracy Boulevard, Lowell Avenue, Corral Hollow Road, Schulte Road, Sycamore Parkway, and Central Avenue. Major destinations served along these routes include the Civic Center, library, elementary, middle and high schools in the City of Tracy, and the Tracy Sports Complex. It operates two services during the AM peak hour and four in the afternoon.

Regional Intercity Fixed-Route Bus Service

The SJRTD operates one fixed-route bus line (Route 26) that connects the City to Stockton via Lathrop. Route 26 runs along Grant Line Road and East Street within Tracy. Major destinations served along this route include the Civic Center and Tracy Transit Station. It operates between 5:00 AM to 9:25 PM on weekdays with varying services between 30 and 90 minutes intervals during the AM peak hour and PM peak hour, and between 9:25 AM to 5:53 PM on Saturday/Sundays/holidays with only four trips during the day with varying time intervals.

County Hopper Service

The SJRTD County Hopper (Route 90) is a deviated fixed-route bus service connecting Stockton, Tracy, Lodi, Manteca, Ripon and Lathrop. The Hopper replaces SJRTD Countywide General Public Dial-A-Ride (DAR), Rural Elderly & Disabled DAR, and County Area Transit (CAT) fixed-route services during Hopper service hours in the areas covered by the Hopper service.

SJRTD Commuter Bus Service

San Joaquin Commuter provides several inter-regional bus services from the Nagle Road Park & Ride lot to the East Bay and South Bay, Monday through Friday, during commute hours. One route travels down Holly Drive, Central Avenue, Schulte Road, Tracy Boulevard, and Eleventh Street to Lawrence Livermore/Sundia Labs. Pick-up times vary between 4:00 AM and 6:00 AM and drop-off times vary between 4:00 PM and 6:00 PM.

Altamont Commuter Express

ACE is a passenger rail service connecting Stockton to San Jose. ACE operates on weekdays, excluding holidays. The ACE station in the City of Tracy is located along Tracy Boulevard near Linne Road. Three westbound trains pass through the City of Tracy with approximately one-hour headways at 4:49 AM, 6:04 AM, and 7:09 AM, and three eastbound trains returning to the City of Tracy with one-hour headways, at 5:09 PM, 6:09 PM, and 7:09 PM.

TRUCK ROUTES

The City of Tracy has a specific City ordinance relating to truck routes. Section 3.08.300 of the Tracy Municipal Code defines weight restrictions, specifies the circumstances under which trucks may enter areas not designated as truck routes, and defines the truck routes within the City.

The weight restrictions that apply to trucks are specified in Section 3.08.300 of the Tracy Municipal Code. This section of the code states that trucks with a gross vehicle weight larger than 5 tons must stay on designated truck routes. Passenger buses under the jurisdiction of the Public Utilities Commission are exempt from this restriction.

Section 3.08.300 also provides that trucks are allowed to temporarily deviate from the designated truck routes for purposes of loading and unloading. Otherwise, trucks should remain on the designated routes specified in Section 3.08.310 of the Tracy Municipal Code.

I-205, I-580, and I-5 are also designated as truck routes by the State of California.

4.13.4 THRESHOLDS OF SIGNIFICANCE

As described in Section 4.13.2 (Analysis Methods & Significance Criteria) above, level of service is a measure of the level of congestion experienced at an intersection or along a facility, ranging from LOS A to LOS F. Most cities and counties in California have established LOS standards of significance for intersections and facilities within the limits of the city or county.

LEVEL OF SERVICE STANDARDS

CITY OF TRACY

The City (per the 2011 General Plan Update) has established LOS D, where feasible, as the minimum acceptable LOS for roadway and overall intersection operations. However, there are certain locations where this standard does not apply. The following provides a list and description of exceptions to the LOS D standard:

- ◆ LOS E or lower shall be allowed on streets and at intersections within ¼ mile of any freeway, to discourage inter-regional traffic from using City streets.

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- ◆ In the Downtown and Bowtie area of the City of Tracy, LOS E shall be allowed in order to create a pedestrian-friendly urban design character and densities necessary to support transit, bicycling, and walking.
- ◆ The City may allow individual locations to fall below the City's LOS D standard at intersections where construction of improvements is not feasible, prohibitively expensive, significantly impact adjacent properties or the environment, or have a significant adverse impact on the character of the community, including pedestrian mobility, crossing times, and comfort/convenience. Intersections may be permitted to fall below their adopted LOS standard on a temporary basis when the improvements necessary to preserve the LOS standard are in the process of construction or have been designed and funded but not yet constructed.

SAN JOAQUIN COUNCIL OF GOVERNMENTS

The CMP system includes Interstate 205, Interstate 580, Interstate 5, Eleventh Street, Lammers Road, Corral Hollow Road, Linne Road, and Tracy Boulevard. LOS thresholds for local freeways are set at LOS D, except that on I-205 between the Alameda County Line and Tracy Boulevard LOS F is permissible, and on I-205 between MacArthur Drive and I-5 LOS E is permissible

COUNTY OF SAN JOAQUIN

The County of San Joaquin has established LOS D as the minimum acceptable LOS for roadway and intersection operations.

COUNTY OF ALAMEDA

The County of Alameda has established LOS E as the minimum acceptable LOS for freeway/highway segments.

CALTRANS

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. Thus, the SJCOG CMP LOS thresholds govern the freeway segments through the City of Tracy. Caltrans also adopted the LOS thresholds from ACCMA for the I-580 segments to the east of the Project area.

SIGNIFICANCE CRITERIA

Significance criteria are used to identify Project impacts. Currently, the City, SJCOG, ACCMA, the County, and Caltrans have LOS thresholds that are utilized for roadways under their respective jurisdictions. For the freeway segments Caltrans has adopted the SJCOG and ACCMA criteria. The following significance criteria were used for this Draft Revised EIR and are consistent with the thresholds from the 2011 General Plan Update, Caltrans thresholds, SJCOG criteria, SJ County criteria, ACCMA criteria, and Appendix G of the CEQA Guidelines. Accordingly, the proposed Project would have a significant traffic impact if any of the following would occur:

CITY OF TRACY

Signalized Intersections

- ◆ Signalized intersections operating at an acceptable level (LOS D or better if located more than ¼ mile from a freeway) degrade to an unacceptable LOS E or F.
- ◆ Addition of project trips causes a delay increase of more than four seconds to an intersection already operating at an unacceptable level.

Traffic and Circulation **Section 4.13**

Un-signalized Intersections

- ◆ Unsignalized intersections operating at LOS D or better degrade to an unacceptable LOS E or under (outside ¼ mile of a freeway), and LOS E or better degrade to an unacceptable LOS F (within ¼ mile of a freeway), and a traffic signal warrant is met.
- ◆ Addition of project trips causes a volume increase of more than 10 percent at an intersection operating at an unacceptable level and meeting a signal warrant.

SAN JOAQUIN COUNTY

Signalized Intersections

- ◆ Intersections operating at LOS D or better degrade to an unacceptable LOS E or F.

Un-signalized Intersections

- ◆ Unsignalized intersections worst movement/approach operating at LOS D or better degrade to an unacceptable LOS E or F.
- ◆ Addition of one project trip that causes an intersection operating at an unacceptable LOS E or F

Roadway Segments

- ◆ Roadway segments operating at LOS C or better degrade to an unacceptable LOS D, E, or F

CALTRANS

- ◆ For intersections, the City significance criteria apply.
- ◆ A freeway segment operating at LOS D or better degrades to an unacceptable LOS E or F.
- ◆ Addition of project trips is greater than five percent of freeway segment already operating at an unacceptable LOS E or F.

CEQA

According to Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact on traffic if the Project would:

- ◆ 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?
- ◆ 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?
- ◆ 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?
- ◆ Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- ◆ Result in inadequate emergency access?
- ◆ Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

ALAMEDA COUNTY CONGESTION MANAGEMENT AGENCY

The Alameda County Congestion Management Program, administered by the Alameda County Congestion Management Agency (CMA), requires a LOS E standard be maintained on all CMP routes in Alameda County, except for those areas designated as “infill opportunity zones” or those segments on the CMP system that were already operating at LOS F in the 1991 CMP baseline year.

4.13.5 ENVIRONMENTAL ANALYSIS

EXISTING PLUS MODIFIED ESP CONDITIONS

To evaluate the Existing Plus Project conditions, the Modified ESP site was incorporated into the City of Tracy Base Travel Demand Model. Modified ESP-specific roadway improvements were added to the existing model to represent future Modified ESP access and internal circulation elements, and the land use described in Table 4.13-8 (Modified Ellis Specific Plan Development Assumptions) was used to represent Modified ESP site trip generators. Note that the transit center portion of the site is assumed to be non-operational within the timeframe of this analysis. At this time, it is uncertain if the Rail Commission would approve the site as a transit station site, or when permitting for development of the transit center would occur. Therefore, no adjustments in traffic generation were made to account for transit-oriented components of the Modified ESP.

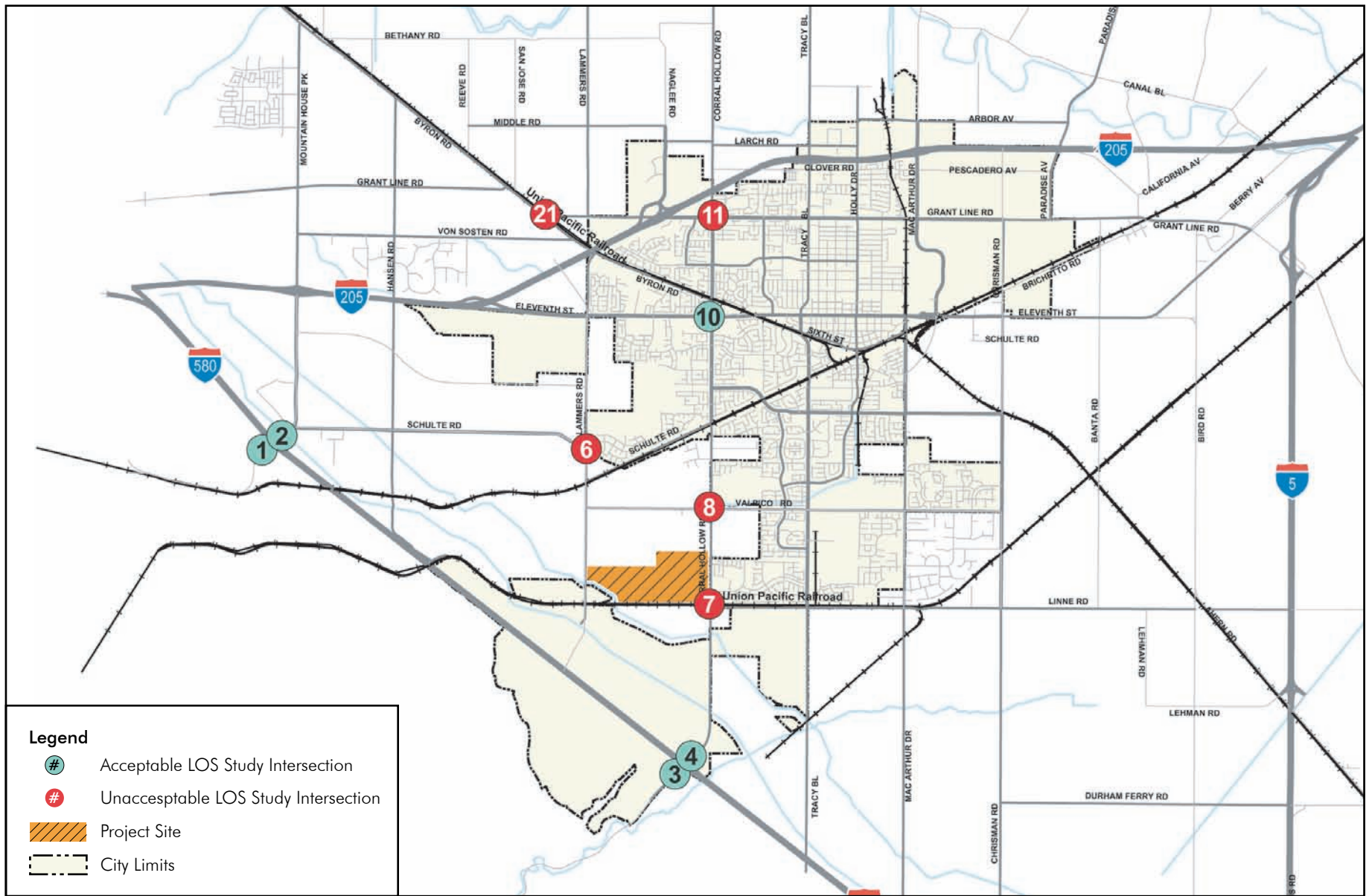
The Modified ESP trips were generated and assigned to the roadway network using the calibrated trip generation rates from the traffic model. Table 4.13-9 (Modified ESP Vehicle Trip Generation) and Table 4.13-10 (Existing Plus Modified ESP Trip Distribution) summarize the Modified ESP peak-hour trip generation and distribution, respectively, under Existing Plus Project Conditions.

Based on calibrated trip generation rates, the Modified ESP site would generate 1,535 vehicle trips in the AM peak hour and 3,393 vehicle trips in the PM peak hour. Due to the mix of residential and commercial uses envisioned for the specific plan, 9 percent of AM trips and 18 percent of PM trips are expected to stay within the Modified ESP site. An additional 57 percent AM peak-hour and 67 percent PM peak-hour trips would travel to/from other parts of the City of Tracy planning area. Refer to Figure 4.13-5 (Existing Plus Modified ESP Intersection Level of Service).

TABLE 4.13-9 MODIFIED ESP VEHICLE TRIP GENERATION

| Land Use | Model Input | Size | AM Peak Hour Trips | | | PM Peak Hour Trips | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------|--------------------|--------------|--------------|--------------------|--------------|--------------|
| | | | In | Out | Total | In | Out | Total |
| Residential Low Density | SF DU | 708 | 69 | 391 | 460 | 575 | 324 | 899 |
| Residential Medium Density | SF DU | 1,116 | 109 | 616 | 725 | 907 | 510 | 1,417 |
| Residential High Density | MF DU | 399 | 21 | 127 | 148 | 184 | 103 | 287 |
| Total residential¹ | | 2,250 | 202 | 1,149 | 1,351 | 1,688 | 949 | 2,637 |
| Retail | jobs (employees) | 140 | 69 | 29 | 98 | 248 | 302 | 550 |
| Service (Office) | jobs (employees) | 90 | 27 | 4 | 31 | 12 | 31 | 43 |
| Other (Warehousing) | jobs (employees) | 80 | 23 | 2 | 25 | 6 | 21 | 27 |
| Total Commercial^{1,2} | | 310 | 119 | 35 | 154 | 266 | 354 | 620 |
| Total Residential and Commercial Trips | | | 321 | 1,184 | 1,505 | 1,954 | 1,303 | 3,257 |
| Aquatic Center ³ | N/A | 3 pools | 21 | 9 | 30 | 71 | 65 | 136 |
| Parks ⁴ | N/A | 19 acres | -- | -- | -- | -- | -- | -- |
| Total Trips | | | 342 | 1,193 | 1,535 | 2,025 | 1,368 | 3,393 |
| <p>Notes:</p> <p>du = dwelling unit</p> <p>1. Trip generation based on the model-derived rates for Single Family Residential, Multi-Family Residential, Retail jobs and Service jobs, as follows: Single Family AM Rate: T = 0.65 (X) (15% in, 85% out); PM Rate: T = 1.27 (X) (64% in, 36% out); T = Trip ends; X = Dwelling Units Multi-Family AM Rate: T = 0.37 (X) (14% in, 86% out); PM Rate: T = 0.72 (X) (64% in, 36% out); T = Trip ends; X = Dwelling Units Retail AM Rate: T = 0.7 (X) (70% in, 30% out); PM Rate: T = 3.93 (X) (45% in, 55% out); T = Trip ends; X = Jobs Service AM Rate: T = 0.34 (X) (88% in, 12% out); PM Rate: T = 0.48 (X) (29% in, 71% out); T = Trip ends; X = Jobs Other AM Rate: T = 0.31 (X) (91% in, 9% out); PM Rate: T = 0.34 (X) (24% in, 76% out); T = Trip ends; X = Jobs</p> <p>2. Based on the Project Description this analysis assumes a 70%/30% retail/service split of the unrestricted commercial square footage. Limited Use square footage in the Limited Use Designation was assumed to be warehousing. Jobs for each were based on model factors developed for Tracy: 2 employees per 1000 sq. ft. of retail space; 3 employees per 1000 sq. ft. of office space, and 1 employee per 1000 sq. ft. of other space.</p> <p>3. PM peak-hour trip rate and in/out split is based on vehicle counts conducted at the Roseville Aquatic Center in October, 2000. AM peak-hour trips are based on communication with staff of the Roseville Aquatic Center in August, 2006. In/out split is based on vehicle counts conducted at the Morgan Hill Aquatic Center in August, 2006.</p> <p>4. Neighborhood Park trips are assumed to occur primarily outside of peak hours and to be mainly internal and largely walk and bike trips.</p> | | | | | | | | |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.



Source: Fehr & Peers Traffic Impact Assessment (2006), RBF Consulting (2012)



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Existing Plus Modified ESP Intersection Level of Service

Figure 4.13-5

TABLE 4.13-10 EXISTING PLUS MODIFIED ESP TRIP DISTRIBUTION

| Travel To/From | AM Peak Hour | | PM Peak Hour | |
|------------------------------------------|--------------|----------------------|--------------|----------------------|
| | Trips | Percent Distribution | Trips | Percent Distribution |
| Modified ESP site (Internal) | 135 | 9% | 613 | 18% |
| Tracy Planning Area | 880 | 57% | 2,273 | 67% |
| Altamont (West) | 354 | 23% | 311 | 9% |
| Byron (Mountain House/East Contra Costa) | 17 | 1% | 25 | 1% |
| I-5 North | 106 | 7% | 112 | 3% |
| I-580 East/SR 132 | 43 | 3% | 59 | 2% |
| Total | 1,535 | 100% | 3,393 | 100% |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

PROPOSED PROJECT ACCESS AND CIRCULATION

Access and circulation to, from, and within the Modified ESP Project area will be obtained via three new main entrances from Corral Hollow Road and Lammers Road. Access at the west edge of the site will be provided via a two-lane entry street, named Ellis Drive. The west entrance of Ellis Drive will accommodate traffic entering the site from Lammers Road, and the road will include large trees in the median and park strip to emphasize the entry feature. A signal will be constructed at the intersection of Ellis Drive and Lammers Road prior to final Project buildout. Ellis Drive will have large trees in both the median and park strip to enhance the entry feature to the Ellis site. No on-street parking will be allowed. Ellis Drive will lead from the Community Parking/Family Swim Center and Village Center to Lammers Road.

Access to the easterly side of the site will be provided at two driveways to Corral Hollow Road, including Ellis Drive and a second main community street called Middlefield Road. The east entry street of Ellis Drive will consist of a three-lane divided roadway aligned with the existing Peony Road and will provide a connection to the residential development to the east. Ellis Drive will include large trees in both the median and park strip to emphasize the entry and organize traffic entering the Village Center and Family Swim Center.

Middlefield Road will align with the existing signalized intersection of Corral Hollow Road and the existing Middlefield Road and will be a primary entrance consisting of a three-lane divided roadway leading from Corral Hollow Road to the north, through the Village Neighborhood, and may eventually provide a connection to the future community streets to the north of the Project Area. The existing signal at Middlefield Road and Corral Hollow Road will be modified to accommodate the expanded intersection.

Within the Project area, a grid pattern of different street types, each with a different character and function, will serve the transportation needs of the community. Street types include regional arterial streets, community streets, neighborhood streets, Village Center streets, entry streets, and lanes. The final location and layout of the street network will be determined during the Vesting and Tentative Map development phase in collaboration with City staff. The streets will complement the pedestrian and bicycle network as they connect residential neighborhoods and parks within and beyond the Project site. All streets will be designed to accommodate the unrestricted movement of emergency vehicles.

PROPOSED PROJECT PARKING

On-street parking will be provided on all streets within the Project site except for the designated Entry Street portions of Ellis Drive, Middlefield Road, and lanes. Community streets will include parallel parking on both sides, offset by parking strips. The Village Center portion of Ellis Drive will include diagonal parking on both sides. Neighborhood streets will include parallel parking on either both sides of two-way streets and one side of parallel parking on one-way streets. Lanes will not include on-street parking provisions.

Off-street parking will be provided within the Project site in accordance with the City of Tracy off-street parking requirements (Tracy Municipal Code, Article 26) except for land uses in the Village Center. Off-street parking for land uses in the Village Center will be shared use in accordance with the Modified ESP. Shared-use parking refers to spaces that are available to multiple functions in close proximity which are unlikely to require the same spaces at the same time, such as commercial and Village Center residential.

PROJECT LEVEL TRANSIT SYSTEMS

Transit access to the Ellis site will be provided by the City of Tracy's TRACER bus system. TRACER will provide a route connection to the east side of the Ellis site with a stop proposed on Corral Hollow Road near the Village Center and Family Swim Center. The TRACER service will provide service to the City of Tracy Multimodal Transit Center with connecting service to the Altamont Commuter Express (ACE) rail, San Joaquin County Regional Transit District (SJRTD) regional bus service, Greyhound, and the proposed future high speed rail service and BART connections to the Bay Area and beyond. As the City further develops to the south and the west, the bus service will be extended along Ellis Drive to Lammers Road, and bus stops/pull outs will be located at intersections and provide for a ¼-mile to ½-mile walking distance from origins and destinations within the Modified ESP area to the bus stops to promote transit travel.

PROJECT LEVEL BICYCLE AND PEDESTRIAN FACILITIES

The design of the Modified ESP endeavored to encourage alternative modes of transportation, including bicycle and pedestrian-friendly designs through an integrated system of roads, transit, and bicycle facilities. A brief discussion on the proposed pedestrian and bicycle facilities follows below.

Bicycle Facilities

A comprehensive bicycle circulation network will supplement non-motorized circulation throughout the Modified ESP. The proposed bicycle plan will consist of a network of Class I and Class III facilities that will provide connections to the broader City of Tracy and San Joaquin County Bikeway system. A 10-foot multi-use bike/pedestrian path will run through portions of the community to facilities and encourage non-vehicular travel among neighborhoods and recreation/park areas. Class I bike paths will span the entire east-west length of the site and provide access to the future development to the north. Class I paths are proposed on Ellis Drive, Middlefield Road, and several other community streets throughout the site. The Village Center portion of Ellis Drive will be designated a Class III bicycle route, which will be complemented with bicycle signage and pavement markings.

Pedestrian Facilities

In order to create pedestrian-friendly streets that support compact neighborhoods, many neighborhood streets will be designed for a 25-mph speed limit, which will complement the Modified ESP's diverse and well-developed pedestrian network. In addition to the Class I multi-use paths

described above, all streets will include sidewalks on at least one side; many will have sidewalks on both sides. The network of sidewalks and paths will connect the Village Center with the residential neighborhoods. Paths and trails will extend the pedestrian system through the natural areas and parks.

The pedestrian network will be enhanced by traffic-calming strategies at locations where vehicle/bicycle/pedestrian interaction will occur. Streets may contain landscaped shoulders, street trees, and various traffic calming design elements to help control and calm traffic throughout the Project area.

To estimate impacts to the regional transportation system, Modified ESP volumes were added to existing peak-hour peak direction volumes to obtain Existing Plus Modified ESP traffic volumes on regional highways. Impact discussion 4.13-6 provides a discussion of the Existing Plus Modified ESP Segment Peak Hour Levels of Service on I-580.

RBF compared the City of Tracy model trip generation with the ITE (Institute of Transportation Engineers) trip generation estimates, which is the traffic engineering standard for the prediction of trips that will be generated by the Project. The PM peak-hour model trips, which represent the peak-hour traffic or the hour when traffic congestion is at its highest, indicates approximately 23 percent higher trips compared to ITE trip generation rates. Thus the traffic analysis presents a worst case estimate of future traffic that will be generated from the Modified ESP. It should be noted that the model was calibrated for the City of Tracy for existing typical citywide travel characteristics.

CONSTRUCTION TRAFFIC AND HAZARDS

The Modified ESP will be a phased development project. Initial phases are planned to begin development in the eastern portion of the Project site near Corral Hollow Road. Subsequent phases may overlap and develop towards the west and northwestern portion of the Project site. Development of the site is planned to begin as early as 2013. Market demand will dictate the rate of development throughout Project construction, as the entire build-out of the Project is expected to range from ten to twenty-five years.

The traffic impact analysis prepared for the Modified ESP contemplated construction activity trip generation and includes the potential impacts that may be caused on the roadway system during construction. The number of trips generated by Project construction activities is estimated to be less than the total trips generated by the Modified ESP during any given peak period. Thus, the mitigation measures identified for the Project peak-hour traffic will minimize impacts associated with phased construction traffic impacts.

The schematic layout of the roadways for the Modified ESP (including street network, roadway cross-sections, and design speed) does not indicate any traffic hazards related to design. The site plan has not been engineered to the level of detail that would result in the ability to indicate specific hazards, though as noted, at this phase of design, there appear to be no apparent safety hazards. During final design review by the City Engineer, intersection corner sight distance, stopping sight distance, and horizontal and vertical sight distance will be reviewed on a design level and eliminated, if necessary.

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The final design review process will require the Project Applicant to prepare and submit Traffic Control plans for construction purposes. These plans will be reviewed by the City Engineer. The purpose of the Traffic Control Plans is to accommodate safe traffic operations on the roadway system during construction activities. The plans may include warning signs, bollards, and diversion of traffic.

TRANSIT

Impact 4.13-1: Implementation of the Modified ESP would result in potential impacts to transit.

Determination: Less Than Significant Impact.

The Modified ESP site would comply with the goals, objectives, and policies of the 2011 General Plan Update, including the specific intent of the General Plan with respect to Urban Reserve 10. Goal CIR-4 of the General Plan provides for a balanced transportation system that encourages the use of public transit and high occupancy vehicles. Policy P4 under CIR-4.1 states that the City shall require large developments to provide for transit with adequate street widths and curb radii, bus turnouts, bus shelters, park-and-ride lots, and multi-modal transit centers, if appropriate. As the City further develops to the south and the west, the bus service will be extended along Ellis Drive from the current Corral Hollow Road line to Lammers Road, and bus stops/pull outs will be located along Ellis Road and provide for a 1/4-mile to 1/2-mile walking distance from origins and destinations within the Modified ESP to bus stops to promote greater transit use.

BICYCLE AND PEDESTRIAN MODES

Impact 4.13-2: Implementation of the Modified ESP would result in an impact to bicycle and pedestrian modes.

Determination: Less Than Significant Impact.

The Modified ESP would comply with the goals, objectives, and policies of the General Plan, including the specific intent of the General Plan with respect to Urban Reserve 10. A 10-foot multi-use bike/pedestrian path will run through portions of the community and encourage non-vehicular travel among neighborhoods, retail, and recreation/park areas. Class I bike paths will span the entire east-west length of the site and provide access to future developments to the north. Class I bike paths are proposed along Ellis Drive, Middlefield Road, and several other community streets throughout the Modified ESP. The Village Center portion of Ellis Drive will be designated a Class III bicycle route, which will be complemented with bicycle signage and pavement markings. Goal CIR-3 of the General Plan provides for safe and convenient bicycle and pedestrian travel as alternative modes of transportation in and around the City. This goal details several policy statements designed to enhance safe and convenient travel for bicyclists and pedestrians. For example, policies P4 and P6 under CIR-3 state that the City's bicycle and pedestrian system shall have a high level of connectivity, and that new development shall include pedestrian and bicycle facilities internal to the development and which connect to citywide facilities, such as parks, schools, and recreational corridors. When developed, the Modified ESP would include pedestrian and bicycle facilities internal to the Modified ESP site and that connect to the existing pedestrian system via street frontage improvements that include sidewalks and bicycle lanes.

CONSTRUCTION TRAFFIC AND HAZARDS

Impact 4.13-3a: Implementation of the Modified ESP would result in potential construction-related traffic impacts.

Determination: Less Than Significant Impact.

The traffic impact analysis contemplated the construction activity trip generation and schedule and the potential impacts that may be caused on the roadway system. The number of trips generated by Project construction activities is estimated to be less than the trips generated by the Modified ESP. The potential impacts and mitigations identified for the Project peak-hour traffic will thus suffice for potential construction traffic impacts. The schematic layout of the roadways for the Modified ESP does not indicate obvious traffic hazards. During final design review by the City Engineer, intersection corner sight distance, stopping sight distance, and horizontal and vertical sight distance will be reviewed on a design level and eliminated. The final design review process will require the Project Applicant to prepare and submit Traffic Control plans for construction purposes. These plans will be reviewed by the City Engineer. The purpose of the Traffic Control Plans is to accommodate safe traffic operations on the roadway system during construction activities. The plans may include warning signs, bollards, and diversion of traffic.

Impact 4.13-3b: Implementation of the Modified ESP would substantially increase hazards due to a design feature or incompatible uses.

Determination: Less Than Significant Impact.

As noted in Section 4.13.5, under construction and hazards, the site plan layout of the Modified ESP does not result in any hazards related to a design feature. Based on the Modified ESP street network, including street hierarchy width of travel lanes, design speed, points of ingress and egress, as well as the location of parking, no hazards have been identified, and thus impacts would be less than significant.

SJCOG REGIONAL ROADWAYS CONGESTION MANAGEMENT PROGRAM

Impact 4.13-4: Implementation of the Modified ESP would result in an impact to the CMP Roadways.

Determination: Less Than Significant Impact.

The Modified ESP would comply with the goals, objectives, and policies of the SJCOG Congestion Management Program.

SJCOG CMP BACKGROUND

The purpose of the CMP is to monitor the transportation impacts of growth of the regional roadway system, establish a level of service standard, identify deficient regional roadways and develop plans to mitigate the deficiencies, and facilitate travel demand management and operational preservation strategies for existing and planned development.

To be consistent with the SJCOG CMP, the Modified Project EIR plans to identify potential impacts of the Modified ESP to CMP roadways, include identification and implementation of mitigation

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measures to resolve or mitigate identified impacts (including estimated cost), and detail how the Project will be compliant with the Regional Travel Demand Management Action Plan.

MODIFIED ELLIS PROJECT EIR CMP ANALYSIS

The SJCOG CMP uses segment analysis, and for the Modified ESP, the “Florida Level of Service Method” for its evaluation of roadway level of service was utilized. Developed by the Florida Department of Transportation, this method is comprised of generalized LOS maximum volume tables for different roadway facility types. The tables are based on the 2000 Highway Capacity Manual methodology.

The Modified Project EIR identifies a significant number of Project trips using 11th Street, Lammers Road, Corral Hollow Road, and Linne Road. Segment analysis of the CMP roadways was conducted for the Existing Plus Project. As shown in Table 4.13-11 (Existing Plus Modified ESP SJCOG CMP Analysis), all the CMP roadways studied would operate at an acceptable level of service (LOS D or better) without mitigation.

TABLE 4.13-11 EXISTING PLUS MODIFIED ESP SJCOG CMP ANALYSIS

| Roadway | Segment | Peak Hour | Existing Plus Project Volume | Existing Plus Project LOS |
|---------------------|----------------------------------------|-----------|------------------------------|---------------------------|
| Eleventh Street | West of Lammers Road | AM | 2,031 | C |
| | | PM | 2,291 | C |
| Lammers Road | Eleventh Street to Schulte Road | AM | 410 | C |
| | | PM | 463 | C |
| | Schulte Road to Valpico Road | AM | 567 | C |
| | | PM | 641 | C |
| | Valpico Road to Ellis Drive | AM | 17 | B |
| | | PM | 32 | B |
| | Ellis Drive to I-580 | AM | 0 | B |
| | | PM | 0 | B |
| Corral Hollow Road | Grant Line Road to Eleventh Street | AM | 1,769 | D |
| | | PM | 2,317 | D |
| | Eleventh Street to Schulte Road | AM | 2,038 | D |
| | | PM | 2,136 | D |
| | Schulte Road to Valpico Road | AM | 946 | C |
| | | PM | 1,065 | C |
| | Valpico Road to Ellis Drive | AM | 555 | C |
| | | PM | 612 | C |
| | Ellis Drive to Linne Road | AM | 508 | C |
| | | PM | 446 | C |
| Linne Road to I-580 | AM | 608 | C | |
| | PM | 582 | C | |
| Linne Road | Corral Hollow Road to Tracy Boulevard | AM | 351 | C |
| | | PM | 363 | C |
| | Tracy Boulevard to MacArthur Boulevard | AM | 486 | C |
| | | PM | 429 | C |
| | MacArthur Boulevard to Chrisman Road | AM | 384 | C |
| | | PM | 425 | C |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

LOCAL INTERSECTIONS

Impact 4.13-5: Development within the Modified ESP site would generate unacceptable levels of service on local intersections throughout and in the vicinity of the City of Tracy.

Determination: Less than Significant with Mitigation Incorporation.

Table 4.13-12 (Existing Plus Modified ESP AM and PM Peak Hour Intersection Level of Service) summarizes the Existing Plus Modified ESP intersection analysis results based on the 2000 HCM methodology. No funded improvements were assumed for Existing Plus Modified ESP conditions, except for the Byron Road/Grant Line Road intersection, which is located within the County. There is a planned and funded improvement to install a traffic signal and add a westbound right-turn lane at this intersection. The table below shows the existing LOS results with this planned improvement included. For all future conditions analysis, this improvement is assumed to be in place. Two of the study intersections under the Existing Plus Modified ESP conditions are projected to operate at unacceptable levels of service during either one or both peak periods at full buildout of the Modified ESP. With the addition of traffic generated by implementation of the Modified ESP, the following two intersections would require mitigation in order to meet the LOS requirement as set forth by the Tracy General Plan at full Modified ESP buildout:

- ◆ Lammers Road/Schulte Road
- ◆ Corral Hollow Road/Valpico Road

Both of these intersections can be mitigated to levels considered less than significant as analyzed in Table 4.13-13 (Existing Plus Modified ESP Intersection Improvements[Worst Peak Hour Indicated]), which identifies improvements that would result in acceptable levels of service at all locations.

Typically only intersections are analyzed in urban conditions. Traffic control at intersections limits the capacity on the intersecting roadways and provides the primary performance measure of traffic operations in urban conditions.

TABLE 4.13-12 EXISTING PLUS MODIFIED ESP AM AND PM PEAK HOUR INTERSECTION LEVEL OF SERVICE

| Study Intersection | Jurisdiction/LOS Threshold | Type of Control ¹ | AM Peak Hour | | PM Peak Hour | |
|--------------------------------|----------------------------|------------------------------|---------------------------|-------------|---------------------------|-------------|
| | | | Delay in Sec ² | LOS | Delay in Sec ² | LOS |
| 1. Patterson Pass/I-580 EB | Caltrans/D | SSS | 3 (18 EB) | A (C EB) | 27 (>50 EB) | D (F EB) |
| 2. Patterson Pass/I-580 WB | Caltrans/D | SSS | 5 (24 WB) | A (C WB) | 1 (15 WB) | A (B WB) |
| 3. Corral Hollow Rd./I-580 EB | Caltrans/D | SSS | 4 (21 EB) | A (C EB) | 23 (>50 EB) | C (F EB) |
| 4. Corral Hollow Rd./I-580 WB | Caltrans/D | SSS | 11 (39 WB) | A (E WB) | 2 (16 WB) | A (C WB) |
| 6. Lammers Rd./Schulte Rd. | Tracy/D | AWS | >50 | F | 38 | E |
| 7. Corral Hollow Rd./Linne Rd. | Tracy/D | SSS | 27 (>50 WB) | D (F WB) | 7 (21 WB) | A (C WB) |

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TABLE 4.13-12 EXISTING PLUS MODIFIED ESP AM AND PM PEAK HOUR INTERSECTION LEVEL OF SERVICE (CONTINUED)

| Study Intersection | Jurisdiction/LOS Threshold | Type of Control ¹ | AM Peak Hour | | PM Peak Hour | |
|---------------------------------------------------------------|----------------------------|------------------------------|---------------------------|-----|---------------------------|-----|
| | | | Delay in Sec ² | LOS | Delay in Sec ² | LOS |
| 8. Corral Hollow Rd./Valpico Rd. | Tracy/D | AWS | >50 | F | >50 | F |
| 10. Corral Hollow Rd./Eleventh St. | Tracy/D | Signal | 35 | C | 40 | D |
| 11. Corral Hollow Rd./Grant Line Rd. | Tracy/D | Signal | 24 | C | 38 | D |
| 21. Byron Road/Grant Line Road (from 2011 Filios/Dobler FEIR) | SJ County/D | Signal | 15.2 | B | 20.3 | C |

Note: Shading indicates LOS threshold is exceeded.
1. Signal = signalized intersection
AWS = all-way stop-controlled intersection
SSS = side-street stop-controlled intersection
2. Intersection average delay and LOS are reported with the worst approach reported for SSS in parentheses.

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

TABLE 4.13-13 EXISTING PLUS MODIFIED ESP INTERSECTION IMPROVEMENTS (WORST PEAK HOUR INDICATED)

| Study Intersection | Existing LOS | Existing Plus Project LOS | Intersection Improvement | Mitigated LOS |
|----------------------------------------------------|--------------|---------------------------|------------------------------------------------------------|---------------|
| 6. Lammers Rd./Schulte Rd. (CIP 72PP-021) | B | F | Signalize | B |
| 7. Corral Hollow Rd./Linne Rd. (New CIP) | A A | D | Signalize | B |
| 8. Corral Hollow Rd./Valpico Rd. (County facility) | E | F | Signalize Widen SB approach to provide 1 TL & 1 TR Lane | C |

Notes:
EB = Eastbound; SB = Southbound
LT = Left-turn; TR = Through-Right
These Levels of Service represent worst-case movement at the identified intersections.

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

Impact 4.13-5a Lammers Road/Schulte Road (Study Intersection #6)

Development of the Modified ESP site would generate unacceptable levels of service at the intersection of Lammers Road and Schulte Road.

Determination: Less than Significant with Mitigation Incorporation.

Under existing conditions, the all-way-stop-controlled Lammers Road/Schulte Road intersection operates at LOS B with an average delay of 14 seconds in both the AM and PM peak hours. The addition of the Modified ESP traffic would increase the average intersection delay to over 50 seconds, shifting the level of service from B to F during the AM peak hour (worst peak hour). The City of Tracy level of service standard for this intersection is LOS D. This is considered a significant impact. Signalizing the intersection would raise the level of service back to LOS B during the AM peak hour. Impacts would be reduced to less than significant levels by signalizing the intersection through implementation of Mitigation Measure 4.13-5. As identified in Mitigation 4.13-5, the Project Applicant shall pay their fair share contribution towards the implementation of this improvement.

Implementation of this improvement shall be assured through the Applicant's (and/or future developers) participation in and the commitment to the Modified ESP Finance and Improvement Plan (FIP). The FIP is required by the City of Tracy Municipal Code section 10.20.060.b.3 which states, "The cost of infrastructure required by the infrastructure master plans may be satisfied by an approved finance and implementation plan (FIP) and adoption of a development impact fee for each component of infrastructure." Pursuant to the Statement of Decision, this impact will be mitigated through the payment of FIP development impact fees to be paid at the issuance of building permits.

