

**DRAFT INITIAL STUDY/
CALIFORNIA ENVIRONMENTAL QUALITY ACT GUIDELINES
SECTION 15183 ANALYSIS**

**CITY OF TRACY CITYWIDE WATER
SYSTEM MASTER PLAN/
TRACY WASTEWATER MASTER PLAN**

LEAD AGENCY:

CITY OF TRACY

Department of Development and Engineering Services
Planning Division
333 Civic Center Drive
Tracy, CA 95376

November 2012





ENVIRONMENTAL CHECKLIST

A. SUMMARY INFORMATION

1. Project Title:

City of Tracy Citywide Water System Master Plan and Tracy Wastewater Master Plan

2. Lead Agency Name and Address:

City of Tracy
Department of Development and Engineering Services
333 Civic Center Drive
Tracy, CA 95376

3. Contact Person and Phone Number:

William Dean, Assistant Director, Development and Engineering Services Department
(209) 831-6000

4. Project Location and Setting:

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

The proposed Citywide Water System Master Plan and Tracy Wastewater Master Plan include improvements located throughout the City boundaries as well as the City's Sphere of Influence (SOI) boundaries. Refer to Figure 2 (Locations of Future Service Areas in the Sphere of Influence).

5. General Plan Designation and Zoning Classification:

Various.

6. Surrounding Land Uses:

Various.

B. STATUTORY AUTHORITY AND APPLICABILITY

This document relies on § 21094(a)(1)(2) of the California Environmental Quality Act (CEQA), Public Resources Code §§ 21000 *et seq.*, as well as §15183 of the CEQA Guidelines as the basis for the preparation of an Initial Study/California Environmental Quality Act 15183 Analysis, as described in greater detail below.



Source: RBF Consulting (2012)

City of Tracy Citywide Water System Master Plan/Tracy Wastewater Master Plan
Initial Study / CEQA Analysis

Regional Location Map

Figure 1



Not to Scale



CEQA Section 21094(a)(1)(2)

According to § 21094(a)(1)(2), a subsequent project that is consistent with the following:

- (1) a program, plan, policy, or ordinance for which an Environmental Impact Report (EIR) was prepared and certified; and,
- (2) applicable local land use plans and zoning

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

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

State CEQA Guidelines Section 15183

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

- (1) Are peculiar to the project or the parcel on which the project would be located;
- (2) Were not analyzed as significant effects in a prior EIR on the zoning action, general plan, or community plan, with which the project is consistent;
- (3) Are potentially significant off-site impacts and cumulative impacts which were not discussed in the prior EIR prepared for the general plan, community plan or zoning action; or,
- (4) Are previously identified significant effects which, as a result of substantial new information which was not known at the time the EIR was certified, are determined to have a more severe adverse impact than discussed in the prior EIR.



C. INITIAL STUDY/CEQA GUIDELINES SECTION 15183 ANALYSIS PURPOSE AND SCOPE

The proposed Citywide Water System Master Plan (WSMP) and Tracy Wastewater Master Plan (WWMP) are consistent with the development assumptions in the General Plan. Thus, as described in greater detail below, this Initial Study/California Environmental Quality Act Guidelines Section 15183 analysis is limited to analyzing only those significant effects associated with implementation of the WSMP and WWMP that are not addressed in the General Plan EIR or were not known at the time the General Plan EIR was prepared, consistent with the provisions of State CEQA Guidelines Section 15183, as described above.

The WSMP evaluates the required potable and recycled water infrastructure to serve buildout of the City's General Plan. The WWMP identifies the wastewater infrastructure necessary to serve future wastewater flows in the City. Both the WSMP and WWMP are described in greater detail below under section C (Project Characteristics). Each document is on file with the City of Tracy and can be reviewed either online and/or by request to the City of Tracy Development and Engineering Services Department, which is located at 333 Civic Center Drive, Tracy, CA 95376.

The City's General Plan is the principle policy document for guiding future development of the City of Tracy, including the City's Sphere of Influence (SOI), which is the area the outside of the City limits that the City expects to annex and urbanize in the future. The General Plan was adopted by the City on February 1, 2011 and is used as the basis for the City's Infrastructure Master Plans, including the WSMP and the WWMP. As described in the WSMP, buildout of the General Plan includes buildout of development projects with approved water supply (including infill) and future service areas within the City's Sphere of Influence (SOI). As noted above, the WSMP and WWMP are consistent with the development assumptions in the General Plan. The General Plan EIR was certified on February 1, 2011 and evaluates the environmental impacts associated with implementation of the General Plan, as described in greater detail below.

The City has chosen to refer to the level of analysis in the WSMP and the WWMP as a "Tier 1" evaluation, in which overall planning objectives, goals, and policies, are defined and required "backbone" infrastructure is identified and sized to serve buildout of the City's General Plan. A "Tier 2" evaluation, including evaluation of required onsite infrastructure to meet the needs of specific proposed development projects and phasing of recommended buildout improvements, will be initiated at a later date on a project-by-project basis and is not included in the WSMP or the WWMP. Thus, the analysis contained herein is focused on the Tier 1 evaluation, and is broad in its consideration of environmental effects.

The recommendations in the WSMP and the WWMP only identify facility improvements at a Master Plan level and do not necessarily include all required onsite infrastructure, nor constitute design of improvements. Subsequent detailed design is required to determine the exact sizes and final locations of these proposed facility improvements. It should also be noted that the buildout hydraulic model is not an "all pipes" model (i.e., not all smaller diameter pipelines are included); therefore, the hydraulic simulations performed may not identify all necessary water



system improvements. Consequently, the WSMP recommends that further hydraulic evaluations be performed as additional details are provided for each future development project.

Further, while the WSMP and WWMP provide detailed recommendations of seemingly “specific” improvements, it must be emphasized that these are preliminary “Tier 1” recommendations based on qualitative assessment and preliminary engineering design (only) and as a result do not as of yet, have the specific identified project details and in many instances specific identified project locations necessary for a meaningful evaluation of potential environmental impacts. The WSMP and WWMP indicate the right-of-way that would necessary based on a qualitative assessment only, as the buildout year is in the distant future and thus vague and subject to change. Additionally, it should be noted that new wastewater infrastructure is recommended in locations that currently do not have that specific facility and expansions of existing wastewater infrastructure would occur in locations with existing facilities.

As the WSMP and WWMP are policy documents prepared to implement the objectives and actions identified in the General Plan, neither proposes the construction or operation of specific water supply or wastewater infrastructure projects at this time. Consequently, adoption of the WSMP or the WWMP would not directly result in the construction and operation of infrastructure that could have negative environmental effects. However, their adoption would indirectly facilitate the construction and operation of water supply and wastewater infrastructure that could result in negative environmental effects. Nonetheless, because specific project details are not available at this time, additional future environmental review would be required on a project-by-project basis, as specific water supply and wastewater infrastructure projects come forward. This future environmental review would be necessary to analyze and disclose any site-specific impacts the infrastructure identified by the WSMP or the WWMP might have on the environmental resources identified by the CEQA Guidelines. Nonetheless, as stated above, the analysis in this Initial Study/California Environmental Quality Act Guidelines Section 15183 Analysis is focused on the Tier 1 evaluation, and is thus, broad and general in its consideration of environmental effects.

The following environmental effects were adequately addressed in the General Plan EIR and thus are not the subject of this Initial Study/California Environmental Quality Act Guidelines Section 15183 Analysis:

- Damage of scenic resources within a state scenic highway
- Degradation of the City’s visual identity and character
- Creation of substantial light or glare
- Conversion of agricultural land to non-agricultural use
- Conflicts with applicable air quality plans
- Individual and cumulative increases in criteria air quality pollutants
- Damage or destruction of unknown cultural resources, including human remains
- Risks associated with seismic and geologic hazards
- Threat of hazardous materials release
- Stormwater pollution
- Groundwater depletion



- Stormwater management
- Flood hazards
- Inundation by seiche, tsunami, or mudflow
- Physical division of an established community
- Loss of availability of mineral resources
- Population and housing increases
- Provision of new public facilities
- Increases in water demand

C. INCORPORATION BY REFERENCE

The City of Tracy General Plan Final EIR (State Clearinghouse No 2008092006) has been cited and incorporated by reference into this Initial Study/California Environmental Quality Act 15183 Analysis, in accordance with Section 15150 of the State CEQA Guidelines, as a means of reducing the redundancy and length of this environmental document. The City of Tracy General Plan Final EIR is available for public review at the City of Tracy Planning Division, located at 333 Civic Center Plaza, Tracy, CA 95376, and is hereby incorporated by reference into this Initial Study/California Environmental Quality Act 15183 Analysis:

City of Tracy General Plan Final EIR (State Clearinghouse No. 2008092006)

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

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.



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.

The City of Tracy General Plan is guided by a vision statement and 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. 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.

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 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 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.

General Plan EIR Revisions and Updates

Since 2005, the General Plan and General Plan EIR have been revised and updated on several occasions as discussed below due to various proposed amendments and the City's preparation of a Sustainability Action Plan. Nonetheless, the City has certified the most recent General Plan EIR and adopted the most current General Plan on February 11, 2011. Thus, where appropriate and based on the provisions of Section 15152 of the CEQA Guidelines, this Initial Study does tier off of and incorporates by reference the General Plan EIR regarding descriptions of environmental settings, future development-related growth, and cumulative impacts. The following provides the timeline for the sequence of revisions and updates to the City of Tracy General Plan EIR.

City of Tracy General Plan Draft EIR (October 4, 2005)

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

1. Land Use
2. Population, Employment and Housing
3. Visual Quality
4. Traffic and Circulation
5. Cultural Resources
6. Biological Resources
7. Agricultural Resources
8. Mineral Resources
9. Community Services



10. Infrastructure
11. Geology, Soils and Seismic Hazards
12. Hydrology and Flooding
13. Hazardous Materials
14. Noise
15. Air Quality

City of Tracy General Plan Amendment to the Draft EIR (March 16, 2006)

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

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

The following other topical areas evaluated in the 2005 General Plan EIR were evaluated under both the 20-year development scenario and at total buildout and thus, did not need to be updated in the 2006 EIR as they remained valid:

- Cultural Resources,
- Mineral Resources,
- Geology, Soils, and Seismic Hazards, and
- Hydrology and Flooding.

It should be noted that the detailed, quantitative analysis of potential impacts on traffic, noise, and air quality were based on the development projections for a 20-year period (2025) in both the 2005 and 2006 Draft EIRs. The traffic analysis was limited to the 20-year planning horizon in part because significant speculation regarding regional growth and funding for transportation improvements would be required to model the total buildout year under the proposed General Plan. The noise and air quality analysis is also limited to the 20-year planning horizon because they are based on the modeling results of the traffic analysis.



City of Tracy General Plan Draft Supplemental EIR (July 22, 2010)

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

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

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

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

D. PROJECT CHARACTERISTICS

City of Tracy Citywide Water System Master Plan

Overview

As described above, the purpose of the proposed WSMP is to provide an evaluation of the required potable and recycled water infrastructure to serve buildout of the City's General Plan, which consists of buildout of development projects with approved water supply (including infill) and future service areas within the City's SOI. The WSMP is a comprehensive update of the 1994 City of Tracy WSMP in fulfillment of Objective PF-6.1, Action A1 of the Public Facilities and Services Element of the General Plan.