The Project Applicant will implement the improvement at the time when the Project traffic triggers the threshold for an impact. The volume threshold at which the Project causes the impact will be determined by the City Engineer at the time of building permit application. If the improvement cost exceeds the fair share payment identified in the FIP, the Project Applicant shall fund the improvement upfront and enter into a reimbursement agreement with the City of Tracy.

Impact 4.13-5b Corral Hollow Road/Valpico Road (Study Intersection #8)

Development of the Modified ESP site would generate unacceptable levels of service at the intersection of Corral Hollow Road and Valpico Road.

Determination: Less than Significant with Mitigation Incorporation.

Under existing conditions, the all-way-stop-controlled Corral Hollow Road/Valpico Road intersection operates at LOS E with an average delay of 44 seconds in the PM peak hour (worst peak hour). The addition of the Modified ESP traffic would increase the average intersection delay to over 50 seconds, shifting the level of service from E to F. The City of Tracy level of service standard for this intersection is D. This is considered a significant impact. Signalizing the intersection and widening the southbound approach to provide two lanes would raise the level of service to C. Impacts would be reduced to less than significant levels by adding these improvements to the intersection through implementation of Mitigation Measure 4.13-5. As identified in Mitigation 4.13-5, the Project Applicant shall pay their fair share contribution towards the implementation of this improvement. Implementation of this improvement shall be assured through the Applicant's (and/or future developers) participation in and the commitment to the Modified ESP Finance and Improvement Plan (FIP). The FIP is required by the City of Tracy Municipal Code section 10.20.060.b.3 which states, "The cost of infrastructure required by the infrastructure master plans may be satisfied by an approved finance and implementation plan (FIP) and adoption of a development impact fee for each component of infrastructure." Pursuant to the Statement of Decision, this impact will be mitigated through the payment of FIP development impact fees to be paid at the issuance of building permits.

The Project Applicant will implement the improvement at the time when the Project traffic triggers the threshold for an impact. The volume threshold at which the Project causes the impact will be determined by the City Engineer at the time of building permit application. If the improvement cost exceeds the fair share payment identified in the FIP, the Project Applicant shall fund the improvement upfront and enter into a reimbursement agreement with the City of Tracy.

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In the original analysis this impact was identified as significant and unavoidable. Subsequent to the original approvals the Project Applicant has included the intersection in the Draft Project FIP and the City included the improvement in their CIP (project # 72PP-053). The Project Applicant will pay a fair share towards this improvement.

Mitigation Measure

4.13-5: Applicants of development projects within the Modified ESP shall be subject to the Modified Ellis Finance and Implementation Plan (FIP) to fund their proportionate fair share of Citywide roadway improvements to the Lammers Road/Schulte Road intersection, and Corral Hollow Road/Valpico Road intersection, and to participate in the Modified Ellis Finance and Implementation Plan (FIP) to fund their proportionate fair share of Citywide cumulative roadway improvements. The Modified Ellis FIP shall be approved by City Council prior to issuance of any building permit for the Modified ESP. The City of Tracy shall be responsible for the construction of these intersection and roadway improvements. The Project Applicant will implement the improvements at the time when the Project traffic triggers the threshold for an impact. The volume threshold at which the Project causes the impact will be determined by the City Engineer at the time of building permit application. If the improvement cost exceeds the fair share payment identified in the FIP, the Project Applicant shall fund the improvement upfront and enter into a reimbursement agreement with the City of Tracy.

REGIONAL TRANSPORTATION SYSTEM

Impact 4.13-6: The addition of Modified ESP traffic to the regional transportation system would degrade LOS on I-580 west of I-205 to unacceptable traffic conditions during the AM and PM peak hours.

Determination: Significant and Unavoidable Impact.

This section of the I-580 traverses the Altamont Pass, which due to the hillside terrain, steep slopes and challenging geometry makes roadway improvements at this location infeasible and cost prohibitive. Thus no feasible improvements have been identified by Caltrans or any other agency that can mitigate this impact to below the level of significance.

It is anticipated that through the planned BART extension to Tracy and implementation of Travel Demand Management Programs mandated by the SJCOG, some of the future travel demand on the I-580 freeway will be offset, which could partially mitigate the anticipated increase in delay, but not to a level that is considered less than significant.

The Modified ESP would increase westbound traffic volumes on I-580 west of I-205 by 2 to 3 percent during the AM peak hour. During the PM peak hour, Modified ESP traffic would increase I-580 eastbound volumes west of I-205 by 2 percent, exacerbating an already unacceptable LOS condition.

TABLE 4.13-14 EXISTING PLUS MODIFIED ESP SEGMENT PEAK HOUR LEVELS OF SERVICE ON I-580

| I-580 Study Segments | Jurisdiction and LOS Threshold | Existing Number of Lanes in one Direction | AM Volume (WB) ¹ | AM Density/LOS ² | PM Volume (EB) ¹ | PM Density/LOS ² |
|-----------------------------------------------|--------------------------------|-------------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| A. Pleasanton Area | Caltrans & ACCMA/E | 4 + HOV lane EB | 8,990 | >45/F | 7,360 | F |
| B. Livermore Area | Caltrans & ACCMA/E | 4 + HOV lane EB | 8,390 | F | 7,560 | 34/D |
| C. Altamont Pass to I-205/I-580 Merge/Diverge | Caltrans & SJ COG /F | 4 | 7,190 | 35/E | 8,160 | F |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

The proposed mitigation measure would require the Project Applicant contribute to payment of funds for regional transportation improvements. These improvements would increase the efficiency of regional transportation networks and improve regional traffic circulation. However, the implementation of the mitigation measure would not completely reduce potentially significant impacts to less-than-significant levels. While the collection of these fees would be used to fund improvements, the total fee collected to date and the projected fee collected at buildout would be insufficient to offset the estimated impacts on regional facilities. Therefore, impacts to regional transportation systems are identified as significant and unavoidable.

Since no improvements have been identified that could fully mitigate impacts to these regional transportation facilities, several other mechanisms have been identified in the City of Tracy General Plan to address these existing and projected deficiencies. These mechanisms include:

- ◆ Objective LU-2.1: Balance residential development with jobs, retail growth and the ability to provide services
- ◆ Objective CIR-2.1: Support regional planning and implementation efforts to improve interregional highways and interregional travel efficiency
 - Policy P1: The City shall continue to cooperate with regional and State agencies, including Caltrans and San Joaquin Council of Governments (SJCOG) to study, plan and fund improvements to the regional transportation system. These regional transportation improvements may include freeway widening, the construction of regional roadways, regional passenger rail expansions, additions to the existing commuter bus system and provision of park-and-ride lots near facilities heavily used by commuters.
 - Policy P3: The City shall work with other local jurisdictions, SJCOG, and Caltrans to identify and develop alternative routes to allow locally-generated traffic to bypass congestion on I-205 and I-580 without impacting city streets.
- ◆ Policy P4: The City shall work with the City of Lathrop and San Joaquin County to preserve a right-of-way along the existing alignment of Middle Road/Arbor Avenue north of I-205 (a.k.a., Golden Valley Parkway) for the future construction of a regional roadway parallel to I-205. This process should determine appropriate funding mechanisms and the design of an interchange with I-205 at Chrisman Road.
- ◆ Objective CIR-4.1: Promote public transit as an alternative to the automobile.

Each of these strategies would provide some benefit to anticipated impacts on regional roadways such as I-580 through the Altamont Pass. However, these mechanisms, even when considered together,

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would not fully mitigate the impacts of future development projects on the regional roadways including both freeways and surface streets. Therefore, the traffic impacts from the Modified ESP on these roadways are identified as significant and unavoidable.

Mitigation Measure

4.13-6: Prior to issuance of building permits for residential units, applicants of individual projects within the Modified ESP site shall be required to pay Regional Transportation Impact Fees.

TESLA ROAD AND PATTERSON PASS ROAD

Impact 4.13-7: The addition of Modified ESP traffic would further degrade an existing unacceptable traffic condition on Tesla Road and Patterson Pass Road.

Determination: Significant and Unavoidable Impact.

To estimate impacts to regional roadways, Project volumes were added to existing peak-hour peak direction volumes to obtain Existing Plus Modified ESP traffic volumes on regional roads. Table 4.13-15 (Existing Plus Modified ESP Segment Peak Hour Levels of Service on County Roadways) reports the Existing Plus Project regional roadway segment LOS.

Implementation of development within the Modified ESP site would increase existing volumes approximately 12 percent during the AM peak hour on westbound Tesla Road and approximately 16 percent during the PM peak hour on eastbound Tesla Road, exacerbating an existing unacceptable traffic condition. Implementation of development within the Modified ESP site would increase existing volumes approximately 7 percent during the AM peak hour on westbound Patterson Pass Road and approximately 18 percent during the PM peak hour on eastbound Patterson Pass Road, further degrading an existing unacceptable traffic condition. Based on Alameda County’s LOS C threshold, the Modified ESP contribution to existing traffic on Tesla Road and Patterson Pass Road would be significant and unavoidable.

TABLE 4.13-15 EXISTING PLUS MODIFIED ESP SEGMENT PEAK HOUR LEVELS OF SERVICE ON COUNTY ROADWAYS

| Study Segments | Jurisdiction and LOS Threshold | Existing Number of Lanes | AM Volume (WB) ¹ | AM Density/LOS ² | PM Volume (EB) ¹ | PM Density/LOS ² |
|------------------------|--------------------------------|--------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| G. Tesla Road | SJ County/C | 1 | 850 | E | 520 | D |
| H. Patterson Pass Road | SJ County/C | 1 | 1,070 | E | 530 | D |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

The Modified ESP would generate traffic that contributes to significant impacts on Tesla Road and Patterson Pass Road. No future improvements are planned along Tesla Road and Patterson Pass Road and future widening of these roads is considered infeasible due to the hillside terrain, prohibitive costs, and resultant impacts. Thus no feasible improvements have been identified by the regional jurisdictions or any other agency that can mitigate this impact. For these reasons, adequate mitigation is not available. The impacts to Tesla Road and Patterson Pass Road would be significant and unavoidable.

The proposed mitigation measure would require the Project Applicant contribute to payment of funds for regional transportation improvements. These improvements would increase the efficiency of regional transportation networks and improve regional traffic circulation. However, the implementation of the mitigation measure would not completely reduce potentially significant impacts to less-than-significant levels. While the collection of these fees would be used to fund improvements, the total fee collected to date and the projected fee collected at buildout would be insufficient to offset the estimated impacts on regional facilities. Therefore, impacts to regional transportation systems are identified as significant and unavoidable.

Mitigation Measure

4.13-7 Prior to issuance of building permits for residential units, applicants of individual projects within the Modified ESP site shall be required to pay Regional Transportation Impact Fees.

4.13.5 ANALYSIS OF CUMULATIVE IMPACTS

The cumulative scenario for the Modified ESP traffic analysis was developed in consultation with City staff, and is consistent with the City’s General Plan. This includes all development envisioned through 2030, with a development pattern consistent with the “Preferred” alternative of the 2006 General Plan EIR. The Cumulative No Project scenario assumes the residential units and commercial square footage that could develop in the Project site would otherwise develop elsewhere in the City. Outside the Tracy Planning Area, the development assumptions used in preparing the traffic forecasts are consistent with the 2030 scenario of the SJCOG traffic model, as updated by the 2005 Regional Transportation Plan.

Table 4.13-16 (City of Tracy SOI Cumulative Development Assumptions) summarizes cumulative development assumptions within the City of Tracy Sphere of Influence (SOI). The residential dwelling unit growth assumption is consistent with the City of Tracy’s GMO limits on residential permits through year 2030. The GMO limits residential permits to an average of 600 units per year. The employment level being analyzed is consistent with the “Preferred Alternative” analyzed in the 2006 General Plan EIR, which assumed a 25-year future build out.

TABLE 4.13-16 CITY OF TRACY SOI CUMULATIVE DEVELOPMENT ASSUMPTIONS

| | Dwelling Units | Employment |
|---------------------------|----------------|------------|
| Existing | 28,157 | 28,834 |
| Incremental Growth | 10,943 | 26,487 |
| Citywide Cumulative Total | 39,100 | 55,321 |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

The development assumptions in Table 4.13-16 (City of Tracy SOI Cumulative Development Assumptions) were integrated into the Tracy Citywide Traffic Model to estimate future traffic generation and future cumulative travel within the City of Tracy and across the Altamont Pass into Alameda County.

ASSUMED CUMULATIVE ROADWAY NETWORK

CUMULATIVE ROADWAY SEGMENT IMPROVEMENTS

The future cumulative roadway network includes certain roadway improvements, consistent with the City's General Plan, that support the level of development anticipated to be in place in 2030. Major improvements assumed under cumulative conditions include the following:

- ◆ **I-580:** Widen from six to eight lanes from Mountain House Parkway to Alameda County line. This is a Tier II Project on SJCOG's 2011 Regional Transportation Plan (RTP). (RTP SJ07-1027)
- ◆ **Valpico Road:** Widen from two to four lanes between Lammers Road and MacArthur Drive. (CIP 73PP-054 and CIP 7395).
- ◆ **Schulte Road:** Extend west on new alignment to Mountain House Parkway; widen from four to six lanes between Corral Hollow Road and Tracy Boulevard. (CIP 73PP-048, CIP 73PP-044, CIP 73PP-050, and a new CIP). (RTP SJ07-3109)
- ◆ **Eleventh Street:** Widen from four to six lanes west of Lammers Road and between Corral Hollow Road and Alden Glen. (CIP 7393).
- ◆ **Grant Line Road:** Widen to six lanes west of Tracy Boulevard (RTP SJ07-3107). Widen from two to four lanes between MacArthur Drive and Brichetto Road (CIP 73PP-042).
- ◆ **Lammers Road:** Extend south to new interchange with I-580; widen to six lanes; realign north of Eleventh Street to new interchange with I-205. (CIP 7392 and a new CIP for new impacts) (RTP SJ07-3112).
- ◆ **Corral Hollow Road:** Widen to four lanes south of Schulte Road (RTP SJ07-3110), and to six lanes north of Schulte Road. (CIP 7374 and CIP 73A3).
- ◆ **MacArthur Drive:** Widen to four lanes between Schulte Road and Valpico Road. This project is a Tier I RTP project (RTP SJ07-3108).

The improvements listed above are elements of the City's Roadway Master Plan that are projected to be necessary to support the level of development assumed to be in place under future 2030 conditions. The new I-205/Lammers Road interchange design and supporting network is currently under study and review by Caltrans. Similar to the General Plan EIR traffic analysis, this analysis assumes Alternative 5A, as defined in the I-205/Lammers Road Extension Interchange Project Study Report (PSR), will be constructed. Funding for certain elements will be included in the FIP and the Project would be required to contribute its fair share toward these improvements via the Modified Ellis FIP that would be administered by the City.

CUMULATIVE INTERSECTION IMPROVEMENTS

Based on the roadway segment improvements and cumulative development identified above, specific intersection improvements need to be implemented in order for cumulative traffic to operate at acceptable conditions. Along with roadway widening and associated intersection geometric improvements, the Cumulative No Project analysis assumes that all but one study intersection (Linne Road/Chrisman Road) would be signalized prior to 2030.

REGIONAL ROADWAY SEGMENTS

Table 4.13-17 (Cumulative No Modified ESP Segment Peak Hour Levels of Service on Regional Roadways) summarizes the Cumulative No Modified ESP segment analysis results. The I-580 segments east of the I-205/I-580 merge/diverge are projected to operate at acceptable levels of

service under Cumulative No Modified ESP conditions. West of I-205, cumulative traffic demand is expected to exceed the capacity of the freeway and degrade operations to LOS F during both peak hours, which is unacceptable under the LOS standards set forth by the Alameda County CMP. The degradation of these freeway segments under cumulative conditions is an unavoidable cumulative impact.

TABLE 4.13-17 CUMULATIVE NO MODIFIED ESP SEGMENT PEAK HOUR LEVELS OF SERVICE ON REGIONAL ROADWAYS

| Study Segments | Jurisdiction and LOS Threshold | Future Number of Lanes | AM Volume ¹ (WB) | AM Density/LOS ² | PM Volume ¹ (EB) | PM Density/LOS ² |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Freeway Analysis – Interstate 5803 | | | | | | |
| A. I-580: Livermore Area (Vasco Rd. to SR 84) | Caltrans & ACCMA/E | 4 + HOV lanes | 9,900 | >45/F | 11,900 | >45/F |
| B. I-580: Altamont Pass | Caltrans & ACCMA/E | 4 | 10,200 | >45/F | 11,400 | >45/F |
| C. I-580: Altamont Pass to I-205/I-580 Merge/Diverge | Caltrans & SJ COG/F | 4 | 9,500 | >45/F | 10,600 | >45/F |
| D. I-580: I-205/I-580 Diverge to Patterson Pass | Caltrans & SJ COG/D | 4 | 3,300 | 13/B | 4,200 | 17/B |
| E. I-580: Patterson Pass to Corral Hollow Road | Caltrans & SJ COG/D | 3 | 4,200 | 22/C | 5,000 | 28/D |
| F. I-580: Corral Hollow Road to Chrisman Road | Caltrans & SJ COG/D | 2 | 2,400 | 19/C | 3,000 | 24/C |
| County Road Analysis | | | | | | |
| G. Tesla Road | SJ County/D | 1 | 1,050 | E | 1,000 | E |
| H. Patterson Pass Road | SJ County/D | 1 | 1,350 | F | 1,300 | F |
| Notes: Shading indicates LOS threshold is exceeded. | | | | | | |
| 1. Peak hour peak direction volumes are reported: Westbound for AM, Eastbound for PM. Cumulative (2030) demand volume estimate for segments A and B from Triangle Traffic Study (June 2006). Cumulative (2030) demand volume estimate for segments C, D, E, and F from City of Tracy General Plan Traffic Model. | | | | | | |
| 2. Reported LOS based on peak-hour peak direction volume: Westbound for AM, Eastbound for PM. Freeway segment LOS based on vehicle density, according to the 2000 Highway Capacity Manual. County road LOS based on volumes, according to FDOT Quality/Level of Service Handbook. | | | | | | |
| 3. Assumed per-lane capacity of 2,200 vehicles per hour and free-flow speed of 70 miles per hour on freeway facilities. | | | | | | |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

CUMULATIVE NO MODIFIED ESP INTERSECTION OPERATIONS

Table 4.13-18 (Cumulative No Modified ESP AM and PM Peak Hour Intersection Level of Service) summarizes the Cumulative No Modified ESP study intersection analysis results based on the 2000 HCM methodology. The analysis shows all of the study intersections are expected to operate acceptably during the AM peak hour, and all but one are expected to operate at acceptable levels of service during the PM peak hour. The Corral Hollow Road/Schulte Road intersection is projected to operate at LOS D, with 39 seconds of delay.

Policy P2 under Objective CIR-1.3 of the City of Tracy General Plan allows individual locations to fall below the City's LOS standards in instances where the construction of physical improvements would be infeasible or would conflict with the character of the community. Operations of the Corral Hollow

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Road/Schulte Road intersection could be potentially improved by providing additional east-west connectivity and opportunity for traffic to disperse through the arterial network leading to/from the regional highway system. Alternatively, provision of a grade-separated urban interchange could improve operations to LOS C or better. The Corral Hollow Road/Schulte Road intersection may have right-of-way constraints that preclude it from further at-grade physical improvements. As an alternative to additional physical improvements at this location, the City may exempt this location under policy P2 of Objective CIR-1.3 of the General Plan.

TABLE 4.13-18 CUMULATIVE NO MODIFIED ESP AM AND PM PEAK HOUR INTERSECTION LEVEL OF SERVICE

| Study Intersection | Jurisdiction/LOS Threshold | Type of Control | AM Peak Hour | | PM Peak Hour | |
|--------------------------------------|----------------------------|-----------------|--------------|-----|--------------|-----|
| | | | Delay in Sec | LOS | Delay in Sec | LOS |
| 1. Patterson Pass/I-580 EB | Caltrans/D | Signal | 11 | B | 36 | D |
| 2. Patterson Pass/I-580 WB | Caltrans/D | Signal | 5 | A | 2 | A |
| 3. Corral Hollow Rd./I-580 EB | Caltrans/D | Signal | 6 | A | 23 | C |
| 4. Corral Hollow Rd./I-580 WB | Caltrans/D | Signal | 9 | A | 5 | A |
| 5. Lammers Rd./Valpico Rd. | Tracy/D | Signal | 9 | A | 8 | A |
| 6. Lammers Rd./Schulte Rd. | Tracy/D | Signal | 6 | A | 11 | B |
| 7. Corral Hollow Rd./Linne Rd. | Tracy/D | Signal | 10 | B | 27 | C |
| 8. Corral Hollow Rd./Valpico Rd. | Tracy/D | Signal | 10 | B | 14 | B |
| 9. Corral Hollow Rd./Schulte Rd. | Tracy/D | Signal | 25 | C | 39 | D |
| 10. Corral Hollow Rd./Eleventh St. | Tracy/D | Signal | 26 | C | 54 | D |
| 11. Corral Hollow Rd./Grant Line Rd. | Tracy/D | Signal | 16 | B | 33 | C |
| 12. Tracy Blvd./Linne Rd. | Tracy/D | Signal | 16 | B | 22 | C |
| 13. Tracy Blvd./Valpico Rd. | Tracy/D | Signal | 28 | C | 33 | C |
| 14. MacArthur Drive/Linne Road | SJ County/ D | Signal | 7 | A | 9 | A |
| 15. MacArthur Drive/Valpico Road | Tracy/D | Signal | 14 | B | 20 | B |
| 16. Chrisman Road/Linne Road | SJ County /D | Signal | 10 | A | 10 | A |
| 17. Chrisman Road/Valpico Road | SJ County/D | Signal | 8 | A | 9 | A |
| 18. Chrisman Road/Schulte Road | Tracy/D | Signal | 7 | A | 8 | A |
| 19. Chrisman Road/Eleventh Street | Tracy/D | Signal | 10 | A | 12 | B |
| 20. Lammers Road/Eleventh Street | Tracy/D | Signal | 25 | C | 35 | C |
| 21. Byron Road/Grant Line Road | SJ County D | Signal | 10 | B | 43 | D |
| 22. Lammers Road/I-580 EB | Caltrans/D | Signal | 7 | A | 14 | B |
| 23. Lammers Road/I-580 WB | Caltrans/D | Signal | 6 | A | 6 | A |

Note: Bold indicates LOS threshold is exceeded.

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

CUMULATIVE WITH MODIFIED ESP CONDITIONS

The Cumulative with Modified ESP scenario assumes the same level of development citywide as the Cumulative No Modified ESP scenario. Development growth (both residential and commercial) consistent with the development potential of the Modified ESP site is allocated to the Modified ESP site from other development areas in the City. Using the calibrated trip generation rates, Modified ESP trips were generated by the model and assigned to the surrounding roadway network. Table 4.13-19 (Cumulative with Modified ESP Trip Distribution) summarizes the Modified ESP AM and PM peak-hour trip distribution under Cumulative with Project conditions.

TABLE 4.13-19 CUMULATIVE WITH MODIFIED ESP TRIP DISTRIBUTION

| Travel To/From | AM Peak Hour | | PM Peak Hour | |
|------------------------------------------|--------------|----------------------|--------------|----------------------|
| | Trips | Percent Distribution | Trips | Percent Distribution |
| Project site (Internal) | 74 | 5% | 238 | 7% |
| Tracy Planning Area | 1,150 | 75% | 2,791 | 82% |
| Altamont (West) | 227 | 15% | 232 | 7% |
| Byron (Mountain House/East Contra Costa) | 9 | <1% | 12 | <1% |
| I-5 North | 39 | 3% | 56 | 2% |
| I-580 East/SR 132 | 36 | 2% | 64 | 2% |
| Total | 1,535 | 100% | 3,393 | 100% |
| Project site (Internal) | 74 | 5% | 238 | 7% |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

Table 4.13-20 (Cumulative With Modified ESP Segment Peak Hour Levels of Service on I-580) summarizes the Cumulative With Modified ESP segment analysis results. With implementation of the Modified ESP, the I-580 segments east of the I-205/I-580 diverge would continue to operate at acceptable LOS D or better. West of I-205, peak-hour peak-directional volumes on I-580 are expected to be at about the same levels as Cumulative No Project conditions. Although implementation of the Modified ESP would not significantly change the traffic demand through the I-580 corridor, operations would continue to be LOS F, which is unacceptable under the LOS standards set forth by the Alameda County CMP. The degradation of these freeway segments under Cumulative conditions is an unavoidable cumulative impact.

As discussed above in Section 4.13-2, the proposed Project would need to contribute to payment of funds for regional transportation improvements. These improvements would increase the efficiency of regional transportation networks and improve regional traffic circulation. However, the implementation of the Mitigation Measure 4.13-6 would not completely reduce potentially significant impacts to less-than-significant levels. Therefore, impacts to these transportation systems are identified as significant and unavoidable.

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TABLE 4.13-20 CUMULATIVE WITH MODIFIED ESP SEGMENT PEAK HOUR LEVELS OF SERVICE ON I-580

| Study Segments | Jurisdiction and LOS Threshold | Existing Number of Lanes | AM Volume (WB) | AM Density/LOS | PM Volume (EB) | PM Density/LOS |
|------------------------------------------------------|--------------------------------|--------------------------|----------------|----------------|----------------|----------------|
| A. I-580: Pleasanton Area | Caltrans & ACCMA/E | 4 | 9,810 | >45/F | 11,900 | >45/F |
| B. I-580: Livermore Area | Caltrans & ACCMA/E | 4 | 10,110 | >45/F | 11,400 | >45/F |
| C. I-580: Altamont Pass to I-205/I-580 Merge/Diverge | Caltrans & SJ COG/F | 4 | 9,410 | >45/F | 10,600 | >45/F |
| D. I-580: I-205/I-580 Diverge to Patterson Pass | Caltrans & SJ COG/D | 4 | 3,300 | 13/B | 4,110 | 16/B |
| E. I-580: Patterson Pass to Corral Hollow Road | Caltrans & SJ County/D | 3 | 4,010 | 21/C | 4,760 | 26/D |
| F. I-580: Corral Hollow Road to Chrisman Road | Caltrans & SJ County/D | 2 | 2,400 | 19/C | 2,910 | 23/C |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

Table 4.13-21 (Cumulative with Modified ESP AM and PM Peak Hour Intersection Level of Service) summarizes the Cumulative With Modified ESP intersection analysis results based on the 2000 HCM methodology. The analysis shows all of the study intersections are expected to operate acceptably during both the AM and PM peak hours.

TABLE 4.13-21 CUMULATIVE WITH MODIFIED ESP AM AND PM PEAK HOUR INTERSECTION LEVEL OF SERVICE

| Study Intersection | Jurisdiction/LOS Threshold | AM Peak Hour | | PM Peak Hour | | Change in Delay ¹ |
|--------------------------------------|----------------------------|--------------|-----|--------------|-----|------------------------------|
| | | Delay in Sec | LOS | Delay in Sec | LOS | |
| 1. Patterson Pass/I-580 EB | Caltrans/D | 15 | B | 24 | C | -12 |
| 2. Patterson Pass/I-580 WB | Caltrans/D | 4 | A | 3 | A | +1 |
| 3. Corral Hollow Rd./I-580 EB | Caltrans/D | 5 | A | 20 | B | -3 |
| 4. Corral Hollow Rd./I-580 WB | Caltrans/D | 9 | A | 4 | A | -1 |
| 5. Lammers Rd./Valpico Rd. | Tracy/D | 9 | A | 8 | A | NC |
| 6. Lammers Rd./Schulte Rd. | Tracy/D | 6 | A | 9 | A | -2 |
| 7. Corral Hollow Rd./Linne Rd. | Tracy/D | 10 | B | 20 | C | -7 |
| 8. Corral Hollow Rd./Valpico Rd. | Tracy/D | 11 | B | 16 | B | +2 |
| 9. Corral Hollow Rd./Schulte Rd. | Tracy/D | 23 | C | 33 | C | -6 |
| 10. Corral Hollow Rd./Eleventh St. | Tracy/D | 26 | C | 48 | D | -6 |
| 11. Corral Hollow Rd./Grant Line Rd. | Tracy/D | 16 | B | 32 | C | -1 |
| 12. Tracy Blvd./Linne Rd. | Tracy/D | 16 | B | 18 | B | -4 |
| 13. Tracy Blvd./Valpico Rd. | Tracy/D | 26 | C | 31 | C | -2 |

TABLE 4.13-21 CUMULATIVE WITH MODIFIED ESP AM AND PM PEAK HOUR INTERSECTION LEVEL OF SERVICE (CONTINUED)

| Study Intersection | Jurisdiction/LOS Threshold | AM Peak Hour | | PM Peak Hour | | Change in Delay ¹ |
|-----------------------------------|----------------------------|--------------|-----|--------------|-----|------------------------------|
| | | Delay in Sec | LOS | Delay in Sec | LOS | |
| 14. MacArthur Drive/Linne Road | SJ County/ D | 7 | A | 8 | A | -1 |
| 15. MacArthur Drive/Valpico Road | Tracy/D | 15 | B | 19 | B | -1 |
| 16. Chrisman Road/Linne Road | SJ County /D | 10 | A | 10 | A | NC |
| 17. Chrisman Road/Valpico Road | SJ County/D | 8 | A | 9 | A | NC |
| 18. Chrisman Road/Schulte Road | Tracy/D | 7 | A | 9 | A | +1 |
| 19. Chrisman Road/Eleventh Street | Tracy/D | 9 | A | 11 | B | -1 |
| 20. Lammers Road/Eleventh Street | Tracy/D | 24 | C | 32 | C | -3 |
| 21. Byron Road/Grant Line Road | SJ County/D | 10 | B | 38 | D | -5 |
| 22. Lammers Road/I-580 EB | Caltrans/D | 7 | A | 10 | B | -4 |
| 23. Lammers Road/I-580 WB | Caltrans/D | 7 | A | 6 | A | NC |

Note: Bold indicates LOS threshold is exceeded.
1. PM peak-hour change in seconds of delay relative to Cumulative No Project. NC=No Change.

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

SJCOG CMP ANALYSIS

The SJCOG Congestion Management Program (CMP) requires analysis of roadways that may be impacted as part of the Modified ESP. The information presented here follows from the Project Proportional Share Calculations for Modified Ellis Specific Plan Traffic Mitigations memorandum dated November 2, 2010. The following discussion summarizes the methodology guidelines for the CMP set by SJCOG and the results of the Modified Project EIR analysis.

SJCOG CMP BACKGROUND

The purpose of the RCMP is to monitor the cumulative transportation impacts of growth of the regional roadway system, establish a level of service standard, identify deficient regional roadways and develop plans to mitigate the deficiencies, and facilitate travel demand management and operational preservation strategies for existing and planned development.

To be consistent with the SJCOG CMP, the Modified Project EIR plans to identify potential impacts of the Project to CMP roadways, include identification and implementation of mitigation measures to resolve or mitigate identified impacts (including estimated cost), and detail how the Project will be compliant with the Regional Travel Demand Management Action Plan.

MODIFIED PROJECT EIR CMP ANALYSIS

The SJCOG RCMP uses the “Florida Level of Service Method” for its evaluation of roadway level of service. Developed by the Florida Department of Transportation, this method is comprised of generalized LOS maximum volume tables for different roadway facility types. The tables are based on the 2000 Highway Capacity Manual methodology.

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The Modified Project EIR identifies a significant number of Project trips using 11th Street, Lammers Road, Corral Hollow Road, and Linne Road. Segment analysis of the RCMP roadways was conducted for the Existing Plus Project and Cumulative Plus Project Conditions. As shown in Table 4.13-22 (Cumulative With Modified ESP AM and PM Peak Hour Roadway Segment Level of Service), all the CMP roadways studied would operate at acceptable LOS D or better. No mitigation is required.

TABLE 4.13-22 CUMULATIVE WITH MODIFIED ESP AM AND PM PEAK HOUR ROADWAY SEGMENT LEVEL OF SERVICE

| Roadway | Segment | Peak Hour | Cumulative Plus Project Volume | Cumulative Plus Project LOS |
|---------------------|----------------------------------------|-----------|--------------------------------|-----------------------------|
| Eleventh Street | West of Lammers Road | AM | 3,100 | C |
| | | PM | 5,260 | D |
| Lammers Road | Eleventh Street to Schulte Road | AM | 1,620 | C |
| | | PM | 3,010 | C |
| | Schulte Road to Valpico Road | AM | 1,705 | C |
| | | PM | 3,290 | C |
| | Valpico Road to Ellis Drive | AM | 1,600 | C |
| | | PM | 3,500 | C |
| | Ellis Drive to I-580 | AM | 2,050 | C |
| | | PM | 3,010 | C |
| Corral Hollow Road | Grant Line Road to Eleventh Street | AM | 2,035 | D |
| | | PM | 3,875 | D |
| | Eleventh Street to Schulte Road | AM | 2,180 | D |
| | | PM | 3,960 | D |
| | Schulte Road to Valpico Road | AM | 1,900 | D |
| | | PM | 3,370 | D |
| | Valpico Road to Ellis Drive | AM | 1,400 | C |
| | | PM | 2,520 | D |
| | Ellis Drive to Linne Road | AM | 1,290 | C |
| | | PM | 2,400 | D |
| Linne Road to I-580 | AM | 1,435 | C | |
| | PM | 2,635 | D | |
| Linne Road | Corral Hollow Road to Tracy Boulevard | AM | 1,285 | C |
| | | PM | 2,225 | C |
| | Tracy Boulevard to MacArthur Boulevard | AM | 820 | C |
| | | PM | 1,275 | C |
| | MacArthur Boulevard to Chrisman Road | AM | 460 | C |
| | | PM | 520 | C |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

Table 4.13-23 (Cumulative With Modified ESP Segment Peak Hour Levels of Service on County Roadways) summarizes the Cumulative With Modified ESP segment analysis results. With implementation of the Modified ESP, Tesla Road and Patterson Pass Road would operate at unacceptable LOS F conditions during both the AM and PM peak hours. The Project is expected to add 8% and 1%, respectively, during the AM peak hour to these roadways, further degrading the unacceptable LOS E and F condition.

TABLE 4.13-23 CUMULATIVE WITH MODIFIED ESP SEGMENT PEAK HOUR LEVELS OF SERVICE ON COUNTY ROADWAYS

| Study Segments | Existing Number of Lanes | AM Volume (WB) ¹ | AM Density/LOS ² | PM Volume (EB) ¹ | PM Density/LOS ² |
|------------------------|--------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| G. Tesla Road | 1 | 1,130 | F | 1,000 | E |
| H. Patterson Pass Road | 1 | 1,370 | F | 1,300 | F |

Source: Fehr & Peers, 2007. Validated by RBF Consulting, April 2012.

The Modified ESP would generate traffic that contributes to significant impacts on Tesla Road and Patterson Pass Road. No future improvements are planned along Tesla Road and Patterson Pass Road and future widening of these roads is considered infeasible due to the hillside terrain, prohibitive costs, and resultant impacts. Thus, no feasible improvements have been identified by the regional jurisdictions or any other agency that can mitigate this impact. As discussed above in Section 4.13-2, the proposed Project would need to contribute to payment of funds for regional transportation improvements. These improvements would increase the efficiency of regional transportation networks and improve regional traffic circulation. However, the implementation of the Mitigation Measure 4.13-7 would not completely reduce potentially significant impacts to less-than-significant levels. For these reasons, adequate mitigation is not available. The impacts to Tesla Road and Patterson Pass Road would be significant and unavoidable.

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4.14 WATER SUPPLY AND OTHER PUBLIC UTILITIES

As described in Chapter 2 (Introduction), this Revised Draft EIR analyzes the potential environmental effects of the proposed changes associated with the Modified Project and identifies feasible mitigation measures for potentially significant impacts where applicable. In addition, this Draft Revised EIR also addresses:

- ◆ the Trial Court's Statement of Decision and Judgment (issued October 31, 2011) on the City of Tracy/Surland Companies Development Agreement and Ellis Specific Plan Applications Draft and Final EIRs (State Clearinghouse No. 2006102092) (Original Ellis EIR);
- ◆ updates to the ESP area as identified in the 2011 General Plan Update and analysis in the General Plan EIR (certified February 2011); and,
- ◆ updates to wastewater and storm drainage as reflected in Section 4 of the Modified ESP.

It should be noted that the Original Ellis EIR addressed water supply and wastewater impacts associated with the Original Ellis Specific Plan in section 3B.08 (Public Utilities) and storm drainage impacts in section 3B.10 (Hydrology, Drainage, and Water Quality). This section of the Draft Revised EIR incorporates relevant background information, analysis of environmental impacts, and mitigation measures contained within those sections; that information remains valid, and, as described in Chapter 2, has been incorporated by reference into this Draft Revised EIR. As described in Chapter 2 (Introduction), the Original Ellis EIR is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376. New background information and analysis of impacts regarding water supply, wastewater, and storm drainage facilities are identified in this section below.

The following provides a summary of impacts and mitigation that have not changed from Section 3B.08 (Public Utilities) in the Original Ellis EIR:

Impact 3B.8-2 Implementation of the proposed ESP may require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Determination: Less Than Significant Impact.

Mitigation Measure 3B.8-2: No mitigation is necessary.

Impact 3B.8-3 Development of the ESP would result in an increase in demand necessitating the expansion of utility services. Determination: Less Than Significant Impact With Mitigation Incorporated.

Mitigation Measure 3B.8-3 The Project Applicant shall coordinate with PG&E regarding the proper extension of electrical and natural gas services to the ESP site. This shall include the development of detailed plans for utility placement and the ESP's participation in energy conservation programs provided by PG&E. Utility placement shall not conflict with other planned infrastructure improvements such as water distribution systems and ESP site drainage facilities. Evidence of this

coordination with PG&E shall be provided to the City's Department of Development and Engineering Services for review and approval prior to the issuance of grading permits.

Impact 3B.10-1 Implementation of the proposed ESP would 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: No Impact.

Mitigation Measure 3B.10-1: No mitigation is necessary.

Impact 3B.10-3 Implementation of the proposed ESP would result in violations to water quality standards or waste discharge requirements. Determination: Less Than Significant Impact With Mitigation Incorporated.

Mitigation Measure 3B.10-3b: Prior to issuance of a grading or building permit, whichever occurs first, and following the preparation of ESP site grading plan, the Project Applicant shall demonstrate to the City of Tracy compliance with NPDES General Construction Activities Storm Water Permit Requirements established by the Clean Water Act (CWA), including the preparation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall identify specific types and sources of stormwater pollutants, determine the location and nature of potential impacts, and specify appropriate control measures to eliminate any potentially significant impacts on receiving water quality from stormwater runoff. The SWPPP shall comply with the most current standards established by the Central Valley RWQCB. Best Management Practices shall be selected from a menu according to site requirements and shall be subject to approval by the City Engineer and Central Valley RWQCB.