Contents

The proposed WSMP contains the following components:

- WSMP objectives;
- Overall water system objectives and goals;
- Recommendations for water conservation, recycled and non-potable water, and water system facility operations to help meet the identified water system objectives and goals;
- Identification of General Plan buildout land use assumptions;
- Existing potable water demands and projected future potable and recycled water demands at buildout of the City's General Plan;
- An overview of the availability and reliability of the City's existing and planned future water supply sources;
- Recommended performance and operational criteria for the City's potable and recycled water distribution systems;
- An evaluation of the City's existing potable water distribution system and its ability to meet the City's recommended performance and operational criteria under existing water demand conditions;
- Recommendations for addressing deficiencies within the City's existing potable water distribution system;
- Identification of improvements necessary to support the City's projected buildout potable water demands, in addition to those improvements required to support the City's existing potable water system;
- A description of the proposed recycled water system at buildout of the City's SOI; and,
- A recommended capital improvement program (CIP) for the City's existing and buildout potable water systems and proposed buildout recycled water system to support the City's projected buildout potable and recycled demands, respectively.

Citywide Water System Master Plan Objectives

The objectives of the Citywide Water System Master Plan are to:

- Provide recommendations to help the City meet its water system objectives and goals;
- Evaluate existing and projected future potable and recycled water demands at buildout of the City's General Plan;
- Provide an overview of the availability and reliability of the City's existing and future water supplies and their ability to meet existing and future buildout water demands;
- Develop performance and operational criteria under which the potable and recycled water systems will be analyzed and future facilities will be formulated;
- Evaluate the need for new backbone potable and recycled water facilities (including pipelines, storage facilities, and pumping facilities) to serve buildout of the City's General Plan; and,
- Develop a capital improvement program for recommended potable and recycled water system facilities.



Overall Water System Objectives and Goals

The WSMP was prepared based on the following overall water system goals and objectives:

- Ensure safe, adequate and reliable water supplies for the City’s existing and future residents and businesses through buildout of the City’s General Plan;
- Comply with existing and future water quality regulations for both potable and non-potable (recycled) water supplies;
 - Support the City’s compliance with recently adopted legislation related to reducing greenhouse gases (AB32 and SB375) by improving the efficiency of water system facility operations when feasible;
 - Comply with the California Green Building Standards Code and other “green” building guidelines, as they relate to standards for interior and exterior water use, to promote more efficient use of the City’s water supplies; and,
- Comply with recently enacted legislation to reduce per capita water use statewide (i.e., SBx7-7 “20x2020” Water Conservation) to increase the sustainability and extend the longevity of the City’s existing water supplies.

Recommendations to Meet Overall Water System Objectives and Goals

In addition to the continued implementation of existing City policies and programs regarding water conservation, recycled and non-potable water, and water system facility operation, the WSMP includes several additional recommended measures to help the City meet the overall water system objectives and goals identified above. These recommendations are identified below.

Recycled and Non-Potable Water Recommendations

To further encourage and expand the future use of recycled and/or non-potable water within the City, the following additional measures should be considered:

- Require the use of tertiary-treated wastewater for agricultural irrigation within the City as appropriate and as allowed by Title 22 regulations.
- Require the use of recycled or non-potable water for all decorative water features and artificial lakes.
- Require that existing large landscaped areas currently irrigated with potable water supplies, such as City parks and sports fields, be converted to recycled or non-potable water use as opportunities for construction of recycled or non-potable water facilities to serve these existing areas occur. This may be done in conjunction with a “potable water offset” program.



- Require that existing facilities with evaporative cooling systems and other industrial cooling processes currently using potable water supplies be converted to recycled or non-potable water use as opportunities for construction of recycled or non-potable water facilities to serve these existing areas occur.
- Add a “Duty to Connect” requirement to Chapter 11.30 of the City’s Municipal Code requiring facilities with large irrigated landscapes and/or industrial cooling systems to connect to the City’s recycled water system if they are within 200 feet of a potential connection point to the City’s recycled water distribution system (similar to existing “Duty to Connect” requirements for wastewater (City Code Chapter 5.24.210) and water (City Code Chapter 11.04.160)).

Recommendations Regarding Green Building Codes and Guidelines

The WSMP states that the City should consider adopting portions or all of the CALGreen Code as appropriate and/or adopting policies and guidelines recommended by the US Green Building Council (e.g., LEED or Leadership in Energy Efficient Design) or the “Build It Green” organization that publishes green building guidelines and checklists for new construction and remodeling projects.

Recommendations to Reduce Water Use by Existing Customers

The WSMP includes several recommendations to reduce overall water use and per capita water use in the City. To discourage water waste and encourage water conservation, the WSMP recommends that the City revise its existing municipal code (Chapter 11.28 Water Management) to make the Phase I water shortage provisions of the Water Shortage Contingency Plan in effect at all times, not only during droughts or other emergency water shortages. The WSMP also recommends that the City consider adoption of a “Retrofit Upon Resale” ordinance that would require older, high-water use plumbing fixtures be replaced with low-flow plumbing fixtures whenever a property is sold. To reduce outdoor water waste, the WSMP recommends that the City consider implementing a turf replacement rebate “Cash for Grass” program and a landscape water audit and budget program. The “Cash for Grass” program would offer a cash rebate to residential water customers in return for permanently reducing the amount of their turf landscaping with water conserving landscaping or synthetic/artificial turf. The landscape water audit and budget program would involve performing audits for large landscape areas to make sure that water is applied efficiently to help reduce water use.

Recommendations to Reduce Water Use by New Development

To allow the City to meet its water conservation goals and maintain the long-term sustainability of its water resources, the WSMP encourages that following recommendations be considered for new development projects in the City:

- Require all new developments projects to meet a reduced overall per capita water use goal, consistent with the “20 x 2020” requirements included in SBx7-7.



- Require all new development projects to meet indoor water efficiency standards (in accordance with the 2010 California Green Building Standards Code).
- Reduce indoor residential and non-residential water use by 20 percent through installation of low-flow fixtures (e.g., two gallons per minute (gpm) showerheads, 1.8 gpm faucets, and 1.28 gallons/flush toilets), and water efficient appliances.
- Require all new development projects to meet outdoor water efficiency standards (in accordance with the 2010 California Green Building Standards Code) including development of water budgets for landscape irrigation use, and reducing or eliminating potable water use for landscape irrigation.
- Require new non-residential buildings to employ water reuse systems, such as building-scale graywater systems or connections to larger-scale recycled water systems for cooling systems and other non-potable water demands.
- Require new development projects to offset or mitigate water demands if demands exceed those accounted for in the WSMP based on buildout of the City’s adopted General Plan. The offset or mitigation may be achieved by reducing the water demands within the project (through implementation of water conservation measures and/or incorporation of recycled water use) and/or participating in a project to reduce potable water demands in another portion of the city to offset the potable water demands of the proposed project.
- Require new subdivisions to install “purple pipe” for distribution of recycled water at the beginning of a project, even if recycled water is not immediately available (consistent with existing City Municipal Code Section 11.30.030 (a)).

Recommendations for New Water System Facilities

The following recommendations were presented in the WSMP to make the City’s water facilities operations more efficient:

- Establish designated utility corridors within new development areas; these designated utility corridors should be within public rights-of-way to minimize or eliminate the need for utility easements within private property;
- Install solar power systems, or alternative power sources at existing and new pump stations and other water system facilities, as feasible, to reduce electrical power consumption; and,
- Increase the frequency of routine operations and maintenance (O&M) activities for existing pump stations and wells to maintain pump efficiencies and reduce power demands.



General Plan Buildout Land Use Assumptions

The WSMP bases the City’s projected buildout potable water demands on the General Plan’s buildout land use assumptions, which as stated previously consist of buildout of development projects with approved water supply (including infill) and future service areas in the City’s SOI. Development projects with an approved water supply (some of which have defined financing for the water supply, while others do not) include the following:

- Residential Areas Specific Plan
- Industrial Areas Specific Plan (North and South)
- I-205 Corridor Specific Plan
- Plan “C” Residential Planning Area
- Northeast Industrial Specific Plan (Phases 1, 2, and 3)
- South MacArthur
- Downtown Specific Plan
- Infill Projects
- Ellis Specific Plan
- Tracy Gateway Project (Phase 1 only)
- Holly Sugar Sports Park Specific Plan

Water demands for the completed portions of these projects are included in the City’s existing water demands. Anticipated future water demands associated with completion of these projects has been estimated based on proposed land uses. These anticipated future demands are included in the future water demand projections for buildout of the City’s General Plan. In addition to the development projects with an approved water supply (including infill), the City has identified a number of future service areas within the City’s SOI. Many of these future service areas are designated as Urban Reserve in the City’s General Plan.

Existing and Future Buildout Water Demands

As stated in the WSMP, accurate and detailed potable and recycled water demand data and projections are required to:

- (1) develop and calibrate the potable and recycled water system hydraulic models;
- (2) identify deficiencies in the potable and recycled water systems; and,
- (3) assist in the assessment of the future buildout water system capacity and future buildout capital improvement program based on proposed development projects.

Future water demand projections also play a key role in helping the City identify and secure sufficient water supplies to serve their customers under various hydrologic conditions. Existing water demands are based on existing water service connections, historical population served, and existing and projected land uses within the City. Water demands are projected for buildout of the City’s General Plan by using:



- (1) existing water demands,
- (2) land use data from development projects with approved water supply (including infill), and
- (3) land use data from future service areas.

Total project water demands for buildout of the General Plan from development projects with approved water supply and future service areas were calculated by multiplying the adopted unit water demand factors by the additional developed dwelling units or acreage projected to occur. Data regarding the additional dwelling units and acreage to be developed was provided by the City’s Planning Division. This calculation resulted in a total buildout potable water demand of approximately 36,300 acre-feet (af/yr); refer to Table 1 (Existing and Additional Planned Future Potable Water Supplies versus Potable Water Demand for Buildout of the City’s General Plan) below. Detailed calculations are contained within the WSMP, which is on file with the City. As noted previously the document can be reviewed online or at the City of Tracy Development and Engineering Services Department, located at 333 Civic Center Drive, Tracy, CA 95376.

Existing and Future Water Supplies

Table 1 (Existing and Additional Planned Future Potable Water Supplies versus Potable Water Demand for Buildout of the City’s General Plan) summarizes the existing and additional planned future available potable water supplies and estimated buildout potable water demands.