Mitigation Measure 3B.10-3c: Prior to issuance of a grading or building permit, whichever occurs first, and following the preparation of the ESP site grading plan, the Project Applicant shall submit to the City Engineer for review a draft copy of the Notice of Intent (NOI) and SWPPP. After approval by the City, the NOI and SWPPP shall be sent to the State Water Resources Control Board for approval.

Mitigation Measure 3B.10-3d: After Project completion, the Project Applicant or successor shall properly maintain parking lots and other common paved areas, by sweeping or other appropriate means, to prevent the majority of litter from washing into storm drains.

Impact 3B.10-4 Implementation of the proposed ESP would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or offsite. Determination: Less Than Significant Impact With Mitigation Incorporated.

Mitigation Measure 3B.10-4: Refer to Mitigation Measure 3B.10-3b through 3d.

Impact 3B.10-5 Implementation of the proposed ESP would 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 offsite. Determination: Less Than Significant Impact With Mitigation Incorporated.

Mitigation Measure 3B.10-5: Refer to Mitigation Measure 3.10-1a through 3.10-1d.

Impact 3B.10-7 Implementation of the proposed ESP would otherwise substantially degrade water quality. Less Than Significant Impact With Mitigation Incorporated.

Mitigation Measure 3B.10-7: Refer to Mitigation Measure 3B.10-1a through 3B.10-1c.

The following topics covered in this section address those aspects described in the first three bullet points under this section. Although the Statement of Decision and Judgment did not find the discussion and analysis of potential wastewater or stormwater environmental effects in Original Ellis EIR to be objectionable, this Draft Revised EIR includes an updated description of wastewater and storm drainage conditions and the potential environmental effects that could occur as a result of implementation of the Modified ESP. This is because subsequent to the Original Ellis EIR entitlement approvals: (1) the City has implemented a variety of capital improvements to its wastewater and storm drainage systems; and, (2) the Project Applicant has refined further the engineering design of the Modified ESP's proposed wastewater and storm drainage facilities. As such, this section specifically provides:

- 1) an expanded discussion related to water supply and existing water, wastewater, and storm drainage facilities; and,
- 2) identifies potential water supply and wastewater and storm drainage facilities impacts that could occur as a result of the implementation of the Modified ESP.

A Water Supply Assessment (WSA) was prepared for the Original Ellis DA and Specific Plan in March 2008 (Original Ellis WSA) and was approved by the Tracy City Council on April 1, 2008. However, the Original Ellis WSA, along with the other Original Ellis Entitlements, were ordered to be set aside in the Trial Court's Statement of Decision and Judgment issued October 31, 2011. The October 2011 Judgment is now under appeal. Generally, the court found that the Original Ellis WSA was deficient in two respects. First, the court found that the finding that water supplies were sufficient was not supported by substantial evidence. The basis for the finding is that there would be a water shortage in an extreme drought year and the City did not provide substantial evidence to explain how conservation measures could eliminate the water supply shortfall. Second, the court found that the record was not clear as to whether the Original Ellis WSA omitted consideration of a project in the downtown area consisting of 206 dwelling units.

A revised WSA¹ (Revised Ellis WSA; Appendix F) was prepared to clarify issues identified for the Original Ellis WSA in the Statement of Decision and Judgment, and to satisfy state law requirements

¹ West Yost Associates, *City of Tracy Revised Water Supply Assessment* for the Ellis Specific Plan, June 2012.

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for the purposes of the City of Tracy when deciding to reapprove the land use entitlements. As described in Chapter 2, this section of the Draft Revised EIR incorporates the Revised Ellis WSA by reference. The information contained within that document is summarized below under subsection 4.14.1 (Existing Conditions, Water), subsection 4.14.2 (Regulatory Framework, Water), and subsection 4.14.3 (Environmental Analysis). The Revised Ellis WSA is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376.

It should be noted that the City is in the process of updating its master plans for water, wastewater, and stormwater, to be consistent with, and to implement, the General Plan. These master plans and their corresponding environmental documentation are still in progress, though are anticipated to be available for public review by late summer of 2012.

The Ellis Finance and Implementation Plan (FIP) shall establish the Modified Project's fair share of development impact fees, and address the infrastructure needs of the Modified ESP in such a manner that aims to correspond to the recently updated infrastructure master plans to the extent practicable. Because the Modified ESP was developed prior to initiation of the infrastructure master plans, the Project Applicant worked closely with the City to ensure that the Modified ESP's implementation would be incorporated in the baseline assumptions of the infrastructure master plans under development. The improvements required as a result of implementation of the Modified ESP are included in the analysis herein.

4.14.1 EXISTING CONDITIONS

WATER

CITY OF TRACY EXISTING AND FUTURE WATER SUPPLIES

Water Service Area

The City's water service area is coterminous with the City limits. As future developments within the City's Sphere of Influence (SOI)², but outside of the City limits, are approved, they would be annexed into the City and served by the City water system. The Modified Project is located outside the existing City limits, but includes a petition for annexation and would be served by the City's water system if approved for annexation. The domestic water system serves domestic, commercial, institutional, irrigation, and industrial customers.

Existing Water Supply

The City currently receives water supplies from the following three sources:

- ◆ Surface water from the Delta Mendota Canal (Central Valley Project);
- ◆ Surface water from the Stanislaus River via the South County Surface Water Supply Project (delivered by the South San Joaquin Irrigation District [SSJID]); and,
- ◆ Groundwater pumped from eight groundwater wells located within the City.

² The SOI is the area outside of the City limits that the City anticipates to annex and urbanize in the future. It is the expected physical limit of the City based on the most current information available. Any changes to the SOI are subject to approval by the Local Agency Formation Commission (LAFCo).

Central Valley Project Water via the Delta Mendota Canal

Municipal and Industrial Supplies

The City has an existing contract with the United States Bureau of Reclamation (USBR) for 10,000 acre-feet (af) of water per year from the Central Valley Project (CVP). This contract is a 40-year municipal and industrial (M&I) water supply contract, which was entered into in 1974 and expires in 2014. The City has agreed with the Bureau to renew the contract prior to 2014. Contract negotiations are on-going and it is the intent to renew the contract prior to 2014. In the event the contract is not renewed prior to expiration, the City and the USBR will enter into an interim renewal contract to provide water service until the long-term renewal contract is executed.

In the CVP system, in accordance with USBR's Central Valley Project Municipal and Industrial Draft Water Shortage Policy (September 11, 2001), an M&I contractor is eligible for 75 percent M&I reliability applied to the contractor's historical use, with certain adjustments. This M&I reliability may be reduced when the allocation of Ag-reliability water is reduced below 25 percent of contract entitlement. Historical allocations for the M&I reliability CVP water for the last several years are summarized below:

- ◆ 2005: 100 percent allocation
- ◆ 2006: 100 percent allocation
- ◆ 2007: 75 percent allocation
- ◆ 2008: 75 percent allocation
- ◆ 2009: 60 percent allocation
- ◆ 2010: 75 percent allocation
- ◆ 2011: 100 percent allocation
- ◆ 2012: 75 percent allocation as of April 13, 2012

In the last five years, the City's allocations of M&I reliability water have averaged 77 percent of the City's contractual entitlement.

Litigation has created uncertainty regarding the reliability of water deliveries through the Bay-Delta. Most of this litigation addresses compliance with Federal and State endangered species acts. In August 2007, the Federal court ordered curtailment of Delta pumping to protect the Delta smelt. In December 2008, the United States Fish and Wildlife Service (USFWS) issued a Biological Opinion that upheld the Federal court's restrictions on Delta pumping and essentially made those restrictions permanent. In June 2009, a revised Biological Opinion from the USFWS related to three salmon species further reinforced the imposed pumping restrictions in the Delta. Subsequent to the release of the Biological Opinions, several lawsuits have been filed, rendering the final impacts of the Biological Opinions on future CVP deliveries (and State Water Project deliveries) uncertain.

Ag-Reliability Supplies

In 2004, the USBR approved assignment of 5,000 af/yr of Ag-reliability CVP contract entitlement to the City from the Banta Carbona Irrigation District (BCID). Also in 2004, the USBR approved assignment of another 2,500 af/yr of Ag-reliability CVP contract entitlement water to the City from the West Side Irrigation District (WSID), with the option to purchase an additional 2,500 af/yr of CVP contract entitlement from the WSID. Deliveries of Ag-reliability water can vary significantly, and during severe water shortages supply may be reduced as much as 100 percent. Allocations for the Ag-reliability CVP water for the last several years are summarized below:

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- ◆ 2005: 85 percent allocation
- ◆ 2006: 100 percent allocation
- ◆ 2007: 50 percent allocation
- ◆ 2008: 40 percent allocation
- ◆ 2009: 10 percent allocation
- ◆ 2010: 45 percent allocation
- ◆ 2011: 80 percent allocation
- ◆ 2012: 40 percent allocation (as of April 13, 2012)

Average deliveries of Ag-reliability water during the last five years have averaged 43 percent of the contractual entitlement.

Treatment of Central Valley Project Supplies

The City's CVP supplies are treated at the City's John Jones Water Treatment Plant (JJWTP), which was constructed in 1979 and later expanded in 1988 (and also expanded and upgraded in 2008), before it is distributed to the community. With the most recent treatment expansion now complete, the current treatment capacity of the JJWTP is 30 million gallons per day (MGD). Future additional expansion of the JJWTP is planned in conjunction with buildout of the City's General Plan SOI and is described in the Citywide Water System Master Plan.

The City also treats and serves relatively small quantities of CVP/Delta Mendota Canal (DMC) water purchased by others through a "treatment and wheeling agreement" for use at the Patterson Pass Business Park only. The Patterson Pass Business Park is now built out. In 2011, an estimated 527 acre-feet of water from the Plain View Water District (PVWD) (now part of the Byron Bethany Irrigation District [BBID]) USBR allocation was treated at the City's JJWTP and delivered to the Patterson Pass Business Park using the City's water distribution system. A comparable quantity of BBID CVP/DMC water is anticipated to be delivered annually to the Patterson Pass Business Park in the future.

Stanislaus River Water

The City, in partnership with the cities of Manteca, Lathrop, and Escalon, and the SSJID constructed a surface water treatment plant near Woodward Reservoir in Stanislaus County and a transmission pipeline to deliver treated surface water to each city. The project is called the South County Water Supply Project (SCWSP). This water supply is based on SSJID's senior pre-1914 appropriative water rights to the Stanislaus River, coupled with an agreement with the USBR to store water in New Melones Reservoir. As part of the SCWSP, the City has been allocated up to 10,000 af/yr of water.

Treated water deliveries commenced in 2005, and deliveries have been essentially uninterrupted since then. In the first few years, SCWSP deliveries were less than the City's full project allotment; however, during these years the City did not require its full SCWSP allotment, even though the full 10,000 af was available from SCWSP. As shown below, since 2009 the City has actually received more than its entitlement. Historical deliveries from the SCWSP to the City of Tracy are shown below:

- ◆ 2005: 3,146 af
- ◆ 2006: 8,918 af
- ◆ 2007: 9,130 af
- ◆ 2008: 8,017 af

- ◆ 2009: 10,401 af
- ◆ 2010: 10,850 af
- ◆ 2011: 11,786 af

The SCWSP is expected to have high reliability due to its pre-1914 rights. SSJID's 2010 Urban Water Management Plan (UWMP), adopted by SSJID in September 2011, indicates that SSJID will meet 100 percent of urban demands in normal years, 84.8 to 91.5 percent of urban demands in single-dry years (the percent of urban demand met increases in the future as agricultural demands decrease), and 98 to 100 percent of urban demands in multiple dry years. The City anticipates receiving at least 95 percent of its allocation, even during single-dry years. This increase in supply reliability is premised upon the other project participants not using their entire project allotment and that water being available to the City.

Groundwater

Overview

The City overlies a portion of the San Joaquin Valley Groundwater Basin-Tracy Subbasin (Tracy Subbasin). The City currently operates nine groundwater wells, with a total extraction capacity of about 15 mgd. Four wells (Production Wells 1, 2, 3, and 4) are located near the City's JJWTP and pump directly into the JJWTP clearwells, where the groundwater is blended with treated surface water. The other wells (Lincoln Well, Lewis Manor Well [Well 5], Park and Ride Well [Well 6], and Ball Park Well [Well 7] and Well 8) are located throughout the City and pump water directly into the distribution system after disinfection. The City's newest well, Well 8, located near the intersection of Tracy Boulevard and 6th Street, was designed as an Aquifer Storage and Recovery Well (ASR Well), but has initially been put into service as an extraction well.

Groundwater Level Trends

The groundwater level is located approximately 90 to 150 feet above mean sea level (msl). With the exception of seasonal variation resulting from recharge and pumping, water levels in most of these wells have remained stable over at least the last 10 years. Groundwater levels in the Tracy area are monitored by the City on a semi-annual basis. These measurements indicate that groundwater levels in the City's wells have increased over the last few years, likely as a direct result of reduced groundwater pumpage by the City since 2005.

Groundwater Storage

There are no published groundwater storage values for the Tracy Subbasin; however, since the Tracy Subbasin comprises roughly one-third of the Tracy-Patterson Storage Unit, it can be inferred that the approximate storage capacity of the Tracy Subbasin is on the order of 1,300,000 af. According to the Revised Ellis WSA, the Subbasin is in a hydrologically-balanced condition and is not overdrafted.

Groundwater Yield

An average annual operational yield of 9,000 af/yr for the City could be provided within the estimated sustainable yield of the groundwater basin in the Tracy area, without adverse impacts to groundwater resources or quality in the Tracy area over a 50-year timeframe. This yield would be within the City's estimated share of the aquifer's sustainable yield of 22,000 af/yr of the 28,000 af/yr total (which includes groundwater usage within the West Side Irrigation District, Naglee Burk Irrigation District, Plain View Water District [now part of the Byron Bethany Irrigation District], and Banta Carbona Irrigation District).

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Groundwater Quality

Groundwater quality in the Tracy subbasin varies spatially and with depth. In general, the water quality in the confined aquifer is better than that of the semi-confined aquifer. Constituents present at elevated concentrations throughout the Tracy subbasin in both the semi-confined and confined aquifers include nitrate, chloride, sulfate, and boron. Elevated chloride occurs in several areas near Tracy and along the San Joaquin River. Areas of elevated nitrate occur in the northwestern part of the Tracy subbasin and in the vicinity of Tracy. Elevated boron occurs over a large portion of the subbasin from south of Tracy extending to the northwest side of the Tracy subbasin. Sulfate concentrations of up to 500 mg/L have been in the groundwater extracted from the Tracy subbasin. The groundwater near Tracy is considered to be very hard.

Historical Groundwater Use

Historically, groundwater has accounted for approximately 40 to 50 percent of the City's annual water supply. Prior to 2000, groundwater extraction by the City totaled less than 6,000 af/yr. Between 2000 and 2004, to meet increased demands for water, the City began extracting additional groundwater, with annual usage up to about 7,700 af/yr. In 2005, groundwater extraction decreased to less than 6,000 af/yr primarily because the SCWSP was completed and the City received water from the Stanislaus River and rainfall was above normal, resulting in the City receiving a higher percentage of its DMC/CVP contractual entitlements. As noted above, other groundwater users in the Tracy area include the West Side Irrigation District, Naglee Burk Irrigation District, Plain View Water District (now the Byron Bethany Irrigation District), and Banta Carbona Irrigation District. Although current groundwater pumpage by these users was not available for inclusion in the Revised Ellis WSA, the 2001 Estimated Groundwater Yield Study, which established the City's estimated groundwater yield of 9,000 af/yr, considered the cumulative groundwater usage in the study area by the City and other users in the Tracy area.

Out of Basin Water Banking

The Semitropic Groundwater Storage District Groundwater Storage Bank (Semitropic) is a water storage system that began operation in the early 1990s. Located in Kern County between the California Aqueduct and the Delta Mendota Canal, Semitropic is one of the eight California groundwater banking agencies. Semitropic works by having its banking partners deliver their surplus water to Semitropic for groundwater storage. Then, when requested by the banking partner, Semitropic returns the stored water to the California Aqueduct for use by its partners either by exchanging its entitlement or by reversing the intake facility (known as "pumpback"). Through pumpback, Semitropic can deliver a maximum of 90,000 af/yr of water into the California Aqueduct. The State would then deliver the water to the banking partners.

The total storage capacity at Semitropic is 2.15 million acre feet and, as listed below, there is still a significant amount of storage capacity which is uncommitted and available. The current Semitropic banking partners and their reserved/available storage capacities are listed below.

Original Water Bank (1.0 million acre feet)

- ◆ Metropolitan Water District of Southern California: 350,000 acre feet
- ◆ Santa Clara Valley Water District: 350,000 acre feet
- ◆ Alameda County Water District: 150,000 acre feet
- ◆ Zone 7 Water Agency: 65,000 acre feet
- ◆ Newhall Land and Farming Company: 55,000 acre feet
- ◆ San Diego County Water Authority: 30,000 acre feet

Stored Water Recovery Unit (650,000 acre feet)

- ◆ Semitropic's Contribution to Semitropic Rosamond Water Banking Authority (SRWBA): 300,000 acre feet (see below)
- ◆ Semitropic Portion of Stored Water Recovery Unit (350,000 acre feet)
 - Poso Creek Water Company: 60,000 acre feet
 - Rampage Vineyard: 18,000 acre feet
 - Uncommitted: 122,000 acre feet
 - Not Available Until SRWBA is Committed: 150,000 acre feet

SRWBA (800,000 acre feet)

- ◆ Portion Contributed by Semitropic (300,000 acre feet)
 - San Diego County Water Authority: 15,000 acre feet
 - Available Storage: 285,000 acre feet
- ◆ Antelope Valley Water Bank (500,000 acre feet)
 - San Diego County Water Authority: 25,000 acre feet
 - Rosamond Community Services District: 30,000 acre feet
 - Available Storage: 445,000 acre feet

In June 2006, the City entered into a pilot agreement with Semitropic Water Storage District for 1,000 ac/ft of water storage at Semitropic, which allows an annual withdrawal of up to 333 af/yr. On June 5, 2012, the Tracy City Council approved a long-term agreement with Semitropic for 3,500 units of water storage. One unit of water storage allows for a withdrawal of up to one af/yr for three years. Thus, the agreement would allow for withdrawal of 3,500 af/yr for three years (10,500 af total). To store water in Semitropic, the City would not withdraw its share of CVP water from the DMC, but instead allow this water to continue to move through the DMC and California Aqueduct systems for delivery to and use by Semitropic. This is called “in lieu storage.” Upon request by the City, in accordance with the contract, Semitropic would pump the stored water directly into the California Aqueduct and a like amount of water would be made available to the City directly from the DMC. Though the City could utilize this supply in any year, it would be most valuable during drought years when the City's CVP surface water supplies are reduced. If the City uses water from the Semitropic water bank in any given year, it would work to manage its supplies during subsequent years such that it could “refill” its water bank for future water use. By banking water at Semitropic, the City will increase the quantity of supplies available during drought and/or other emergency conditions, thereby increasing the reliability of its water supply.

To date, through the pilot agreement, the City has deposited 4,500 ac/ft of supplies in Semitropic and has withdrawn 200-af (100-af in November 2007 and 100-af in December 2008). The City's current balance is 4,300 af; these supplies are available to the City for withdrawal in dry years, if needed. Based on this current balance, it is assumed that 1,750 af/yr will be available for withdrawal in 2015, and 3,500 af/yr will be available thereafter.

Non-Potable Supplies

Diversion of Non-Potable Surface Water from Sugar Cut

Historically, the City's Holly Sugar property has been irrigated (at least since 1912) using untreated surface water diverted from Sugar Cut. The water rights to the untreated surface water from the Sugar Cut area are considered to be pre-1914 appropriative rights, and may also be classified as riparian rights. Use of the water from Sugar Cut has been continuous on the Holly Sugar property for irrigation purposes since at least 1912 (and continues today). The continuous use of this non-potable

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water supply from Sugar Cut is proposed for the interim irrigation of the proposed Holly Sugar Sports Park, until recycled water supplies become available. Therefore, the future use of this non-potable supply, beyond the interim use at the proposed sports park, is not anticipated.

Future Water Supplies

The City is currently anticipating the following additional potable water supplies in the future:

- ◆ Additional surface water from the Delta Mendota Canal (Central Valley Project);
- ◆ Surface water from BBID pre-1914 water rights;
- ◆ Additional supplies from the SCWSP; and,
- ◆ Aquifer storage and recovery.

Additional Central Valley Project Water via the Delta Mendota Canal

Westside Irrigation District Supplies

As mentioned previously, the City has an option for additional assignment of 2,500 af/yr of Ag-reliability CVP contract entitlement water from the WSID. Pursuant to the agreement with WSID, the City can execute this assignment at any time before midnight on February 27, 2014. All necessary approvals have been granted and the City has identified funding for this appropriation in its Capital Improvement Program (CIP). The City plans to exercise this option prior to the February 27, 2014 deadline with the additional supply of 2,500 af/yr being available thereafter.

Byron Bethany Irrigation District Supplies

As noted previously, the area served by the former PVWD is now part of the BBID. Due to on-going urbanization in portions of BBID's service area (including the Modified Project), BBID anticipates that it may have CVP contract entitlement water (with Ag-reliability) available for municipal uses in the future. The City and BBID are negotiating a phased option agreement to assign portions of BBID's CVP/DMC contract right to the City. The estimated quantity of contract entitlement water potentially subject to such an agreement is approximately 11,000-af/yr. The exact quantity of BBID CVP water entitlement is the subject of the future agreement between the City and BBID. However, previous discussions have indicated that a contract entitlement quantity of water equal to 3.4-af/yr per acre of converted agricultural land may be available for M&I use.

As described above, the Modified Project is located within the BBID service area and provides approximately 1,100 af/yr (321 x 3.4 af/ac/yr) of supply to the City from BBID's CVP water entitlement.

It is estimated that an agreement between the City and BBID can be achieved within the next few years to allow for the transition of additional CVP supplies to be available to the City starting in 2015 (at 3,000 af/yr) and increasing to 11,000 af/yr by 2030. An approval will be required from the USBR and compliance with CEQA and National Environmental Policy Act (NEPA) will be required. Because the exact quantity of water available and terms of a future agreement are yet to be negotiated, the total cost and financing mechanisms for acquiring this supply have not yet been determined.

Surface Water from BBID Pre-1914 Water Rights

Part of the proposed Tracy Hills Specific Plan area was annexed into the BBID and is entitled to water service from BBID, using BBID's pre-1914 appropriative water rights. The City anticipates that up to 3,000 af/yr of pre-1914 water rights water could be provided by BBID on a year-round basis

(via the DMC with a proposed Exchange Agreement with the USBR) to serve the proposed Tracy Hills Project in the BBID service area. Because the water supply is based on pre-1914 appropriative rights, the supply is considered to be firm and well-established.

Future work to secure this water supply includes: finalizing agreements between the City and BBID; completions of a Water Supply Assessment and required environmental documentation; and, execution of an Exchange Agreement with the USBR to provide for a year-round supply to be conveyed to the City's JJWTP via the DMC. The proposed supply will need to meet the City's reliability criteria.

Costs for obtaining the water supply from BBID and delivering the water supply to the City's JJWTP for treatment and use at the Tracy Hills Project will be paid in a manner consistent with the City's applicable fee program requiring fair share participation by the project developer. A variety of reviews and approvals would be required from various entities such as the City, the Tracy Hills Project developer, BBID and USBR. Once design is initiated, the planning, design, and construction of the conveyance infrastructure would take a minimum of two years to complete. The City and the developer of the Tracy Hills Project are evaluating the potential exchange agreement between BBID and USBR, and anticipate that this water supply could be available starting in 2015 (at 1,000 af/yr) and increasing to 3,000 af/yr by 2025.

Additional Supplies from the South County Water Supply Project

The City anticipates that an additional two mgd of treatment and conveyance capacity and 3,000 af/yr of treated water supplies would be available from the SCWSP in the future. This additional supply (currently anticipated to be a re-assignment of 1,120 af/yr of unused project supply from the City of Lathrop and 1,880 af/yr directly from SSJID available as a result of SSJID's conservation efforts) would have the same high reliability as the supply that the City is currently receiving from the SCWSP. Delivery of these additional supplies to the City would be through the same, existing facilities currently delivering the City's existing SCWSP supplies. Delivery of these additional supplies would be subject to approval by the other SCWSP partners and environmental review. The City anticipates that these additional supplies would be available starting in 2015.

Aquifer Storage and Recovery

The City's proposed ASR program would allow the City to optimize conjunctive use of its water supplies through injection of surplus treated (potable) drinking water into selected aquifer zones within the groundwater subbasin for storage when surplus supplies are available, and recovery of that potable water from the aquifer to optimize water quality and meet seasonal peak demands during droughts, or when emergency or disaster scenarios preclude the use of imported water supplies.

As noted above, the City constructed a new well in January 2004 (Well 8) that was designed to allow for both injection and extraction of water supplies in conjunction with the City's proposed ASR program. In early 2009, the City contracted to construct the above ground well facilities (including the pump house, pump, motor, electrical, telemetry, chemical feed systems, etc.) to have Well 8 operational in September 2010, initially as an extraction well, and in the future as part of the City's proposed ASR program. In addition, the City has already installed two monitoring wells for use in the demonstration project monitoring and testing for the proposed ASR program.

The City has obtained regulatory approval from the Central Valley Regional Water Quality Control Board (Central Valley RWQCB) to conduct both Phases 1 and 2 of its ASR Demonstration Testing Program. Environmental review of the testing program has been conducted and Phase I took place in

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2011. Phase II testing has begun and is anticipated to continue through late summer 2012. Once the City completes the demonstration program, prepares the required environmental documentation, and secures approval to operate a permanent ASP Program, it is estimated that as much as 685 to 915 af/yr of portable water could be injected into the aquifer, assuming a five-month continuous injection rate of 1.5 to 2.0 mgd. Implementation of the City’s ASR Program will occur incrementally (as new ASR wells are constructed) with up to 3,000 acre-feet of high-quality groundwater available in drought years by 2025 and approximately 1,000 af/yr of ASR supply available by 2015. The City has included appropriations in its CIP for Phase 2 Demonstration Testing and preparation of environmental documentation for the permanent program.

Recycled Water

In 2002, the City adopted a Recycled and Non-Potable Water Ordinance requiring all new subdivisions, to the extent practicable, to install the required infrastructure (such as dual distribution pipelines) to provide recycled water to meet non-potable water demands at parks, golf courses, athletic fields, schools, median island landscapes, and industrial sites. The Citywide Water System Master Plan identifies recycled water for non-potable uses in existing and future publicly landscaped areas in the City where feasible, as one of the City’s sustainable infrastructure principles.

At buildout of the City of Tracy General Plan (General Plan), it is estimated that the recycled water demand for landscape irrigation will be approximately 7,500 af/yr. Based on the City’s Citywide Wastewater System Master Plan, the quantity of recycled water supply available is up to 22.4 mgd (25,000 af/yr) at buildout, based on anticipated wastewater flows and the capacity of the City’s Wastewater Treatment Plant (WWTP). Recycled water will be treated to a tertiary level in accordance with Title 22 requirements at the City’s WWTP and distributed to recycled water use areas within the City’s SOI. It is anticipated that adequate recycled water supplies will be available to meet the projected recycled water demands at General Plan buildout, including those associated with the Modified Project. Approvals and permits for the production, distribution, and use of recycled water will be required from the Central Valley RWQCB and the California Department of Public Health (DPH).

Shallow Non-Potable Groundwater

Shallow non-potable groundwater is considered to be suitable for most agricultural irrigation purposes, but may not be a feasible long-term solution for the City.

Table 4.14-1 (City of Tracy Existing and Additional Future Water Supplies) provides a summary of the City’s existing and additional future water supply entitlements.

TABLE 4.14-1 CITY OF TRACY EXISTING AND ADDITIONAL FUTURE WATER SUPPLIES

| Supply | Water Right or Available Supply Quantity (af/yr) | Supply Ever Used by City |
|-----------------------------------------------------|---------------------------------------------------------|---------------------------------|
| Existing | | |
| USBR CVP Contract (City Contract) (M&I Reliability) | 10,000 | Yes |
| USBR CVP (BCID assignment) (Ag Reliability) | 5,000 | Yes |
| USBR CVP (WSID assignment) (Ag Reliability) | 2,500 | Yes |

TABLE 4.14-1 CITY OF TRACY EXISTING AND ADDITIONAL FUTURE WATER SUPPLIES
(CONTINUED)

| Supply | Water Right or Available Supply Quantity (af/yr) | Supply Ever Used by City |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|
| South County Water Supply Project (pre-1914 rights) | 10,000 | Yes |
| Groundwater ^(a) | 9,000 | Yes |
| Semitropic Water Storage Bank (Permanent Agreement) ^{(b)(c)} | 3,500 | Yes |
| Additional Future | | |
| USBR CVP (WSID Option) (Ag Reliability) | 2,500 | No |
| USBR CVP (BCID Contract) (Ag Reliability) | 11,000 | No |
| BBID (pre-1914 rights) | 3,000 | No |
| Additional SCWSP (pre-1914 rights) | 3,000 | No |
| Aquifer Storage and Recovery ^(c) | 3,000 | No |
| Recycled Water ^(d) | 25,000 | No |
| Notes: a. The City is planning to decrease groundwater use to 2,500 af/yr by the year 2015. However, studies described in the Revised Ellis WSA have indicated that up to 9,000 af/yr of groundwater is available to make up for shortfalls in the event of a severe drought or other water shortage. b. As of June 2012, the Semitropic Permanent Agreement replaced the previous Pilot Agreement. c. Supplies from Semitropic and ASR are assumed to be dry year supplies. As such, during normal years, supplies from these sources are assumed to be 0 af/yr. d. Based on the total projected recycled water production at General Plan buildout (22.4 mgd). | | |

EXISTING WATER DISTRIBUTION AND TREATMENT FACILITIES

The City of Tracy’s existing water system facilities consist of water treatment plants, pump stations, wells, water mains, and storage reservoirs. As described previously, surface water distributed throughout the City is treated at two plants: the JJWTP, which is located in the southern portion of the City just north of the DMC and processes the water from the DMC, and a surface water treatment plant near the Woodward Reservoir in Stanislaus County, known as the SCWSP that treats surface water from the Stanislaus River and conveys the water to each partnering City via transmission pipelines. The JJWTP has the capacity to treat 30 mgd and the City’s water allocation from the SCWSP is 15 mgd of treatment capacity and 10,000 af/yr of water supply.

Also described previously, the City of Tracy operates nine groundwater wells that pump from the groundwater aquifer, with a total reliable capacity of 15 mgd. The City of Tracy water service is provided over an area with significant changes in elevation. Therefore, the City has established three pressure zones for its treated water distribution system. There are approximately 260 miles of existing pipelines in the City’s water service area, ranging from four to 42 inches in diameter.

The City currently operates four treated water storage reservoirs (two clearwells and two storage tanks) with a total potable water storage capacity of 14.16 million gallons (mg). However, one clearwell is used as a chlorine contact basin, which reduces the total available potable storage capacity to 13.5 mg.

WASTEWATER

The City owns and operates a wastewater collection system consisting of gravity sewer lines, pump stations, and the City of Tracy Wastewater Treatment Plant (WWTP). Wastewater flows toward the northern part of the City where it is treated at the WWTP and then discharged into the Old River in the southern Sacramento-San Joaquin Delta.

The existing wastewater collection system consists of three major interceptor systems. The Eastside collection system conveys wastewater from areas in the southeastern and eastern parts of the City, including the South Industrial Areas Specific Plan and Northeast Industrial Areas. The Corral Hollow sewer system, which would serve the Modified Project, conveys wastewater, mainly from residential development, from the southwestern part of the City. The Hansen sewer system conveys wastewater from the western and northern parts of the City, including the Patterson Pass Business Park and the West Valley Mall. The Downtown and City's central area convey wastewater directly to the WWTP using sewer mains in Lincoln Boulevard, Bessie Avenue, Grant Line Road, and Holly Drive.

The City currently has plans to expand and improve the existing WWTP in phases. Phase I of the WWTP expansion was completed in 2008, giving the City a treatment capacity of 10.8 mgd. Remaining phases will be completed over time as the City's SOI is built out and would provide the following capacities:

- ◆ Phase II – 12 mgd
- ◆ Phase III – 13.65 mgd
- ◆ Phase IV – 16 mgd

The expansion would also result in improvements to the quality of the effluent discharged from the WWTP by upgrading the facility from secondary to tertiary treatment. The expansions and improvements to the WWTP were evaluated in the Draft and Final EIR for the Tracy Wastewater Treatment Plant Expansion (SCH No. 2000012039). The Final EIR was completed in September of 2002 and was certified in November 2002.

STORM DRAINAGE

The ESP area is located entirely within the southernmost, upstream portion of the City's Westside Channel Watershed. Existing storm drainage facilities downstream of the ESP area, consisting of trunk line storm drains and open channels serving residential subdivisions to the north to DET 5 (Plasencia Field) and facilities downstream of DET 5 associated with the City's Westside Channel Outfall System, have been sized to accept attenuated (metered) storm runoff from the ESP area. A new regional Detention Basin #3A is planned for the north side of Valpico Road and would store and attenuate runoff from existing and future development, including Ellis, within a portion of the Westside Channel Watershed. With slopes less than one percent in the north-south and east-west direction, the topography of the existing site is moderately flat. Based on this topography, the peak stormwater discharge flow rate is approximately 26 cubic feet per second based on a ten-year storm event.

4.14.2 REGULATORY FRAMEWORK

WATER

The following section describes State and local regulations and codes relevant to water in the City of Tracy.

CALIFORNIA WATER CODE

Sections 10910 through 10915

Sections 10910 through 10915 (inclusive) of the California Water Code require land use agencies to: (1) identify any public water purveyor that may supply water for a proposed development project; and, (2) request from the identified purveyor a Water Supply Assessment for projects that meet the following criteria:

- ◆ A proposed residential development of more than 500 dwelling units.
- ◆ A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- ◆ A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- ◆ A proposed hotel or motel, or both, having more than 500 rooms.
- ◆ A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- ◆ A mixed-use project that includes one or more of the projects specified above.
- ◆ A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

The purpose of a WSA is to demonstrate the sufficiency of the purveyor's water supplies to satisfy the water demands of a proposed project, while still meeting the water purveyor's existing and planned future uses. Water Code sections 10910 through 10915 identify the specific information that must be included in a WSA.

Sections 10750 through 10756

Sections 10750 through 10756 of the California Water Code (AB 3030) provide a systematic procedure for an existing local agency to develop a groundwater management plan. This section of the code provides such an agency with the powers of a water replenishment district to raise revenue to pay for facilities to manage the basin (extraction, recharge, conveyance, quality). One hundred forty-nine agencies have adopted groundwater management plans in accordance with AB 3030. Other agencies have begun the process. In some basins, groundwater is managed under other statutory or judicial authority.

DELTA MENDOTA CANAL GROUNDWATER MANAGEMENT PLAN

In 1996, the Tracy City Council adopted the Northern Delta Mendota Canal Groundwater Management Plan (GMP) pursuant to Water Code Section 10750 *et seq.* This plan was developed in coordination with other DMC northern agencies including Banta Carbona Irrigation District, Byron Bethany Irrigation District, Del Puerto Water District, Patterson Irrigation District, West Stanislaus Irrigation District, Westside Irrigation District, San Joaquin County, and the City of Tracy. The 1996

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GMP included information on groundwater levels and quality, conjunctive management of groundwater and surface water resources, and measures to protect groundwater resources within the plan area.

In 2011, the GMP was revised to include additional information to comply with new provisions adopted by the State legislature, which included:

- ◆ Department of Water Resources (DWR) to establish a priority schedule for monitoring groundwater basins and elevation report as well as issuing recommendations to local entities to improve water quality;
- ◆ Permit local entities to determine best methods of groundwater monitoring to meet local demand; and,
- ◆ DWR to implement groundwater monitoring if local agencies fail to do so, which would result in a loss of eligibility for State grant funds.

The revised GMP was adopted by the Tracy City Council on May 1, 2012.

SAN JOAQUIN COUNTY GROUNDWATER EXPORT ORDINANCE

San Joaquin County enacted a Groundwater Export Ordinance in June 2000 that requires an entity to secure a permit from the County prior to exporting groundwater of the County (such as pumping extracted groundwater into the DMC for conveyance to other areas).

CITY OF TRACY GENERAL PLAN

The City of Tracy's General Plan contains policies to ensure that adequate water supply can be provided within the City to provide improved water quality while increasing system reliability, and prepare water facilities for reliability during catastrophic events. The policies also encourage the use of reclaimed water to reduce non-potable demands and to create market opportunities for reclaimed water.

CITY OF TRACY URBAN WATER MANAGEMENT PLAN

The City's most recently adopted UWMP (the City's 2010 UWMP) was adopted by the Tracy City Council in May 2011. The City's 2010 UWMP included existing and projected water demands for existing and projected future land uses to be developed within the City's General Plan SOI through buildout (estimated to occur in 2040). The water demand projections in the City's 2010 UWMP included existing City water demands (based on 2007 demands), future water demands for developments with approved water supplies (e.g., those projects which have already been approved by the City but have not yet begun construction or have not yet built out), and future water demands for future service areas.

The potable water demands of the Original Project (1,076 af/yr) were included in the City's 2010 UWMP future water demands for development with approved water supplies. It should be noted that a recycled water demand for the Original Project was not included in the City's 2010 UWMP, as recycled water use within the Original Project area was not previously planned. However, recycled water facilities recommended in the Citywide Water System Master Plan have been sized to accommodate additional recycled water demands beyond those included in the City's 2010 UWMP, and adequate recycled water supplies are anticipated to be available in the future to accommodate the recycled water demand associated with the Modified Project.

TRACY REGIONAL GROUNDWATER MANAGEMENT PLAN (REGIONAL CITY GMP)

In 2005, the City was awarded a DWR grant to prepare a Tracy Regional Groundwater Management Plan (Tracy Regional GMP) for the portion of the Tracy Subbasin that underlies the City of Tracy. The Tracy Regional GMP was completed in March 2007. A key objective of the Tracy Regional GMP was the development of Basin Management Objectives (BMOs) for groundwater levels, groundwater quality, and land subsidence in the region.

CITY OF TRACY GROUNDWATER MANAGEMENT POLICY

In 2001, the City adopted a Groundwater Management Policy that established the City's maximum annual groundwater extraction rate of 9,000 af/yr. The 2001 Groundwater Management Policy includes water level monitoring criteria to measure groundwater quality, groundwater levels, and to detect any ground subsidence. Six monitor wells are to be developed under the policy. City production wells are also used for monitoring. Water levels are taken from each monitoring well on a monthly basis, water quality samples are taken quarterly, and ground elevation survey monitoring occurs annually.

CITY OF TRACY WATER SHORTAGE CONTINGENCY PLAN

The City of Tracy developed a Water Shortage Contingency Plan in 1992, which contains five stages of actions to be undertaken in the event of an interruption of water supplies, such as could occur in a drought or emergency situation. The City Council determines the appropriate stage of action in the event of a crisis, after which the City Manager can authorize and implement applicable water conservation and rationing requirements. The Water Shortage Contingency Plan contains a Water Conservation and Rationing Plan wherein the five stages of action are described in detail.

CITY OF TRACY RECYCLED AND NON-POTABLE WATER ORDINANCE

The City of Tracy enacted the Recycled and Non-Potable Water Ordinance (Tracy Municipal Code, Chapter 11.30) in March 2002. The ordinance requires that planned new developments in the City of Tracy install pipelines and dual distribution systems to supply non-potable water to green spaces for irrigation and to facilities for industrial cooling or processing. Recent plans for developments, including Tracy Hills and Tracy Gateway, have proposed to incorporate the use of recycled and/or non-potable water for irrigation of parks, golf courses, and other landscaped areas to reduce the potable water demand.

WASTEWATER

The following programs, policies, and regulations direct the wastewater infrastructure in Tracy.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PROGRAM

The Federal National Pollutant Discharge Elimination System (NPDES) program requires all dischargers receive a permit to release effluent into surface waters. Since the City of Tracy wastewater treatment plant releases effluent into the Old River, the City is subject to NPDES permitting requirements, as implemented by the RWQCB.

CITY OF TRACY GENERAL PLAN

The City's General Plan includes policies on providing necessary wastewater infrastructure and treatment to support growth, pursuing innovative solutions for wastewater treatment and disposal. The General Plan also includes policies for pursuing safe and environmentally responsible methods of disposing of treated effluent.

CITY OF TRACY WASTEWATER MASTER PLAN

The Tracy Wastewater Master Plan, prepared May 2012, derives future wastewater flow and mass loading conditions from available land use data and summarizes hydraulic and process infrastructure capacity requirements. The Tracy Wastewater Master Plan investigates two options regarding the number of treatment plants. A single-plant option includes expanding the existing WWTP located near Holly Drive, whereas the two-plant option expands the existing treatment plant and includes a new, smaller treatment system that would only process wastewater from the Tracy Hills development project. The Tracy Wastewater Master Plan also addresses using reclaimed water for irrigation throughout the City and Future Service Areas to offset potable water demands.

STORM DRAINAGE

This section describes the primary laws and policy documents that affect stormwater and infrastructure and water quality in Tracy.

FEDERAL WATER POLLUTION CONTROL ACT (CLEAN WATER ACT)

The Clean Water Act (CWA) was amended in 1972 to prohibit the discharge of pollutants to Waters of the United States from any point source unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Section 402(p) was added to the CWA in 1987 to establish the framework for regulating municipal and industrial stormwater discharges under the NPDES program through a two-phase implementation plan. Phase I regulations were promulgated in 1990 and require large and medium size municipalities (population over 100,000) to comply with the NPDES municipal program. Phase II regulations were promulgated in 1999 and require small municipalities obtain coverage under the NPDES municipal program. The City of Tracy is subject to the Phase II municipal program and has prepared a Storm Water Management Program (SWMP) to comply with the regulations (General Permit Number CAS000004, Water Quality Order No. 2003-0005-DWQ).

STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDERS

The State Water Resources Quality Control Board (SWRCB) has adopted an NPDES General Permit for construction activities, known as the Construction General Permit (CGP). On July 1, 2010, a new CGP (Order No. 2009-0009-DWQ) became effective, superseding a former CGP (Water Quality Order No. 99-08-DWQ). The CGP requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list Best Management Practices (BMPs) the discharger will use to protect stormwater runoff and the placement of those BMPs. Additionally, the SWPPP must contain a Construction Site Monitoring Program (CSMP) to demonstrate that the site is in compliance with the CGP. Depending on the construction site risk level, the CSMP includes varying levels of visual monitoring and water quality sampling and analysis.

The SWRCB has also issued a statewide General Permit (Water Quality Order No. 97- 03-DWQ) for regulating stormwater discharges associated with industrial activities. This General Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). It also requires the development of a SWPPP, a monitoring plan, and the filing of an annual report.

The SWRCB has recently issued a draft Water Quality Order to replace the current General Permit for industrial facilities. The draft Order contains several significant changes from the current General Permit, including additional certification, sampling, and inspection requirements. The draft Order is targeted for adoption in the near future.

CITY OF TRACY GENERAL PLAN

The City of Tracy General Plan includes policies on collecting, conveying, storing, and disposing of stormwater in ways that provide an appropriate level of protection against flooding, account for future development, and address environmental concerns. Policies encourage the dual use of storm drainage facilities with other facilities such as bike paths, landscaping, and active and passive recreational uses. The policies also encourage new development to reduce storm runoff within the development project, to the greatest extent feasible.

CITY OF TRACY CITYWIDE STORM DRAINAGE MASTER PLAN

The Citywide Storm Drainage Master Plan (SDMP) prepared in March 2012 applies to the City of Tracy's SOI, excluding Tracy Hills. It includes hydrologic and hydraulic analyses; a conceptual plan for new storm drainage infrastructure needed to serve new development and existing development areas; opinions of probable cost for new and upgraded storm drainage infrastructure; drainage policies; impact fee program area descriptions; and documentation regarding existing conditions, facilities, studies, regulations, and agreements. Necessary improvements and upgrades identified by the SDMP are based on existing and anticipated, but not yet constructed, developments, which form the overall buildout conditions used to adequately size the facilities identified within the SDMP.

The intention of the SDMP is a guideline document for the identification of storm drainage facilities needed to serve future land development projects under the buildout condition for the City's SOI and storm drainage facility upgrades needed to correct existing deficiencies, as well as serving as a reference document for existing storm drainage facilities and their functional characteristics.

The Tracy Hills future service area is self-contained with respect to storm drainage concerns and is incorporated into the 2012 SDMP by reference only. Tracy Hills is proposed to drain to an existing sand and gravel extraction pit as a point of terminal drainage and is disconnected from the remainder of the study area. Information related to internal storm drainage that will serve Tracy Hills is provided in a separate report prepared by Nolte Associates, Inc., entitled Tracy Hills Storm Drainage Master Plan, Volumes 1 – 3, December 2000.

CITY OF TRACY STORMWATER MANAGEMENT PROGRAM

The intent of the SWMP is to implement Best Management Practices to reduce the discharge of pollutants from the City to the Maximum Extent Practicable. The City's current SWMP, dated September 2003, includes six program categories:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Storm Water Runoff Control
5. Post-Construction Storm Water Management in New Development and Redevelopment
6. Pollution Prevention and Good Housekeeping for Municipal Operations

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The State Water Resources Control Board (SWRCB) is in the process of creating a new Water Quality Order to replace Water Quality Order No. 2003-0005-DWQ. The new Water Quality Order is likely to include additional requirements that Phase II municipalities will need to comply with.

CITY OF TRACY MANUAL OF STORMWATER QUALITY CONTROL STANDARDS FOR NEW DEVELOPMENT AND REDEVELOPMENT

The City adopted a Manual of Stormwater Quality Control Standards for New Development and Redevelopment (SWQC Manual) in August 2008. The SWQC Manual has the following goals:

- ◆ Assist new development in reducing urban runoff pollution to prevent or minimize water quality impacts.
- ◆ Provide standards for developers, design engineers, agency engineers, and planners to use in the selection, design, and implementation of General Site Design Control Measures for Low Impact Design (LID) and appropriate site-specific source and treatment control measures.
- ◆ Provide maintenance procedures to ensure that the selected control measures will be maintained to provide effective, long-term pollution control.

LID is an approach to managing stormwater runoff that mimics the natural pre-development hydrology of a development site by using design techniques that infiltrate, filter, store, treat, evaporate, and detain stormwater runoff close to the source. Almost all areas of site design can incorporate LID measures, including residential landscaping, open space, streetscapes, parking lots, sidewalks, and medians. LID can be used in combination with traditional storm drain systems to infiltrate the smaller, more frequent storms, while allowing the larger storms to flow to pipes and basins for flood control (possibly with lower off-site costs than traditional non-LID systems). LID techniques offer great benefits to stormwater quality, especially for the smaller return interval storm events. LID will help reduce the amount of runoff entering the City's system and will aid in recharging ground water.

The infrastructure identified in the SDMP assumes that LID practices will be implemented with new development and redevelopment in conformance with the SWQC Manual and that the rates and volumes of runoff will be reduced when compared against developed condition runoff production in the absence of said measures.

4.14.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based on Appendix G of the CEQA Guidelines. For the purposes of this analysis, an impact on water supply, wastewater, or storm drainage is considered significant if the Modified Project would result in:

- ◆ Construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- ◆ Insufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements.
- ◆ Exceedance of wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB).

- ◆ A determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to provide the project’s projected demand in addition to the provider’s existing commitments.
- ◆ Construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

POTENTIAL IMPACTS AND MITIGATION MEASURES

WATER SUPPLY

Impact 4.14-1: Sufficient water supplies are available to serve the Modified Project from existing entitlements and resources. No new or expanded entitlements would be required.

Determination: Less than Significant Impact.

As noted in the introduction to this section, a revised WSA (Revised Ellis WSA) was prepared to clarify issues identified for the Original Ellis WSA in the Statement of Decision and Judgment, and to satisfy state law requirements for the purposes of the City of Tracy when deciding to reapprove the land use entitlements requested by the Project Applicant.

Modified Project Projected Water Demand

The projected water demand of the Modified Project was calculated based on the proposed land uses. The City has adopted standard unit water use factors for use in projecting potable and recycled water demand based on historical metered water use data for various land use types, taking into consideration reduced water use as a result of new building codes, improved water use efficiency, and water conservation measures. Table 4.14-2 (City of Tracy Adopted Water Use Factors) summarizes the City’s standard unit water use factors for the land use designations applicable to the Modified Project.

TABLE 4.14-2 CITY OF TRACY ADOPTED WATER USE FACTORS¹

| Modified ESP Proposed Land Use | Water Use Factor (units as shown) |
|-------------------------------------------------|-----------------------------------|
| Low Density Residential | 429 gpd/du ² |
| Medium Density Residential | 310 gpd/du ³ |
| High Density Residential | 220 gpd/du ³ |
| Village Center (Commercial) | 2.0 af/ac/yr ⁴ |
| General Commercial | 2.0 af/ac/yr ⁴ |
| Limited Use (Commercial) | 2.0 af/ac/yr ⁴ |
| Middle School (Institutional/Public Facilities) | 1.5 af/ac/yr ⁴ |
| Neighborhood Parks (Landscape Irrigation) | 4.0 af/ac/yr ⁴ |
| Swim Center | 2.0 af/ac/yr ⁴ |

1. As established in the Citywide Water System Master Plan, March 2012.
2. Low density residential potable water use factor assumes potable water use for landscape irrigation uses.
3. Medium and High Density Residential potable water use factors developed as part of the Citywide Water System Master Plan assume that recycled water would be used for landscape irrigation uses. Since recycled water is not assumed to be used for the Modified ESP for medium density residential, additional potable water demand has been added to the medium density residential potable water demand estimate to account for irrigation demands using potable water.
4. Water use factors expressed in af/ac/yr are based on gross acres.

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The unit water use factors listed in Table 4.14-2 were applied to the number of dwelling units and gross acres for the respective land uses for the Modified Project to estimate the total potable water demand. Based on the water demand calculations, the total projected water demand for the Modified Project at buildout (including the Family Swim Center) is presented in Table 4.14-3 (Modified ESP Water Demand Estimate). As indicated in that table, the projected potable water demand for the Modified Project (including the Family Swim Center) is estimated to be 1,021 af/yr and the projected recycled water demand for the Modified Project is estimated to be 116 af/yr. Projected water demands for the Family Swim Center are shown in Table 4.14-4 (Family Swim Center Water Demand Estimate) and are based on the following assumptions:

- ◆ Demands for the Family Swim Center building facilities were provided by Dahlin Group and Glumac Engineers. Fixture counts used to determine the demands are based on the Building Code for the estimated number of occupants. The estimated number of occupants used for determining ultimate demand is 2,400 people. The maximum and peak hour demands will occur during the summer; the facility is assumed to be 90 percent closed in the winter. The estimated water demands provided include the peak demand for building facilities.
- ◆ The annual demands for the Family Swim Center landscaped areas were provided by RJM Design Group. The maximum day demands were calculated by assuming annual demand would occur during a six-month irrigation season (April through September) with a six-hour window for irrigation each day. The resulting demand is assumed to be the typical landscape demand during the summer. The peak hour demand was provided by RJM Design Group.

TABLE 4.14-3 MODIFIED ESP WATER DEMAND ESTIMATE

| Land Use Designation | Area, gross acres ¹ | Potable Water Acres | Recycled Water Acres | Dwelling Units (dus) ¹ | Square Feet (SF) ¹ | Unit Potable Water Use Factors ² | | Unit Recycled Water Use Factors ² | Annual Potable Water Use (af/yr) | Annual Recycled Water Use (af/yr) |
|-------------------------------------------------------------|--------------------------------|---------------------|----------------------|-----------------------------------|-------------------------------|-------------------------------------------------|----------|----------------------------------------------|----------------------------------|-----------------------------------|
| | | | | | | Gpd/du | Af/ac/yr | Af/ac/yr | | |
| Residential Mixed Low | 120 | 120.0 | 0.0 | 505 | | 429 | | | 243 | -- |
| Irrigation Demand for Residential Mixed Low (see note 3) | | | | | | Included in gpd/du potable water use factor | | | -- | -- |
| Residential Mixed Medium | 111 | 94.4 | 0.0 | 1,705 | | 310 | | | 592 | -- |
| Irrigation Demand for Residential Mixed Medium (see note 4) | | 16.7 | 0.0 | | | Not included in gpd/du potable water use factor | 4.00 | | 67 | -- |
| Residential Mixed High | 5 | 4.3 | | 40 | | 220 | | | 10 | -- |
| Irrigation Demand for Residential Mixed High (see note 5) | | 0.8 | | | | Not included in gpd/du potable water use factor | | 4.00 | -- | 3 |
| Village Center (see note 6) | 5.7 | 4.8 | 0.9 | | 60,000 | | 2.00 | 4.00 | 10 | 3 |

TABLE 4.1 4-3 MODIFIED ESP WATER DEMAND ESTIMATE (CONTINUED)

| Land Use Designation | Area, gross acres ¹ | Potable Water Acres | Recycled Water Acres | Dwelling Units (dus) ¹ | Square Feet (SF) ¹ | Unit Potable Water Use Factors ² | | Unit Recycled Water Use Factors ² | Annual Potable Water Use (af/yr) | Annual Recycled Water Use (af/yr) |
|-------------------------------------------------------------------------------------------|--------------------------------|---------------------|----------------------|-----------------------------------|-------------------------------|---------------------------------------------|----------|----------------------------------------------|----------------------------------|-----------------------------------|
| | | | | | | Gpd/du | Af/ac/yr | Af/ac/yr | | |
| | | | | | | | | | | |
| Commercial (General) (see note 6) | 4.4 | 3.7 | 0.7 | | 40,000 | | 2.00 | 4.00 | 7 | 3 |
| Limited Use (see note 6) | 26 | 22.1 | 3.9 | | 80,000 | | 2.00 | 4.00 | 44 | 16 |
| Middle School (see note 7) | 12 | 10.2 | 1.8 | | | | 1.50 | 4.00 | 15 | 7 |
| Neighborhood Parks (see note 8) | 21 | 0.0 | 21.0 | | | | | 4.00 | -- | 84 |
| Swim Center (see note 9) | 16 | 16.0 | 0.0 | | | | | | 33 | -- |
| Totals | 321 | 293 | 28 | 2,250 | 180,000 | | | | 1,021 | 116 |
| Total Water Demand for Modified ESP | | | | | | | | | 1,021 | 116 |
| Total Water Demand for Ellis Specific Plan included in the City of Tracy 2010 UWMP | | | | | | | | | 1,076 | -- |

- Notes:
1. Acres, dwelling units, and square footages as provided by Surland on April 2, 2012.
 2. Unit Water Use Factors based on Citywide Water System Master Plan, Draft Report, dated December 2011.
 3. Unit potable water use factors for Residential Mixed Low Density include outdoor potable water uses.
 4. Unit potable water use factors for Residential Mixed Medium Density dwelling units do not include outdoor water uses. For the Modified ESP, the Residential Mixed Medium Residential dwelling units would be single family homes with privately maintained front and back yards irrigated with potable water.
 5. Assumes that 15% of Residential Mixed High Density gross acres are landscaped and irrigated with recycled water.
 6. Assumes that 15% of Village Center, Commercial, and Limited Use gross acres are landscaped and irrigated with recycled water.
 7. Assumes that 15% of School gross acres are landscaped and irrigated with recycled water.
 8. Assumes that 100% of Park gross acres are landscaped and irrigated with recycled water.
 9. Water demand for Family Swim Center is based on data provided to West Yost Associates in 2010 from Aquatic Design Group, Dahlin Group, Glumac Engineers, and RJM Design Group.
 10. The water demand calculations shown for the Modified ESP are based on overall Citywide assumptions and the assumptions described in the Revised Ellis WSA. Actual water demands for the Modified ESP would be confirmed at the Tentative Map approval stage.

TABLE 4.1 4-4 FAMILY SWIM CENTER WATER DEMAND ESTIMATE

| Family Swim Center Feature | Mg/yr |
|----------------------------|-------------------------------|
| Lazy River | 0.89 |
| Activity Pool | 0.61 |
| Sprayground | 0.07 |
| Flow Rider | 0.31 |
| 52-meter pool | 1.06 |
| Recreation pool | 0.30 |
| Building Facilities | 4.6 |
| Landscape | 2.85 |
| Total | 10.69 mg/yr (33 af/yr) |

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As indicated in Table 4.14-3, the water demands included in the Revised Ellis WSA (potable water demand of 1,076 af/yr and recycled water demand of 116 af/yr) are different than those included in the Original Ellis WSA (potable water demand of 1,250 af/yr). The difference in demands is due to changed land use assumptions for the Modified Project, changed unit water use factors as adopted for the City's Citywide Water System Master Plan, and changed assumptions regarding the use of recycled water within the Modified Project.

It should also be noted that although water demands for the Modified Project would develop incrementally over time as various phases of the Modified Project are developed, the water demand estimate provided by the Revised Ellis WSA only identifies the total estimated demand of buildout of the Modified ESP.

The City's 2010 UWMP projects a slightly higher potable water demand for the ESP area (1,076 af/yr) than that calculated for the Modified Project by the Revised Ellis WSA as shown in Table 4.8-3 (1,021 af/yr). This is because use of recycled water was not previously planned for the Modified ESP by the City's 2010 UWMP and, therefore, it was not factored into the City's 2010 UWMP water demand calculation for the ESP area. However, recycled water facilities recommended in the Citywide Water System Master Plan have been sized to accommodate the additional recycled water demands beyond those included in the City's 2010 UWMP, and adequate recycled water supplies are anticipated to be available in the future to accommodate the recycled water demand associated with the Modified Project (116 af/yr). Regardless, the Revised Ellis WSA conservatively estimates potable water demand of the Modified ESP to be 1,076 af/yr, consistent with the City's 2010 UWMP, and assumes 116 af/yr of recycled water demand. It should be noted that these water demand estimates are based on overall Citywide assumptions, and actual water demands for the Modified Project would be confirmed at Tentative Map stage.

City of Tracy Future Water Demand

The City's water demand is anticipated to continue to increase as new developments are approved and constructed within the City's water service area. However, growth within the City service area has slowed as a result of the Growth Management Ordinance and the current economic downturn. Hence, water demands are not anticipated to increase as rapidly as they have in past years. Table 4.14-5 (City of Tracy Projected Future Water Demand) shows the projected potable and recycled water demand through 2035 as presented in the City's 2010 UWMP³ for normal years. A normal or wet water year is a water year that matches or exceeds median rainfall and runoff levels. These projected water demands include the projected water demand for the ESP area and are based on historical metered water use data for various land use types, taking into consideration reduced water use as a result of new building codes, improved water use efficiency, and water conservation measures.

³ The Statement of Decision and Judgment dated October 31, 2011, regarding the petition against the Original Ellis Development Agreement and Original Ellis WSA indicated that "not all projects were included in the [Original Ellis] WSA" and specifically referred to 206 Residential Growth Allotments (RGAs) that were projected for the downtown and not included in the Original Ellis WSA. It should be noted that the Original Ellis WSA preceded the development of the Downtown Specific Plan and the adoption of the Downtown Specific Plan WSA in April 2009. Therefore, the 206 RGAs associated with the Downtown Specific Plan were not included in the Original Ellis WSA. However, the water demand associated with the Downtown Specific Plan is included in the City's 2010 UWMP (adopted by the Tracy City Council in May 2011) as one of the development projects with approved water supply, and is therefore included in this revised Ellis WSA.

TABLE 4.14-5 CITY OF TRACY PROJECTED FUTURE WATER DEMAND

| | 2015 | 2020 | 2025 | 2030 | 2035 |
|-----------------------------|--------|--------|--------|--------|--------|
| Total Potable Water Demand | 23,000 | 25,000 | 28,300 | 31,000 | 33,600 |
| Total Recycled Water Demand | 1,200 | 2,410 | 3,620 | 4,830 | 6,040 |

Table 4.14-6 (City of Tracy Projected Future Potable Water Demand by Development Stage) on the next page summarizes the City’s projected future water demand for normal years based on existing users, on-going development projects with approved water supply, and future service areas. The Modified Project is considered to be one of the City’s development projects with an approved water supply. As shown in Table 4.8-6, based on existing users and development projects with an approved water supply (including the Modified Project), the projected potable water demand in the City for normal years is 23,326 af/yr. This projected potable water demand increases to 36,304 af/yr at buildout (assumed to occur in about 2040) with inclusion of the potable water demands of future service areas.

As noted previously, buildout of the City’s General Plan SOI has been assumed to occur in the year 2040. However, due to the on-going poor economic conditions in the State and in the Tracy area, it is currently unclear if actual development will occur within this assumed time frame and if populations will also increase as assumed. It is likely that development within the General Plan SOI will occur over a longer period of time, with buildout occurring sometime after the year 2040.

The City currently has an extensive water conservation program in place, as described in Chapter 6 of the City’s 2010 UWMP. The projected future water demand presented in Table 4.14-6 includes continued implementation of the City’s existing water conservation program, and is based on future normal hydrologic years. In single dry or multiple dry years, the projected future water demand presented in Table 4.14-6 is also applicable (does not include any additional water conservation beyond that assumed in normal years). This is because the lack of rainfall during the previous winter/spring period and the subsequent public notification of dry conditions will result in some conservation in the spring as water demands begin to increase. This decrease in water demands in the spring will likely decrease summer water demands, essentially balancing out the demands within that year. Table 4.14-7 (City of Tracy Projected Future Dry Year Potable Water Demand) identifies the City’s water demand during normal years, single dry years, and multiple dry years.

TABLE 4.14-6 CITY OF TRACY PROJECTED FUTURE POTABLE WATER DEMAND BY DEVELOPMENT STAGE

| | Existing Water Demand (af/yr) | Future Water Demand (af/yr) ¹ | Total Future Water Demand (af/yr) ² |
|--------------------------------------------------------------------|-------------------------------|------------------------------------------|------------------------------------------------|
| Existing Users ³ | 17,820 ³ | | 19,176 |
| Modified Ellis Specific Plan ⁴ | | 1,076 | 1,163 |
| Other Development Projects with Approved Water Supply ⁴ | | 2,763 | 2,987 |
| Residential Areas Specific Plan | | 45 | |
| Industrial Areas Specific Plan | | 574 | |
| I-205 Corridor Specific Plan | | 271 | |
| Plan “C” | | 74 | |

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TABLE 4.14-6 CITY OF TRACY PROJECTED FUTURE POTABLE WATER DEMAND BY DEVELOPMENT STAGE (CONTINUED)

| | Existing Water Demand (af/yr) | Future Water Demand (af/yr) ¹ | Total Future Water Demand (af/yr) ² |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------------------------|------------------------------------------------|
| Northeast Industrial | | 702 | |
| South MacArthur | | 59 | |
| Downtown Specific Plan | | 185 | |
| Infill | | 806 | |
| Gateway Phase 1 | | -- ⁵ | |
| Holly Sugar Sports Park | | 47 | |
| Subtotal (Existing + Modified Project + Other Development Projects with Approved Water Supply) | 17,820 | 3,839 | 23,326 |
| Future Service Areas ⁵ | | 12,004 | 12,978 |
| Westside Residential (URs 5, 7, 8, 9) | | 1,169 | |
| UR 1 | | 1,237 | |
| South Linne (UR 11) | | 153 | |
| Tracy Hills | | 2,985 | |
| Gateway PUD (excluding Phase I) | | -- ⁶ | |
| Cordes Ranch (UR 6) | | 2,233 | |
| Bright (UR 4) | | 411 | |
| Catellus (UR 3) | | 839 | |
| Filios (UR 2) | | 70 | |
| I-205 Expansion | | 292 | |
| Westside Industrial | | 618 | |
| Eastside Industrial | | 469 | |
| Larch Clover County Services District | | 847 | |
| Chrisman Road | | 150 | |
| Rocha | | 248 | |
| Berg/Byron | | 164 | |
| Kagehiro | | 120 | |
| Total Potable Water Demand at Buildout (Existing Users + Development Projects with Approved Water Supply + Other Future Service Areas) | 17,820 | 15,844 | 36,304 |

1. Future water demand, not including unaccounted for water.
2. Represents total projected water demand at buildout, including 7.5 percent unaccounted for water (based on the City's historical unaccounted for water).
3. Based on actual water sales data (not including unaccounted for water) and City of Tracy Water Inventory Report, February 5, 2008. Year 2007 water demand area used for the evaluation in the Revised Ellis WSA, as 2007 water demands more closely represent normal year conditions.
4. See Development Projects with Approved Water Supply in Table 4.8-5. The Modified ESP is included with a potable water demand of 1,076 af/yr.
5. See Future Service Areas in Table 4.8-5.
6. Based on Gateway's participation in the Water Exchange Program.

A single dry year is generally considered to be the lowest annual runoff for a watershed recorded since the 1904 water year. A multiple dry year period is generally considered to be the lowest average runoff recorded over a consecutive multiple year period (three years or more) for a watershed since 1903.

TABLE 4.14-7 CITY OF TRACY PROJECTED FUTURE DRY YEAR POTABLE WATER DEMAND

| | Demand Reduction | 2015 | 2020 | 2025 | 2030 | 2035 |
|--------------------|------------------|--------|--------|--------|--------|--------|
| Normal Year | 0% | 23,000 | 25,000 | 28,300 | 31,000 | 33,600 |
| Single Dry Year | 0% | 23,000 | 25,000 | 28,300 | 31,000 | 33,600 |
| Multiple Dry Years | 0% | 23,000 | 25,000 | 28,300 | 31,000 | 33,600 |

Future Water Supply Availability and Reliability

In compliance with Water Code section 10910(c)(4), the Revised Ellis WSA analyzed three hydrologic conditions (normal, single dry, and multiple dry years) through the year 2035 to determine whether the City would have sufficient water supplies to serve the Modified ESP, in addition to existing and planned future uses. The scenarios affect the reliability of each of the City’s current and future water supplies and, consequently, the expected annual water supply.

The reliability of each of the City’s existing and additional planned water supplies and their projected availability during normal, single dry, and multiple dry years, as described in Section 5 of the City’s 2010 UWMP, is described below and summarized in Table 4.14-8 (City of Tracy Water Supply Reliability in Normal, Single Dry, and Multiple Dry Years).

TABLE 4.14-8 CITY OF TRACY WATER SUPPLY RELIABILITY IN NORMAL, SINGLE DRY, AND MULTIPLE DRY YEARS

| Supply Source | Anticipated Reliability (% of Entitlement) | | |
|------------------------------------------------------------------|--------------------------------------------|------------------|--------------------|
| | Normal Years | Single Dry Years | Multiple Dry Years |
| Existing Water Supplies | | | |
| USBR CVP Contract (City Contract) (M&I Reliability) | 75% | 65% | 40% |
| USBR CVP (BCID Assignment) (Ag Reliability) | 50% | 15% | 10% |
| USBR CVP (WSID Assignment) (Ag Reliability) | 50% | 15% | 10% |
| South County Water Supply Project (pre-1914 rights) | 100% | 95% | 95% |
| Groundwater ¹ | 100% | 100% | 100% |
| Semitropic Water Storage Bank (Permanent Agreement) ² | -- | 100% | 100% |
| Additional Water Supplies | | | |
| USBR CVP (WSID Option) (Ag Reliability) | 50% | 15% | 10% |
| USBR CVP (BBID Contract) (Ag Reliability) | 50% | 15% | 10% |
| BBID (pre-1914 rights) | 100% | 90% | 90% |
| Additional SCWSP (pre-1914 rights) | 100% | 95% | 95% |
| Aquifer Storage and Recovery ² | -- | 100% | 100% |
| Recycled Water | 100% | 100% | 100% |

1. The City is planning to decrease groundwater use to 2,500 af/yr by the year 2015. However, studies described in the Revised Ellis WSA have indicated that up to 9,000 af/yr of groundwater is available to the City to make up for shortfalls in the event of a severe drought or other water shortage.
2. Supplies from Semitropic and ASR are assumed to be dry year supplies. As such, during normal years, supplies from these sources are assumed to be 0 af/yr.

It should be noted that the supply reliabilities included in the Revised Ellis WSA are different than those included in the Original Ellis WSA due to changes in anticipated deliveries of the USBR CVP supplies as a result of Delta pumping restrictions (described above in subsection 4.14.1 [Existing Conditions, Water, City of Tracy Existing and Future Water Supplies, Central Valley Project Water via

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the Delta Mendota Canal, Municipal and Industrial Supplies] and in Section 6.1.1.1 of the Revised Ellis WSA and in Section 5 of the City’s 2010 UWMP).

The Revised Ellis WSA does not include an evaluation of available water supplies under an extreme dry year condition, as such an analysis is not required for the preparation of WSAs by Water Code section 10910(c)(4). The Original Ellis WSA did include an evaluation of available water supplies under an extreme dry year condition to be consistent with the water supply analysis included in the City’s 2005 UWMP (although Water Code sections 10610-10656, which specify the requirements of UWMPs, do not require such an analysis). The Original Ellis WSA indicated that water demands in an extreme dry year would be reduced by ten percent due to additional mandatory water conservation measures to be implemented by the City in response to the water supply shortage. Such measures would be implemented in accordance with the City’s Water Shortage Contingency Plan.

The City’s Water Shortage Contingency Plan was established in 1992, consistent with Water Code section 10632, and includes five stages of action to respond to a water shortage with up to a 50 percent reduction in available water supplies. Each stage of action includes specific water consumption reduction measures, water use prohibitions, and penalties for excessive water use. The Water Shortage Contingency Plan also includes a Catastrophic Supply Interruption Plan, prepared in accordance with Water Code section 10632(c), which addresses actions to be taken by the City during and immediately following an emergency. The City’s Water Shortage Contingency Plan and Catastrophic Supply Interruption Plan are further described in the City’s 2010 UWMP.

Table 4.14-9 (City of Tracy Projected Future Water Supply and Demand in Normal, Single Dry, and Multiple Dry Years) summarizes the projected future available potable water supply available to the City, as well the City’s projected potable water demand during normal, single dry, and multiple dry years. The projected water demands shown include the projected water demands for the Modified ESP. As shown in Table 4.14-9, the City’s existing and additional planned potable water supplies are sufficient to meet the City’s projected future potable water demands, including those future water demands associated with the Modified Project to the year 2035 under all hydrologic conditions.

TABLE 4.14-9 CITY OF TRACY PROJECTED FUTURE WATER SUPPLY AND DEMAND IN NORMAL, SINGLE DRY, AND MULTIPLE DRY YEARS

| Year | Scenario | | |
|--------------|----------|-----------------|--------------------|
| | Normal | Single Dry Year | Multiple Dry Years |
| Water Demand | (af/yr) | (af/yr) | (af/yr) |
| 2015 | 23,000 | 23,000 | 23,000 |
| 2020 | 25,000 | 25,000 | 25,000 |
| 2025 | 28,300 | 28,300 | 28,300 |
| 2030 | 31,000 | 31,000 | 31,000 |
| 2035 | 33,600 | 33,600 | 33,600 |
| Water Supply | (af/yr) | (af/yr) | (af/yr) |
| 2015 | 30,500 | 33,450 | 30,300 |
| 2020 | 33,000 | 37,550 | 34,250 |
| 2025 | 35,500 | 39,900 | 34,450 |
| 2030 | 36,500 | 40,200 | 36,650 |
| 2035 | 36,500 | 40,200 | 36,650 |

Normal Years

As described previously, normal or wet water years are those water years that match or exceed median rainfall and runoff levels. The following describes the availability and reliability of the City's existing and additional planned future water supplies under normal year conditions:

- ◆ As described in the City's 2005 and 2010 UWMPs, based on USBR's previous modeling, during an average hydrologic year, the City could expect to receive approximately 85 percent of its M&I reliability water supply and 58 percent of its Ag-reliability water from the USBR's allotment of CVP water via the DMC (plus the small volume of BBID water that is managed through the City's treatment and distribution system on behalf of Patterson Pass Business Park). However, due to recent environmental concerns in the Delta and potential future impacts due to climate change, it has been assumed that these normal year reliabilities will be reduced by about 10 percent, to 75 percent for M&I reliability supplies and 50 percent for Ag-reliability supplies. These assumed reductions in reliability are consistent with reliability reductions estimated by DWR for the State Water Project, which is subject to the same Delta environmental and climate change issues.
- ◆ During a normal water year, the City expects to receive 100 percent of its SCWSP water supply allocation, or 10,000 af/yr.
- ◆ Pursuant to the Groundwater Management Policy, the City can extract up to 9,000 af/yr of local groundwater. Because of the high total dissolved solids (TDS) and hardness of the City's groundwater, the City hopes to reduce its dependency on groundwater in the future. As additional higher quality water supplies come on line, the City estimates that it may be possible to reduce the quantity of groundwater used during a typical normal or wet year. This reduction, however, is highly dependent on future water supplies and demands and should be viewed as a goal, and not a firm projection. In the event that additional supplies are needed, the City may utilize up to 9,000 af of groundwater per year.
- ◆ In the future, up to 3,000 af/yr of pre-1914 appropriative water rights water is expected to be available directly or via exchange from BBID. After 2015, the City anticipates being able to receive 100 percent of this supply during normal and wet years.
- ◆ In the future, up to approximately 11,000 af/yr of Ag-reliability water from the BBID DMC/CVP contract is expected to be available to the City. Therefore, in future normal water years, as much as 5,500 af/yr (50 percent of 11,000 af) will be available.
- ◆ In the future, the City expects to receive 100 percent of a future SCWSP water supply allocation in normal years, or 3,000 af/yr.
- ◆ By 2015, 1,000 af/yr of banked water is assumed to be available through the City's ASR program and approximately 1,750 af/yr of banked water is assumed to be available through the City's participation in the Semitropic Water Storage Bank. However, these supplies are considered dry year supplies, and are assumed to be zero in normal years.

Single Dry Years

During a single dry year, or when the DMC/CVP flows must be reduced due to hydrologic and/or environmental impacts, all of the City's existing surface water allotments are subject to some level of reduction. The actual reductions will vary with the severity of the regional water supply shortage and climatic conditions, and the consideration of water and contract rights. The following describes the availability and reliability of the City's existing and additional planned future water supplies under single dry year conditions:

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- ◆ The City Contract for an annual entitlement of 10,000 af of USBR water from the DMC/CVP is subject to M&I Reliability. Based on the historical record, it is assumed that during a single dry year, the City's annual allocation will be 65 percent of its entitlement, or 6,500 af/yr.
- ◆ The City currently holds the assignment contracts (BCID and WSID) for an annual entitlement of up to 7,500 af/yr, and plans to purchase an additional 2,500 af/yr of entitlement from WSID, for a total of 10,000 af/yr of entitlements. These contracts pertain to USBR water from the DMC/CVP and are subject to Ag-reliability. Based on the historical record and PROSIM modeling, it is assumed that during a single dry year, the City's allocation will be 15 percent of its entitlement, 1,125 af/yr (based on the existing 7,500 af/yr of entitlements) and 1,500 af/yr (based on the total 10,000 af/yr of existing and future entitlements).
- ◆ During a single dry year, it is assumed that the City will receive 95 percent of its SCWSP water supply allocation, or 9,500 af/yr.
- ◆ Pursuant to the Groundwater Management Policy, the City can extract up to 9,000 af/yr of local groundwater resources. However, as described above, the City may reduce its future groundwater use to 2,500 af/yr by 2015 (based on normal year supply conditions). In the event that groundwater is needed to supplement surface water supplies during a single dry year, however, the City does intend to call on these supplies up to the maximum sustainable yield of 9,000 af/yr.
- ◆ In the future, up to 3,000 af/yr of pre-1914 appropriative water rights water is expected to be available either directly or via exchange from BBID. In single dry water years, it is assumed that as much as 2,700 af/yr, or 90 percent of the contractual allocation, will be available.
- ◆ In the future, up to 11,000 af/yr of Ag-reliability water from the BBID DMC/CVP contract is expected to be available to the City. In future single dry water years, it is assumed that as much as 1,650 af/yr, or 15 percent of the contractual entitlement, of BBID water will be available.
- ◆ In the future, the City expects to receive 95 percent of a future SCWSP water supply allocation in single dry years, or 2,850 af/yr.
- ◆ By 2015, 1,000 af/yr of banked water is assumed to be available through the City's ASR program and approximately 1,750 af/yr of banked water is assumed to be available through the City's participation in the Semitropic Water Storage Bank.

Multiple Dry Years

If there are multiple dry years, the City's surface water allotments, especially from the DMC/CVP, may be significantly reduced. Thus, in the event of drought, the City will have to depend more heavily on groundwater, SCWSP supplies, and other drought contingency supplies (previously banked water). As an example, in 1991, due to prolonged drought, the USBR reduced the City's DMC/CVP surface water allotment by 50 percent, such that the City's 1991 allocation was reduced to 5,000 af. As a result, the City implemented a water conservation program consistent with its Water Shortage Contingency Plan and relied on its groundwater supply to satisfy a larger portion of the City's water demand. The City now has a broader portfolio of water supplies. However, as described above, CVP supply reliabilities may be reduced even further due to ongoing Delta environmental issues and future climate change. The following describes the availability and reliability of the City's existing and additional planned future water supplies under multiple dry year conditions:

- ◆ The City Contract for an annual entitlement of 10,000 af/yr of USBR water from the DMC/CVP is subject to M&I Reliability. Based on the historical record, it is assumed that during a multiple dry year period, the City's annual allocation will be 40 percent of its entitlement, or 4,000 af/yr.
- ◆ The City currently holds the assignment contracts (BCID and WSID) for an annual entitlement of up to 7,500 af/yr, and plans to purchase an additional 2,500 af/yr of entitlement from WSID, for a total of 10,000 af/yr of entitlements. These contracts pertain to USBR water from the

DMC/CVP and are subject to Ag-reliability. Based on the historical record and PROSIM modeling, it is assumed that during multiple dry years, the City’s allocation will be 10 percent of its entitlement, 750 af/yr (based on the existing 7,500 af/yr of entitlements) and 1,000 af/yr (based on the total 10,000 af/yr of existing and future entitlements).