Table 1: Existing and Additional Planned Future Potable Water Supplies versus Potable Water Demand for Buildout of the City’s General Plan

	Normal Year	Single Dry Year	Multiple Dry Year
Existing and Additional Planned Future Potable Water Supplies, af/yr			
Existing Central Valley Project (CVP) Entitlements and Assignments	11,250	7,625	4,750
South San Joaquin Irrigation District (SSJID) Supply	10,000	9,500	9,500
Groundwater	2,500	9,000	9,000
CVP Assignment from Westside Irrigation District (WSID) (to be exercised in conjunction with Downtown Specific Plan)	1,250	375	250
Future Byron Bethany Irrigation District (BBID) (pre-1914 rights)	3,000	2,700	2,700
CVP Assignment from BBID	5,500	1,650	1,100
Future South County Water Supply Project (SCWSP) Supplies	3,000	2,850	2,850
Semitropic Permanent Agreement	--	3,500	3,500
Future Aquifer Storage and Recovery (ASR) Water Banking	--	3,000	3,000
Total Available Supplies, af/yr	36,500	40,200	36,650
Potable Water Demands, af/yr			
Existing Customers (2007)	19,176	19,176	19,176



Development Projects with an Approved Water Supply	4,150	4,150	4,150
Future Service Areas	12,980	12,980	12,980
Total Buildout Demand, af/yr	36,300	36,300	36,300
Potential Potable Water Supply Shortfall	No Shortfall	No Shortfall	No Shortfall

Source: City of Tracy, *City of Tracy, Citywide Water System Master Plan*, August 2012.

As shown in Table 1, the City has adequate existing and additional planned future potable water supplies to meet buildout demands under all hydrologic conditions.

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 tertiary level in accordance with Title 22 requirements at the City’s WWTP and will be 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 buildout of the City’s General Plan.

System Performance and Operational Criteria

In order to identify the improvements necessary to support the City’s projected buildout potable water demands, the WSMP also defines the recommended performance and operational criteria for the City’s potable and recycled water systems. The WSMP incorporates key water system design criteria and operational standards from the City of Tracy Design Standards dated December 2008. For the potable water system, these criteria include recommendations for the required fire flow and flow duration, definitions of “emergency events,” and recommendations for surface water treatment capacity, system storage capacity (operational, fire flow, and emergency components), system pumping capacity, minimum and maximum system pressures, and maximum pipeline velocity and headloss. The recycled water system performance and operational criteria include recommendations for system pumping capacity, system storage capacity (seasonal and operational components), minimum and maximum system pressures, and maximum pipeline velocity and headloss.

Evaluation of the City’s Existing Potable Water System

Before evaluating how the City will meet the projected buildout demands, an evaluation of the City’s existing water system facilities was conducted to determine if there were any existing deficiencies. The City’s existing potable water system includes the following major facilities: John Jones Water Treatment Plant (JJWTP), nine groundwater wells, clearwells and storage tanks, booster pump stations, pressure regulating stations, and transmission and distribution pipelines. The City’s existing distribution system is divided into three pressure zones. The evaluation presented in the WSMP included an analysis of existing surface water treatment capacity, water storage capacity, pumping capacity, and the water system’s ability to meet recommended performance criteria under maximum day demand plus fire flow and peak hour



demand scenarios. Recommendations for the existing potable water distribution system are described below.

Recommended Pipeline Improvements

The WSMP recommends the following pipeline improvements within existing City owned right-of-way, and thus no “new” environmental impacts are anticipated:

- Improvement #1:
 - Replace existing 12-inch diameter pipelines located on Sixth Street and Tracy Boulevard with 18-inch diameter pipelines to reduce high pipeline velocities simulated during a peak hour demand condition.
 - Replace existing 12-inch diameter pipeline located on Eleventh Street, east of Tracy Boulevard, with a 16-inch diameter pipeline to reduce pipeline velocity once the 18-inch diameter pipelines are installed on Sixth Street and Tracy Boulevard.
- Improvement #2:
 - Replace existing 4-inch diameter pipeline located along Tracy Boulevard between Fourth Street and Mt. Diablo Avenue with a 12-inch diameter pipeline to improve fire flow.

In addition, according to the WSMP, as the City plans for future pipeline renewal and replacement projects, replacement of older and/or smaller diameter pipelines with upsized pipelines should be hydraulically reviewed and considered so that they are able to provide more reliable service during high demands.

Recommended SCADA System Improvements

The City has a SCADA (Supervisory Control and Data Acquisition) system installed to provide remote operation and monitoring of its facilities. Most of the existing distribution facilities have SCADA installed except for three wells and all five pressure regulating systems.

- Install SCADA systems monitoring of flows and pressures at each pressure regulating station to provide operators with additional understanding and flexibility in system operations.
- Review the system data collected from the existing SCADA system and correct any data discrepancies found to provide more accurate system operations data.

Evaluation of Buildout Potable Water and Recycled Water Systems

The evaluation of the potable water and recycled water buildout systems identifies the improvements that will be required (in addition to the existing system infrastructure improvements) to support the City’s projected buildout potable water and recycled water demands. Development of the buildout potable water and recycled water systems included an evaluation of (1) the required buildout water treatment, storage, and pumping capacity; and, (2) the buildout water system’s ability to meet recommended performance and operational criteria.



To assist in the evaluation of the City’s potable water and recycled water systems at buildout, the buildout infrastructure recommended in the WSMP includes the infrastructure required to serve the Tracy Hills development, and for consistency, is based on the adopted water use, peaking factors, and system performance criteria described in the WSMP. Tracy Hills was included in the evaluation because it will be part of the City’s overall future operations, and including the Tracy Hills development in the buildout hydraulic modeled evaluation ensures that the buildout systems for both potable and recycled water will be adequate to serve the entire City (including Tracy Hills) and can provide water service at acceptable system pressures and pipeline velocities.

However, the WSMP acknowledges that the Tracy Hills development has an approved Master Plan, which is in the process of being revised, and that recommended infrastructure presented in the Tracy Hills Master Plan is different from that presented in the WSMP due to use of slightly different water use and peaking factors. For the WSMP, the potable water and recycled water distribution systems for the Tracy Hills development were modeled as separate (but interconnected) systems from the City’s main potable water and recycled water systems, with separate distinct pressure zones.

Also, because Tracy Hills is essentially a “stand alone” development separated from the City’s other water system facilities, costs for infrastructure to specifically serve the Tracy Hills development are not included in the WSMP. Instead, costs for Tracy Hills infrastructure will be evaluated in conjunction with the revised Tracy Hills Master Plan and subsequent evaluations to be prepared for the Tracy Hills development. However, total costs for any shared facilities (e.g., JJWTP expansion and recycled water transmission main from the Holly Drive WWTP, including the recycled water pipeline to the Tracy Hills recycled water storage tank and the recycled water storage tank) are included in the WSMP and a proportionate share of the costs of these shared facilities will be allocated to the Tracy Hills development. The cost allocations are evaluated and presented in a separate document.

Buildout Potable Water System

Development of the buildout potable water system included an evaluation of the required buildout water treatment, storage and pumping capacity, and the buildout water system’s ability to meet recommended water system performance and operational criteria under buildout maximum day demand plus fire flow and peak hour demand scenarios.

As stated previously, the recommended “backbone” potable water system improvements required to serve buildout potable water demands are summarized below. It should be noted that these recommendations only identify facility improvements at a Master Plan level and do not necessarily include all required onsite infrastructure, nor constitute design of improvements. Subsequent detailed design is required to determine the exact sizes and final locations of these proposed facility improvements. It should also be noted that the buildout hydraulic model is not an “all pipes” model (i.e., not all smaller diameter pipelines are included); therefore, the hydraulic simulations performed as discussed above may not identify all necessary water system improvements. Consequently, the WSMP recommends that further hydraulic evaluations be performed as additional details are provided for each future development project. Refer to Figure 3 (Recommended Buildout Potable Water System CIP).



The WSMP indicates the right-of-way that would be necessary based on a qualitative assessment only, as the buildout year is in the distant future and thus vague and subject to change. Further, as stated previously, while the WSMP provides detailed recommendations of seemingly “specific” improvements, it must be emphasized that these are preliminary “Tier 1” recommendations based on only qualitative assessment and preliminary engineering design and as a result do not as of yet, have the specific identified project details and in many instances specific identified project locations necessary for a meaningful evaluation of potential environmental impacts.

Surface Water Treatment Facilities

- JJWTP Expansion: Increase the surface water treatment capacity at JJWTP by 21 mgd to a total capacity of 52 mgd.

Storage Facilities

- JJWTP Expansion: Install a new clearwell with a minimum active storage capacity of 2.0 MG.
- Catellus Tank: Install a new storage tank with a minimum active storage capacity of 1.0 MG.
- Gateway Zone 1 Tank: Install a new storage tank with a minimum active storage capacity of 1.5 MG.
- Gateway Zone 2 Tank: Install a new storage tank with a minimum active storage capacity of 1.5 MG.
- Patterson Pass Tank: Install a new storage tank with a minimum active storage capacity of 0.5 MG.
- Cordes Ranch Tank: Install a new storage tank with a minimum active storage capacity of 1.5 MG.
- Zone 3-Tracy Hills Tank: Install a new storage tank with a minimum active storage capacity of 5.3 MG.
- Zone 4-Tracy Hills Tank: Install a new storage tank with a minimum active storage capacity of 3.5 MG.
- Zone 5-Tracy Hills Tank: Install a new storage tank with a minimum active storage capacity of 0.6 MG.

Groundwater Wells

- Gateway: Install a new ASR well with a minimum firm pumping capacity of 2,500 gpm.
- Cordes Ranch: Install a new ASR well with a minimum firm pumping capacity of 2,500 gpm.
- Ellis: Install a new ASR well with a minimum firm pumping capacity of 2,500 gpm.



Booster Pumping Facilities

- JJWTP Expansion: Increase the firm treated surface water pumping capacity to meet minimum buildout maximum day water demands.
 - Zone 2 Booster Pump Station (BPS): Replace one existing small pump (design flow of 3,300 gpm) with a new pump with a design flow of 6,700 gpm (to match existing large pumps).
 - Zone 3 City-site BPS: Install a new booster pump station with a minimum firm pumping capacity of 4,500 gpm.
 - Zone 3 Tracy Hills BPS: Install a new booster pump station with a minimum firm pumping capacity of 2,400 gpm.
 - Zone 4 Tracy Hills BPS: Install a new booster pump station with a minimum firm pumping capacity of 1,700 gpm.
- Zone 5-Tracy Hills BPS: Install a new booster pump station with a minimum firm pumping capacity of 240 gpm.
- Catellus Tank: Install a new booster pump station with a minimum firm pumping capacity of 4,500 gpm.
- Gateway Zone 1 Tank: Install a new booster pump station with a minimum firm pumping capacity of 4,500 gpm.
- Gateway Zone 2 Tank: Install a new booster pump station with a minimum firm pumping capacity of 4,500 gpm.
- Cordes Ranch Tank: Install a new booster pump station with a minimum firm pumping capacity of 4,500 gpm.

Potable Water Pipelines

- To serve buildout water demands, install approximately 623,360 linear feet of new pipelines ranging in diameter from eight to 24 inches.
- To serve buildout water demands, upsize approximately 6,960 linear feet of existing pipelines.