- ◆ During a multiple dry year period, the City expects to receive 95 percent of its SCWSP water supply allocation, or 9,500 af/yr.
- ◆ Pursuant to the Groundwater Management Policy, the City can extract up to 9,000 af/yr of local groundwater resources. However, as described above, the City may reduce its future groundwater use to 2,500 af/yr by 2015 (based on normal year supply conditions). In the event that groundwater is needed to supplement surface water supplies during a multiple dry year period, however, the City does intend to call on these supplies up to the maximum sustainable yield of 9,000 af/yr.
- ◆ In the future, up to 3,000 af/yr of pre-1914 appropriative water rights water is expected to be available either directly or via exchange from BBID. In multiple dry water years, it is assumed that as much as 2,700 af/yr of BBID pre-1914 water right water, or 90 percent of the contractual allocation, will be available.
- ◆ In the future, up to 11,000 af/yr of Ag reliability water from the BBID DMC/CVP contract is expected to be available to the City. In future multiple dry water years, it is assumed that as much as 1,100 af/yr of BBID water, or 10 percent of the contractual entitlement, will be available.
- ◆ In the future, the City expects to receive 95 percent of a future SCWSP water supply allocation in single dry years, or 2,850 af/yr.
- ◆ By 2015, 1,000 af/yr of banked water is assumed to be available through the City’s ASR program and approximately 1,750 af/yr of banked water is assumed to be available through the City’s participation in the Semitropic Water Storage Bank.

Existing Water Supply and Demand

Table 4.14-10 (City of Tracy Existing Water Supply versus Existing Demand) summarizes the City’s current water supplies and demands in normal, single dry, and multiple dry years based on existing demands, including the Modified Project and other development projects with approved water supply.

TABLE 4.14-10 CITY OF TRACY EXISTING WATER SUPPLY VERSUS EXISTING DEMAND

| Existing Water Supply | Existing Water Availability (af/yr) | | |
|------------------------------------------------------------------|-------------------------------------|-----------------|--------------------|
| | Normal Years | Single Dry Year | Multiple Dry Years |
| Existing Water Supplies | | | |
| USBR CVP Contract (City Contract) | 7,500 | 6,500 | 4,000 |
| USBR CVP (BCID assignment) | 2,500 | 750 | 500 |
| USBR CVP (WSID assignment) | 1,250 | 375 | 250 |
| Total CVP Deliveries | 11,250 | 7,625 | 4,750 |
| South County Water Supply Project (pre-1914 rights) | 10,000 | 9,500 | 9,500 |
| Groundwater ¹ | 2,500 | 9,000 | 9,000 |
| Semitropic Water Storage Bank (Permanent Agreement) ² | -- | 1,750 | 1,750 |
| Additional Water Supplies | | | |
| USBR CVP (WSID Option) ³ | 1,250 | 375 | 250 |
| USBR CVP (BBID contract) ⁴ | 0 | 0 | 0 |
| BBID (pre-1914 rights) | 0 | 0 | 0 |

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TABLE 4.14-10 CITY OF TRACY EXISTING WATER SUPPLY VERSUS EXISTING DEMAND (CONTINUED)

| Existing Water Supply | Existing Water Availability (af/yr) | | |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------|--------------------|
| | Normal Years | Single Dry Year | Multiple Dry Years |
| Additional SCWSP (pre-1914 rights) | 0 | 0 | 0 |
| Aquifer Storage and Recovery ² | -- | 0 | 0 |
| Recycled Water ⁵ | 9,900 | 9,900 | 9,900 |
| Total Potable Water Supply | 25,000 | 28,250 | 25,250 |
| Existing Potable Water Demand (2007) | 19,176 | 19,176 | 19,176 |
| Additional Potable Water Demand (2007) with Development Projects with Approved Water Supply including the Modified Project | 4,150 | 4,150 | 4,150 |
| Total Potable Water Demand | 23,326 | 23,326 | 23,326 |
| Potable Water Shortfall | 0 | 0 | 0 |
| Total Recycled Water Supply ⁵ | 9,900 | 9,900 | 9,900 |
| Existing Recycled Water Demand ⁵ | 740 | 740 | 740 |
| Recycled Water Supply Shortfall | 0 | 0 | 0 |

1. The City is planning to decrease groundwater use to 2,500 af/yr by the year 2015. However, studies described in the Revised Ellis WSA have indicated that up to 9,000 af/yr of groundwater is available to the City to make up for shortfalls in the event of a severe drought or other water shortage. Therefore, groundwater pumpage during dry year conditions is assumed to be up to 9,000 af/yr per average annual operational yield of 9,000 af/yr.
2. The Semitropic Water Storage Bank and Aquifer Storage and Recovery are considered to be dry year supplies and are therefore considered to be zero in normal years.
3. This option will be exercised by the City in conjunction with the Downtown Specific Plan development.
4. 1,100 af/yr of entitlement to be acquired in conjunction with the Modified ESP (321 acres x 3.4 af/ac/yr).
5. Recycled water supply based on 2010 wastewater flows. Recycled water supplies from the City's WWTP may not be available to serve the initial development phases of the Modified Project due to the timing of construction of the required recycled water infrastructure. Therefore, in the interim period before recycled water becomes available, potable water supplies (or possibly untreated surface water supplies from the local irrigation districts (BBID)) will be used to meet the irrigation demands for the Modified Project. Recycled water demand = Gateway Phase 1 (84 af/yr) + Holly Sugar Sports Park (485 af/yr) + Modified ESP (116 af/yr) = 685 af/yr + 7.5% UAFW = 740 af/yr.

As shown, for all three hydrologic conditions required to be addressed by Water Code section 10910 *et seq.*, the City's existing and planned future additional sources of water supply are more than sufficient to meet existing demand, the projected future demand from build-out of the Modified Project, and the projected future demand from build-out of other development projects with approved water supply.

Table 4.14-10 shows that in Normal Years, the City's 23,750 af/yr of existing water supplies plus the planned future additional supply of 1,250 af/yr from the WSID Option agreement would leave a surplus of 934 af/yr after meeting projected total demand of 24,066 af/yr (potable and non-potable combined). Adding the projected future availability of 9,900 af/yr of recycled water would increase the projected Normal Year surplus to 10,834 af/yr. Additionally, for Single Dry Years, Table 4.14-10 show that the City's 27,875 af/yr of existing water supplies would leave a surplus of 3,809 af/yr after meeting projected total demand of 24,066 af/yr (potable and non-potable combined). Adding the projected future availability of 9,900 af/yr of recycled water would increase the projected Single Dry Year surplus to 13,709 af/yr. Finally, for Multiple Dry Years, Table 4.14-10 shows that the City's 25,000 af/yr of existing water supplies would leave a surplus of 934 af/yr after meeting projected total demand of 24,066 af/yr (potable and non-potable combined). Adding the projected future availability

of 9,900 af/yr of recycled water would increase the projected Multiple Dry Year surplus to 10,834 af/yr.

Critically Dry Year Scenario

Although Water Code section 10910 *et seq.* does not define or require assessment of a “critically dry year” scenario, the water supply and demand projections that Table 4.14-10 summarizes for Multiple Dry Years encompass a critically dry year scenario. Of all the City’s existing and planned future additional water supplies, it is the CVP water supplies that are projected to be most reduced during multiple dry years. Table 4.14-8 shows the City’s CVP Contract supply with M&I reliability is projected to provide just 40 percent of the contract amount in Multiple Dry Years, while the City’s CVP Contract supplies with agricultural reliability are projected to provide just 10 percent of the contract amounts in Multiple Dry years. These projections are derived from USBR’s CALSIM II model, which projects annual delivery quantities from the CVP, taking into consideration historical hydrologic conditions, environmental restrictions, and regulatory constraints over a 71-year period (see City of Tracy 2010 UWMP, Section 5 at pp. 41-45).

As described previously, the Multiple Dry Year period is considered to be the lowest average runoff recorded for a consecutive multiple year period (three years or more) for a watershed since 1903. In the Central Valley Basin, 1928-1934 and 1987-1992 were the two multiple dry year periods of lowest average runoff during the 20th Century. To be conservative, the City reduced the projected availability of its CVP water supplies below the CALSIM II model projection for multiple dry years. For example, the CALSIM II model projects 50 percent availability for the City’s CVP Contract supply with M&I reliability, but the City is assuming just 40 percent availability. This results in an overall projected water supply availability for the Multiple Dry Years scenario that the City projects to be lower than a “critically dry year” scenario. Accordingly, the City’s projection that water supplies will be more than sufficient to meet demand during a Multiple Dry Years scenario also applies to a “critically dry year” scenario.

The water supply sufficiency conclusions for the Single Dry Year and Multiple Dry Years scenarios are conservative with respect to the demand side of these water-balance analyses. As explained previously, for purposes of the Revised Ellis WSA, the City assumes that water demand in Single Dry Years and in Multiple Dry Years will remain the same as demand in Normal Years. However, water conservation measures under the City’s adopted Water Conservation Plan and adopted Water Shortage Contingency Plan are anticipated to reduce water demand during Single Dry Years and in Multiple Dry Years (see City of Tracy 2010 UWMP, Section 5.5 at pp. 47-53 [describing Water Shortage Contingency Plan contents]; City of Tracy 2010 UWMP, Section 6 at pp. 55-61 [describing Water Conservation Plan]). For example, during the recent multiple year dry period from 2007-2009, the City’s implementation of conservation measures reduced existing water demand by up to approximately 13 percent (based on City water production for 2007-2009). This was in part due to the City’s implementation of water conservation measures. By assuming that water demand in Single Dry Years and Multiple Dry Years will not be reduced as a result of conservation measures, the City’s water-balance analyses likely overstate demand and understate the projected availability of surplus water supplies, making the WSA’s ultimate water supply sufficiency determination conservative.

Year 2035 Water Supply and Demand

Table 4.14-11 (Year 2035 City of Tracy Water Supply vs. Demand) summarizes the City’s Year 2035 water supplies and water demands in normal, single dry, and multiple dry years. The projected water demands shown include the projected water demands of the Modified Project. As shown in Table 4.8-11, for all three hydrologic conditions required to be addressed by Water Code section 10910 *et*

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seq., the City’s existing and additional planned water supplies are more than sufficient to meet the City’s Year 2035 water demands. No water supply shortages are anticipated for any hydrologic conditions based on Year 2035 water demands.

Table 4.14-11 shows that in Normal Years, the City’s 59,000 af/yr of existing water supplies and planned future additional supplies would leave a surplus of 19,235 af/yr after meeting projected total demand of 39,765 af/yr (potable and non-potable combined). For Single Dry Years, Table 4.14-11 shows that the City’s 62,700 af/yr of existing water supplies and planned future additional supplies would leave a surplus of 22,935 af/yr after meeting projected total demand of 39,765 af/yr (potable and non-potable combined). Moreover, Table 4.14-11 shows that in Multiple Dry Years, the City’s 59,150 af/yr of existing water supplies would leave a surplus of 19,385 af/yr after meeting projected total demand of 39,765 af/yr (potable and non-potable combined).

TABLE 4.14-11 CITY OF TRACY YEAR 2035 WATER SUPPLY VERSUS YEAR 2035 WATER DEMAND

| Existing Water Supply | Existing Water Availability (af/yr) | | |
|------------------------------------------------------------------|-------------------------------------|-----------------|--------------------|
| | Normal Years | Single Dry Year | Multiple Dry Years |
| Existing Water Supplies | | | |
| USBR CVP Contract (City Contract) | 7,500 | 6,500 | 4,000 |
| USBR CVP (BCID assignment) | 2,500 | 750 | 500 |
| USBR CVP (WSID assignment) | 1,250 | 375 | 250 |
| Total CVP Deliveries | 11,250 | 7,625 | 4,750 |
| South County Water Supply Project (pre-1914 rights) | 10,000 | 9,500 | 9,500 |
| Groundwater ¹ | 2,500 | 9,000 | 9,000 |
| Semitropic Water Storage Bank (Permanent Agreement) ² | -- | 3,500 | 3,500 |
| Additional Water Supplies | | | |
| USBR CVP (WSID Option) ³ | 1,250 | 375 | 250 |
| USBR CVP (BBID contract) ⁴ | 5,500 | 1,650 | 1,110 |
| BBID (pre-1914 rights) | 3,000 | 2,700 | 2,700 |
| Additional SCWSP (pre-1914 rights) | 3,000 | 2,850 | 2,850 |
| Aquifer Storage and Recovery ² | -- | 3,000 | 3,000 |
| Recycled Water ⁵ | 22,500 | 22,500 | 22,500 |
| Total Potable Water Supply | 36,500 | 40,200 | 36,650 |
| Projected 2035 Potable Water Demand ⁶ | 33,600 | 33,600 | 33,600 |
| Potable Water Supply Shortfall | 0 | 0 | 0 |
| Potable Water Shortfall | 0 | 0 | 0 |
| Total Recycled Water Supply ⁵ | 22,500 | 22,500 | 22,500 |
| Projected 2035 Recycled Water Demand ⁵ | 6,165 | 6,165 | 6,165 |
| Recycled Water Supply Shortfall | 0 | 0 | 0 |

1. The City is planning to decrease groundwater use to 2,500 af/yr by the year 2015 (based on normal year supply conditions). However, studies described in the Revised Elli WSA have indicated that up to 9,000 af/yr of groundwater is available to the City to make up for shortfalls in the event of a severe drought or other water shortage.
2. Supply from Semitropic Water Storage Bank and Aquifer Storage and Recovery assumed to be zero in normal years.
3. This option will be exercised by the City in conjunction with the Downtown Specific Plan development.
4. A portion of this entitlement to be acquired in conjunction with the Modified ESP (321 acres x 3.4 af/ac/yr = 1,100 af/yr).
5. Tables 15 and 17, City of Tracy 2010 UWMP, May 2011. Actual recycled water demands may be higher based on actual recycled water use within future projects. Recycled water demand shown is 6,040 af/yr (per Table 17 of 2010 UWMP + additional demand for Ellis (116 af/yr) + 7.5% UAFW = 6,165 af/yr).
6. Projected 2035 water demand includes projected water demand for the Modified Project.

Critically Dry Year Scenario

Although Water Code section 10910 *et seq.* does not define or require assessment of a “critically dry year” scenario, the water supply and demand projections that Table 4.14-11 summarizes for Multiple Dry Years encompass a critically dry year scenario. Of all the City’s existing and planned future additional water supplies, it is the CVP water supplies that are projected to be most reduced during multiple dry years. Table 4.14-11 shows the City’s CVP Contract supply with M&I reliability is projected to provide just 40 percent of the contract amount in Multiple Dry Years, while the City’s CVP Contract supplies with agricultural reliability are projected to provide just 10 percent of the contract amounts in Multiple Dry Years. These projections are derived from USBR’s CALSIM II model, which projects annual delivery quantities from the CVP, taking into consideration historical hydrologic conditions, environmental restrictions, and regulatory constraints over a 71-year period (see City of Tracy 2010 UWMP, Section 5 at pp. 41-45).

As described previously, the Multiple Dry Year period is considered to be the lowest average runoff recorded for a consecutive multiple year period (three years or more) for a watershed since 1903. In the Central Valley Basin, 1928-1934 and 1987-1992 were the two multiple dry year periods of lowest average runoff during the 20th Century. To be conservative, the City reduced the projected availability of its CVP water supplies below the CALSIM II model projection for multiple dry years. For example, the CALSIM II model projects 50 percent availability for the City’s CVP Contract supply with M&I reliability, but the City is assuming just 40 percent availability. This results in an overall projected water supply availability for the Multiple Dry Years scenario that the City projects to be lower than a “critically dry year” scenario. Accordingly, the City’s projection that water supplies will be more than sufficient to meet demand during a Multiple Dry Years scenario also applies to a “critically dry year” scenario.

The water supply sufficiency conclusions for the Single Dry Year and Multiple Dry Years scenarios are conservative with respect to the demand side of these water-balance analyses. As previously, for purposes of the Revised WSA, the City assumes that water demand in Single Dry Years and in Multiple Dry Years will remain the same as demand in Normal Years. However, water conservation measures under the City’s adopted Water Conservation Plan and adopted Water Shortage Contingency Plan are anticipated to reduce water demand during Single Dry Years and in Multiple Dry Years (see City of Tracy 2010 UWMP, Section 5.5 at pp. 47-53 [describing Water Shortage Contingency Plan contents]; City of Tracy 2010 UWMP, Section 6 at pp. 55-61 [describing Water Conservation Plan]). For example, during the recent multiple year dry period from 2007-2009, the City’s implementation of conservation measures reduced existing water demand by up to approximately 13 percent (based on City water production for 2007-2009). This was in part due to the City’s implementation of water conservation measures. By assuming that water demand in Single Dry Years and Multiple Dry Years will not be reduced as a result of conservation measures, the City’s water-balance analyses likely overstate demand and understate the projected availability of surplus water supplies, making the WSA’s ultimate water supply sufficiency determination conservative.

Conclusion

The Revised Ellis WSA demonstrates that the City’s existing and additional planned potable and recycled water supplies are sufficient to meet the City’s existing and projected future potable and recycled water demands, including those future water demands associated with the Modified Project to the Year 2035 under all hydrologic conditions. Thus, the Modified Project would result in less than significant impacts on water supply. In addition, the City has a standard condition of project approval that requires the applicant to demonstrate that the water supply for each tentative map application is secured and available for delivery before the City approves later tentative subdivision maps, final

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subdivision maps, use permits, or building permits. As such, development cannot occur without the secured water source.

Compliance with Trial Court's Statement of Decision and Judgment

As described in the introduction to this Section of the Revised EIR, the City previously approved a Water Supply Assessment for the Ellis Project dated March 2008 (Original Ellis WSA). In addition to analyzing water supply issues for Normal, Single Dry, and Multiple Dry years, the Original Ellis WSA also analyzed a fourth scenario – the “extreme dry year.” As previously explained, such an analysis is not required to be included in WSAs under Water Code section 10910(c)(4) or otherwise, and thus was not included in the Revised Ellis WSA. Further, because the City's 2010 UWMP (unlike the prior 2005 UWMP) does not include an “extreme dry year” scenario, it would not be practical to try to include such a scenario in the Revised Ellis WSA. However, it should be noted that, in setting aside the City's prior approval of the Original Ellis WSA, the Superior Court based its October 31, 2011 Decision in part on flaws which it found existed in the Original Ellis WSA's analysis of the “extreme dry year” scenario, and specifically of the assumption the Original Ellis WSA made that water demand during an “extreme dry year” would be reduced by 10 percent as a result of water conservation measures. Specifically, the Decision found as follows:

“Table 21 of the WSA indicated that in an extreme drought year demand is 24,989 acre feet per year with a supply of 24,308 acre feet per year for a shortage of 681 acre feet per year. The City reduces this demand by unspecified ‘mandatory conservation measures’. TRAQC argues that this is not an adequate supply, but an unsupported assertion that demand will be less by simply providing less water and rationing. The City cannot avoid making a finding that the Water Supply would not be sufficient in an extreme drought year by referring to some unspecified reduction in demand due to unspecified conservation measures. The finding that water supply is adequate is not supported by substantial evidence.”

Table 21 of the Original Ellis WSA in fact determined that, as a result of water conservation measures, water demand during an extreme drought year would be reduced by 10 percent, from 24,989 af/yr to 22,490 af/yr. It also concluded that water supply during an “extreme dry year” would be slightly reduced (about 3.6 percent) from a “multiple dry year” – from 25,208 af/yr to 24,308 af/yr. Table 4.14-10 of the Revised Ellis WSA is an updated version of Table 21 of the Original Ellis WSA.

The figures in Table 4.14-10 represent current, up-to-date estimates of available water supplies to meet current demand plus future demand from future development with approved water supplies, plus full development of the Ellis Specific Plan. Table 4.14-10 also includes updated estimates for future water demand (as noted previously, current estimates for future water demand are based upon water use factors that take into account reduced water use resulting from new building code requirements, improved water use efficiency, and improved water conservation measures) and use of these figures result in estimates for future water demand that are generally a bit smaller than what was estimated in the Original Ellis WSA based upon older data. (Table 4.14-10 is also different from Table 21 insofar as it separates out demand for recycled water from demand for potable water.)

As also explained earlier, Table 4.14-10 demonstrates that, during Multiple Dry years, potable water supply would be 25,250 af/yr, whereas total potable water demand would be 23,326 af/yr. Even if, during an “extreme dry year,” water supply were reduced by an additional 3.6 percent (to 24,341 af/yr), that water supply would be sufficient to serve the demand of 23,326 af/yr, without any assumptions about further reduction in demand due to implementation of mandatory conservation measures. Indeed, as explained above, the Revised Ellis WSA is very conservative in its estimate of

future water demand, insofar as it does not assume any reduction in demand resulting from additional conservation measures imposed under the City's adopted Water Conservation Plan and adopted Water Shortage Contingency Plan. The Revised Ellis WSA thus cures and avoids the defects which the Superior Court found to exist in the Original Ellis WSA with respect to its analysis of water supply and demand during dry years.

The Statement of Decision dated October 31, 2011, regarding the petition against the Original Ellis Development Agreement and Original Ellis WSA, indicated that "not all projects were included in the [Original Ellis] WSA" and specifically referred to 206 Residential Growth Allotments (RGAs) that were projected for the downtown and not included in the Original Ellis WSA. It should be noted that the Original Ellis WSA preceded the development of the Downtown Specific Plan, and the adoption of the Downtown Specific Plan WSA in April 2009. Therefore, the RGAs associated with the Downtown Specific Plan were not included in the Original Ellis WSA. However, the water demand associated with the Downtown Specific Plan (185 af/yr) is included in the City's 2010 UWMP (adopted by the Tracy City Council in May 2011) as one of the Development Projects with Approved Water Supply, and is therefore included in the Revised Ellis WSA. The Revised Ellis WSA thus cures and avoids the defects which the Superior Court found to exist in the Original Ellis WSA with respect to the exclusion of the downtown RGAs.

WASTEWATER TREATMENT

Impact 4.14-2: Buildout of the Modified ESP may require modifications or expansions to the City's existing wastewater treatment system.

Determination: Less than Significant Impact.

Wastewater Treatment Plant Capacity

The average daily amount of wastewater generated by the Modified ESP would depend on the phasing limits and the amount of residential units proposed to be built in the identified phases of development. Currently, the WWTP is operating below its permitted treatment capacity of 10.8 mgd and would adequately provide wastewater treatment capacity to serve 800 single-family detached residential units, the Swim Center, and storage uses associated with the initial buildout. For ultimate buildout, the Modified ESP would have an average daily sewage generation of 547,148 gpd (0.55 mgd) and would be served by the City's WWTP. The City's identified improvements and expansions to the existing WWTP would provide sufficient capacity to treat sewage generated by the Modified ESP at buildout. As previously identified, the City's plans to expand and improve the WWTP will be completed over time as the City's Sphere of Influence is built out and would provide the following capacities, in addition to improved quality of the discharged effluent:

- ◆ Phase II – 12 mgd
- ◆ Phase III – 13.65 mgd
- ◆ Phase IV – 16 mgd

The Draft and Final EIR for the Tracy Wastewater Treatment Plant Expansion (SCH No. 2000012039) evaluated the impacts associated with expanding and improving the City's WWTP. The Final EIR was completed in September of 2002 and was certified in November 2002.

The "Ellis Finance and Implementation Plan" (FIP) shall identify fees required for the Modified ESP at maximum buildout.

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Wastewater Conveyance Capacity

The proposed wastewater conveyance system to serve the ESP area would be constructed to follow the existing ground slope of the area. The proposed wastewater line would convey flow toward Corral Hollow Road. The on-site collection system would range from eight- to 15-inch diameter wastewater line, with much of the 15-inch diameter line on the eastern side of the area near the discharge to Corral Hollow Road. A proposed wastewater trunk main would be installed within Corral Hollow Road and would connect to the existing 21-inch diameter wastewater trunk line on Corral Hollow Road that terminates at the intersection of Parkside Drive. The Modified ESP would be served by the City's existing wastewater infrastructure.

Phase 1 of the Modified ESP (including the Family Swim Center, 250 residential units, and the storage uses) would be permitted to connect to the east side transmission system through a tie-in constructed into the wastewater main at Peony Drive. Should access to the line not be required by the proposed Swim Center, then an additional 250 residential units may discharge to this line. The Corral Hollow Sewer Conveyance System has 550 units of available capacity. Pursuant to the Amended and Restated Ellis DA, the Project Applicant would be afforded the right to use 330 residential units of existing capacity in the Corral Hollow Sewer Conveyance System on a permanent basis. If, by January 31, 2016, contributions from other developers to fund the expansion of the system for an additional 220 residential units has not been guaranteed to the City, then the remaining 220 units of capacity shall be reserved to the Modified ESP and allocated upon each subdivision map approval. All east side residential units would be shifted to the Corral Hollow Sewer Conveyance System upon completion of the Corral Hollow Sewer Conveyance System Phase I upgrade. A new wastewater trunkline main, which would support full buildout, would extend northerly along Corral Hollow Road.

Conveyance capacity created in the Phase I upgrade of the Corral Hollow Sewer Conveyance System would serve an additional 1,750 residential units beyond the initial capacity of the Modified Project phases, along with commercial uses. The existing WWTP capacity would serve 800 single-family, detached residential units, the proposed Family Swim Center, and the storage uses. Modifications or expansions to the WWTP may be required for an additional 1,450 residential units and commercial uses. As noted in subsection 4.14.1 (Existing Conditions, Wastewater), the City has plans to expand the treatment capacity of the existing WWTP in phases, with ultimate treatment capacity to reach 16.0 mgd. The expansions and improvements to the WWTP were evaluated in the Draft and Final EIR for the Tracy Wastewater Treatment Plant Expansion (SCH No. 2000012039). The Final EIR was completed in September of 2002 and was certified in November 2002.

The Ellis Finance and Implementation Plan shall identify the fees required for the Modified ESP at maximum buildout. The necessary improvements along the Corral Hollow sewer line are summarized below and would occur within existing right-of-way.

Corral Hollow Sewer System Upgrade Phase I

- ◆ 33-inch diameter pipe (690 LF)
- ◆ 24-inch diameter pipe (3,235 LF)

Corral Hollow Sewer System Upgrade Phase II

- ◆ 21-inch diameter pipe (1,979 LF)
- ◆ 27-inch diameter pipe (1,492 LF)
- ◆ 21-inch diameter pipe (27LF)

Corral Hollow Sewer System Upgrade Phase III

- ◆ 36-inch diameter pipe (690 LF)
- ◆ 27-inch diameter pipe (2,787 LF)
- ◆ 24-inch diameter pipe (448 LF)
- ◆ 21-inch diameter pipe (1,979 LF)
- ◆ 27-inch diameter pipe (1,492 LF)
- ◆ 21-inch diameter pipe (4,917 LF)

To ensure that any necessary wastewater conveyance improvements would be available to serve the Modified Project prior to occupation, the City shall verify their installation prior to issuance of building permits, as identified in Mitigation Measure 4.14-2 below.

Mitigation Measure

4.14-2 Prior to approval of any tentative map beyond 800 residential units, the Family Swim Center, and storage uses within the Modified Ellis Specific Plan area, necessary improvements, if any, beyond those identified in the Ellis Specific Plan or as part of the Ellis Finance and Implementation Plan ("FIP"), shall be determined regarding modifications or expansions to the City's Wastewater Treatment Plant and proposed new connections (from such tentative map development) and then-existing or proposed wastewater facilities. Such improvements shall be installed prior to issuance of a building permit. Improvements shall be consistent with requirements in the Tracy Wastewater Master Plan subject to the terms of the Ellis Development Agreement and FIP in effect at the time of final map approval. The City Engineer shall verify that any necessary improvements would be available prior to occupation of those land uses for which such improvements are necessary."

Storm Drainage System Capacity

Impact 4.14-3: Buildout of the Modified ESP may require modifications or expansions to the City's existing storm drainage system.

Determination: Less than Significant Impact with Mitigation Incorporation.

The ESP area is located entirely within the southernmost, upstream portion of the City's Westside Channel Watershed. Existing storm drainage facilities downstream of the ESP area, consisting of trunk line storm drains and open channels serving residential subdivisions to the north to DET 5 (Plasencia Field) and facilities downstream of DET 5 associated with the City's Westside Channel Outfall System, have been sized to accept attenuated (metered) storm runoff from the ESP area. A new regional Detention Basin #3A is planned for the north side of Valpico Road and would store and attenuate runoff from existing and future development, including Modified ESP, within a portion of the Westside Channel Watershed.

The proposed site storm drainage system would be constructed to follow the existing ground slope of the ESP area, which is relatively flat. Based on existing topographic information, the terrain generally slopes less than one percent from the southwest corner to the northwest corner of the site. In the east-west direction, the slope of the ESP area is less than 0.5 percent. According to the Modified ESP, the existing peak flow discharge is approximately 26 cfs. Upon buildout of the ESP, the peak flow discharge is estimated to increase to 63 cfs during a ten-year storm event. Based on this estimate, the Total Basin Retention Volume (minimum basin size to retain the additional peak flow discharge) is estimated to be approximately 78.6 acre-feet.

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The proposed storm drain collection system would include a network of gravity lines and inlet structures. Pipe sizes may range from 12- to 42-inch diameter. The drainage systems within the Modified Specific Plan area would be designed to be compliant with the City of Tracy Design Criteria.

In the event that the proposed regional Detention Basin #3A is not constructed prior to the development of Phase 1 of the Modified ESP, stormwater runoff from Phase 1 would be retained on site or at a nearby location. Based on the City of Tracy Design Standards, the Basic Retention Volume (BRV) is 18.1 acre feet or as approved by the City Engineer. Retention basin(s) constructed with Phase 1 could be expanded, relocated, and/or duplicated prior to the next phase of development. Alternatively, all or a portion of the regional Westside Channel Stormwater Detention Basin #3A could be constructed to serve the Modified ESP or upsized to serve the regional storm watershed. At buildout, a stormwater conveyance system to the regional Westside Channel Stormwater Detention Basin #3A would serve the Modified ESP and the regional storm watershed and any interim retention basins would be filled and may be developed.

The Ellis Finance and Implementation Plan shall identify the fees required for the Modified ESP at maximum buildout. The following lists the improvements anticipated to be necessary:

- ◆ A detention basin (DET SL) within Sub-basin W40 (South Linne). This detention basin will provide sufficient storage to accept all future runoff from Sub-basin W40 and attenuate inflow to a metered outflow of one cfs. The 100-year peak storage volume for DET SL is 17-af. Outflow from DET SL would be discharged to on-site storm drains that would serve future development to the north.
- ◆ An assumed 12-inch storm drain gravity discharge pipe extending to the north from DET SL through the ESP area and the area to the north of the ESP area to Valpico Road. This assumed 12-inch storm drain would require a “jack” and “bore” crossing underneath the existing railroad track on the north side of the alignment of Linne Road. A 12-inch storm drain is the size of storm drain required to convey the one cfs outflow from DET SL to Valpico Road and is assumed to be the correct size for impact fee analysis purposes. However, the actual size of the storm drain connection would vary. Its also assumed that the storm drain(s) would be aligned with future public streets.
- ◆ A 42-inch storm drain extending north from Valpico Road, west of Corral Hollow Road, that would serve as the discharge pipeline for combined site runoff generated from the overall ESP area Sub-basin. This 42-inch storm drain would discharge to proposed detention basin DET 3A on the north side of Valpico Road.
- ◆ A detention basin (DET 3A) to be located on the north side of Valpico Road that will store and attenuate runoff from the collective existing and future development within the ESP area Sub-basin. This detention basin would have sufficient storage to attenuate inflow to a metered outflow of three cfs. The 100-year peak storage volume for DET 3A is 36 ac/ft. Overexcavation would be required for DET 3A in order for upstream storm drainage connections to be made and to maintain a design 100-year water surface elevation that is low enough to void surcharging within future upstream connecting storm drains. The proposed location has changed from that identified by the 1994 Storm Drainage Master Plan, but is reflected in the City’s recently updated Storm Drainage Master Plan.
- ◆ An 18-inch storm drain gravity discharge pipe extending to the north from DET 3A that would connect to an existing 30-inch storm drain stub that was previously provided within the Gabriel Estates subdivision (Plan “C” Yellow Zone residential development) on the north side of the Union Pacific Railroad track. Acquisition of a 20-foot wide storm drain easement would be

required. The 18-inch storm drain would need to cross underneath the WSID's Upper Main Channel and would require a "jack" and "bore" crossing underneath the railroad track.

The improvements identified above were contemplated as part of the City's September 2010 Final Citywide Storm Drainage Master Plan.

The Modified Project would implement stormwater management techniques or BMPs to comply with the City's SWQC Manual. As described previously, the SWQC Manual has the following goals:

- ◆ Assist new development in reducing urban runoff pollution to prevent or minimize water quality impacts.
- ◆ Provide standards for developers, design engineers, agency engineers, and planners to use in the selection, design, and implementation of General Site Design Control Measures for Low Impact Design (LID) and appropriate site-specific source and treatment control measures.
- ◆ Provide maintenance procedures to ensure that the selected control measures will be maintained to provide effective, long-term pollution control.

Mitigation Measures

No additional mitigation measures beyond those identified in the Original EIR are required. Implementation of Mitigation Measures 3B.10-3a through 3B.10-3d (as incorporated by reference in section 4.8, Hydrology, Drainage, and Water Quality of the Draft Revised EIR) will reduce impacts to a less than significant level.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Impact 4.14-4: **The Modified Project in conjunction with other cumulative projects would increase the demand for water and wastewater and storm drainage facilities.**

Determination: Less than Significant Impact with Mitigation Incorporation.

The geographic scope of the cumulative impacts for the Modified Project includes development projects anticipated by the General Plan, as most recently updated, that could increase the need for water supply and wastewater and storm drainage facilities in the City. However, future development within the Modified Project vicinity would be guided by the City's General Plan and associated planning and environmental documents. Each project would be subject to the City's planning process. As part of this planning process, the payment of appropriate fees by all development projects would be required to mitigate any effects on public services and utilities and minimize cumulative impacts on a project-by-project basis.

Future development would also be required to comply with all Federal, State, and local regulations and ordinances protecting utility services, including complying with all water conservation measures and waste minimization efforts in accordance with City requirements. Therefore, the incremental impact associated with the Modified Project would not contribute to cumulative long-term impacts on water supply and wastewater and storm drainage facilities and, therefore, would not be cumulatively considerable.

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Mitigation Measures

Implement Mitigation Measure 4.14-2.

5 OTHER CEQA REQUIRED TOPICS

The California Environmental Quality Act (CEQA) Guidelines Section 15126 requires an Environmental Impact Report (EIR) to describe the broader effects of a project in relationship to the surrounding environment, in addition to detailed technical analysis of a project's impacts on the environment. The topics covered in this chapter address this requirement and identify significant and unavoidable Modified Project impacts, growth inducement associated with the Modified Project, and significant irreversible changes associated with the Modified Project. In addition, this Chapter addresses Appendix F of the CEQA Guidelines and provides a discussion of the potentially significant energy implications of the Modified Project. A more detailed analysis of the effects the Modified Project would have on the environment is provided in Chapter 4: Environmental Analysis.

Chapter 2 (Introduction) explains that this Draft Revised EIR analyzes the potential environmental effects of the proposed changes associated with the Amended and Restated Ellis Development Agreement (Amended and Restated Ellis DA), the minor amendments to the Original ESP, Petition for Annexation and Pre-Zoning, and request for a General Plan Amendment to address minor text changes to the TR-Ellis land use designation. Feasible mitigation measures for potentially significant impacts are identified where applicable. In addition, this Draft Revised EIR also addresses:

- ◆ the Trial Court's Statement of Decision (issued October 31, 2011) on the City of Tracy/Surland Companies Development Agreement and Ellis Specific Plan Applications Draft and Final EIRs (State Clearinghouse No. 2006102092) (Original Ellis EIR); as well as,
- ◆ updates to the Modified ESP area as identified in the 2011 General Plan Update and analysis in the General Plan EIR (certified February 2011).

Other background information, analysis of environmental impacts, and mitigation measures contained within the Original Ellis EIR remain valid, and as described in Chapter 2, that information has been incorporated by reference into this Draft Revised EIR. Thus, the topics covered in this chapter are limited to addressing those aspects described above.

5.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15162(b) of the CEQA Guidelines requires an EIR to discuss the significant environmental effects of a proposed project that cannot be avoided if the proposed project is implemented, including those which can be mitigated, but not reduced to a less than significant level. These impacts are referred to as "significant and unavoidable impacts" of the project.

The Modified Project would result in 12 significant and unavoidable impacts, as listed below. The significant and unavoidable impacts of the Original Ellis EIR that were not re-analyzed in this Draft Revised EIR remain valid and, as described in Chapter 2 (Introduction), have been incorporated by reference into this Draft Revised EIR. The list of significant and unavoidable impacts identified by the Original Ellis EIR follows the list of significant and unavoidable impacts identified by this Draft Revised EIR.

5.1.1 DRAFT REVISED EIR

AIR QUALITY

As described in Section 4.3 (Air Quality), the Modified Project would have the following significant and unavoidable air quality impacts:

- ◆ The Modified ESP would result in an overall increase in the local and regional pollutant load due to direct impacts from vehicle emissions and indirect impacts from area sources and electricity consumption.
- ◆ Due to the ESP site's exceedances of SJVAPCD's air quality standards, future development within the ESP site would not be consistent with the most recent Air Quality Management Plan.
- ◆ Implementation of the Modified Project could impact regional air quality levels on a cumulatively considerable basis.

GREENHOUSE GAS EMISSIONS

As described in Section 4.6 (Greenhouse Gas Emissions), the Modified Project would have the following significant and unavoidable greenhouse gas emission impacts:

- ◆ Significant generation of greenhouse gas emissions.
- ◆ Future development facilitated by the Modified ESP and other related cumulative projects could have a cumulatively considerable contribution to greenhouse gas emissions.

NOISE

As described in Section 4.10 (Noise), the Modified Project would have the following significant and unavoidable noise impacts:

- ◆ Substantial noise levels for future residential uses along the Union Pacific Railroad.
- ◆ Temporary increases in noise and/or vibration from grading and construction.
- ◆ Substantial increases in traffic noise.
- ◆ Cumulatively considerable contribution to traffic noise.

TRAFFIC AND CIRCULATION

As described in Section 4.13 (Traffic and Circulation), the Modified Project would have the following significant and unavoidable transportation impacts:

- ◆ The addition of traffic to the regional transportation system from the Modified ESP would degrade LOS on I-580 west of I-205 to unacceptable traffic conditions during the AM and PM peak hours.
- ◆ The addition of traffic from the Modified ESP would further degrade an existing unacceptable traffic condition on Tesla Road and Patterson Pass Road individually and cumulatively.
- ◆ Cumulative contribution of traffic to segments of I-580.

5.1.2 ORIGINAL ELLIS EIR

The significant and unavoidable impacts identified by the Original Ellis EIR that have not changed are those associated with aesthetics and agricultural resources. Thus, the significant and unavoidable impacts associated with these areas of the Original Ellis EIR remain valid and are incorporated herein.

Please refer to Section 3B.6 (Aesthetics) and Section 3B.7 (Agricultural Resources) in the Original Ellis EIR, December 2008. Pursuant to Section 15150 (c) of the State CEQA Guidelines, the following summarizes the significant and unavoidable impacts identified in Section 3B.6 (Aesthetics) and Section 3B.7 (Agricultural Resources) of the Original Ellis EIR that are incorporated herein and have not changed. As described in Chapter 2 (Introduction), the Original Ellis EIR is on file with the City of Tracy, Development and Engineering Services Department, Planning Division, located at 333 Civic Center Drive, Tracy, California, 95376.

AESTHETICS

The following lists the significant and unavoidable impacts identified in Section 3.06 (Aesthetics) of the Original Ellis EIR:

- ◆ The ESP would create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.
- ◆ Implementation of the ESP could substantially degrade the existing visual character or quality of the site and its surroundings.
- ◆ The ESP could cause a substantial adverse effect on a scenic vista.
- ◆ The ESP could substantially damage scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic buildings within a state scenic highway.

AGRICULTURAL RESOURCES

The following lists the significant and unavoidable impacts identified in Section 3.07 (Agricultural Resources) of the Original Ellis EIR:

- ◆ The proposed ESP would convert Prime Farmland to non-agricultural uses.

5.2 GROWTH INDUCING IMPACTS

CEQA requires that an 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 Modified Project with the growth envisioned for the City of Tracy (City) in the City of Tracy General Plan (General Plan).

5.2.1 FOSTER ECONOMIC GROWTH

The Modified Project would provide opportunities for new retail and office space within the City. This new space could attract new businesses that would provide new employment opportunities within the City. Assuming two employees per 1,000 square feet of commercial space¹, it is estimated that the Modified Project site could create up to 360 full-time-equivalent employment positions. The amount of jobs created by the Modified Project would consist of approximately 2.9 percent of the job growth anticipated for the City between 2005 and 2025. However, it is possible that existing businesses located elsewhere in the City would choose to relocate to some of this new space and would not create new jobs in the City. To the extent that additional jobs may be created, the Modified Project could have a growth-inducing effect on employment in the City.

5.2.2 POPULATION AND HOUSING GROWTH

As described in the General Plan Draft Supplemental EIR (2010), residential growth under the General Plan is limited by the City's Growth Management Ordinance (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, the General Plan Draft Supplemental EIR determined that between the years 2008 and 2025, the number of residential units allowed under the City's GMO is 8,419 units, which was adjusted to allow affordable housing, and consequently increases the number to 9,499 units. Moreover, the General Plan Draft Supplemental EIR projects that 1,600 of the 2,250 residential units planned for the Modified Project area by the General Plan would be constructed through 2025 due to the limitations imposed by the GMO. Thus, the residential development and associated population growth proposed by the Modified Project was planned for by the City in the City's General Plan and the associated impacts were analyzed in the General Plan Draft Supplemental EIR. The combined effects of the population growth associated with the growth projections of the General Plan, as well as the Modified Project, would not result in any additional impacts beyond those identified, mitigated, or acknowledged in this Draft Revised EIR, the General Plan EIR, or the Original Ellis EIR. The subject of the location and order of development within the area designated as Traditional Residential-Ellis by the General Plan is discussed in Chapter 3 (Project Description).

5.2.3 REMOVE OBSTACLES TO GROWTH

Modifications to the City's utility systems may be required to accommodate the Modified Project at full buildout. Modifications to both the delivery and capacity of the City's systems have been addressed in prior certified EIRs, as identified in Section 4.14 of this Draft Revised EIR. Although, the existing City infrastructure has capacity to serve initial phases of the Modified ESP, increases in capacity or changes in delivery may be required depending on the pace of phased development and timing of implementation of the City's infrastructure master plans. Upgrades have been designed to accommodate full buildout of the Modified Ellis Specific Plan area.

¹ City of Tracy General Plan Draft Supplemental EIR, 2010, p. 3-41.

Currently, the WWTP is operating below its permitted treatment capacity of 10.8 mgd. At present capacity, it would provide sufficient treatment capacity for 800 residential units of the initial Modified ESP buildout. For ultimate buildout, the Modified ESP would have an average daily sewage generation of 547,148 gpd (0.55 mgd) and would also be served by the City's WWTP. The City's identified improvements and expansions to the existing WWTP would provide sufficient capacity to treat sewage generated by the Modified ESP at buildout. As previously identified, the City's plans to expand and improve the WWTP will be completed over time as the City's Sphere of Influence is built out and would provide the following capacities, in addition to improved quality of the discharged effluent:

- ◆ Phase II – 12 mgd
- ◆ Phase III – 13.65 mgd
- ◆ Phase IV – 16 mgd

The Draft and Final EIR for the Tracy Wastewater Treatment Plant Expansion (SCH No. 2000012039) evaluated the impacts associated with expanding and improving the City's WWTP. The Final EIR was completed in September of 2002 and was certified in November 2002.

A variety of storm drainage improvements are anticipated to be necessary to accommodate surface runoff from the Modified ESP. These improvements are listed in detail in Section 4.14 of this Draft Revised EIR. As noted therein, identified improvements have been contemplated as part of the City's 1994 Citywide Storm Drainage Plan.

These infrastructure capacity increases would remove barriers that currently inhibit growth associated specifically with the ESP site, resulting in the potential environmental impacts as discussed throughout this document. The City's infrastructure planning efforts have contemplated development of this site, and though implementation of any improvements related to capacity or distribution increase would remove future barriers to growth, their removal is not without prior review and consideration, as well as contemplation in the City's 2011 General Plan.

5.2.4 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. As described in Sections 3B.8 (Public Utilities) and 3B.9 (Public Services) of the Original Ellis EIR and within the Initial Study prepared for this Draft Revised EIR (Appendix A) and within Section 4.14 (Water Supply and Other Public Utilities) of this Draft Revised EIR, the Modified ESP would not result in significant environmental effects related to public services and utilities with the implementation of mitigation measures. Therefore, the Modified ESP would not substantially tax existing public services and utilities.

5.3 ENERGY CONSERVATION

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Appendix F requires a description (where relevant) of the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, the California State Legislature adopted Assembly Bill 1575 (AB 1575) in response to the oil crisis of the 1970s. Appendix F of the CEQA Guidelines provides guidance for assessing potential impacts that a project could have on energy supplies, focusing on the goal of conserving energy by ensuring that projects use energy wisely and efficiently. Because Appendix F does not

include specific significance criteria, this threshold is based on the goal of Appendix F. Therefore, an energy impact is considered significant if the Modified Project would:

- ◆ Develop land uses and patterns that cause wasteful, inefficient, and unnecessary consumption of energy or construct new or retrofitted buildings that would have excessive energy requirements for daily operation.

5.3.1 MODIFIED PROJECT ENERGY CONSUMPTION

SHORT-TERM CONSTRUCTION

In 1994, the U.S. Environmental Protection Agency (EPA) adopted the first set of emission standards (Tier 1) for all new off-road diesel engines greater than 37 kilowatts (kW). The Tier 1 standards were phased in for different engine sizes between 1996 and 2000, reducing NO_x emissions from these engines by 30 percent. The EPA Tier 2 and Tier 3 standards for off-road diesel engines are projected to further reduce emissions by 60 percent for NO_x and 40 percent for particulate matter from Tier 1 emission levels. In 2004, the EPA issued the Clean Air Non-road Diesel Rule. This rule will decrease emissions from off-road diesel engines by more than 90 percent, and will be fully phased in by 2014.

The Modified ESP site is divided into three neighborhoods defined by density, intensity, and character, and would develop over time as individual areas are constructed within the Modified Project area. There are no unusual Modified Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Therefore, it is expected that construction fuel consumption associated with the Modified Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

LONG-TERM OPERATIONS

Transportation Energy Demand

Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration (NHTSA) is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon (mpg). Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States.

The Modified ESP would create a pedestrian-friendly, connected, planned development downtown that includes a village center with commercial and office uses. The plan is also designed to accommodate a multimodal transit hub (Transit Center), with Altamont Commuter Express (ACE) train and TRACER bus service and commercial space. The Modified ESP is not anticipated to result in any unusual characteristics that would result in excessive long-term operational fuel consumption. The inclusion of various uses would include internal trip capture rates.

Alternative Transportation Options

Transit access to the Modified Project site would be provided by the City of Tracy's TRACER bus system. TRACER would provide a route connection to the east side of the Modified Project site with

a stop proposed on Corral Hollow Road near the Village Center and Family Swim Center. The TRACER service would provide service to the City of Tracy Multimodal Transit Center with connecting service to the ACE rail, San Joaquin County Regional Transit (SJRTD) regional bus service, Greyhound, and the proposed future high speed rail service and BART connections to the Bay Area. As the City further develops to the south and the west, the bus service will be extended along Ellis Drive to Lammers Road; bus stops/pull outs will be located at intersections and provide for a ¼-mile to ½-mile walking distance with origins and destinations within the Modified ESP to the bus stops to promote transit travel. The proximity of the Modified Project site to existing and proposed public transit would reduce the number of trips to and from the Modified Project site. The Modified Project would not result in the inefficient, wasteful, or unnecessary consumption of transportation energy.

Building Energy Demand

The Modified Project would not result in any unusual characteristics that would result in excessive long-term operational building energy demand. The Modified Project would require electricity and natural gas for typical lighting, climate control, and day-to-day activities. The Modified ESP provides design standards and guidelines that would ensure energy and water efficiency. Additionally, as stated in Section 4.3 (Greenhouse Gas Emissions), the Modified Project would incorporate several water, energy, solid waste, and land use efficiency measures. Therefore, the Modified Project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar residential subdivisions within the region.

Energy Efficiency Measures

Title 24, California's Energy Efficiency Standards for Residential and Non-residential Buildings, was established by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, and provide energy efficiency standards for residential and non-residential buildings. In 2010, the CEC updated Title 24 standards with more stringent requirements. The 2010 Standards are expected to substantially reduce the growth in electricity and natural gas use. Additional savings result from the application of the Standards on building alterations. For example, requirements for cool roofs, lighting, and air distribution ducts are expected to save additional electricity. These savings are cumulative, doubling as years go by.

Additionally, implementation of the Modified Project's design features (i.e., high efficiency lighting, energy efficient appliances, low-flow faucets, toilets and showers, water-efficient irrigation systems, and exclusion of hearths) would further reduce energy consumption. The Modified Project would adhere to all Federal, State, and local requirements for energy efficiency, including the Title 24 standards, as well as the Modified Project's design features. The Modified ESP would not result in the inefficient, wasteful, or unnecessary consumption of building energy.

5.4 SIGNIFICANT AND 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: 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); 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); and/or, irreversible damage that could result from any potential environmental accidents associated with the project.

5.4.1 CHANGES IN LAND USE WHICH COMMIT FUTURE GENERATIONS

Implementation of the Modified ESP would result in the conversion of approximately 321 acres of open space/agricultural land to a mix of residential, commercial, office/professional, institutional, and recreational uses. Development of the Modified Project would constitute a long-term commitment to these uses, as it is unlikely that circumstances would arise that would justify the return of the land to its original condition.

5.4.2 CONSUMPTION OF NON-RENEWABLE RESOURCES

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 Modified Project would require the commitment of a variety of other non-renewable or slowly renewable natural resources such as lumber and other forest products, sand and gravel, asphalt, petrochemicals, and metals.

Additionally, a variety of resources would be committed to the ongoing maintenance and life of the Modified Project. An increase in the public use of land use on the site would result in an increase in area traffic over existing conditions. Fossil fuels are the principal source of energy and the Modified Project would increase consumption of available supplies, including gasoline. These energy resource demands relate to initial Modified Project construction, Modified Project operation, and on-going maintenance, as well as the transport of people and goods to and from the Modified Project site.

5.4.3 IRREVERSIBLE DAMAGE FROM ENVIRONMENTAL ACCIDENTS

No explosives or other hazardous materials would be used within the planning area. Accidental spills of fuel, paints, or other construction-related materials might occur during construction. However, these types of accidents would be limited because site development would be implemented and overseen by experienced construction workers. Such potential spills would not result in irreversible environmental changes. While no explosives would be used in the Modified Project area, allowable commercial uses include service stations, medical and dental offices, and research and development offices, among others. Should these uses develop, they would use hazardous materials (in the case of a service station) or could be likely to use hazardous materials (in the case of medical or research and development offices). The use of such materials in the Modified ESP area would be regulated by applicable Federal, State, and local government agencies and would not be any more likely to result in irreversible environmental changes than if used in other similar settings.

6 ALTERNATIVES

As described in Chapter 2 (Introduction), this Draft Revised EIR analyzes the potential environmental effects of the Modified Project and identifies feasible mitigation measures for potentially significant impacts where applicable. In addition, this Draft Revised EIR also addresses:

- ◆ the Trial Court’s Statement of Decision and Judgment (issued October 31, 2011) on the City of Tracy/Surland Companies Development Agreement and Ellis Specific Plan Applications Draft and Final EIRs (State Clearinghouse No. 2006102092) (Original Ellis EIR); as well as,
- ◆ updates to the ESP area as identified in the 2011 General Plan Update and analysis in the General Plan EIR (certified February 2011).

This Draft Revised EIR incorporates Chapter 3B.14 (Alternatives to the Proposed ESP) of the Original Ellis EIR by reference where applicable, and identifies where the Modified EIR has triggered a “revision” to the Prior EIR analysis. In addition, this Chapter also incorporates by reference the January 1, 2006 Tracy City Council Agenda Item 5 Staff Report Regarding Site Selection and Methodology for the Financing, Design, and Construction of a Community Aquatic Center. Chapter 3B.14 (Alternatives to the Proposed ESP) of the Original Ellis EIR is summarized below (subsection 6.1 [Summary of Original ESP Alternatives]), as is the January 1, 2006, staff report (subsection 6.1.2 [Alternative Swim Center Locations]). Both are available for public review at the City of Tracy Planning Division, located at 333 Civic Center Plaza, Tracy, CA 95376. Thus, the topics covered in this chapter are limited to addressing those aspects identified below.

Specifically, this chapter provides:

- 1) A brief summary of the Original ESP EIR alternatives evaluated;
- 2) an elaboration on the previously discussed process that the City went through to evaluate (and reject) alternative swim center locations;
- 3) the rationale for rejecting alternative Project site locations, in particular the Keenan Saddlebrook Development/UR 17, Moitoso/Plan B, and the Alvarez/UR 1 areas;
- 4) locations more contiguous to the City core, and locations outside the airport flight path;
- 5) an explanation of the rationale behind the selection of Project alternatives in the Original ESP EIR;
- 6) reassessment of the feasibility of Alternative 6: Reduced Density of the Original ESP EIR;
- 7) analysis of two new alternatives: one alternative that omits the Family Swim Center from the ESP area and a second alternative that evaluates impacts under a scenario where runway lengths at the Tracy Municipal Airport are similar to those identified in the 1993 ALUCP.

6.1 SUMMARY OF ORIGINAL ESP ALTERNATIVES

The Original Ellis EIR analyzed the following five alternatives to the Original ESP, which are briefly summarized below. As identified above, only Alternative 6 has been revised in this Draft Revised EIR; refer to subsection 6.4 (Reassessment of the Feasibility of Alternative 6: Reduced Density of the Original Ellis Specific Plan EIR). Alternatives 4, 5, 7 and 8 were not the subject of the Statement of Decision and Judgment and as such are incorporated by reference herein.

- ◆ Alternative 4: No Project/No Build (Status Quo)
- ◆ Alternative 5: No Project/Future Development Under General Plan
- ◆ Alternative 6: Reduced Density Alternative
- ◆ Alternative 7: Reduced Swim Center Amenities Alternative
- ◆ Alternative 8: Island Annexation Alternative

The rationale behind how this range of Alternatives was selected is in subsection 6.4 (Reassessment of the Feasibility of Alternative 6: Reduced Density of the Original Ellis EIR).

6.1.1 ALTERNATIVE 4: NO PROJECT/NO BUILD (STATUS QUO)

Under the No Project/No Build (status quo) Alternative (Alternative 4), there would be no physical or operational changes to the Original ESP site. The Original Ellis EIR concluded that implementation of Alternative 4 would avoid most of the potential impacts of the Original ESP since no physical or operational changes to the site and its surroundings would occur. However, Alternative 4 would not achieve the potentially beneficial impacts of the Original ESP related to improved water quality and providing a range of additional housing types and products. Moreover, the Original Ellis EIR found that if Alternative 4 was implemented, the Original ESP area would not develop as directed by the General Plan, and the development identified for the Original ESP area by the General Plan may occur on another site, possibly creating environmental impacts similar to those identified for the Original ESP. Alternative 4 would not meet any of the basic Original or Modified ESP objectives of the City or the Project Applicant. Furthermore, no feasible mechanisms for preserving the site from future development were identified.

6.1.2 ALTERNATIVE 5: NO PROJECT/FUTURE DEVELOPMENT UNDER GENERAL PLAN

The No Project/Future Development Under General Plan Alternative (Alternative 5) would include the development of up to 2,250 homes, 333,000 square feet of commercial uses (a 222,000 square foot Village Center and an additional 111,000 square feet of commercial uses), and 30 acres of parkland, but would not include the development of the Swim Center. The residential densities for Alternative 5 would be the same as identified in the Original ESP. The Original Ellis EIR determined that implementation of Alternative 5 would generate impacts that would be comparatively similar to those that could occur with implementation of the Original ESP. Alternative 5 would slightly reduce the Original ESP's impacts on land use and planning, because it would implement the General Plan vision for the ESP site. A slight reduction in water demand and GHG production may occur because the Swim Center would not be developed. Additionally, as this alternative would have a greater commercial component, traffic, air, and noise impacts would likely be slightly greater than those of the Original ESP. Although Alternative 5 would meet nearly all of the Original and Modified Project objectives, it would not meet the City and Project Applicant's collaborative objective of improving the site with a Swim Center.

6.1.3 ALTERNATIVE 6: REDUCED DENSITY ALTERNATIVE

The Reduced Density Alternative (Alternative 6) would include the development of a total of 1,224 residential units, which would reduce the number of residential units proposed by the Original ESP by 54 percent (no housing would be allowed in the Village Center). Alternative 6 would also include the development of 180,000 square feet of commercial uses, as well as the Swim Center. This Alternative is based on the lowest number of units allowed within each of the residential land use categories for

the ESP site. The conclusion of the Original Ellis EIR with regard to Alternative 6 was that it would result in less adverse impacts on air quality, noise, geology, soils and seismicity, public services, and traffic relative to the Original ESP because 54 percent fewer residential units would be constructed. However, the reduction in the significance of environmental impacts would be ultimately marginal compared to the impacts associated with converting undeveloped land to urban uses or inducing growth elsewhere in the City or other areas within the City's SOI. Alternative 6 would meet most of the Original and Modified ESP's basic objectives, including the development of the Swim Center. However, the Project Applicant is not certain that the Original and Modified Project Objective of constructing a family-oriented swim center could be met with this alternative due to economic infeasibility issues.

6.1.4 ALTERNATIVE 7: REDUCED SWIM CENTER AMENITIES ALTERNATIVE

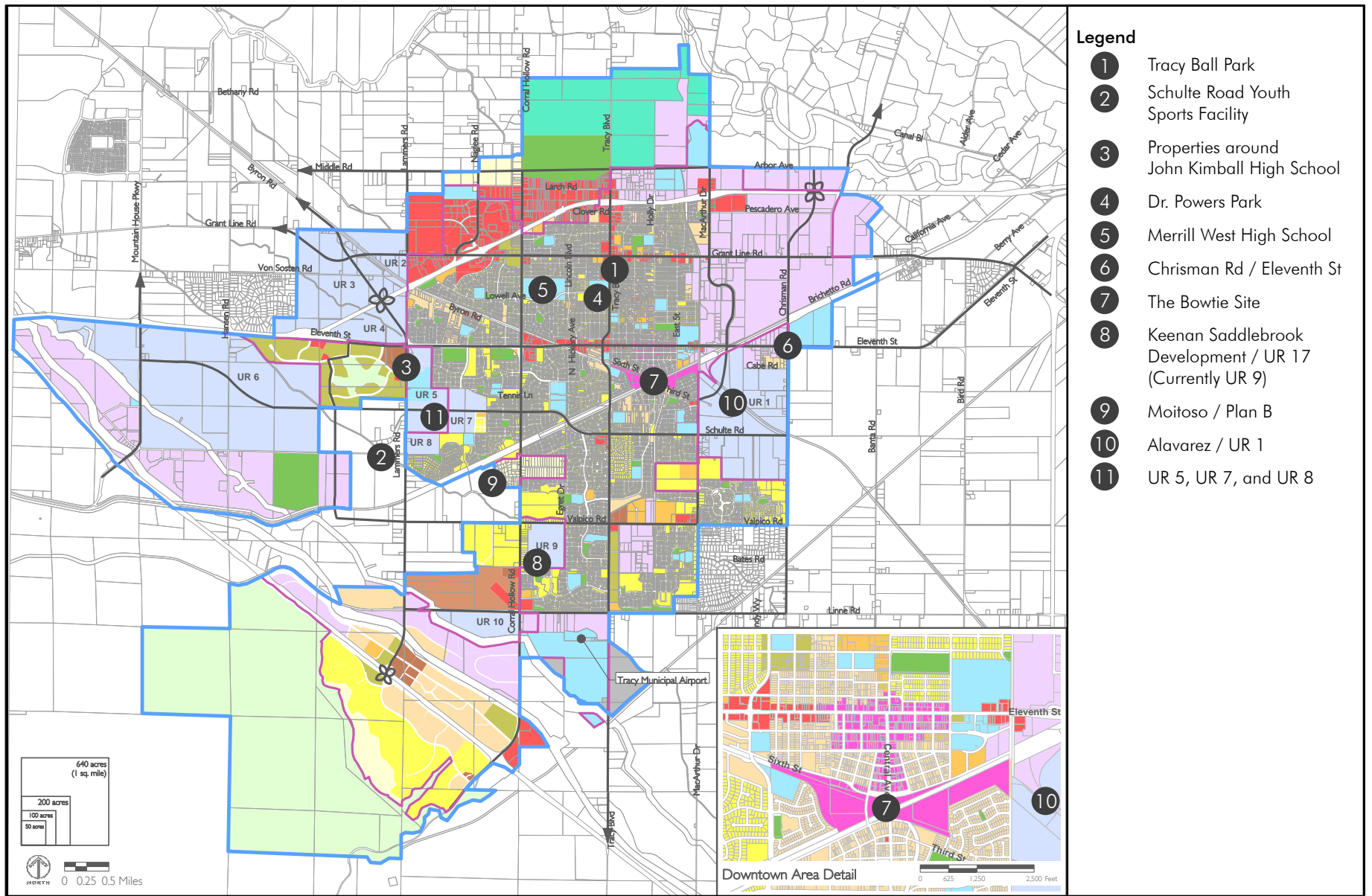
The Reduced Swim Center Amenities Alternative (Alternative 7) would include the development of up to 2,250 residential units, 180,000 square feet of commercial space, and the Swim Center. The Swim Center would be the same as proposed by the Original ESP with the exception that it would not have a 50-meter competition pool. The Original ESP EIR concluded that implementation of Alternative 7 would result in comparatively similar impacts to the Original ESP. However, Alternative 7 would result in modestly reduced impacts on water supply, as no water would be needed to fill and maintain the 50-foot competition swimming pool planned in the Original ESP. Additionally, the elimination of the competition pool would slightly reduce greenhouse gases by reducing the amount of electricity and natural gas usage needed for water pumping and heating. Although Alternative 7 would meet nearly all of the Original Project objectives, it would not meet the Project Applicant's objective of improving the site with a Swim Center that contains a competition pool.

6.1.5 ALTERNATIVE 8: ISLAND ANNEXATION ALTERNATIVE

This Alternative involves the annexation of the Original ESP area and implementation of the Original ESP, but also includes the annexation of approximately 120 acres of land directly south of the Original ESP site that would be permitted to develop 1.7 million square feet of industrial uses to capitalize on that site's location near I-580 and the Union Pacific Railroad line. This alternative was proposed to prevent the formation of an "island" of unincorporated land from occurring south of the Original ESP area after its incorporation into the City, as this would be in direct conflict with Local Agency Formation Commission (LAFCo) policy (Section 56744). The Original ESP EIR concluded that Alternative 8 could potentially generate greater or more severe impacts than the Original ESP due to the additional amount of development allowed under the alternative. In particular, the Original ESP EIR found that Alternative 8 could result in greater air quality, noise, and traffic impacts. In addition, when ultimately developed, Alternative 8 would result in significant unavoidable aesthetics impacts. Alternative 8 would meet all of the Project objectives and would satisfy the requirements of LAFCo (Section 56744) by ensuring that in the process of annexing the ESP site, sufficient land area is included to preclude the creation of an unincorporated island.

6.2 ALTERNATIVES CONSIDERED BUT REJECTED

In compliance with the Trial Court's Statement of Decision and Judgment, the following provides additional detailed discussion regarding the City's consideration of alternative site locations for the ESP Project, and why they were rejected from further detailed consideration. Refer to Figure 6-1 (Alternative Site Locations Rejected from Further Study).



Source: City of Tracy General Plan (2011), RBF Consulting (2012)



City of Tracy Modified Ellis Project Draft Revised EIR Alternative Site Locations Rejected From Further Study

Figure 6-1

- ◆ Alternative swim center site locations.
- ◆ Off-site alternatives, including the Keenan Saddlebrook Development/UR 9 (formerly UR 17), Moitoso/Plan B, and the Alavarez/UR 1 areas; other locations closer to the City core; and locations outside the airport flight path.

6.2.1 ALTERNATIVE SWIM CENTER LOCATIONS

BACKGROUND

The consideration by the City of the Swim Center and its location has been underway for more than 11 years. In 2001, a survey of the City of Tracy community and public workshops were held that identified the need for community aquatic facilities. In 2003, NTD Architects completed the Tracy Aquatic Center Feasibility Study.

In July 2005, the City Council directed Tracy Tomorrow and Beyond¹ to make recommendations for the Swim Center. In the summer of 2005, Tracy Tomorrow and Beyond conducted additional public workshops. At its meeting of October 18, 2005, the City Council received and discussed the recommendations of Tracy Tomorrow and Beyond. After the discussion, the City Council directed City Staff to:

- 1) Explore the potential of creating community partnerships for the purpose of funding and/or operating a Swim Center;
- 2) Begin an initial analysis of existing possible locations where a Swim Center could be located; and,
- 3) Identify funding options for the construction and operation of a Swim Center that would include, but not be limited to, an allocation of potential bond re-financing proceeds in lieu of other identified priority projects.

Council also directed that City Staff assume the position of lead agency with regard to the above direction. Additionally, in October 2005, the Project Applicant proposed the Ellis site as a location to be considered for the Swim Center.

In order to accomplish the City Council's direction from its meeting of October 18, 2005, and in keeping with the City assuming a lead role in this process, during the November 1, 2005, City Council meeting, Staff proposed forming a focus group which would include representatives of the City's Parks and Community Services, Finance, and Development and Engineering Services departments. Staff also suggested that a member of the Tracy Tomorrow and Beyond committee be invited to participate in the meetings of the focus group.

Additionally, during the November 1, 2005, City Council meeting, City Staff presented a report on the action plan concerning the creation of a Community Swim Center. In that report, City Staff identified that the opportunity existed to create Community Partnerships for the purpose of land acquisition or joint land use and the potential sharing of capital construction costs and/or ongoing operation and maintenance of the Swim Center. City Staff sent letters to the Tracy Unified School District, the Delta Community College District, and the Triton Swim Club in an effort to determine whether these

¹ The committee was formed in July 2001 as a city-appointed commission. Its duties are to provide the City of Tracy citizens with timely and objective information about relevant issues, advise the City Council on those topics from the citizens' perspective, and create ways of building consensus among various groups.

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agencies had the ability and/or willingness to partner with the City on the creation of a Community Swim Center. In addition, City Staff identified that several viable sites existed on which the proposed Swim Center and attending amenities could be located. Staff recommended that in order to create a more objective site analysis of the Swim Center locations, a matrix be created containing measurable criteria by which the potential sites be evaluated. The criteria would include, but not be limited to:

- ◆ Location
- ◆ Size
- ◆ Current ownership
- ◆ Ability to attract additional funding
- ◆ Community Development Agency funds
- ◆ Ease of construction, etc.

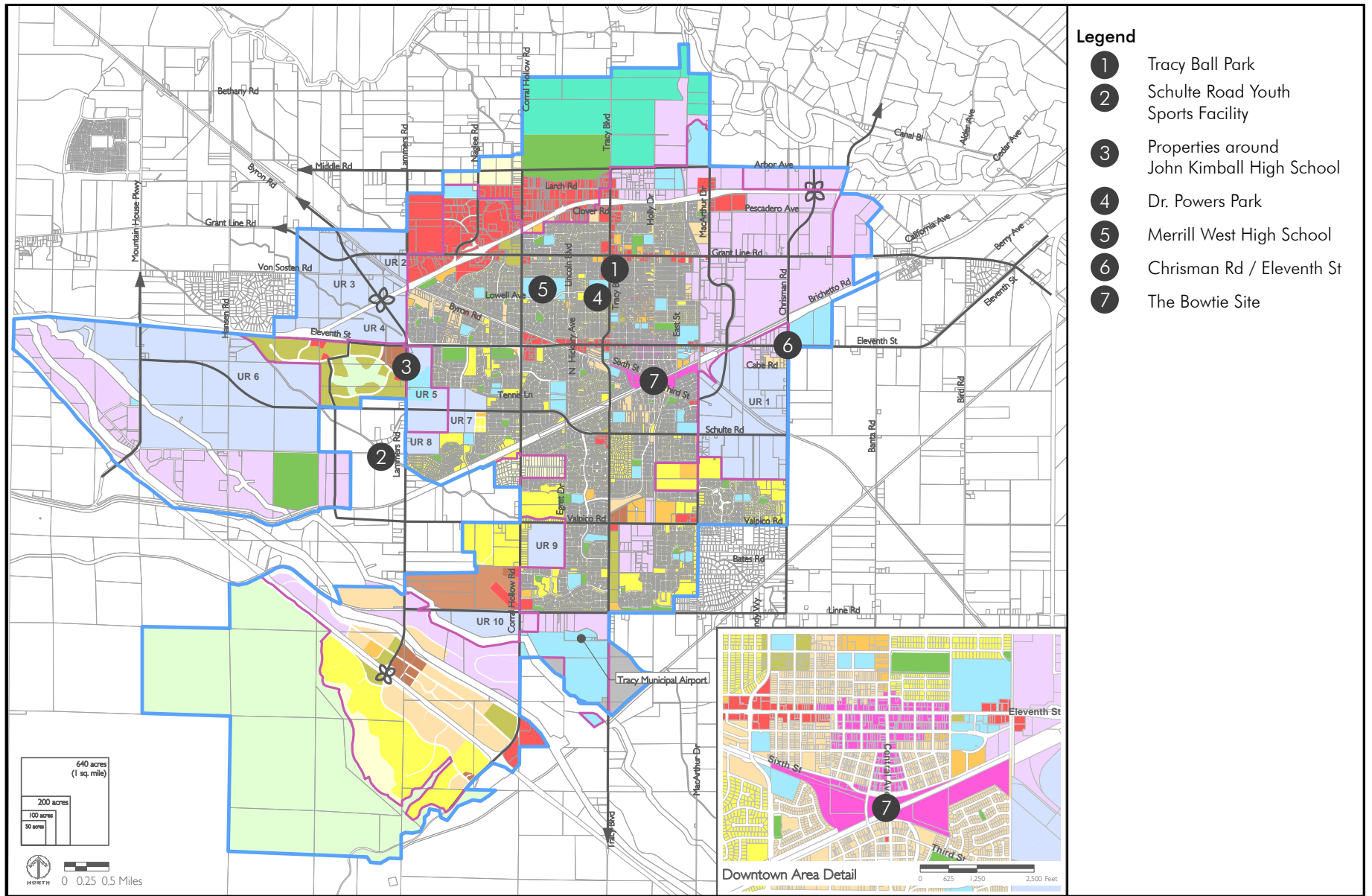
The City Staff report concluded that evaluation of these criteria, coupled with the City's ability to partner and fund the Swim Center, would provide the basis for determining the most desirable site. According to the City Staff report, funding for the Swim Center would be the critical determining factor as to where, when, and how much of the Swim Center would be built. Depending on the financial resources, City Staff identified that the opportunity existed to either build the facility in its entirety or to construct it on a phased basis. In the absence of total funding options, City Staff concluded that the Swim Center could be built on a phased basis and if that would be the case, City Staff identified that a determination needed to be made as to what facilities would be included in each phase of the Swim Center. City Staff also identified that in determining funding options, it would be necessary to finalize construction and operating costs of the Swim Center. City Staff identified potential funding sources to include an allocation of bond refinancing proceeds, state or federal grants, Community Development Agency, community partnerships, or any combination of the above, or other funding sources that may be available.

At its meeting of November 1, 2005, the City Council authorized City Staff's request to create an Implementation Team to evaluate potential locations, costs, and possible funding sources for a Community Swim Center. As approved by the City Council, the Team consisted of the Directors of Parks and Community Services, Development and Engineering Services, and Finance and Administrative Services, and a member of the Tracy Tomorrow and Beyond Committee.

At Council's request, the list of sites being evaluated by the Team was presented to the City Council on November 15, 2005. The properties under consideration included (refer to Figure 6-2 [Possible Community Swim Center Locations]):

- ◆ Tracy Ball Park*
- ◆ Schulte Road Youth Sports Facility (Antenna Farm)
- ◆ Properties in the vicinity of John Kimball High School on Lammers Road
- ◆ Dr. Powers Park*
- ◆ Merrill West High School*
- ◆ Chrisman and Eleventh Street*
- ◆ The Bowtie Site

(*Properties considered in the NTD Architects 2003 Aquatic Center Feasibility Study)



- Legend**
- 1 Tracy Ball Park
 - 2 Schulte Road Youth Sports Facility
 - 3 Properties around John Kimball High School
 - 4 Dr. Powers Park
 - 5 Merrill West High School
 - 6 Chrisman Rd / Eleventh St
 - 7 The Bowtie Site

Source: City of Tracy General Plan (2011), RBF Consulting (2012)



City of Tracy Modified Ellis Project Draft Revised EIR
Possible Community Swim Center Locations

Figure 6-2

**City of Tracy Modified Ellis Project
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It should be noted that these sites were presented to City Council for the following reasons:

- ◆ They had developable land capable of potentially accommodating a Swim Center.
- ◆ The Tracy Ball Park, Dr. Powers Park, Merrill West High School, and Chrisman and Eleventh Street sites were identified as potentially feasible sites for developing a Swim Center by a 2003 feasibility study undertaken by NTD Architects (2003 Aquatic Center Feasibility Study), as noted above.
- ◆ The Dr. Powers Park, Tracy Ball Park, and the Bowtie sites were in redevelopment areas and could have been eligible for redevelopment funding (as described in greater detail below).
- ◆ Upon receipt of a letter from the Project Applicant expressing interest in participating with the City in the construction of a Swim Center, the Council directed that the Project Applicant's Ellis site be added to the list of locations under consideration because of the benefits associated with that proposal (land donation, monetary donation, and design assistance, etc.).

It should also be noted that all sites were presented to City Council by the Implementation Team based on their relative merits, as this was the initiation of the process undertaken by the City to identify an acceptable Swim Center location. In particular, the Implementation Team identified a variety of positive qualities regarding these properties, including, but not limited to, the following: sufficient size to accommodate a swim center; City ownership of property; no known environmental contamination; infrastructure in place; low cost to develop/redevelop; and a variety of funding options available (i.e., redevelopment funds, private development funds), etc.

The initial presentation of these sites to the City Council did not require CEQA review. However, it should further be noted that CEQA Guidelines Section 15126.6(c) states that "among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts." Though CEQA review was not previously required, the factors set forth in the CEQA Guidelines Section 15126.6(f) (1) are nonetheless present in the preliminary evaluation undertaken by the Implementation Team and, ultimately, by City Council.

Site Selection Review Criteria

In order to accomplish the City Council's direction from its meeting of November 1, 2005, the Implementation Team developed criteria by which the potential Swim Center sites would be evaluated. The criteria was based on past reports and discussion and input from the community and City Council, and included:

- ◆ Acreage and potential for expansion;
- ◆ Central location;
- ◆ Current ease and safety of accessibility for pedestrians and bicyclists;
- ◆ Impact on surrounding area;
- ◆ Compatibility with adjacent sites (schedule conflicts, traffic, noise, lights);
- ◆ Availability of overflow parking;
- ◆ Environmental condition of property (to extent known);
- ◆ City ownership within the Community Development Area (CDA) zone;
- ◆ Site preparation costs;
- ◆ Existing water and sewer infrastructure;

- ◆ Timing of implementation;
- ◆ Contribution toward revitalization and/or serves a diverse population; and,
- ◆ other issues as known about a particular property.

Evaluation Results

Each of the eight sites was found to have positive and negative aspects from a physical location and financial standpoint. Following is a general summary of the positive and negative aspects of each site as developed by the site selection team. The sites are not in any order of priority.

Chrisman Road (northeast corner of 11th Street and Chrisman Road)

Positive Site Attributes

- ◆ Large area, unlimited potential for expansion and overflow parking.
- ◆ Little or no negative impact on surrounding area.
- ◆ City ownership of property.
- ◆ No known environmental contamination.
- ◆ No significant obstacles from an implementation timing standpoint.

Negative Site Attributes

- ◆ Financing – not within Community Development Agency boundaries.
- ◆ Current lack of ease and safety of access for pedestrians and bicycles.
- ◆ Water table issues could potentially increase construction cost.
- ◆ Off-site sewer extension necessary.
- ◆ Dust and dirt from farming operations in the area.
- ◆ Highest and best use of land is commercial, given proximity to NEI.

Dr. Powers Park (southwest corner of Tracy Blvd. and Lowell Ave.)

Positive Site Attributes

- ◆ Within Community Development Agency boundary.
- ◆ Central location.
- ◆ Ease and safety of access for pedestrians and bicycles.
- ◆ City ownership of property.
- ◆ No known environmental contamination.
- ◆ Infrastructure in place.
- ◆ No significant obstacles from an implementation timing standpoint.

Negative Site Attributes

- ◆ Limited site with limited potential for expansion and overflow parking.
- ◆ Potential negative impact on surrounding area, particularly with a 50-meter pool.
- ◆ Loss of neighborhood park.
- ◆ Takes existing pool out of service for two years during project implementation.

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Tracy Ball Park (east side of Tracy Blvd. between 21st and 23rd)

Positive Site Attributes

- ◆ Within Community Development Agency boundary.
- ◆ Central location.
- ◆ Ease and safety of access for pedestrians and bicycles.
- ◆ City ownership of property.
- ◆ No known environmental contamination.
- ◆ Infrastructure in place.
- ◆ No significant obstacles from an implementation timing standpoint.
- ◆ Contribution toward revitalization and serves diverse population.

Negative Site Attributes

- ◆ Limited site. Potential for expansion to the north of two acres increases project cost.
- ◆ Loss of ball fields, but these could be replaced at Youth Sports Complex on Schulte Rd.