Interconnections

- Install the following interconnections between pressure zones to provide supply during peak demands and/or emergency conditions:
 - Pressure Regulating Station (PRS) #6 (from Zone 2 into Zone 1)
 - PRS #7 (from Zone 2 into Zone 1)
 - PRS #8 (from Zone 3-City-side into Zone 2)
 - PRS #9 (from Zone 3-City-side into Zone 2)
 - PRS#10 (from Zone 3-City-side into Zone 2)
 - PRS#A (from Zone 3-City-side into Zone 3-Tracy Hills)
 - Ellis Zone 2 pressure reducing valve (PRV) (from Zone 3-City-side into Zone 2)
 - Zone 3-Tracy Hills PRV (from Zone 4-Tracy Hills into Zone 3-Tracy Hills)



- Two – Zone 4-Tracy Hills PRVs (from Zone 5-Tracy Hills into Zone 4-Tracy Hills)
- Install an individual PRV on any water service connection with a static pressure exceeding 80 psi.

SCADA System/Backup Power

- Install SCADA system monitoring of flows and pressures at each new water supply facility to provide operators with real-time system data and flexibility in system operations.
- Install onsite backup power to any proposed buildout system pumping facility to improve supply reliability.

Buildout Recycled Water System

The City intends to construct and operate a recycled water system to reduce treated effluent discharges to Old River and to offset potable water demands. The recommended recycled water system would serve some development projects with approved supply and all the future service areas, including the proposed Tracy Hills development. The recommended recycled water system would collect and treat water at the existing Holly Drive WWTP, and then distribute the recycled water to meet water demands from irrigation. The City's recycled water demand at buildout is projected to be approximately 7,500 af/yr for landscape irrigation of parks and other landscaped areas within the City's SOI.

The recommended buildout recycled water system includes the following components; refer to Figure 4 (Recommended Recycled Water System CIP):

Recycled Water Pipelines

- 325,500 linear feet of recycled water pipelines ranging from eight to 30-inch diameter to serve the City-side recycled water system
- 59,200 linear feet of recycled water pipelines ranging from eight to 24-inch diameter to serve the Tracy Hills recycled water system

Pump Stations

- Zone A pump station to serve main part of City (23 mgd)
- Zone B pump station to serve main part of City (14 mgd)
- Zone C pump station to serve main part of City (4.1 mgd)
- Zone C pump station to serve Tracy Hills (6.5 mgd)
- Zone D pump station to serve Tracy Hills (4.3 mgd)



Diurnal Storage

- Diurnal Storage for main part of City
 - Holly Drive WWTP (3.0 MG)
 - Zone Storage at Zone A Hydraulic Grade (5.0 MG)
 - Diurnal storage for Tracy Hills Zones C and D (2.0 MG)

Recommended Capital Improvement Program

The WSMP includes a recommended CIP for the City’s existing and buildout potable water system and proposed buildout recycled water system to support the City’s projected buildout potable and recycled water demands, respectively. An additional analysis to evaluate the potential development impacts fees that will be required to fund the buildout potable and recycled water system capital improvement costs, which have been allocated to new development, are provided in a separate document.

Tracy Wastewater Master Plan

Overview

As stated previously, the WWMP identifies the wastewater infrastructure necessary to serve future wastewater flows in the City. The WWMP is a comprehensive update of the 1994 City of Tracy WWMP in fulfillment of Objective PF-7.1, Action A1 of the Public Facilities and Services Element of the General Plan. At the direction of City staff, the WWMP investigates two options regarding the number of treatment plants. A single-plant option includes expanding the existing wastewater treatment plant (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.

Future Wastewater Flows

The WWMP projects future wastewater flows based on the most current land use planning data available and wastewater generation factors. The WWMP divides total future wastewater flow within the City is into the following categories:

- Current flow to the existing WWTP
- The maximum allocated flow from Leprino Foods
- City infill and vacant land projects
- Operational discharge capacity reserve
- Development projects with “approved” wastewater capacity
- Unused allocated capacity of constructed developments
- Future Service Areas



Future wastewater flows generated from development projects includes projects with some level of City-approved wastewater capacity but not yet constructed; and Future Service Areas, which include all other future development projects. It should be noted that a portion of the “approved” development projects have approved financing, while others do not.

The wastewater generation factors used in the WWMP have been updated from current City standards to reflect the changes in both water utilization and population density. Table 2 (City of Tracy Existing and Updated Wastewater Generation Factors) identifies the City’s existing and updated wastewater generation factors.

Table 2: City of Tracy Existing and Updated Wastewater Generation Factors

Flow Parameter	Current Wastewater Generation Factors	New Wastewater Generation Factors
Per Capita Flow	100 gpcd	80 gpcd
Residential Flow – VLD	300 gpd/unit	264 gpd/unit
Residential Flow – LD	300 gpd/unit	264 gpd/unit
Residential Flow – MD	250 gpd/unit	216 gpd/unit
Residential Flow – HD	200 gpd/unit	176 gpd/unit
Industrial Flow	1,500 gal/acre/day	1,056 gal/acre/day
Retail and Commercial Flow	1,375 gal/acre/day	1,375 gal/acre/day
Office Flow	1,375 gal/acre/day	1,140 gal/acre/day
Notes: gal = gallons gpcd = gallon(s) per capita per day gpd = gallon(s) per day HD = high density LD = low density MD = medium density VLD = very low density		

Source: City of Tracy, *Tracy Wastewater Master Plan*, November 2012.

Table 2 indicates a reduction in the per capita flow rate from the City’s current standard. The proposed WWMP justifies this reduction due to future development consisting of new construction, which typically results in less infiltration because of better materials and construction methods, and because residential units will be outfitted with the latest in water conserving fixtures. Additionally, these wastewater generation factors are consistent with the indoor water consumption assumed for industrial, commercial, and office related land uses in the proposed WSMP. The WWMP used the residential and non-residential generation factors shown in Table 2 to develop the average dry weather flow (ADWF) on a daily basis. The ADWF is the foundation used to determine the peak wastewater flows that are used to size the required wastewater infrastructure. The WWMP estimates the total future ADWF will be 21.06 mgd.

Peak wet weather flow (PWWF) is the most important criteria used for hydraulic considerations (for example, collection systems, pumping stations, and treatment processes dependent upon



hydraulic loading). The PWWF used in the proposed WWMP is based on peak dry weather flow (PDWF), groundwater infiltration, and rainfall induced inflow/infiltration. The WWMP estimates the total PWWF of the future system to be 49.1 mgd, resulting in a peak weather peaking factor of 2.33.

Future Wastewater Loadings

According to the WWMP, future mass loadings generated within the Future Service Areas are important for determining the sizing of the major unit processes within the WWTP. While wastewater flow rates are anticipated to decrease on a per capita basis, as described above, the WWMP anticipates that overall wastewater loading rates are to remain relatively steady. The two mass loading parameters utilized by the WWMP are biochemical oxygen demand (BOD) and total suspended solids (TSS). The WWMP assumes nutrient fractions to be consistent with domestic sewage. Assumptions used by the WWMP to generate future wastewater loadings are shown in Table 3 (Wastewater Loading Generation Factors).

Loading assumptions shown in Table 3 are consistent with planning efforts used in other communities, and assume that no “wet” industry (for example, an industry that uses process water that is discharged to the sewer system) will locate in the Tracy area. The Industrial loading shown in Table 3 is based on four EDUs, assuming a low density residential land use. Retail and commercial land use areas have the greatest loading generation factor because this category contains restaurants, which generate high strength wastewaters. These values are consistent with previous loading evaluations within the City and, therefore, present typical mass loading generated based on the best available information at the time.

Table 3: Wastewater Loading Generation Factors

Parameter	BOD Loading	TSS Loading
Per Capita Loading	0.18 lb/cap-day	0.21 lb/cap-day
Industrial Loading ¹	2.4 lb/acre	2.8 lb/acre
Office Loading ²	1.2 lb/acre	1.4 lb/acre
Retail and Commercial Loading	3.3 lb/acre	3.8 lb/acre
Notes: 1. Based on four equivalent dwelling units (EDUs)/acre 2. Based on two EDUs/acre Lb/cap-day = pounds per capita per day		

Source: City of Tracy, *Tracy Wastewater Master Plan*, November 2012.

The WWMP estimates the total average BOD and TSS mass loading to the wastewater treatment system will be 46,445 pounds per day and 48,247 pounds per day, respectively. Peaking factors associated with these loading rates are based on review of the historical loading data from the existing treatment plant. These peaking factors are as follows:

- Peak Month BOD = 1.2
- Peak Month TSS = 1.2
- Peak Day BOD Loading = 2.1



- Peak Day TSS Loading = 2.4

Recommendations to Address Potential Future Regulatory Requirements

Multiple current wastewater and biosolids regulations affect the Tracy WWTP, and are addressed through existing treatment and mitigation practices. Future regulatory projections indicate that modifications to the current wastewater treatment practices are likely to be necessary in the future. Recommendations regarding a path forward are discussed in Section 4 of the WWMP, and could include the following:

- Operational changes within the plant (for example, longer solids retention time) could result in biodegradation of some compounds of emerging concern (CECs). Specific regulatory goals are unknown at this time as the industry is focusing on the investigative science.
- Tightening source control requirements throughout the sewage service area for CECs would prove beneficial.
- Potentially greater removal of nitrogen compounds, and possibly phosphorus removal, may be required in the future.
- An alternative disinfection system, such as combined UV-chloramination or UV-ozone oxidation, may be required to control disinfection byproduct (DBPs).
- Planning for membrane technology, or similar advanced treatment options, to address salinity and otherwise mitigate future wastewater regulatory requirements. Alternatively, implementation of pollution prevention measures before addressing salinity reduction through new or improved treatment processes may prove to be more cost efficient.
- Determination and regulation (pretreatment or source control) of large salinity sources within the collection area. Self-regenerating water softeners, which discharge spent brine into the wastewater collection system, are a major source of salinity in many wastewater collection systems; additionally, self-regenerating water softeners can consume up to 300 gallons of water per week during the regeneration cycle when the brine solution is flushed through the system. Infiltration of poor quality groundwater into the sewer collection system is also a likely source of salinity; correction of sewer collection system defects, while costly, can have a significant impact on the reduction of salinity. Finally, source control approaches for industrial discharges with high levels of salinity can often lead to improvement.
- Planning for thermal control (cooling) of effluent to minimize the impact on fisheries during critical periods of time in the Old River. Mechanical cooling units (towers) are considered a better choice than the use of constructed wetlands given recent concerns associated with methyl mercury generation in wetland systems.
- There are costs and uncertainties regarding the City's ability to secure a National Pollutant Discharge Elimination System (NPDES) permit for increased surface water discharge for flows greater than the currently permitted 16 mgd (ADWF). The alternative to direct discharge would involve the reuse of the wastewater effluent, either for urban irrigation, industrial use, or for agricultural irrigation.
- Considering potential biosolids regulatory requirements if, in the future, modifications are made to the current solids handling process. At this time, the most promising and



least-cost alternative is to retain (and expand, if required) the drying bed operation for sludge dewatering and not change operations.

For the purposes of treatment plant layouts necessary to serve buildout of the General Plan, the WWMP recommends that all potential treatment requirements be included in the analysis to allow for sufficient land area for the ultimate treatment facilities.

With respect to discharging effluent (from one plant or multiple plants), it is recommended that the future Specific Plan studies assume that flows greater than 16 mgd (ADWF) will be land-applied or otherwise reused rather than directly discharged to a water body. This recommendation reflects the uncertainties of acquiring a permit to discharge more than 16 mgd (the current ADWF allowed in the City's existing permit) to the Old River. This assumption should be re-evaluated and tested with the RWQCB when the total flow rate from the community approaches the 16-mgd limit.

Wastewater Treatment Facility Recommendations

As stated previously, at the direction of City staff, the WWMP investigates two options regarding the number of treatment plants. The single-plant option would expand the existing WWTP from 10.8 mgd to 21.1 mgd. The two-plant option would expand the existing treatment plant from 10.8 mgd to 19.1 mgd and construct a new, 2.0-mgd Water Recycling Facility (WRF) that would only process wastewater from the Tracy Hills development project; both facilities would be capable of treating water to Title 22 (California Code of Regulations) unrestricted reuse standards. For the one-plant option, the existing WWTP would be expanded to process 100 percent of the wastewater generated within the SOI. For the two-plant option, wastewater generated within the Tracy Hills development project would be treated to Title 22 standards for reuse applications within the development. All remaining wastewater flows generated within the SOI would be conveyed to the existing WWTP located on Holly Drive.

One Plant versus Two Plant Option

An alternatives analysis was performed to evaluate the one-plant and two-plant options from an economic perspective. Capital and operational cost estimates were prepared from conceptual-level designs of the two options, which include cost estimates for wastewater treatment, wastewater conveyance systems, pump stations, and reclaimed water distribution systems. Infrastructure requirements that are identical for both options were not explored in detail because the analysis focused on the differentiators of the two options. The basic reclaimed water distribution system was retained for both options, but the one-plant option would require additional piping and pumping to transfer recycled water from the existing WWTP location to the Tracy Hills community. Energy costs associated with these additional pumping needs are captured and included in the one-plant option.

Based on the analysis, the cost of the two-plant option would be slightly higher than the cost of the one-plant option. Further, the existing plant could be readily expanded in relatively small increments (with costs spread among a larger user group), but the Tracy Hills WRF would require a major capital infusion for the initial phase of construction (with costs spread among a



smaller user group initially). Thus, the WWMP recommended that the City move forward with a one-plant option that would convey all wastewater generated within the SOI to the City's existing WWTP located at Holly Drive. According to the WWMP operational and maintenance (O&M) costs associated with operating two wastewater treatment plants is typically greater than the O&M costs required for one plant. Although the alternatives analysis did not investigate non-monetary factors, the WWMP points out that additional traffic requirements for deliveries, odor potential at a second site, and overall management requirements would increase for multiple plants.

Existing WWTP Recommended Improvements

Expanding the WWTP located at Holly Drive for the one-plant option would require a phased approach. According to the WWMP, a detailed investigation of the timing of the proposed development projects anticipated within the Future Service Areas would be necessary to better understand the future wastewater treatment demand. The WWMP identifies the ultimate expansion strategy for the City's WWTP to include modifying and expanding the existing plant to a 21.1-mgd ADWF membrane bioreactor (MBR) facility capable of producing Title 22 effluent for unrestricted irrigation use. The projected PWWF for the WWTP is 50.5 mgd and would require several hydraulic modifications in addition to modifications required for increased treatment capacity. General unit process modifications are presented below. Figure 5 (Process Flow Diagram) depicts the proposed conceptual layout of the upgrades recommended for the City's existing WWTP.

The existing headworks facility would be modified for both screening and the removal of fat, oil, and grease. An additional mechanical screen would be required for the future peak flows while maintaining one redundant unit. In addition, fine screens with openings no greater than two mm would be required. An alternative location for fine screening could be after primary clarification.

The secondary treatment system would be modified from a conventional activated sludge system to an MBR system in stages. The existing process train would be employed for ADWF up to 16 mgd, and those improvements would be retained for service for as long as they remain reliable. The proposed MBR improvements would be added to the system in subsequent expansion phases or at such time that either more restrictive discharge requirements mandate a change in treatment process or when the useful life of the existing process train has ended. During the period when two treatment trains are present (existing activated sludge and membranes), the effluent from each would be comingled prior to discharge; MBR effluent, which would be of better quality, could preferentially be diverted to either reuse or direct discharge, depending on the more stringent requirements for either use that are then in existence.

The existing digester complex would be expanded to provide additional stabilization volume to maintain current solids disposal practices. Because the regulatory and public perception regarding land application of biosolids is anticipated to result in changes for obtaining a Class A biosolids product, it is recommended that the City investigate other processes. For example, temperature-phased anaerobic digestion is a viable option for obtaining Class A biosolids.



The increased solids produced by future flows would require an increase in drying bed area for dewatering stabilized biosolids. To minimize the additional land required for dewatering, the WWMP recommends that the City evaluate mechanical dewatering to augment the drying beds. This would also provide operational flexibility, as digested solids could be thickened to approximately 16 percent total solids and then applied to the drying beds to achieve an optimum dried product. During the winter months when rain is more prevalent, the mechanical dewatering system could be used with additional polymer to achieve a dewatered product greater than 20 percent total solids.

Major Wastewater Conveyance Facilities

The WWMP describes the major wastewater conveyance facilities (18 inches in diameter or larger) that are anticipated at buildout to convey wastewater from the Future Service Areas in the City to the City's WWTP located at 3900 Holly Drive. The WWMP subdivided the Future Service Areas into two main catchments: the east catchment Future Service Areas, which includes Rocha, UR1 (Alvarez and others), Chrisman Road, and Eastside Industrial and the west catchment Future Service Areas, which includes Tracy Hills, South Linne, UR10 (Ellis), UR9 (Keenan), Kagehiro, Westside Industrial, Cordes Ranch, Gateway (excluding Phase 1), UR5 (Bright), UR7 (Bright), UR8 (Fahmy), Berg/Byron, Catellus, Filios, I-205 Expansion, and Larch Clover. Conveyance facilities related to Gateway (Phase 1) were not considered in the WWMP as they were assumed to be accounted for in the Hansen Sewer System as described in the Tracy Gateway – Phase 1 Finance and Implementation Plan (CH2M HILL, 2003). The west catchment is served by the new Lammers Sewer System and improvements and upgrades to the Corral Hollow Sewer System.

The conceptual layout and sizing of conveyance facilities presented in the WWMP follow the guidelines and criteria prescribed in the 2008 City of Tracy Design Standards (City of Tracy, 2008), but previously employed unit flow rates were reduced to reflect national (and City of Tracy) trends associated with the use of water saving fixture units, as described previously. Refer to Figure 6 (Recommended Major Wastewater Conveyance Facilities) for a depiction of the locations of the recommended major wastewater conveyance facilities.

The recommended “backbone” wastewater system improvements required to serve buildout wastewater generation are summarized below. As stated previously, it should be noted that these recommendations only identify facility improvements at a Master Plan level and do not necessarily include all required onsite infrastructure, nor constitute design of improvements. Subsequent detailed design is required to determine the exact sizes and final locations of these proposed facility improvements.

As noted previously, new wastewater infrastructure is recommended in locations without that existing facility and expansions of existing wastewater infrastructure would occur in locations with existing facilities. The WWMP indicates the right-of-way that would be necessary based on a qualitative assessment only, as the buildout year is in the distant future and thus vague and subject to change. Further, as stated previously, while the WWMP provides detailed recommendations of seemingly “specific” improvements, it must be emphasized that these are preliminary “Tier 1” recommendations based on only qualitative assessment and preliminary



engineering design and as a result, do not as of yet, have the specific identified project details and in many instances specific identified project locations necessary for a meaningful evaluation of potential environmental impacts. As stated in the WWMP, additional preliminary design is outside the scope of the WWMP.

East Catchment

Wastewater generated from the east catchment Future Service Areas would be conveyed to the Tracy WWTP via a new force main, upgrades to the MacArthur Pump Station, and new gravity sewer pipelines. Necessary infrastructure is described below.

A new 14-inch-diameter force main would be required to convey 4.25 mgd from the east catchment Future Service Areas to the Tracy WWTP. This section of pipe would extend from the Tracy WWTP to the east along the northern boundary of Interstate 205 to the MacArthur Pump Station. Known major crossings include the Eastside Drainage Channel and the Southern Pacific Railroad (SPRR). For the purposes of estimating capital costs, it is assumed that open-cut trenching technologies would be implemented at the Eastside Drainage Channel, and trenchless technologies would be required to install the pipeline beneath the railroad.

- The MacArthur Pump Station would require significant improvements to accommodate an additional wastewater flow rate of 4.25 mgd. Preliminary calculations indicate that a pump input of 50 horsepower (hp) would be necessary to accommodate flows from the east catchment Future Service Areas. Expanding the existing wet well would also be necessary to control pump cycling to acceptable limits.
- A new gravity sewer line with a conveyance capacity of approximately 0.40 mgd to 4.25mgd would be required to convey wastewater generated from the east catchment Future Service Areas to the MacArthur Pump Station. The proposed trunk sewer would extend from the MacArthur Pump Station to the east along the northern boundary of Interstate 205 to Paradise Avenue; south along Paradise Avenue; west along the northern boundary of Future Service Area Chrisman Road; south on Chrisman Road; bisect the northern end of UR 1 (Alvarez and others); and south on MacArthur Drive to its terminus near the northern boundary of Future Service Area Rocha. Trenchless technologies would be required to install the pipeline beneath Interstate 205 and the SPRR.

West Catchment

Wastewater generated from the west catchment Future Service Areas would be conveyed to the Tracy WWTP via new or upgraded force mains, pump stations, and gravity sewer pipelines. A portion of the west catchment Future Service Areas wastewater would be transmitted to the Corral Hollow Sewer System and the remainder to the proposed Lammers Sewer System. The Lammers Trunk Sewer would extend from the intersection of Naglee Road and Larch Road (location of proposed pump station), along Naglee Road and parallel to the Hansen Trunk Sewer, and south on Lammers Road to West Schulte Road.