West High School (Lowell between Lincoln and Corral Hollow)

Positive Site Attributes

- ◆ Central location.
- ◆ Ease and safety of access for pedestrians and bicycles.
- ◆ No known environmental contamination.
- ◆ Infrastructure in place.

Negative Site Attributes

- ◆ Financing – not within Community Development Agency boundaries, extent of TUSD participation unknown.
- ◆ Limited site with limited potential for expansion and overflow parking.
- ◆ City does not control property.
- ◆ Potential obstacles from an implementation timing standpoint – an agreement would have to be negotiated.
- ◆ Potential scheduling conflicts.
- ◆ Possible water table issues, but exact conditions are currently unknown.
- ◆ Lack of identity as a City facility.

Tracy Sports Facility (Schulte west of Lammers)

Positive Site Attributes

- ◆ Large area, unlimited potential for expansion and overflow parking.
- ◆ Little or no negative impact on surrounding area.
- ◆ No known environmental contamination.

Negative Site Attributes

- ◆ Financing – not within Community Development Agency boundaries.

- ◆ Infrastructure improvements needed.
- ◆ Location not central.
- ◆ Lack of easy pedestrian and bicycle access.

Bowtie Area (east of Central north of 3rd Street)

Positive Site Attributes

- ◆ Within Community Development Agency boundary.
- ◆ Central location.
- ◆ Contribution toward revitalization and serves diverse population.

Negative Site Attributes

- ◆ Site irregular, limited area.
- ◆ Potentially lengthy and difficult site acquisition process.
- ◆ Significant cost (millions of dollars) and time delay (years) for environmental cleanup assumed.
- ◆ Cost and financing – cleanup and acquisition costs assumed to be at least \$5 million.
- ◆ Ease and safety of access for pedestrians and bicycles.
- ◆ The only current access for vehicles and pedestrians is from 3rd Street. Access might be possible from Central Ave., across the multi-modal site. However, an at-grade crossing of the Union Pacific tracks would be necessary. Public Utilities Commission approval required. Timing and difficulty unknown.

Kimball High School (Lammers Road south of 11th Street / proposed Kimball High School)

Positive Site Attributes

- ◆ No land area constraints.
- ◆ No known environmental contamination.
- ◆ Little or no negative impact on surrounding area.
- ◆ Could be developed as part of school site.

Negative Site Attributes

- ◆ Financing – not within Community Development Agency boundaries, extent of TUSD participation unknown.
- ◆ Site would have to be purchased.
- ◆ Lack of ease and safety of access for pedestrians and bicycles.
- ◆ Infrastructure not in place.
- ◆ Not a Central location.

Notes:

- ◆ Separate site assumed, but could be part of the school site which would add the following additional Negative Site Attributes:
- ◆ Potential obstacles from an implementation timing standpoint – an agreement would have to be negotiated.
- ◆ Potential scheduling conflicts.
- ◆ Lack of identity as a City facility.
- ◆ City does not control property.

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Ellis Property (northwest corner of Corral Hollow and Linne)

Positive Site Attributes

- ◆ Financing of design and construction by private sector eliminates the need for the project to be located within the Community Development Agency boundary.
- ◆ No land area constraints.
- ◆ No known environmental contamination.
- ◆ Little or no negative impact on surrounding area.
- ◆ No significant obstacles from an implementation timing standpoint – private sector can implement the project faster.
- ◆ Infrastructure for pool in place, although some street improvements could be necessary.

Negative Site Attributes

- ◆ Limited accessibility and safety for pedestrians and bicycles. (Depends on location of site. There is relatively good access through the Edgewood from neighborhoods along Tracy Boulevard if the site is located at Corral Hollow and Middlefield.)
- ◆ Not a central location.

Notes:

- ◆ Developer fees of approximately \$3 million have been collected that must be spent on an aquatic facility. These funds could be spent to expand the project in the future or do street improvements in conjunction with the project on the Ellis site.
- ◆ The site is not owned by the City, but agreement to convey upon completion eliminates this need for up front, City ownership).

FINDINGS

Team members independently evaluated the properties. Based on the independent ratings and subsequent discussion among the Team, an initial ranking of the properties was established. Subsequent to the initial criteria ranking of the properties, the Team reviewed and discussed the potential project costs and funding associated with each site. Project costs included the estimated base price for the Swim Center (\$13 million), plus added costs for property acquisition; site preparation (e.g., grading, utilities, and roadway improvements); water table considerations; and hazardous materials cleanup, as appropriate and applicable to each individual site. Applying the estimated project costs to each of the potential sites, the total project cost for the Swim Center was estimated between \$13.2 million (Dr. Powers Park) and \$21 million (the Bowtie). The Team determined that acquisition and cleanup costs for the Bowtie site could be expected to be significant, but were unknown at that time.

As described in a January 17, 2006, Staff report to City Council on the site selection and methodology for the financing, design, and construction of the Community Swim Center, a variety of funding sources would be available for the Swim Center depending on the site selected. These sources identified included:

- ◆ Developer fees;
- ◆ Developer contribution;
- ◆ Community Development funds;
- ◆ Proceeds from bond financing;

- ◆ School bond money; and,
- ◆ City Project Fund.

All sites had \$3 million available to them through already accumulated developer fees. In addition to the \$3 million, at that time, properties in the Community Development Area (Dr. Powers Park, Tracy Ball Park, and the Bowtie site) had an additional \$10 million available to them for total project funding of \$13 million each. However, Staff noted that any site using redevelopment funds would reduce funds available for other redevelopment projects. It should be noted that recent changes in California state legislation have eliminated redevelopment and its associated financing mechanisms as an option to create incentives and provide additional funding for development projects. Without the addition of redevelopment funds to help defer the costs of building a Family Swim Center in these locations within the Community Development Area (Dr. Powers Park, Tracy Ball Park, and the Bowtie site), locating the Family Swim Center in these areas would be substantially more difficult to achieve from a fiscal standpoint.

According to the Staff report, if a site other than the Tracy Ball Park, Ellis, or Dr. Powers Park would be chosen for the Swim Center, virtually all of the General Fund money from the refinancing of CFD 98-1/98-3 would have to be used for the Swim Center project implementation, leaving little or no funding for open space acquisition, refurbishing existing civic center buildings, City Hall annex reuse, a new police radio antenna, and other priority needs. Staff concluded that consideration of the Chrisman Road, Tracy Sports Facility, and Kimball High School sites would be eliminated given the additional burden these sites would impose on the General Fund. Staff also noted that a potential future Bond Measure being considered by the Tracy Unified School District could provide a partnering opportunity for the Swim Center.

The Staff report states that the Team's opinion was that the Swim Center could conceivably be constructed on any of the potential sites considered. However, after a thorough evaluation of community interests, site criteria, the estimated project costs, available funding options, as well as other pertinent information relative to each of the individual sites, it was the consensus of the Team that the Tracy Ball Park and the Ellis site were the best candidates for City Council consideration.

As stated in the Staff report, if the top priority was the economic revival or development of underserved areas of the City, then Tracy Ball Park was the preferred site. It is located in an area that has experienced no recent development and that would be substantially renewed with the inclusion of an aquatic recreation facility. If the top priority was the selection of a site that meets all of the key aquatic community interests defined in the course of a series of workshops and to minimize the impact on the City's capital funds and bond refinancing, then, as stated in the Staff report, the Ellis property was the preferred site. The site requirements given top priority during the workshops included a minimum specified size, ability to accommodate phased construction and expansion, compatibility with adjacent areas, sufficient parking areas, and reliable overflow parking for events. Construction of the Swim Center on the Ellis property would not require the use of Community Development Agency funds or require bond refinancing. The Tracy Ball Park site would require the use of all Community Development Agency funds and a lesser level of funding from bond refinancing.

The Staff report found that the Ellis property aligned with the key aquatic community requirements and had the lowest funding impact. Selection of that site allowed the Community Development Agency funds to be used for other worthy community projects. It did not, however, meet the goal of

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redevelopment of underserved areas. According to the Staff report, the Tracy Ball Park fully meets the redevelopment objective and minimizes the funding that was needed through bond refinancing. It met most key aquatic community interests, though size concerns were found to need to be mitigated by the City acquiring an additional two acres adjacent to the property.

Staff recommended accepting the Project Applicant's proposal of the Ellis site for the Swim Center and negotiating a Development Agreement.

At the January 17, 2006, City Council meeting, the City Council selected Ellis as the site for the Swim Center based on the outcome of the Implementation Team's efforts discussed at that meeting and Staff recommendations. In April 2006, the City Council authorized City Staff to begin negotiations with the Project Applicant for a Development Agreement with provisions for the granting of funds and land by the Project Applicant for a Swim Center. In August 2006, the City Council, Planning Commission, and Parks Commission approved the conceptual design for the Swim Center at Ellis. In May 2007, the City Council directed City Staff to prioritize this Agreement for Ellis and the Swim Center. In January 2008, a joint Planning Commission/City Council workshop was held to discuss this Agreement, the Ellis Specific Plan, and the Swim Center. Between April and July of 2008, the Planning Commission held a series of public meetings to discuss the Original Ellis EIR and Original Ellis entitlements. The City Council and Planning Commission provided direction and the public provided comment throughout this process.

CONCLUSION

As indicated above, the City engaged in extensive research to identify the location of a new Swim Center site in the City. Furthermore, as described above, the Implementation Team tasked with identifying an alternative Swim Center site ultimately determined that, based on preference, the Swim Center could conceivably be constructed on any of the potential sites considered. However, after a thorough evaluation of community interests, site criteria, the estimated project costs, available funding options, as well as other pertinent information relative to each of the individual sites, it was the consensus of the Implementation Team that the Tracy Ball Park and the Ellis site were the best (preferred) candidates for City Council consideration.

If the top priority was the economic revival or development of underserved areas of the City, then Tracy Ball Park was the preferred site. If the top priority was the selection of a site that meets all of the key aquatic community interests defined in the course of a series of workshops, and to minimize the impact on the City's capital funds and bond refinancing, then, as stated above, the Ellis property was the preferred site. Construction of the Swim Center on the Ellis property would not require the use of Community Development Agency funds or require bond refinancing. The Tracy Ball Park site would require the use of all Community Development Agency funds and a lesser level of funding from bond refinancing. Moreover, the Tracy Ball Park site is not served by sufficiently available infrastructure. As redevelopment funds are no longer available, and the cost of providing the additional infrastructure necessary to support a Swim Center in this location was not within the City's CIP, the Ellis site became the preferred location. As such, and as provided for in Section 15126.6(f)(1) of the State CEQA Guidelines, the City has rejected this alternative site from further consideration based on lack of available infrastructure and the economic means by which to provide either the necessary infrastructure or costs of design and construction.

As discussed previously, the initial list of alternative Swim Center sites was presented to City Council for a variety of merit-based reasons. These sites were explored and evaluated by the City using a

variety of merit based criteria to determine the most desirable location for a Swim Center and not based on strict feasibility criteria identified in CEQA Guidelines Section 15126.6(f) (1), with the exception of the City's Tracy Ball Park site, although many similar criteria were used in the evaluation of the other alternative Swim Center sites.

The following describes why the initial list of alternative Swim Center sites is rejected from further consideration based on the criteria identified in CEQA Guidelines Section 15126.6(f)(1):

- ◆ The Chrisman Road site is rejected from further consideration because the cost of providing the additional infrastructure necessary to support a Swim Center in this location is high and is not feasible unless additional private funding is made available, which it has not.
- ◆ The Dr. Powers Park site is rejected from further consideration because redevelopment funds are no longer available, and constructing a Swim Center would be cost prohibitive without additional funding.
- ◆ The Tracy Ball Park site is rejected from further consideration because, as described above, there are no redevelopment funds available to offset the high cost of providing the additional infrastructure necessary to support a Swim Center in this location.
- ◆ The West High School site is rejected from further consideration because the City would have to acquire the property, as it cannot propose a project on property it does not own. It is reasonable to assume that the City may not necessarily be able to purchase the property if the property owner is unwilling to sell it. Furthermore, it would be cost prohibitive for the City to purchase the property, especially in light of the fact that there are no redevelopment funds available to offset the cost of purchasing the land.
- ◆ The Tracy Sports Facility site is rejected from further consideration because it is already developed with a sports complex and there is not enough room to accommodate a Swim Center. Moreover, redevelopment funds are no longer available and constructing a Swim Center would be cost prohibitive without additional funding.
- ◆ The Bowtie Area is rejected from further consideration because there would be substantial costs associated with cleaning up on-site hazards, and the City does not have the funding necessary to accomplish it without the use of redevelopment funds or private financing, neither of which is available.
- ◆ The Bowtie Area is rejected from further consideration because the City would have to acquire the property, as it cannot propose a project on property it does not own and the City may not necessarily be able to purchase the property if the property owner is unwilling to sell it. In addition, it would be cost prohibitive for the City to purchase the property, especially in light of the fact that there are no redevelopment funds available to offset the cost of purchasing the land.

6.2.2 ALTERNATIVE SITE LOCATIONS

Section 15126.6 of the CEQA Guidelines mandates that an EIR include a comparative evaluation of the proposed project with a range of reasonable alternatives to the project which would feasibly attain most of the basic objectives of the project while simultaneously avoiding or substantially lessening any of the significant effects of the project. Pursuant to Section 15126.6(f) (1) of the CEQA Guidelines, "among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent)." Although these factors do not present a strict limit on the scope of reasonable

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alternatives to be considered, they help establish the context in which the “rule of reason” is measured against when determining an appropriate range of alternatives sufficient to establish and foster meaningful public participation and informed decision-making.

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 (as noted above), 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 following off-site locations were raised by TRAQC in their petition and as such are addressed in the analysis below.

- ◆ Keenan Saddlebrook Development/UR17 (identified as UR 9 in 2011 General Plan)
- ◆ Moitoso/Plan B area
- ◆ Alvarez/UR1 Development Area
- ◆ Locations more contiguous to the City core
- ◆ Locations outside the airport flight path

As described in Section 6.1.1 above, none of the sites raised by TRAQC in their petition fit the criteria used by the City or the City’s Implementation Team (refer to the discussion above, which lists the criteria in detail) and, as noted above, site selection was based on past reports, discussion, and input from the community and City Council. Moreover, none of the sites identified by TRAQC are owned or under the control of the Project Applicant, nor do they meet most of the basic objectives of the Modified Project, as identified below.

Finally, while each of these sites may reduce the Project’s exposure to airport and railroad-related noise impacts, they would be anticipated to result in similarly significant and unavoidable impacts on traffic and circulation, greenhouse gas emissions, and air quality. In addition, despite the fact that each of these off-site locations is located outside of the airport flight path, they were rejected as suitable alternative sites for the reasons described below. More detailed discussion of each site and why it was rejected from further consideration as an off-site alternative for the project as a whole or as an alternative site for the Swim Center site follows.

The following lists the Modified Project objectives (restated from Chapter 3) for reference and to assist the reader in the following discussion regarding the evaluation of off-site project locations identified in the Statement of Decision.

PROJECT OBJECTIVES

City of Tracy Primary Objectives

- ◆ Obtain significant funding for, or develop a public-private partnership for the construction of, a family-oriented swim center that is economically viable and sited in a central location, with easy and safe access for pedestrians and bicyclists.
- ◆ Implement the General Plan’s policies and vision for TR-Ellis, which was the culmination of a planning process that began nearly two decades ago.

City of Tracy Secondary Objectives

- ◆ To further the land planning, architecture, landscape architecture, and urban design goals of the Community Character element and Land Use elements of the General Plan;
- ◆ To further the diversity of housing types, lot sizes, and density ranges consistent with traditional neighborhoods;
- ◆ To encourage applications that preserve and enhance the City of Tracy’s unique “hometown” character through quality urban design and application of environmentally sustainable features such as walkability, bicycle friendliness, and connectivity to the community;
- ◆ To encourage and secure private participation in the provision, dedication, and funding of community benefits such as a family-oriented swim center;
- ◆ To approve a project that can be used as a representation and example to other projects of future residential site planning that is desirable to the City;
- ◆ To increase the certainty of development by providing reservations for growth allotments and public utilities.

Project Applicant Objectives

- ◆ Provide a mix of housing options, including single-family and multi-family dwellings and at the maximum density feasible, to help assure the economic feasibility of the development, provide for a mix of housing options in terms of affordability, and provide a varied urban form.
- ◆ Create a range of job and economic development opportunities for local individuals and business enterprises, particularly for residents and businesses located in the City of Tracy.
- ◆ Provide a mix of commercial, office/professional, institutional, recreational, and residential uses in close proximity, and at the maximum density feasible within ranges established by the General Plan, in order to create an appealing walkable urban environment served by transit that addresses the concepts and practices of sustainability and smart growth, especially in the Village Center.
- ◆ Create new public recreational and public open spaces.
- ◆ Utilize a variety of architectural styles for all land uses.
- ◆ Create a series of neighborhoods with a unique identity that is compatible with, but distinguishable from, other areas in the City of Tracy.
- ◆ Construct a project that will maintain the Surland Companies’ strong reputation in the community for high quality development.

OFF-SITE LOCATIONS

Keenan Saddlebrook Development Area

The updated General Plan, which was adopted February 2011, identifies the Keenan Saddlebrook Development (formerly UR17 area) as UR 9. According to the General Plan, this area consists of 130 acres located to the east of Corral Hollow Road that is envisioned for predominantly residential uses with a mixture of densities with some neighborhood park uses. Table 6-1 (UR 9 Statistical Profile) identifies the mix and density of uses anticipated for UR 9 by the General Plan.

TABLE 6-1 UR 9 STATISTICAL PROFILE

| Land Use Designation ¹ | Acres | Adjusted Gross Acres | Percent of Total Land | Assumed Density ² | Approximate Number of Homes ³ |
|-----------------------------------|-------|----------------------|-----------------------|------------------------------|------------------------------------------|
| Residential Low | 57 | 48 | 44 | 4.35 | 210 |
| Residential Medium | 43 | 37 | 34 | 9 | 330 |
| Residential High | 17 | 14 | 13 | 18.75 | 260 |
| Park | 13 | | 10 | | |
| Total | 130 | 110 | | | 800 |

1. Does not include land for Public Facility or Open Space designations. Distribution of land uses may change as a result.

These uses will be determined at the time of a Zoning District, Specific Plan, or PUD.

2. Assumed density (du/acre) is less than maximum allowed in a particular land use designation.

3. Dwelling units (du) numbers have been rounded to the nearest 10.

Source: City of Tracy General Plan, February 1, 2011.

This property is within the City’s Sphere of Influence (SOI) and within the Secondary Residential Growth Area identified in the General Plan, meaning it is eligible to apply for Residential Growth Allotments (RGAs) (and building permits). The City received an application on February 12, 2008 for a Planned Unit Development for this property, but the owner/applicant did not proceed with pursuit of the application through the City’s entitlement process. As such, no City action has occurred with respect to this earlier application.

This site has been rejected as an alternative site for the Original Ellis Specific Plan and eliminated from further consideration for the following separate and independent reasons:

- ◆ it is not under the control of the Project Applicant;
- ◆ it fails to meet basic objectives of the Modified Project as stated above and in Chapter 3 (Project Description); and,
- ◆ it is already contemplated by the General Plan for other uses; thus, it would likely be developed in addition to Ellis, and therefore should not be presumed to be an alternative location.

Factors Supporting Rejection of Location as Viable Alternative Site

Not Controlled by the Project Applicant

CEQA Guidelines Section 15126.6(f) (1) establishes that one of the factors to take into consideration when determining the feasibility of an alternative is “whether the proponent can reasonably acquire, control, or otherwise access the alternative site.” UR 9 is not owned or controlled by the Project Applicant and therefore, it is both unrealistic and infeasible for the Project Applicant to propose a specific project on property not under its control or with a feasible option to control it in the future. The Project Applicant owns and/or controls the entire 321-acre area proposed to be developed with the uses identified in the Original ESP and the Modified ESP. The Project Applicant can therefore feasibly and realistically propose a project on this land.

Fails to Meet Basic Project Objectives

One of the primary Modified ESP project objectives of the City is to implement the General Plan's policies and vision for TR-Ellis. This objective can only be accomplished by developing the Modified Project site with the Modified ESP. Thus, developing an alternative site, such as UR 9 with the Modified ESP would not meet the City's objective of implementing the General Plan's policies and vision for TR-Ellis. Moreover, the City's other primary objective is to obtain significant funding for, or develop a public-private partnership for the construction of, a family-oriented swim center that is economically viable and sited in a central location, with easy and safe access for pedestrians and bicyclists. The Project Applicant has offered to provide the City with funding assistance for a Family Swim Center at the Modified ESP site. Should an alternative site (such as UR 9) be chosen, the City would lose the funding offered by the Project Applicant and this objective would not be met in its entirety.

In addition, several of the Project Applicant's objectives would not be met if UR 9 was chosen for the Modified ESP. In particular, the Project Applicant's objective of creating a range of job and economic development opportunities would likely not be met if UR 9 was chosen for the Modified ESP. This is because choosing a smaller site, such as UR 9, would reduce the development potential proposed by the Modified ESP. The full range of uses, including the 180,000 square feet of retail, office, and other commercial uses proposed by the Modified ESP, would have to be reduced, minimized, or otherwise reconfigured to address 40 percent reduction in site acreage in a similar manner. Moreover, the General Plan vision for UR 9 calls for predominantly residential uses with some neighborhood park uses. If this vision is to be met, the mix of retail, office, and other commercial uses proposed by the Modified ESP would not be allowed to develop on UR 9, and the Project Applicant's objective of creating a range of job and economic development opportunities could not be met. In a similar light, the Project Applicant's objective of providing a mixed-use community served by transit that addresses the concepts and practices of sustainability and smart growth, especially in the Village Center, would not be met if UR 9 was chosen for the Modified ESP because of the size of the site and that the General Plan vision for UR 9 currently does not identify the development of commercial, office/professional, institutional uses, and a Village Center². In addition, UR 9 does not provide the opportunity to develop a transit center.

Currently Identified for Development and Not Viable Alternative Location

As described above, UR 9 is an Urban Reserve area that the General Plan identifies for mixed residential and neighborhood park development. Thus, it should be presumed that UR 9 would be developed in the future, along with the City's other urban reserves (including TR-Ellis) and consequently, should not be considered a viable alternative location. As noted above, the City anticipates receiving a specific plan application for this property in the foreseeable future, as the market demand for residential development recovers. However, as of the date of this Revised Draft EIR, no development application has been submitted to the City.

Moitoso/Plan B Development Area

The updated General Plan identifies the Moitoso/Plan B area as outside of the City's SOI. The City does not anticipate a development application for this property in the near future. Limited

² On page 28, lines 6 -13 of the Statement of Decision and Judgment, the Court questions the reliance of the Original Ellis EIR rejecting an alternative site based on its size due to the fact that the Original Ellis Project included extra non-Ellis RGAs. However, it should be noted that smart growth principles embrace the concept of creating the greatest density of mixed uses in a single area and this would not be met with developing the Original or Modified ESP on UR 9.

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infrastructure is available. This site was rejected as an alternative site for the Original ESP and the Modified ESP and eliminated from further consideration because separately and independently:

- ◆ it is outside of the City's SOI;
- ◆ it is not controlled by the Project Applicant;
- ◆ it fails to meet basic objectives of the Modified Project as stated above and in Chapter 3 (Project Description); and,
- ◆ it is not identified by the General Plan for future development.

Factors Supporting Rejection of Location as Viable Alternative Site

Outside City's SOI

The San Joaquin County Local Agency Formation Commission (LAFCo) has already determined the City's SOI, which has many decades of future development potential and it is not realistic for the City to expand outside of its SOI for a City-owned Community Swim Center. Moreover, this option is unlikely to gain approval of the San Joaquin County LAFCo, as it already required the City to retract its SOI from what was originally proposed by the 2006 General Plan.

Not Controlled by the Project Applicant

The Project Applicant does not own the Moitoso/Plan B area. It would be infeasible and unrealistic for the Project Applicant to propose a project on property not under its control, as noted above. The Project Applicant owns and/or controls the entire 321-acre area proposed for the Original ESP and the Modified ESP and this area is within the City's SOI, which renders this property a realistic and feasible choice for development of the Original ESP and the Modified ESP's proposed uses.

Fails to Meet Basic Project Objectives

Similar to the discussion above regarding why UR 9 was eliminated from further consideration, selecting the Moitoso/Plan B area for the Modified ESP would result in a failure to meet one of the City's primary objectives of implementing the General Plan's policies and vision for TR-Ellis, as this objective can only be achieved by implementing the Modified ESP on the Project site. In addition, the Moitoso/Plan B area was also eliminated from further consideration as an alternative site because the City would lose the funding offered by the Project Applicant if the Ellis Amended and Restated DA is approved by City Council and the City's other primary objective (obtaining significant funding for, or developing a public-private partnership for the construction of, a family-oriented swim center that is economically viable and sited in a central location, with easy and safe access for pedestrians and bicyclists) would not be met in its entirety. Moreover, this alternative site would not enable the Project Applicant to maximize density and achieve principles of smart growth, and thus would not meet that objective of providing a mix of commercial, office/professional, institutional, recreational, and residential uses in close proximity, and at the maximum density feasible within ranges established by the General Plan, in order to create an appealing walkable urban environment served by transit that addresses the concepts and practices of sustainability and smart growth, especially in the Village Center.

Not Identified by General Plan for Future Development

The Moitoso/Plan B area is not identified by the General Plan for future development. This is a policy decision that has already been made by the City and it is not the purpose of this Revised Draft

EIR to evaluate City policy with regard to which areas it would like to grow into in the future. Thus, this site was eliminated from further consideration for this reason as well.

Alvarez/UR1 Development Area

This approximately 780-acre property is located on the eastern side of the City of Tracy. It is within the City's SOI, but not in the Secondary Residential Growth Area. Limited infrastructure is available. The vision for this area includes primarily residential uses, with a small amount of commercial uses, parks, and public schools to support the residential neighborhoods. Table 6-2 (UR 1 Statistical Profile) identifies the mix and density of uses anticipated for UR 1 by the General Plan.

TABLE 6-2 UR 1 STATISTICAL PROFILE

| Land Use Designation ¹ | Acres | Adjusted Gross Acres | Percent of Total Land | Assumed Density ² | Approximate Number of Homes/ Square Feet ³ |
|-----------------------------------|-------|----------------------|-----------------------|------------------------------|----------------------------------------------------------|
| Residential Very Low | 350 | 298 | 45 | 1.5 | 450 |
| Residential Low | 300 | 255 | 38 | 4.35 | 1,110 |
| Residential Medium | 65 | 55 | 8 | 9 | 500 |
| Residential High | 25 | 21 | 3 | 18.75 | 400 |
| Commercial | 10 | 9 | 1 | 0.3 | 111,000 sf |
| Park | 30 | | 4 | | |
| Total | 780 | 663 | | | 2,460 du/111,000 sf |

1. Does not include land for Public Facility or Open Space designations. Distribution of land uses may change as a result.

These uses will be determined at the time of a Zoning District, Specific Plan, or PUD.

2. Assumed density (du/acre) is less than maximum allowed in a particular land use designation.

3. Dwelling units (du) numbers have been rounded to the nearest 10.

Source: City of Tracy General Plan, February 1, 2011.

This site was rejected as an alternative site for the Original ESP and the Modified ESP and eliminated from further consideration for the following reasons:

- ◆ it is not in the Secondary Residential Growth Area;
- ◆ it is not under the control of the Project Applicant;
- ◆ it fails to meet basic objectives of the Modified Project as stated above and in Chapter 3 (Project Description); and,
- ◆ it is already contemplated by the General Plan for other uses; thus, it would likely be developed in addition to Ellis, and therefore should not be presumed to be an alternative location.

Factors Supporting Rejection of Location as Viable Alternative Site

Not in Secondary Residential Growth Area

As noted above, the Alvarez/UR 1 development area is within the City's SOI, but not in the Secondary Residential Growth Area. General Plan Objective LU-1.4, Policy P.3, encourages residential growth that follows an orderly pattern with initial expansion targeted for areas identified as

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Secondary Residential Growth Areas. Moreover, it states that applications for residential development shall only be considered in the following instances:

- ◆ In areas designated within identified Secondary Residential Growth Areas or on a property with a recorded Development Agreement that allows for the allocation of Residential Growth Allotments (RGAs) and building permits.
- ◆ In areas and Urban Reserves that primarily contain land uses focused on the generation of jobs with ancillary residential development. However, the residential portions of such areas or Urban Reserves shall not be considered eligible to apply for RGAs and building permits until RGAs and building permits necessary to develop all areas within identified Residential Growth Areas have been awarded, unless those RGAs and building permits sought for projects in such areas are for affordable housing as defined by the Tracy Municipal Code, in which cases RGAs and building permits for affordable housing may be awarded.

The Alvarez/UR 1 development area is not within identified Secondary Residential Growth Areas, nor does it have a Development Agreement that allows for the allocation of RGAs. Moreover, it would not be eligible to apply for RGA's until the Secondary Residential Growth Area has been developed, as the Original and Modified ESP does not propose affordable housing as defined by the Tracy Municipal Code. Thus, this site was determined infeasible and eliminated from further consideration. Further, the City would like to move forward with the development of a Community Swim Center prior to the time that this site would be eligible for RGAs and building permits.

Not Controlled by Project Applicant

The Project Applicant does not own this property and cannot feasibly or realistically propose a project on property not under its control. The Project Applicant owns and/or controls the entire 321-acre area proposed for the Original ESP and the Modified ESP and therefore can reasonably and feasibly develop this land if and when the appropriate entitlements are obtained.

Fails to Meet Basic Project Objectives

By developing the Alvarez/UR 1 development area with the Modified ESP, the City's primary objective of implementing the General Plan's policies and vision for TR-Ellis would not be met, as this objective can only be accomplished by developing the Modified Project site with the Modified ESP. Furthermore, the City would lose the potential funding offered by the Project Applicant if this development area was selected for the Original or Modified ESP. Thus, the City's other primary objective of obtaining significant funding for, or developing a public-private partnership for the construction of, a family-oriented swim center that is economically viable and sited in a central location with easy and safe access for pedestrians and bicyclists would not fully be met. Moreover, this alternative site would not enable the Project Applicant to maximize density and achieve principles of smart growth, and thus would not meet that objective of providing a mix of commercial, office/professional, institutional, recreational, and residential uses in close proximity, and at the maximum density feasible within ranges established by the General Plan, in order to create an appealing walkable urban environment served by transit that addresses the concepts and practices of sustainability and smart growth, especially in the Village Center.

Currently Identified for Development and Not Viable Alternative Location

The Alvarez/UR 1 development area is an Urban Reserve area identified by the General Plan for mixed residential, commercial, and neighborhood park development, as described previously. The

assumption of the General Plan is that the Alvarez/UR 1 development area would develop in the future, along with the City's other urban reserves including TR-Ellis. As such, this area should not be considered a viable alternative location, as it is already planned for mixed-use development similar to the TR-Ellis site.

Locations Closer to the City Core

Other locations with development potential were identified that are closer to the City core than the 321-acre area proposed for the Original ESP and the Modified ESP and also outside the airport noise contours. These areas include areas to the east of the City (Urban Reserve 1), as well as other industrial and agricultural land to the north of Urban Reserve 1 that is generally bounded by Grant Line Road to the north, Eleventh Street to the south, Chrisman Road to the east, and MacArthur Drive to the west, as well as areas to the west of the City that consist of Urban Reserves 5, 7, and 8. However, these locations are not feasible alternative sites for the Original ESP or the Modified ESP and were rejected from further consideration as off-site alternatives for the Project for the reasons discussed below.

Urban Reserve 1

Urban Reserve 1 was determined to be an infeasible location for the Original ESP and the Modified ESP as described in detail above separately and independently (it is not in the Secondary Residential Growth Area; it is not under the control of the Project Applicant; it fails to meet basic objectives of the Modified Project as stated above and in Chapter 3 [Project Description]; and it is already contemplated by the General Plan for other uses and would likely be developed in addition to Ellis, and therefore should not be presumed to be an alternative location) and was eliminated from further consideration, as identified above. However, limited infrastructure is available.

Industrial and Agricultural Land to the North of Urban Reserve 1

These areas are generally bounded by Grant Line Road to the north, Eleventh Street to the south, Chrisman Road to the east, and MacArthur Drive to the west, and currently have the General Plan land use designation of Industrial. Limited infrastructure is available. These areas were rejected as alternative sites for the Original ESP and Modified ESP and eliminated from further consideration for the following separate and independent reasons:

- ◆ they are not in the Secondary Residential Growth Area;
- ◆ they are not under the control of the Project Applicant; and,
- ◆ they fail to meet basic objectives of the Modified Project as stated above and in Chapter 3 (Project Description).

Not in Secondary Residential Growth Area

The industrial and agricultural land to the north of Urban Reserve 1 is not in the Secondary Residential Growth Area. As noted previously, General Plan policy encourages initial residential growth expansion in areas identified as Secondary Residential Growth Areas and specifically limits consideration of applications for residential development to:

- ◆ areas designated within identified Secondary Residential Growth Areas or to property with a recorded Development Agreement that allows for the allocation of RGAs and building permits; and,

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- ◆ areas and Urban Reserves that primarily contain land uses focused on the generation of jobs with ancillary residential development. However, the residential portions of such areas or Urban Reserves shall not be considered eligible to apply for RGAs and building permits until RGAs and building permits necessary to develop all areas within identified Residential Growth Areas have been awarded, unless those RGAs and building permits sought for projects in such areas are for affordable housing as defined by the Tracy Municipal Code, in which cases RGAs and building permits for affordable housing may be awarded.

The industrial and agricultural land to the north of Urban Reserve 1 is not within identified Secondary Residential Growth Areas, nor does it have a Development Agreement(s) that allows for the allocation of RGAs. Moreover, it would not be eligible to apply for RGA's until the Secondary Residential Growth Area has been developed, as the Original and Modified ESP does not propose affordable housing as defined by the Tracy Municipal Code. Thus, these areas were found to be infeasible and eliminated from further consideration given the considerable amount of time that the City would have to wait to develop a Community Swim Center, an amenity that it would like to provide the residents of the City prior to that, which also makes this alternative site inconsistent with basic project objectives that speak to the construction of a swim center.

Not Controlled by Project Applicant

The Project Applicant does not own industrial and agricultural land to the north of Urban Reserve 1 and cannot feasibly or realistically propose a project on property not under its control. The land is under other ownership and is used for other purposes. The Project Applicant owns and/or controls the entire 321-acre area proposed for the Original ESP and the Modified ESP and therefore can reasonably and feasibly develop this land if and when the appropriate entitlements are obtained.

Fails to Meet Basic Project Objectives

The City's primary objective of implementing the General Plan's policies and vision for TR-Ellis would not be met should the industrial and agricultural land to the north of Urban Reserve 1 develop with the Original or Modified ESP. This objective can only be accomplished by developing the Modified Project site with the Modified ESP. Furthermore, the City would lose the potential funding offered by the Project Applicant if this development area was selected for the Original or Modified ESP. Thus, the City's other primary objective of obtaining significant funding for, or developing a public-private partnership for the construction of, a family-oriented swim center that is economically viable and sited in a central location with easy and safe access for pedestrians and bicyclists would not be met in its entirety. Moreover, the General Plan designates these lands for Industrial uses and this use is incompatible with all Project objectives, such as those that aim to develop a mix of uses in order to create a walkable urban environment served by transit that addresses the concepts and practices of sustainability and smart growth, especially in the Village Center, as well as other objectives that strive to construct a family-oriented swim center and provide a mix of housing options and job and economic development opportunities, etc.

Urban Reserves 5, 7, and 8

Urban Reserves 5, 7, and 8 were determined to be infeasible locations for the Original ESP and the Modified ESP and were eliminated from further consideration for the same reasons Urban Reserve 1 was determined as an infeasible location for the Original ESP and the Modified ESP and was eliminated from further consideration. These reasons include the following and are described in detail above:

- ◆ they are not in the Secondary Residential Growth Area;
- ◆ they are not under the control of the Project Applicant; and,
- ◆ they fail to meet basic objectives of the Modified Project as stated above and in Chapter 3 (Project Description).

Limited infrastructure is available in these areas.

6.3 RATIONALE BEHIND THE SELECTION OF ALTERNATIVES IN THE ORIGINAL ELLIS EIR

In furtherance of the Trial Court's decision, the following provides the rationale behind the selection of alternatives in the Original Ellis EIR.

Based on the purpose of the alternatives analysis as prescribed in Section 15126.6 of the State CEQA Guidelines and as summarized in Section 6.1 of this Draft Revised EIR, the following five alternatives to the Original ESP were selected for analysis by the City of Tracy for evaluation in the Original Ellis EIR:

- ◆ Alternative 4: No Project/No Build (Status Quo)
- ◆ Alternative 5: No Project/Future Development Under General Plan
- ◆ Alternative 6: Reduced Density Alternative
- ◆ Alternative 7: Reduced Swim Center Amenities Alternative
- ◆ Alternative 8: Island Annexation Alternative

The analysis of ESP alternatives took into consideration the base assumption that all applicable mitigation measures associated with the Original ESP would be implemented with the appropriate alternatives, but that applicable measures may be scaled to reduce or avoid potential impacts of the alternative under consideration, and may not precisely match those identified for the Original ESP. A description of each alternative was provided, as well as a comparative matrix illustrating the comparison of the alternative Project impacts with those of the Original ESP Project.

Alternatives 4 and 5 were selected to comply with the requirements of CEQA Guidelines Section 15126.6(e). Section 15126.6(e) specifically requires that an EIR 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.

Alternative 6 was selected to show the different impacts that could occur from implementation of a project with a mix of land uses similar to the Original ESP, but at a reduced residential density consisting of the lowest number of units allowed within each of the residential land use categories identified by the Original ESP. The intention of this alternative was to provide a comparison of the severity of impacts associated with the densest residential development allowed by the Original ESP and the least dense residential development allowed by the Original ESP, as well as to determine whether reducing the Original ESP's residential density to the lowest amount allowed by the Original ESP would result in a reduction of its potentially significant impacts. More specifically, the intention of this alternative was to determine if the reduction in residential density could reduce the Original ESP's significant and unavoidable air quality, noise, and traffic impacts. This alternative also

eliminated residential development from the Village Center, thereby limiting development in the Village Center to retail, civic/quasi civic, cultural, and office use.

The Reduced Swim Center Alternative was selected to compare the impacts associated with a project that would have fewer amenities in the Swim Center than proposed by the Original ESP. The intention was to determine whether a project with a comparatively reduced amount of Swim Center amenities would reduce any of the impacts associated with the Original ESP, in particular the Original ESP's projected water demand.

As described in the Original Ellis EIR (page 3B.14-25) the purpose of Alternative 8 was to provide a comparative analysis of a project that did not create an "island" of unincorporated land surrounded by incorporated land with the Original ESP, which would create such an island of unincorporated land surrounded by incorporated land. Alternative 8 was selected to eliminate the Original ESP's conflicts with California Government Code Section 56744, which states that territory shall not be incorporated into, or annexed to, a city if it results in the creation of an island, unless otherwise determined by the Local Agency Formation Commission (LAFCo). Section 56744 prohibits LAFCo from approving a city annexation that would result in unincorporated territory becoming completely surrounded by that city or by a city and the Pacific Ocean on remaining sides.