Lammers Sewer System

The anticipated conceptual horizontal and vertical alignments are summarized as follows:

- A new 30-inch-diameter force main would be required to convey 20.11 mgd from the west catchment Future Service Areas (not including the wastewater diverted to the Corral Hollow Sewer System) to the Tracy WWTP. This section of pipe would extend from the Tracy WWTP to the west along Larch Road to its terminus at Naglee Road, where a new pump station would be located. Known major crossings include an irrigation/drainage canal located near Naglee Road. For the purposes of estimating capital costs, it is assumed that open-cut trenching technologies would be implemented at this crossing.
- A new 20.11-mgd pump station would be required to convey wastewater generated from the west catchment Future Service Areas to the Tracy WWTP. The new pump station would be located at the intersection of Naglee Road and Larch Road. Preliminary calculations indicate that a pump input of 330 hp would be necessary to accommodate flows from the west catchment Future Service Areas (not including the wastewater diverted to the Corral Hollow Sewer System).
- A new gravity sewer line, referred to as the Lammers Trunk Sewer, with a conveyance capacity of approximately 4.28 mgd to 18.77 mgd (not including Future Service Area Larch Clover) would be required to convey wastewater generated from the west catchment Future Service Areas to the new pump station located at the intersection of Naglee Road and Larch Road. The proposed Lammers Trunk Sewer would extend from the new pump station (described above), along Naglee Road and parallel to the Hansen Trunk Sewer, south on Lammers Road to West Schulte Road. Known major crossings include the Hansen Trunk Sewer (two locations) and an irrigation canal and siphon. For the purposes of estimating capital costs, it is assumed that open-cut trenching technologies would be implemented at the Hansen Trunk Sewer crossings, and trenchless technologies would be required to install the pipeline beneath the irrigation canal and siphon.
 - Future Service Area Larch Clover is located downstream of the gravity conveyance improvements (Lammers Trunk Sewer). It is assumed that Future Service Area Larch Clover would discharge directly to the new pump station located at the intersection of Naglee Road and Larch Road.
 - Conveyance improvements (that is, laterals) of less than 18 inches in diameter that would connect individual Future Service Area projects to the proposed Lammers Trunk Sewer are not included in WWMP, unless there are no adjacent Future Service Areas that would otherwise be responsible for the installation of these laterals. In those limited cases, the smaller pipeline is included in the WWMP in order that the associated costs might be captured.
- A new 14-inch-diameter force main would be required to convey 4.28 mgd from the new pump station to the Lammers Trunk Sewer. This section of pipe would extend from the Lammers Trunk Sewer to the northeast along West Schulte Road to its terminus at Corral Hollow Road, where the new pump station would be located.



- A new 4.28-mgd pump station would be required to convey a portion of the wastewater generated upstream to the Lammers Trunk Sewer. The new pump station would be located near the intersection of West Schulte Road and Corral Hollow Road. Preliminary calculations indicate that a pump input of 130 hp would be necessary.

Corral Hollow Sewer System

A portion (3.55 mgd) of the wastewater would be conveyed to the Tracy WWTP via the Corral Hollow Trunk Sewer and Hansen Pump Station and force main. The following describes the new conveyance facilities (that is, improvements) and the necessary upgrades to the Corral Hollow Trunk Sewer and Hansen Pump Station and force main to provide additional capacity.

Corral Hollow Trunk Sewer Improvements

A new gravity sewer line with a conveyance capacity of approximately 5.91 mgd would be required to convey wastewater to the new pump station located near the intersection of West Schulte Road and Corral Hollow. This section of pipe would extend to Future Service Area South Linne. The proposed improvements would be sized to accommodate the PWWFs from Future Service Areas within the Corral Hollow Road sewer shed (including Standard Pacific and Infill properties).

A portion of PWWFs in excess of the Corral Hollow Trunk Sewer hydraulic capacity would be diverted to the existing relief sewer extending from manhole 15 to the Hansen Pump Station. The existing relief sewer is a 12-inch-diameter pipe with a hydraulic capacity of approximately 1.02 mgd. The existing relief sewer would not accommodate the PWWF from the Future Service Areas; therefore, a second relief sewer (parallel to the existing relief sewer) would be necessary. The proposed relief sewer would consist of approximately 2,180 linear feet of 21-inch-diameter gravity sewer pipe and associated improvements (i.e., manholes). The proposed parallel relief sewer would be sized to provide additional relief capacity of up to 3.55 mgd. It is anticipated that the proposed parallel relief sewer would be constructed on the same grade as the existing relief sewer.

Corral Hollow Trunk Sewer Upgrades

Sections of the existing Corral Hollow Trunk Sewer would be upgraded to provide new capacity..

The PWWFs from existing users of the Corral Hollow Sewer System are currently accommodated by the existing system (that is, no surcharging). However, the introduction of additional flows to the system (i.e., 3.55 mgd) causes surcharging of the pipe between manhole 46 and manhole 15. The upgrades are required to prevent surcharging the pipeline between manhole 46 and manhole 15. The proposed replacement pipe diameters would be one to two diameter sizes larger than the pipe being replaced.

For the purposes of the WWMP, it was assumed that these upgrades would be implemented using conventional open-cut construction. However, the WWMP recommends that subsequent



engineering evaluations should consider the possibility of implementing the required upgrades by use of pipe bursting technology. The benefits of pipe bursting generally include limiting construction disturbance, utility impacts, and right-of-way acquisition. Additionally, the existing Corral Hollow Trunk Sewer is constructed with vitrified clay pipe (VCP); VCP is well suited to pipe bursting for upgrades. All of the previously mentioned benefits would be significant factors that would favor pipe bursting over the construction of a parallel or replacement pipe. Regardless, open-cut construction may be required if pipe bursting is found to be infeasible because of ground conditions, proximity of existing utilities and sensitive surface structures, or a variety of other factors. A final decision cannot be made until additional preliminary design is completed, which is outside the scope of the WWMP.

Hansen Pump Station and Force Main Upgrades

The Corral Hollow Sewer System currently conveys flows to the Larch Road Pump Station; however, during peak wet weather events, a portion is conveyed in the existing relief sewer to the Hansen Pump Station. The PWWFs generated from the Future Service Areas (including Standard Pacific and Infill properties) would require improvements to the Hansen Pump Station and force main to transmit additional flows to the Tracy WWTP.

The Hansen Pump Station is currently capable of pumping 3.9 mgd and is configured to allow expansion to 6.58 mgd, according to the Capacity Analysis of the Hansen Sewer Collection System for Tracy Gateway (Ruark, 2006). The City is proceeding with the design and construction of this expansion. The Hansen Pump Station buildout capacity (6.58 mgd) is consistent with the committed capacity of the Hansen Trunk Sewer. Furthermore, the existing force mains (12-inch-diameter and 14-inch-diameter) serving the Hansen Pump Station currently transmit flows to the Larch Road Pump Station. These force mains are capable of accommodating the Hansen Pump Station buildout capacity (6.58 mgd) (Ruark, 2006). The capacity of the expanded Hansen Pump Station and force main contemplated in the WWMP is 11.15 mgd, based on the following:

- Hansen Sewer System committed capacity is 6.58 mgd.
- Approximate PWWF transmitted from the Corral Hollow Sewer System to the Hansen Pump Station via the existing relief sewer is 1.02 mgd.
- PWWF associated with 5,420 EDUs from Future Service Areas is 3.55 mgd.

The original intent described in the Ruark report and that proposed in the WWMP is to disconnect the existing force mains (12-inch-diameter and 14-inch-diameter) from the Larch Road Pump Station and extend a single force main from the Hansen Pump Station to the Tracy WWTP. The proposed force main would extend from the WWTP to the west along Larch Road, south on Corral Hollow Road, to the Hansen Pump Station (approximately 10,500 feet). The flow velocity within the existing force mains (12-inch-diameter and 14-inch diameter) exceeds criteria at the proposed buildout PWWF rate of 11.15 mgd. As a result, a new 24-inch-diameter force main would be necessary to limit flow velocities in the pipe to acceptable levels.



To expand the Hansen Pump Station capacity to 11.15 mgd, significant improvements to the mechanical and electrical components would be required. In addition, replacing and expanding the existing wet well would also be necessary to accommodate larger pumps and control pump cycling to acceptable limits. Preliminary calculations indicate that a pump input of 200 hp would be necessary to accommodate the PWWF rate of 11.15 mgd.



E. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

- | | | |
|---|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forest Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology and Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology & Water Quality |
| <input type="checkbox"/> Land Use & Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population & Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities & Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

F. DETERMINATION

On the basis of this initial evaluation:

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

SIGNATURE

DATE



G. EVALUATION OF ENVIRONMENTAL IMPACTS

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

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

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

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

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



H. ENVIRONMENTAL ANALYSIS

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

I. AESTHETICS

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

Would the Project:

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

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

- Views of the Diablo Range. Rising from the southwest portion of the Tracy Planning Area, the Diablo Range extends from near sea level to 1,652 feet and provides a visual barrier between the Central Valley and the San Francisco Bay Area. Generally, the



eastern slopes visible from Tracy have not been developed and contain sporadic tree groupings.

- Natural Landscapes Surrounding the Paradise Cut, Old River and Tom Paine Sloughs. Located on the north side of the Tracy Planning Area, these landscapes are represented by streamside vegetation that provides visual contrast as they run through the relatively flat agricultural lands.
- Expansive Agricultural Lands. The land surrounding the City contains agricultural lands that are used for row crops and grazing.
- Hillside Areas. Hillside areas, located on the south-western side of the City to the west of I-580, including in the Tracy Hills Specific Plan area, are a visual amenity for residents of the City and travelers on I-580.
- Electricity-Generating Windfarms. Located on the ridgetops west of the City and close to the Altamont Pass, windfarms are visible from Tracy on clear days.

In addition to the scenic resources described above, the General Plan EIR also identifies entry corridors/gateways and scenic routes in the Tracy Planning Area. Entry corridors or gateways provide both visitors and residents with their initial impression of Tracy and a transition from a rural to urban environment. Interstate 580 (I-580) is a major entry corridor to the Central Valley from the Bay Area. Drivers heading west on Interstate 205 (I-205) are provided with views of the surrounding lands and coastal range beyond Tracy to the southwest. There are also numerous gateways into the City from Interstate roadways. These gateways include exits from I-205 on MacArthur Drive, Tracy Boulevard, Grant Line Road and Eleventh Street, and exits from I-580 at Lammers Road and Corral Hollow Road.

The General Plan EIR contemplated the effects of growth in the City's SOI and Planning Area under a 20-year development scenario and at total buildout for visual quality. The recommended infrastructure identified by the WSMP and the WWMP would accommodate growth envisioned for the City by the General Plan during the total buildout scenario timeframe. Thus, because the infrastructure identified by the WSMP and the WWMP would be necessary during the total buildout development scenario timeframe analyzed in the General Plan EIR for this resource, implementation of the WSMP and the WWMP would not be expected to result in any greater impacts on scenic vistas and views than those identified by the General Plan EIR. As described in the General Plan EIR, in spite of existing policies and regulations to preserve agricultural and open space lands, development projected for the 20-year development scenario and under total buildout of the City limits and SOI would result in significant and unavoidable impacts on scenic views from regional roadways.

The WSMP and the WWMP identify necessary new infrastructure to serve the City's water and wastewater needs at buildout of the City's General Plan, which consists of buildout of development projects with approved water supply (including infill) and future service areas within the City's SOI. Construction and operation of this infrastructure has the potential to impact scenic resources and the overall visual character and quality of some areas within the City and SOI. However, it should be noted that the WSMP and the WWMP are policy documents and do not propose the construction or operation of specific water supply or wastewater infrastructure projects at this time. Consequently, adoption of the WSMP and the WWMP would not directly result in the construction and operation of infrastructure that could negatively impact



scenic vistas. Although, their adoption would indirectly facilitate the construction and operation of water supply and wastewater infrastructure that could negatively impact scenic vistas, this potential impact would be less than significant for the reasons described below.