6.4 REASSESSMENT OF THE FEASIBILITY OF ALTERNATIVE 6: REDUCED DENSITY OF THE ORIGINAL EIR

The Original Ellis EIR concluded that Alternative 6: Reduced Density was the environmentally superior alternative. However, in its findings prepared for the Original Ellis EIR, the City rejected Alternative 6 as the environmentally superior alternative on the basis that it was infeasible because it would potentially direct growth to other areas of the City incapable of accommodating that growth and would result in other adverse impacts. This conclusion was derived at given that the significant reduction in density marginalized the development potential of the project site, thereby creating the potential for growth inducement and/or future demand for the balance of units (1,000+ dwelling units) that would otherwise be allowed under the General Plan (on the Ellis site) to be directed elsewhere in the City or other areas within the City's SOI. To comply with the outcome of the Trial Court Decision, the following provides a reassessment of the City's rejection of Alternative 6: Reduced Density of the Original Ellis EIR.

CEQA Guidelines Section 15126(e) (2) requires that the environmentally superior alternative be identified. If the environmentally superior alternative is the No Project Alternative, the EIR shall identify an environmentally superior alternative among the other alternatives.

Alternative 6: Reduced Density of the Original Ellis EIR was identified as the environmentally superior alternative because it was found to result in less adverse impacts on air quality, noise, geology, soils and seismicity, public services, and traffic, relative to the Original ESP (for a complete summary of the impacts associated with Alternative 6 as they compare to the Modified ESP, refer to subsection 6.1.3 above; more detailed descriptions regarding impacts minimized by Alternative 6 is provided below). While Alternative 6 is not anticipated to entirely eliminate the significant and unavoidable impacts associated with the Original or Modified ESPs, it would achieve most of the basic project objectives of the Original and Modified ESPs, while creating similar impacts in areas of land use and planning, agricultural resources, and hazards and hazardous materials. It would not, however, meet the Project Applicant's first objective of providing a ". . . mix of housing options,

including single-family and multi-family dwellings . . . *at the maximum density feasible. . .*” Regardless, Alternative 6 would potentially be feasible to implement.

TRAFFIC

Implementation of Alternative 6 would reduce AM peak-hour trips by approximately 50 percent and PM peak-hour trips by approximately 50 percent compared to the Original ESP. Therefore, implementation of Alternative 6 would reduce the Original (and Modified) ESP’s impacts to traffic and circulation. Accordingly, although impacts to traffic would likely still result in significant unavoidable impacts, impacts would be reduced in comparison to the Original (and Modified) ESP. Mitigation measures would be similar to that of the Original (and Modified) ESP. Following an analysis of this alternative by RBF Consulting’s Traffic Engineer, Impacts 4.13-4: I-580 west of I-205, and 4.13-5: Tesla Road and Patterson Pass Road would remain significant and unavoidable because this is an existing unacceptable traffic condition. The addition of a single project trip would create this impact. However, all other impacts would be reduced or possibly even eliminated with the 54 percent reduction in residential trips (results in ~33 percent reduction in total trips).

AIR QUALITY

AM and PM peak-hour trips under Alternative 6 would decrease by approximately 50 percent compared to the Original ESP. Reducing trips would result in a reduction of mobile source emissions, which accounts for the majority of the air pollutant emissions associated with the Original (and Modified) ESP. Reducing the amount of development also results in fewer area source and energy source emissions. Alternative 6 would result in approximately 21 tons/yr of ROG, 39 tons/yr of NO_x, and 25 tons/yr of PM₁₀, which is a reduction in air pollutant emissions compared to the Original (and Modified) ESP. Although the emissions associated with Alternative 6 have been reduced from the Original (and Modified) ESP, they would still exceed San Joaquin Valley Air Pollution Control District (SJVAPCD) significance thresholds and would remain significant and unavoidable for this reason.

GREENHOUSE GAS EMISSIONS

The SJVAPCD requires projects to reduce their “business as usual” GHG emissions by 29 percent in order to result in less than significant project level and cumulative GHG impacts. The reduction in density that would occur under Alternative 6 would reduce the overall GHG emissions associated with mobile source, area source, energy consumption, water demand, and waste generation (total of 24,640.30 MTCO₂eq/yr) as compared to the Original (and Modified) ESP based on the California Emissions Estimator Model (CalEEMod) version 2011.1.1 software, which was used to quantify the GHG emissions of Alternative 6. However, the reduced development would result in a 27.12 percent reduction in GHG emissions from business as usual conditions with implementation of project design features and Sustainability Action Plan (SAP) measures required by Mitigation Measure 4.6-1a based on CalEEMod GHG emissions modeling for Alternative 6. Therefore, the GHG emissions associated with Alternative 6 would not be able to achieve the 29 percent reduction in emissions, as required by SJVAPCD, and GHG impacts associated with Alternative 6 would remain significant and unavoidable.

NOISE

Alternative 6 would result in fewer vehicle trips, which correlates to a reduction in noise impacts as compared to the Original (and Modified) ESP. Less construction would occur with the development of fewer residences, thus reducing short-term impacts. Accordingly, short-term and long-term noise

impacts would be significantly less than those of the Original (and Modified) ESP; regardless, long term noise impacts would remain significant and unavoidable due to the amount of development proposed.

AESTHETICS

Compared to the Original (and Modified) ESP, the reduced dwelling unit count of this alternative could lessen the impacts on site character, if the development footprint is reduced (fewer neighborhoods built). The reduction of units by 54 percent would have significantly fewer new sources of light and glare as compared to the Original (and Modified) ESP. Regardless, in relation to the current conditions, this alternative still introduces a significant new light source, and impacts would remain significant and unavoidable.

PUBLIC UTILITIES

Alternative 6 proposes the development of fewer residential units, thus decreasing the need for public utilities compared to the Original (and Modified) ESP.

HYDROLOGY, DRAINAGE, AND WATER QUALITY

Alternative 6 would develop the Original (and Modified) ESP site at a reduced density, which would potentially decrease the amount of impervious surface on the Original (and Modified) ESP site compared to the Original (and Modified) ESP. This would decrease stormwater runoff generation and flows compared to the Original (and Modified) ESP.

GEOLOGY AND SOILS

Because of the substantial reduction in dwelling units, Alternative 6 would reduce the number of neighborhoods developed and thereby reduce grading quantities and impacts compared to the Original (and Modified) ESP. Additionally, the reduced density implemented by Alternative 6 would potentially reduce the amount of people that would be exposed to potential adverse impacts from seismic events compared to the Original (and Modified) ESP.

CONCLUSION

Alternative 6 would result in less adverse impacts on air quality, noise, greenhouse gas emissions, geology, soils, seismicity, public services, and traffic relative to the Original and/or Modified ESP, as Alternative 6 would include the construction of 54 percent fewer residential units than either the Original or Modified ESP. However, given that the level of development potential contemplated by the Modified Project is consistent with the development anticipated, contemplated, and accommodated by the City's adopted General Plan, the reduction in impacts that would result from minimizing the development potential of the site could indirectly result in growth being directed or diverted to other areas in the City or within the City's SOI. Should this occur, these areas would be subjected to premature growth pressures, which could create unintended impacts if inadequate infrastructure or services were unable to support these uses. This would be considered an unintended consequence of limiting development on this site, and would potentially result in a range of impacts not already contemplated by the City's adopted General Plan.

Moreover, because Alternative 6 would result in a less dense growth pattern than the Original and/or Modified ESPs, Alternative 6 would not achieve the same potential benefits resulting from concentrating growth and limiting sprawl (thereby reducing vehicle miles traveled and associated air

pollutant and greenhouse gas emissions). Furthermore, the higher density uses proposed by the Original and/or Modified ESP would be more likely to be capable of supporting a transit center than the lower density uses proposed by Alternative 6. As such, the Original and/or Modified ESP would be more likely to promote transit use, which in turn would have greater reductions in vehicle use, associated transportation impacts, and emissions of air quality pollutants and GHGs than what would be expected under Alternative 6. Nonetheless, the Original and/or Modified ESP would result in significant and unavoidable traffic, air quality, and GHG impacts that, when compared to Alternative 6, could be reduced in severity by *increasing* project density. Regardless, the associated benefits on traffic, air quality, and GHG impacts resulting from the increase in project density would not be substantial enough when compared to the reductions in the severity of these impacts gained through the strict reduction in the amount of site development under Alternative 6.

In other words, implementation of the Original and/or Modified ESP would result in a more compact development that would achieve some benefits in terms of reducing traffic because uses would be concentrated together and less vehicular travel would occur. This reduction in vehicle traffic would result in associated reductions in air pollutant and GHG emissions. However, the benefits gained by creating a more compact development would not outweigh the gains achieved in these areas by strictly reducing the amount of development as proposed by Alternative 6. This is because developing the site with less homes (as proposed by Alternative 6) would result in less overall vehicular travel than would occur by developing the site with more homes (as proposed by the Original and/or Modified ESP) closer to commercial uses. It is the volume of vehicular traffic that directly impacts the significance level of transportation, air pollutant, and GHG impacts for the Project. Though it does not fully meet the Project Applicant's objective of developing the maximum density possible, it would result in less adverse impacts, and as such, remains a potentially feasible alternative to implement.

6.5 ANALYSIS OF NEW ALTERNATIVES

In accordance with CEQA, 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. Each of the new alternatives analyzed in this Revised Draft EIR was selected to address the potential to minimize significant impacts, to address the Trial Court's decision, and to address pending litigation between the Project Applicant and the San Joaquin County Airport Land Use Commission that could affect the footprint of land uses within the Modified Ellis Specific Plan.

In addition, Alternative 9 was selected to show the decision makers the possible effects of approving the Modified Project should the Family Swim Center be eliminated from consideration within the Ellis Specific Plan site, and Alternative 10 was selected to show the decision makers the implications of approving the Modified ESP in accordance with the 1993 ALUCP (amended 1997) based on a recent survey that was conducted documenting the length of Runway 12-30. The result of the recent survey concluded that the subject runway is shorter (3,996 feet) than the documented 4,002 feet identified in the 2009 ALUCP. The City has officially notified the Federal Aviation Administration (FAA) of the change in runway length by filing a NOTAM (Notice to Airmen), which is a notice containing information concerning the establishment, condition, or change in any aeronautical facilities, services, procedures, or hazard, which is essential to personnel concerned with flight operations. If the FAA recognizes the shorter length of the runway, one possibility (among many) is that the ALUCP reverts back to its 1997 configuration. If this is the case, then the Modified Ellis Project could proceed under the previously adopted 1997 ALUCP, resulting in a smaller outer approach zone. At this length, the runway now meets both Caltrans classifications for general aviation, small airport safety outer approach zone. This alternative has been included to evaluate the

impacts to the Modified Ellis Project should the shorter runway length be recognized as valid by the FAA, and a smaller outer approach cone be re-instated pursuant to the 1993 Airport Land Use Compatibility Plan (1993 ALUCP, amended 1997). As indicated in the 1993 ALUCP, runway 8-26 is identified as 3,418 feet long and 100 feet wide and runway 12-30 is identified as 3,680 feet long and 100 feet wide. The 2009 ALCUP identifies runway 8-26 as 3,438 feet long and 100 feet wide and the runway 12-30 as 4,002 feet long and 100 feet wide.

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 alternative analysis below compares each of the new alternatives to the Modified ESP according to whether it would have a mitigating or adverse effect for each of the environmental resource areas analyzed in this Draft Revised EIR.

6.5.1 ALTERNATIVE 9: NO FAMILY SWIM CENTER

The No Family Swim Center Alternative (Alternative 9) would involve the implementation of the Modified ESP as described in Chapter 2 (Project Description), with the exception that the Family Swim Center would not be constructed. Thus, under Alternative 9, the Modified ESP area could develop with a minimum of 1,000 to a maximum of 2,250 residential units under the TR-Ellis (Mixed Residential) designation. The 180,000 square feet of retail, office, and other commercial uses would remain, and consistent with City requirements, a minimum of four acres of parks per 1,000 residents would be dedicated to public use. While three acres of Neighborhood Parks per 1,000 residents would be built throughout Ellis similar to the Modified Project, unlike the Modified Project, the one acre of Community Park per 1,000 residents requirement would only be met with the payment of an in lieu fee and would not have the option of being satisfied with the donation of land from the Project Applicant for a Family Swim Center. Refer to Figure 6-3 (Alternative 9 - No Family Swim Center).

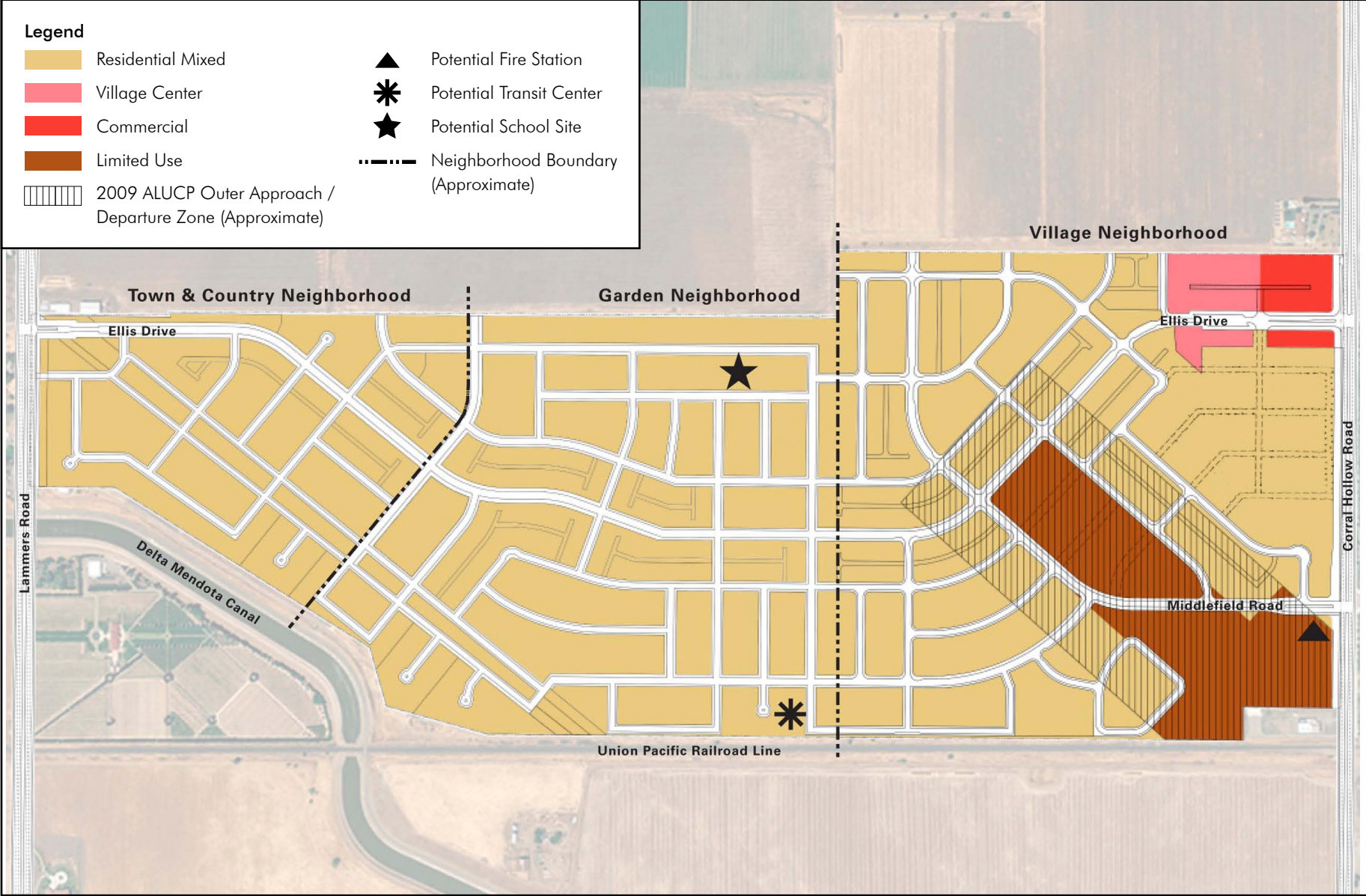
ANALYSIS OF IMPACTS

Air Quality

Alternative 9 would have air quality impacts that would be similar in nature to the Modified ESP. However, because Alternative 9 does not include the development of the Family Swim Center, air pollutant emissions would be slightly reduced because no natural gas or electricity would be needed to heat and maintain the facility. However, because Alternative 9 proposes the same number of residential units and commercial square feet, air quality impacts would remain significant.

Biological Resources

As with the Modified ESP, the construction and operation of Alternative 9 could result in potentially significant impacts on biological resources, including special status species and habitats that may occur on the site. Implementation of the Modified ESP would result in similar biological resource impacts as Alternative 9. With the implementation of similar mitigation measures as those described in Section



Source: Ellis Specific Plan (2012)



Figure 6-3

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4.2 of this document, all potentially significant impacts of Alternative 9 could be mitigated to a less than significant level.

Greenhouse Gas Emissions

With the elimination of the Family Swim Center, the number of vehicle trips are anticipated to be reduced slightly, which would subsequently reduce the amount of greenhouse gas (GHG) emissions associated with such uses. Regardless, the greatest contribution to GHGs is associated with the residential uses, which would remain the same under this alternative as with the Modified Project. Impacts would be anticipated to be significant and unavoidable.

Hazards and Hazardous Materials

Development of the Modified ESP site could accidentally expose construction workers (during site disturbance activities) and the public (during operations) to hazardous materials. Additionally, implementation of the Modified ESP would facilitate the development of a variety of land uses near two PG&E natural gas pipelines and one Chevron active crude oil pipeline. Mitigation would reduce potential impacts to less than significant. The implementation of Alternative 9 would result in similar hazardous material impacts as the Modified ESP. Similar mitigation measures would be required for Alternative 9.

Land Use

Alternative 9 would include the development of up to 2,250 residential units and 180,000 square feet of commercial space (including a Village Center). Consistent with City requirements, a minimum of four acres of parks per 1,000 residents would be dedicated to public use, with three acres of Neighborhood Parks per 1,000 residents constructed throughout Ellis and one acre of Community Park per 1,000 residents met with the payment of an in lieu fee. The existing agricultural land uses would be permanently converted to urban uses. Alternative 9 would be consistent with the General Plan. Implementation of Alternative 9 would not cause any significant unavoidable land use impacts. The Modified ESP would include the same development as Alternative 9, with the exception that the Family Swim Center would be constructed under the Modified ESP; if constructed under the Modified ESP, it would count toward the one acre of required Community Park per 1,000 residents and would not necessarily be met with the payment of an in lieu fee, as it would under Alternative 9. No significant impacts relative to land use and planning would occur with implementation of the Modified ESP.

Noise

Alternative 9 would have noise impacts that would be similar in nature to the Modified ESP. However, because Alternative 9 does not include the development of the Family Swim Center, a slight reduction in vehicle trips may occur, thus slightly reducing noise impacts. In addition, operational noise would be reduced as the Family Swim Center would no longer be present and would not contribute to the ambient noise environment. However, because Alternative 9 proposes the same number of residential units and commercial square feet, noise impacts would remain significant.

Traffic and Circulation

Alternative 9 proposes the same number of residential units as the Modified ESP. Therefore, traffic and circulation impacts are anticipated to be similar to that of the Modified ESP. Although Alternative 9 proposes to eliminate the Family Swim Center, the corresponding reduction in the number of vehicular trips is not anticipated to substantially reduce impacts, though weekend and any

special event-related traffic and corresponding parking would be anticipated to decrease at the Project site. Therefore, as with the Modified ESP, implementation of Alternative 9 would result in significant unavoidable impacts on traffic and circulation.

Water Supply and Other Public Utilities

Alternative 9 would increase the demand for water, as well as contribute increased amounts of sewage and stormwater to the City's existing facilities compared to existing conditions. Compared to the Modified ESP, these increases would be reduced with the elimination of the Family Swim Center. As identified in the Revised Ellis WSA, the Family Swim Center would create a potable water demand of approximately 33 af/yr. Thus, without the Family Swim Center, Alternative 9 would have a potable water demand of approximately 988 af/yr compared to the 1,021 af/yr potable water demand associated with the Modified ESP, which is an approximately three percent reduction in potable water demand compared to the Modified ESP. Thus, compared to the Modified ESP, Alternative 9 would result in similar demands on public utilities and would ultimately require expansion of the City's existing wastewater treatment plant and storm drainage infrastructure.

Population and Housing

The Modified ESP would develop the same amount and variety of housing as Alternative 9. The Modified ESP would also increase the City's housing stock and provide a variety of housing types. Alternative 9 would result in similar impacts as the Modified ESP.

Aesthetics

Like the Modified ESP, implementation of Alternative 9 would change the visual character of the Modified ESP site from agricultural uses and open space to a developed community, significantly and permanently altering the scenic vista of the area, resulting in a significant and unavoidable impact. The implementation of Alternative 9 would continue to increase the amount of light and glare within the Specific Plan area as a whole. Therefore, implementation of Alternative 9 would create similar significant and unavoidable aesthetics impacts as the Modified ESP.

Agricultural Resources

Implementation of Alternative 9 would continue to convert farmland to non-farmland uses. The conversion of prime farmland to urban uses is an irreversible loss of high-quality soils and would be considered a significant unavoidable impact. The Original and Modified ESP would also convert farmland to non-farmland uses, and would also result in a significant unavoidable impact. Implementation of both Alternative 9 and the Original and Modified ESP would result in significant unavoidable agricultural resources impacts.

Public Services

Alternative 9 would decrease the consumption of natural gas and electricity compared to the Modified ESP because the Swim Center would not be constructed. In addition, the demand for police and fire and emergency response service would also slightly decrease compared to the Modified ESP, but not enough to eliminate the need for mitigation. All public service impacts associated with Alternative 9 would be reduced to less than significant with the same mitigation identified for the Modified ESP. The Modified ESP would result in similar public service impacts as Alternative 9 and require the same mitigation.

Hydrology, Drainage, and Water Quality

Implementation of Alternative 9 would increase pollutants in stormwater and the amount and rate of stormwater runoff, similar to the Modified ESP. All impacts could be reduced to less than significant with the implementation of the same mitigation measures identified for the Modified ESP.

Geology and Soils

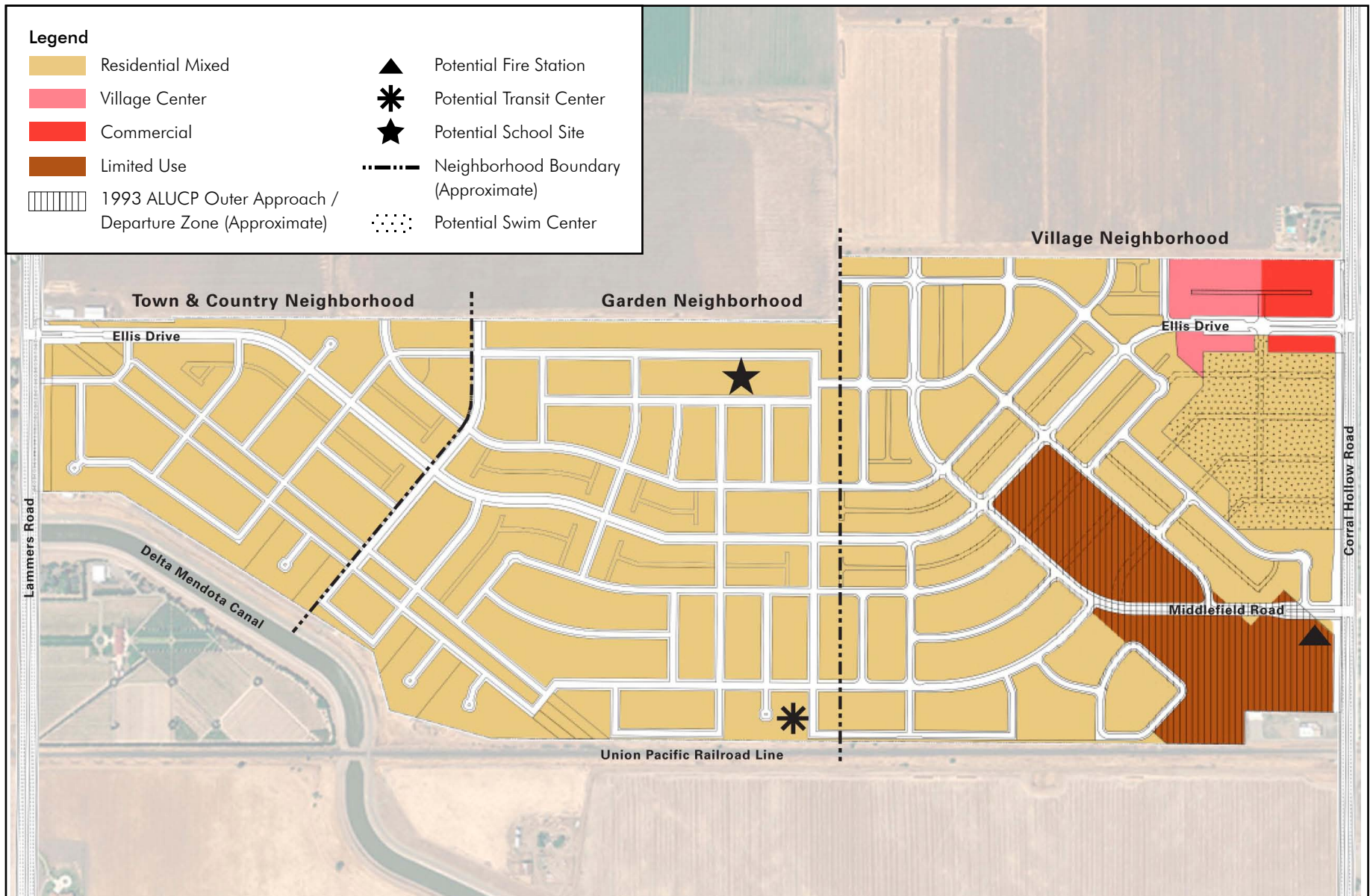
Like the Modified ESP, the construction and operation of Alternative 9 has the potential to result in potentially significant geology, soils, and seismicity impacts. Alternative 9 would expose less uses and fewer people to potential hazards if a geologic hazard or seismic event were to occur, as open space uses would develop in place of the Family Swim Center. Like the Modified ESP, all impacts would be considered to be less than significant with the implementation of mitigation measures.

Conclusion

Implementation of Alternative 9 would result in impacts that are comparatively similar to the Modified ESP. However, Alternative 9 would result in modest reductions in water demand and supply impacts, as no water would be needed to fill and maintain the Family Swim Center that could be constructed under the Modified ESP. Additionally, the elimination of the Family Swim Center would result in reduced emissions of air pollutants and greenhouse gases, as fewer vehicles would travel to the site and less energy would be required to heat and maintain the facility. Moreover, the reduction in vehicle trips would reduce noise impacts and traffic impacts, but as described above, these reductions would not be substantial enough to reduce the impacts associated with the Modified ESP to a less than significant level. Although Alternative 9 would meet nearly all of the Modified Project objectives, it would not meet the Project Applicant's objective of improving the site with a Swim Center, nor would it meet the City's objective of implementing the TR-Ellis land use designation in its entirety, as the Community Park requirement would be met with the payment of an in lieu fee as opposed to the construction of an active Community Park within the site. In addition, it would not meet the City's objective of obtaining funding for the construction of a family-oriented swim center.

6.5.2 ALTERNATIVE 10: 1993 ALUCP RUNWAY LENGTH

Under the 1993 ALUCP Runway Length Alternative (Alternative 10), all the same uses would develop as proposed by the Modified ESP (a minimum of 1,000 to a maximum of 2,250 residential units, 180,000 square feet of retail, office, and other commercial uses, and four acres of parks per 1,000 residents). Like the Modified ESP, three acres of Neighborhood Parks per 1,000 residents would be built throughout Ellis, and the one acre of Community Park per 1,000 residents requirement could be met with either the donation of land from the Project Applicant for a Family Swim Center or the payment of an in lieu fee. All underlying zoning would be Residential Mixed (TR-Ellis). However, under Alternative 10, the runway lengths at the Tracy Municipal Airport would be similar to those identified in the 1993 ALUCP, which are shorter than those identified in the 2009 ALUCP. Thus, under Alternative 10, runway 8-26 at the Tracy Municipal Airport would be 3,418 feet long and 100 feet wide and runway 12-30 would be 3,996 feet long and 100 feet wide (or as adjusted by the City's recent survey), as opposed to the 2009 ALUCP runway 8-26 length of 3,438 feet long and 100 feet wide and runway 12-30 length of 4,002 feet long and 100 feet wide. Refer to Figure 6-4 (Alternative 10 - 1993 ALUCP Runway Length).



Source: Ellis Specific Plan (2012)



ANAYLSIS OF IMPACTS

Air Quality

Air quality impacts under Alternative 10 would not change from those that would be expected with implementation of the Modified ESP, as the density and intensity of uses would remain the same; thus, vehicle miles traveled would not be expected to change, resulting in the same amount of air pollutant emissions.

Biological Resources

Alternative 10 would have the same development footprint as the Modified ESP and would have the same potential as the Modified ESP to result in potentially significant impacts on biological resources, including special status species and habitats that may occur on the site. With the implementation of similar mitigation measures as those described in Section 4.2 of this document, all potentially significant impacts of Alternative 10 could be mitigated to a less than significant level.

Greenhouse Gas Emissions

The number of vehicle trips would remain the same under Alternative 10 as under the Modified ESP. As a result, Alternative 10 would contribute the same amount of greenhouse gas (GHG) emissions as the Modified ESP. Impacts would remain significant and unavoidable.

Hazards and Hazardous Materials

Given the same development footprint and the same density and intensity of uses, Alternative 10 would result in similar hazardous material impacts as the Modified ESP. However, under this alternative, the reduced runway length would further reduce the potential exposure of residents and businesses to airport related hazards, since the shorter runway would reduce the distance that aircrafts would be traveling above the site at approach/departure altitudes. Similar mitigation measures would be required for Alternative 10 as would be required for the Modified ESP.

Land Use

Alternative 10 would include the same density and intensity of uses as the Modified ESP and, as such, the existing agricultural land uses would be permanently converted to urban uses. Alternative 10 would be consistent with the General Plan, like the Modified ESP, which both anticipated a significant unavoidable impact associated with agricultural land conversion. Neither the Modified ESP nor Alternative 10 would result in significant land use and planning impacts. However, under Alternative 10, the runway lengths at the Tracy Municipal Airport would be similar to those identified in the 1993 ALUCP, which are shorter than those identified in the 2009 ALUCP. This in turn reduces the size of the 2009 ALUCP Outer Approach/Departure Zone 4 and provides the opportunity to develop denser residential uses within the Residential Mixed portion of the Outer Approach/Departure Zone 4 area of the Modified ESP. With the reduction in area of the ALUCP Outer Approach/Departure Zone 4, Alternative 10 would remain consistent with the ALUCP, as would the Modified ESP.

Noise

It should be noted that impacts on Project users are not considered impacts according to CEQA. Thus, information regarding airport noise on the Project development is provided for informational purposes only. Alternative 10 would have a similar potentially significant, but mitigable, noise impact associated with implementation of the Modified ESP that would occur as a result of allowing

residential uses within the 60 to 65 CNEL ALUCP Noise Contours. This potential impact may be slightly greater, given that more residential uses could be constructed adjacent to the Limited Use designated area. However, as the density and intensity of development would remain the same, all other noise impacts would remain the same under Alternative 10 as they would under the Modified ESP, including all significant and unavoidable noise impacts. This alternative and the Modified ESP are also consistent with the methodology used in the 2011 General Plan Update, which relied on and incorporated the 2009 ALUCP noise contours in the Noise analysis.

Traffic and Circulation

Traffic impacts would be the same under Alternative 10 as they would be under the Modified ESP, given the same density and intensity of uses.

Water Supply and Other Public Utilities

Development density and intensity would be the same under Alternative 10 as it would be under the Modified ESP. Consequently, the same demand for water would occur under Alternative 10 that would occur under the Modified ESP. In addition, Alternative 10 would generate the same amounts of sewage and stormwater. Thus, compared to the Modified ESP, Alternative 10 would result in the same demands on public utilities and would ultimately require expansion of the City's existing wastewater treatment plant and storm drainage infrastructure.

Population and Housing

Alternative 10 would develop the same amount and variety of housing as the Modified ESP, and would also increase the City's housing stock and provide a variety of housing types like the Modified ESP. Alternative 10 would have comparable impacts to the Modified ESP.

Aesthetics

Alternative 10 would change the visual character of the Modified ESP site from agricultural uses and open space to a developed community, significantly and permanently altering the scenic vista of the area. Alternative 10 would also increase the amount of light and glare within the area. Alternative 10 would create similar significant and unavoidable aesthetics impacts as the Original and Modified ESP.

Agricultural Resources

Alternative 10 would irreversibly convert farmland to non-farmland uses, resulting in a significant unavoidable impact that could not be mitigated by the payment of fees. This impact would be the same as that which would occur with implementation of the Modified ESP, given the same proposed density and intensity of uses and development footprint.

Public Services

Natural gas and electricity consumption would be the same with implementation of Alternative 10 as it would be with implementation of the Modified ESP because the density and intensity of uses would be the same. Moreover, the demand for police and fire and emergency response service would also be the same as what would be expected with implementation of the Modified ESP for the same reasons. Thus, all potentially significant but mitigable public service impacts associated with Alternative 10 would be the same as those identified for the Modified ESP.

Hydrology, Drainage, and Water Quality

Development permitted under Alternative 10 would increase pollutants in stormwater and the amount and rate of stormwater runoff, similar to the Modified ESP, as density and intensity of uses would be the same along with the land area to be developed. All impacts could be reduced to less than significant with the implementation of the same mitigation measures identified for the Modified ESP.

Geology and Soils

Alternative 10 has potentially significant geology, soils, and seismicity impacts similar in nature to those identified for the Modified ESP, given that each proposes to develop the land area with the same density and intensity of uses. As with the Modified ESP, all impacts would be reduced to less than significant with implementation of the same mitigation measures.

Conclusion

Development permitted under Alternative 10 would result in impacts that are comparatively similar to those that could occur from development allowed by the Modified ESP. Both scenarios are required to comply with the land use restrictions within the ALUCP; however, in the case of Alternative 10, those restrictions would only apply to the limited use area of the ESP. Under the Modified ESP scenario, the same restrictions would also apply to the portion of the Residential Mixed area located within the Outer Approach/Departure Zone, which would require residential densities of one dwelling unit per five acres. Each scenario would meet all of the Modified Project objectives.

COMPARISON OF ALTERNATIVE 9 AND ALTERNATIVE 10 IMPACTS TO THE MODIFIED ESP

Table 6-2 (Comparison of Alternative 9 and Alternative 10 Impacts to the Modified ESP) presents a comparison between the impacts associated with Alternative 9 and Alternative 10 and those of the Modified ESP for each of the environmental resource areas analyzed above.

TABLE 6-3 COMPARISON OF ALTERNATIVE 9 AND ALTERNATIVE 10 IMPACTS TO THE MODIFIED ESP

| Topic | Alternative 9 | Alternative 10 |
|-----------------------------------------|---------------|----------------|
| Air Quality | - | NC |
| Biological Resources | - | NC |
| Greenhouse Gas Emissions | NC | NC |
| Hazards and Hazardous Materials | NC | NC |
| Land Use and Planning | NC | NC |
| Noise | - | + |
| Traffic and Circulation | - | NC |
| Water Supply and Other Public Utilities | - | NC |
| Population and Housing | NC | NC |
| Aesthetics | NC | NC |
| Agricultural Resources | NC | NC |
| Public Services | - | NC |
| Hydrology, Drainage, and Water Quality | NC | NC |
| Geology and Soils | - | NC |

TABLE 6-3 COMPARISON OF ALTERNATIVE 9 AND ALTERNATIVE 10 IMPACTS TO THE MODIFIED ESP

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

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126(e)(2) requires that the environmentally superior alternative be identified. If the environmentally superior alternative is the No Project Alternative, the EIR shall identify an environmentally superior alternative among the other alternatives. Alternative 4: No Project/No Build (Status Quo) would be the environmentally superior alternative, as all the impacts associated with the Modified ESP would be avoided, although Alternative 4 would be inconsistent with the goals of the General Plan, as the ESP site would remain unchanged and would continue to be used for agricultural purposes.

Among the other alternatives, the Original Ellis EIR found that Alternative 6: Reduced Density was the environmentally superior alternative, as described above under subsection 6.3. Alternative 6 has been identified as a potentially feasible alternative that has some drawbacks, namely it would enable a less dense growth pattern that could indirectly result in growth being directed or diverted to other areas in the City or within the City's SOI that are not as suitably prepared for development to occur. It could also have indirect consequences of increasing vehicle miles traveled and associated air pollutant and greenhouse gas emissions due to its less dense nature. Alternative 6 would result in less adverse impacts on air quality, noise, greenhouse gas emissions, geology, soils, seismicity, public services, and traffic relative to the Original and/or Modified ESP, as Alternative 6 would include the construction of 54 percent fewer residential units than either the Original or Modified ESP. Moreover, Alternative 6 is not anticipated to entirely eliminate the significant and unavoidable impacts associated with the Original and/or Modified ESPs and it would create similar impacts in areas of land use and planning, agricultural resources, and hazards and hazardous materials.

The Original or Modified ESP would achieve each of the Project Objectives while creating similar or decreased impacts as compared to all of the Project Alternatives considered herein, with the exception of Alternative 1, assuming no development occurs under existing zoning.

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8 REPORT PREPARERS

8.1 CITY OF TRACY – LEAD AGENCY

WILLIAM DEAN _____ ASSISTANT DIRECTOR OF DEVELOPMENT AND ENGINEERING SERVICES

ALAN BELL _____ SENIOR PLANNER

KUL SHARMA _____ CITY ENGINEER

DANIEL G. SODERGREN _____ CITY ATTORNEY

8.2 RBF CONSULTING – EIR PREPARATION

KARI CANO _____ ENVIRONMENTAL PLANNER

KELLY CHIENE _____ ENVIRONMENTAL ANALYST

ACHILLES MALISOS _____ ENVIRONMENTAL PLANNER

AARON PFANNENSTIEL _____ ENVIRONMENTAL PLANNER

NATHAN SCHMIDT _____ TRANSPORTATION PLANNER

JONATHAN SCHUPPERT _____ ENVIRONMENTAL ANALYST/GRAPHICS

KARA SPENCER _____ ENVIRONMENTAL PLANNER

EDDIE TORRES _____ ENVIRONMENTAL SPECIALIST

FREDERIK VENTER _____ SENIOR TRAFFIC ENGINEER

LAURA WORTHINGTON-FORBES _____ PRINCIPLE-IN-CHARGE

TECHNICAL SUBCONSULTANTS

FEHR AND PEERS, TRANSPORTATION CONSULTANTS – TRAFFIC MODELING

V&A –SAFETY ASPECTS OF ENERGY PIPELINES PEER REVIEW

OUTSIDE LEGAL REVIEW

RICK W. JARVIS

JARVIS, FAY, DOPORTO & GIBSON, LLP

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