Water supply infrastructure recommended by the WSMP, includes surface treatment facilities (new water storage tanks, infrastructure necessary for the expansion of the JJWTP), groundwater wells (new ASR wells), booster pumping facilities (upgrades to existing facilities and construction of new facilities), potable water pipelines (installation of new pipelines and upsizing existing pipelines), interconnections (new pressure regulating stations), new SCADA systems/backup power at all new water supply facilities, recycled water pipelines (installation of new pipeline), pump stations, and diurnal storage. Wastewater infrastructure identified by the WWMP includes infrastructure necessary to expand the City's existing WWTP, installation of new or upgraded force mains, pump stations, and gravity sewer pipelines, upgrades to the MacArthur Pump Station and Hanson Pump Station, as well as improvements and upgrades to the Corral Hollow Trunk Sewer. With the exception of water storage tanks, expansion of the JJWTP, pump stations, and pressure regulating stations, the majority of infrastructure identified in the WSMP and the WWMP would occur at or below ground level.

During short-term construction activities, view sheds may be temporarily altered by site disturbance, vegetation removal, and the placement of construction equipment, signage and warning markers. However, construction impacts would be temporary in nature and, therefore, would be less than significant. After construction of the identified infrastructure, long distance views of scenic resources could be permanently altered. However, other views of these scenic resources would be available from other areas within the City. Regardless, groundwater wells, potable/recycled water pipelines, gravity sewer pipelines, and force mains would be placed underground within existing or proposed rights-of-way, or within water or sewer easements and, therefore, would not impact a scenic vista. New and upgraded booster pumping facilities, new pressure regulating stations, pump stations, and diurnal storage would be located above ground and would be visible. As part of the future detailed design of these facilities recommended by the WSMP and WWMP, the City would require the integration of aesthetic treatments, which would include landscaping requirements to reduce aesthetic impacts. SCADA systems/backup power at all new water supply facilities, upgrades to the MacArthur Pump Station and Hanson Pump Station, and infrastructure necessary to expand the City's existing JJWTP and WWTP would be implemented within existing City owned facilities and, therefore, are not anticipated to be visible improvements that could impact a scenic vista.

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

Interstate 580 (I-580) is a state-designated scenic highway that stretches approximately 15 miles from I-5 to SR-205 within the City. Although the WWMP does not identify any improvements in the vicinity of I-205, the WSMP does identify some improvements, including water storage tanks in the vicinity of I-205. Nonetheless, the General Plan EIR did not identify any significant visual resources, including trees, rock outcroppings, or historic buildings within the I-580 corridor. Thus, a less than significant impact is anticipated in this regard.



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

As noted in the General Plan EIR, accommodating all the growth beyond the 20-year planning horizon of the proposed General Plan, will convert all (or nearly all) of the undeveloped land in the City limits and SOI to urban uses, thereby altering the overall visual and aesthetic resources in the City, resulting in a significant and unavoidable impact on the existing visual identity and character of the City. Because the infrastructure identified by the WSMP and the WWMP would accommodate growth envisioned for the City by the General Plan beyond the 20-year planning horizon of the General Plan (during the total buildout scenario timeframe), neither the WSMP or the WWMP would be expected to result in any greater impacts on the existing visual identity and character of the City than those identified by the General Plan EIR for this resource.

Regarding the potential for the recommended improvements to substantially degrade the existing visual character or quality of their sites and surroundings, refer to Response I.a, above. Impacts would be less than significant.

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

Water supply infrastructure identified in the WSMP and wastewater infrastructure identified in the WWMP would potentially create new sources of light and glare. During construction, job sites would require security lighting and long-term, some above ground infrastructure identified by the WSMP and WWMP (i.e., water storage tanks, booster pump stations, pressure regulating stations, etc.) would require security lighting and generate operational light and glare. Both short-term construction and long-term sources of light and glare could adversely affect day or nighttime views in the area.

City Standard Plan #154 establishes minimum requirements for light illumination, but does not have regulations limiting glare. The General Plan EIR determined that the amount of new development envisioned for the City during the General Plan's 20-year development scenario and total buildout scenario would increase light and glare in the City, but adherence to General Plan Policy P5 under Objective CC-1.1, which requires that lighting on private and public property be designed to provide safe and adequate lighting while minimizing light spillage to adjacent properties, would reduce potential impacts to less than significant. Given that the infrastructure identified by the WSMP and the WWMP would be necessary during the total buildout development scenario analyzed in the General Plan EIR, impacts associated with the WSMP and the WWMP would not be expected to be any greater than those identified by the General Plan EIR.

Regardless, the City addresses light and glare issues on a case-by-case basis during the development review process and typically adds requirements to shield and protect against light spillover from one property to the next as conditions of project approval. Title 10.08.4000 of the Tracy Municipal Code requires that site plans and architectural design include exterior lighting and devices, and be reviewed by the Development and Engineering Department. Adherence to required City lighting standards would reduce potential impacts to less than significant.



II. AGRICULTURE RESOURCES

AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Would the Project:

a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and*



*Monitoring Program of the California Resources Agency, to non-agricultural use?
Determination: Less Than Significant Impact with Mitigation Incorporated.*

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

According to the General Plan EIR, despite mitigation programs and supportive policies intended to reduce conversions of farmland and curb impacts on agricultural resources on a larger scale, the permanent loss of farmland that would occur as a result of the amount of growth expected by the General Plan at total buildout would result in a significant and unavoidable impact on agricultural resources. The water supply and wastewater infrastructure identified by the WSMP and WWMP, respectively would be necessary during the total buildout development scenario analyzed in the General Plan EIR and would not be expected to result in any greater loss or conversion of agricultural resources than identified in the General Plan EIR.

Groundwater wells, potable/recycled water pipelines, gravity sewer pipelines, and force mains would be placed underground within existing or proposed rights-of-way, or within water or sewer easements and, therefore, would not permanently convert farmland to non-agricultural use. Similarly, SCADA systems/backup power at all new water supply facilities, upgrades to the MacArthur Pump Station and Hanson Pump Station and existing booster pumping facilities, as well as infrastructure necessary to expand the City's existing JJWTP and WWTP would be implemented within existing City owned facilities and, therefore, would not permanently convert farmland to non-agricultural use. Several of the new booster pumping facilities, pressure regulating stations, pump stations, and diurnal storage are proposed in existing agricultural areas. However, none of these facilities is proposed in an area designated as Agriculture by the General Plan.

As discussed in the General Plan EIR, the City currently uses several regulatory tools for the protection of agricultural resources, including its participation in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan and an Agricultural Mitigation Fee Ordinance that is used to collect in-lieu fees for impacts from development on agricultural land. These funds will eventually be utilized for the purchase of conservation easements on agricultural lands. Future water supply or wastewater infrastructure projects proposed on agricultural land would be subject to these regulatory requirements. More specifically, any new booster pumping facilities, pressure regulating stations, pump stations, or diurnal storage proposed in existing agricultural areas would be required to comply with the requirements of the City's Agricultural Mitigation Fee Ordinance to reduce any potential conversion of farmland to less than significant, as identified below in Mitigation Measure 1.



Mitigation Measure 1: Prior to issuance of grading permits for any new water supply or wastewater infrastructure projects proposed on agricultural land, the City shall pay the appropriate Agricultural Mitigation Fee, in accordance with Chapter 13.28 of the Tracy Municipal Code.

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

According to the General Plan EIR, despite policies in the General Plan to support and encourage preservation of Williamson Act lands and the voluntary nature of the Williamson Act program, total buildout of the City limits and SOI may result in the significant and unavoidable conversion of approximately 3,867 acres of land under Williamson Act contracts to urban uses. The water supply and wastewater infrastructure identified by the WSMP and WWMP, respectively would be necessary during the total buildout development scenario analyzed in the General Plan EIR and would not be expected to result in any greater conversion of Williamson Act lands than identified in the General Plan EIR.

As described in Response II(a), above, the majority of proposed improvements would occur within existing rights-of-way and would not be located on land designated for agricultural use. Less than significant impacts would result.

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

No land located within the SOI or City limits is currently classified as forest land, timberland, or timberland zoned for production. Therefore, infrastructure identified by the WSMP and WWMP would not conflict with existing zoning or cause rezoning of any such land. No impact would result.

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

Refer to Response II(c), above.

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

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



identified by the WSMP and WWMP would accommodate the growth envisioned for buildout of the General Plan. Thus, implementation of the WSMP and the WWMP would not be expected to result in any greater impacts than identified in the General Plan EIR.

As described in Response II(a), above, the majority of proposed improvements would occur within existing rights-of-way and would not be located on land designated for agricultural use. Due to the nature of the improvements proposed for on existing agricultural land (new booster pumping facilities, pressure regulating stations, pump stations, or diurnal storage), it is unlikely that these types of facilities would intensify pressure for additional conversion of agricultural land to non-agricultural use. Less than significant impacts would result.

III. AIR QUALITY

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

Would the Project:

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



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

Air Quality Plans (AQPs) applicable to the proposed WSMP and WWMP include SJVAPCD's Ozone Plans (One-Hour and Eight-Hour) and Particulate Matter Plans (PM₁₀ and PM_{2.5}), which are part of the State Implementation Plan (SIP). The Basin is considered a non-attainment area for ozone and respirable particulate matter (PM₁₀ and PM_{2.5}).

The California Clean Air Act (CCAA) requires non-attainment areas with severe to extreme air quality problems to provide for a five percent reduction of non-attainment emissions per year. The AQPs for ozone and PM₁₀ prepared for the Basin by the SJVAPCD fulfill this requirement. Banked emission reduction credits are included in the emissions inventories and provide an additional means to attaining the required five percent reduction in these inventories per year.

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

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

The infrastructure identified by the WSMP and WWMP would accommodate the growth envisioned for buildout of the General Plan. Thus, neither the WSMP, nor the WWMP would result in greater vehicle miles traveled (VMT) than studied in the General Plan EIR and neither master plan could result in a conflict with SJVAPCD AQPs. Implementation of the WSMP and the WWMP would not be expected to result in any greater impacts than identified in the General Plan EIR.

The SJVAPCD regulations that would be applicable to the WSMP and WWMP are summarized below.



Regulation VIII (Fugitive Dust PM10 Prohibitions)

Rules 8011-8081 are designed to reduce PM10 emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, landfill operations, etc.

Rule 4101 (Visible Emissions)

This rule prohibits emissions of visible air contaminants to the atmosphere and applies to any source operation that emits or may emit air contaminants.

SJVAPCD's 2002 Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) defines analysis methods, thresholds of significance, and mitigation measures for the assessment of air quality impacts and was used in the following air quality analysis of the Project. It should be noted that the SJVAPCD does not require quantification of construction-related emissions.

The WSMP and WWMP identify the infrastructure necessary to ensure that there are adequate water supply and wastewater facilities capable of accommodating the projected water demand and wastewater flows of ultimate General Plan buildout. A specific buildout schedule for identified water supply and wastewater facilities has not yet been developed because individual facility construction would occur as needed. Implementation of proposed components of the WSMP and WWMP would be dependent on increased water demands and wastewater generation within the Tracy Planning Area.

Construction activities are a source of fugitive dust (PM10) that may have a substantial, although temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working within the area of individual infrastructure projects. Fugitive dust emissions are associated with land clearing, excavation, cut and fill, and truck travel on unpaved roadways. Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions.

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from construction sites, emissions produced at the sites as the equipment is used, and emissions from trucks transporting materials to and from the sites. Emitted pollutants would include carbon monoxide (CO), reactive organic gasses (ROG), nitrogen dioxide (NOX), sulfur dioxide (SOX), and coarse particulate matter (PM10). Standard SJVAPCD regulations such as maintaining all construction equipment in proper tune and shutting down equipment when not in use for extended periods of time would be required.

Impacts associated with short-term construction emissions for individual projects proposed as part of the WSMP and WWMP would be less than significant with the implementation of Mitigation Measure 2, described below.

Operation of proposed WSMP and WWMP facilities would involve two primary activities that would generate air emissions: 1) electricity generation for pump stations and pressure regulating stations operations and operation of the JJWTP and the City's WWTP; and, 2) mobile source emissions from employees. These activities would not result in significant air quality impacts.



With implementation of Mitigation Measure 2, short-term construction impacts for individual projects proposed as part of the WSMP and WWMP would be less than significant.

Mitigation Measure 2: Prior to the issuance of grading permits the contractor for individual infrastructure improvement projects shall submit a construction emission plan to demonstrate to the City of Tracy that demonstrates how construction activities would 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 individual sites.
- 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 individual sites 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).

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?* Determination: Less than Significant Impact with Mitigation Incorporated.

Construction of water supply and wastewater infrastructure identified by the WSMP and WWMP could result in the generation of air pollutant emissions from construction equipment and vehicles. Grading and earthwork required for the construction of the identified infrastructure



could generate dust and contribute particulate matter to the air basin. Long-term, electricity and fossil fuels would be necessary in certain instances to operate some of the infrastructure identified by the WSMP and WWMP (i.e. booster pump stations, pressure regulating stations, JJWTP, WWTP, etc.). However, the identified infrastructure would accommodate buildout of the General Plan and thus, would not be expected to result in any greater impacts than identified in the General Plan EIR. Regardless, Refer to Response III (a), above. Impacts would be less than significant with implementation of Mitigation Measure 2.

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

The WSMP and WWMP would not be expected to result in any greater impacts than identified in the General Plan EIR. Refer to Response III (a), above. Impacts would be less than significant with implementation of Mitigation Measure 2.

d) *Expose sensitive receptors to substantial pollutant concentrations?* Determination: Less than Significant Impact with Mitigation Incorporated.

Sensitive receptors (i.e., children, senior citizens, and acutely or chronically ill people) are more susceptible to the effects of air pollution than the general population. Land uses that are considered sensitive receptors typically include residences, schools, playgrounds, childcare centers, hospitals, convalescent homes, and retirement homes. Development of the proposed facilities could result in pollutant emissions from short-term construction activities (i.e., soil processing and placement). However, these impacts would be temporary in nature and would cease upon construction completion. In addition, implementation of Mitigation Measure 2 would ensure that impacts are less than significant.

During the operational phase, infrastructure identified by the WSMP and WWMP would not be expected to expose sensitive receptors to substantial pollutant concentrations as the infrastructure generally consists of wells, pipelines/sewer lines, water storage tanks, pump stations, booster pump stations, pressure regulating stations, SCADA systems, etc., which typically does not emit substantial amounts of noxious or hazardous pollutants. Moreover, a great majority of the infrastructure would be constructed below ground. Thus, the improvements identified by both master plans would be expected to result in less than significant impacts in this regard. Furthermore, the identified infrastructure would be constructed to serve the buildout growth of the General Plan and as such would not be expected to result in any greater impacts than identified in the General Plan EIR.

e) *Create objectionable odors affecting a substantial number of people?* Determination: Less than Significant Impact with Mitigation Incorporated.

While both master plans would accommodate buildout of the General Plan and would not be anticipated to result in any greater odor impacts than identified in the General Plan EIR, each are policy documents that do not propose the construction and operation of specific infrastructure



improvements at this time, but would indirectly facilitate the construction and operation of water supply and wastewater infrastructure.

Construction activities may generate detectable odors from heavy-duty equipment exhaust. Odors associated with diesel and gasoline fumes would occur during the construction phase and may affect residents in the vicinity of individual projects. However, these odors would be temporary in nature and would cease upon the completion of construction. Adherence to Mitigation Measure 2 would reduce potential impacts to less than significant.

As noted above in Response III(d) above, the infrastructure identified by the WSMP and WWMP generally consists of wells, pipelines/sewer lines, water storage tanks, pump stations, booster pump stations, pressure regulating stations, SCADA systems, etc. Water supply and wastewater infrastructure generally does not emit objectionable odors, although by its very nature sewage is an objectionable odor. Thus, during the operational phase, the water supply and wastewater infrastructure identified by the WSMP and WWMP would not be anticipated to create objectionable odors in and of itself that could affect a substantial number of people, even though the wastewater infrastructure identified by the WWMP would transport sewage which has an objectionable odor. Consequently, during operation, impacts would be less than significant.

IV. BIOLOGICAL RESOURCES

BIOLOGICAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh,	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The following discussion summarizes the findings in the Biotic Resources Report prepared for all of the proposed City of Tracy updated infrastructure master plans by H.T. Harvey and Associates in May 2012 (*City of Tracy Infrastructure Master Plans Biotic Resources Report*, H.T. Harvey and Associates, May 2012).

Would the Project:

a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? Determination: Less Than Significant Impact with Mitigation Incorporated.*

The project area is located within the jurisdiction of the San Joaquin County Multi-species Habitat Conservation and Open Space Plan (SJMSCP), and the City is an eligible SJMSCP participant. This plan outlines mitigation measures for species and habitats known or likely to occur in the region. The species covered by the SJMSCP were reviewed prior to a reconnaissance field survey and cross referenced with California Natural Diversity Data Base (CNDDDB) records to refine a targeted list of sites that were sampled. Particular attention was given to federally and/or state-listed species, plants considered rare by the California Native Plant Society (CNPS 2010, 2012), protected wildlife, and wildlife species of special concern.

The following ten federal and state endangered and threatened plant and wildlife species have the potential to occur on one or more of the proposed City of Tracy long-term master plans project sites: large-flowered fiddleneck, Conservancy fairy shrimp, longhorn fairy shrimp, vernal pool fairy shrimp, valley elderberry longhorn beetle, California tiger salamander, California redlegged



frog, giant garter snake, Swainson’s hawk, and San Joaquin kit fox. “Take” of one or more of these species could occur during construction of infrastructure facilities throughout the project area. Take of individuals of any of these species would constitute a significant impact under CEQA. However, implementation of the following mitigation measures would reduce impacts on these species to less than significant levels and fully comply with the SJMSCP.

Mitigation Measure 3: Pre-construction Surveys and SJMSCP coordination.
Pre-construction surveys shall be conducted by the Joint Powers Authority (JPA) prior to any project-related activities that may impact special status-species identified in Table 4 (as per section 5.2.2.1 through 5.2.2.5 of the SJMSCP, Appendix I). If construction activities would result in impacts to any of these species, the mitigation measures specified for that particular species within either Table 4 or 5 shall be implemented.

Mitigation Measure 4: Incidental take minimization measures for FESA and CESA listed species.
Incidental take minimization measures shall be performed per the requirements of the SJMSCP, as outlined in Table 4. Implementation of these measures would reduce the potential of take of federal and state endangered and threatened wildlife species to less than significant levels and fully comply with the SJMSCP.

**Table 4
Incidental Take Minimization Measures – FESA and CESA Species**

Species	Status	Incidental Take Minimization Measures
Large-flowered fiddleneck (<i>Amsinckia grandiflora</i>)	FE, SE, CNPS 1B.1	Pre-construction surveys will need to be performed as detailed in Section 5.2.2.1(A, B, and D) and 5.2.2.2 through 5.2.2.5 of the SJMSCP. If large-flowered fiddleneck is found, the SJMSCP requires complete avoidance of plant populations onsite in accordance with the identified measures in Section 5.5.2.1 and 5.5.9(F).
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	FE	Delay construction until pools are dry, collect and store soil samples, and conduct pre-construction surveys, as described in Section 5.2.4.4 of the SJMSCP.
Longhorn fairy shrimp (<i>Branchinecta longiantenna</i>)	FE	Delay construction until pools are dry, collect and store soil samples, and conduct pre-construction surveys, as described in Section 5.2.4.4 of the SJMSCP.
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT	Delay construction until pools are dry, collect and store soil samples, as described in Section 5.2.4.4 of the SJMSCP.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Survey site for presence of elderberry shrubs; if elderberry shrubs present, implement measures in Section 5.2.4.25 of the SJMSCP.



Species	Status	Incidental Take Minimization Measures
California tiger salamander (<i>Ambystoma californiense</i>)	FT, ST	Project implementation could be delayed due to species lengthy presence/ absence surveys at sites indicated. See Sections 5.2.4.5 and 5.2.4.6 of the SJMSCP.
California red-legged frog (<i>Rana draytonii</i>)	FT, CSSC	Establish a 300-foot setback around occupied habitat, as described in Section 5.2.4.7 of the SJMSCP.
Swainson's hawk (<i>Buteo swainsoni</i>)	ST	Retention of nest trees or removal of such trees between September 1 and February 15, as detailed in Section 5.2.4.11 of the SJMSCP.
Giant garter snake (<i>Thamnophis gigas</i>)	FT, ST	Full avoidance of giant garter snake known occupied habitat is required. Implement the nine avoidance and minimization measures detailed in Section 5.2.4.25 of the SJMSCP.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE, ST	Pre-construction surveys prior to commencement of ground disturbance for projects located in the Southwest Zone or Southwest/Central transition Zone, as detailed in Section 5.2.4.1 of the SJMSCP.

Source: *City of Tracy Infrastructure Master Plans Biotic Resources Report*, H.T. Harvey and Associates, May 2012.

**Table 5
SJMSCP Compensation Ratios**

Habitat type converted from open space use	Required Compensation Ratio	Description
Agricultural Habitat Lands	1:1	One acre of preserve acquired, enhanced and managed in perpetuity for each acre of habitat converted from Open Space use.
Natural Lands - Non-Wetlands (e.g., oak woodlands)	3:1	Three acres of preserve acquired, enhanced and managed in perpetuity for each acre of habitat converted from Open Space use.
Natural Lands - Vernal Pools within Vernal Pool Zone	2:1 Preservation plus 1:1 Creation (3:1 total)	Create one acre of habitat and preserve two acres of existing habitat for each acre converted from Open Space use resulting in three total acres of preserve. Preserves include both wetted surface area and upland grasslands surrounding vernal pools and protecting their watersheds. Creation component shall emphasize restoration of pre-existing vernal pools, wherever feasible.



<p>Natural Lands - Wetlands Other than Vernal Pools</p>	<p>At least 1:1 Creation Plus 2:1 Preservation (3:1 total)</p>	<p>SJMSCP may: (1) create one acre habitat, preserve two existing acres of habitat; (2) create two acres habitat, preserve one acre existing habitat; or (3) create three acres of habitat, preserve zero acres of existing habitat. All options result in three acres of preserve.</p>
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Source: *City of Tracy Infrastructure Master Plans Biotic Resources Report*, H.T. Harvey and Associates, May 2012.

The proposed infrastructure projects have the potential to result in loss of habitat of federal and state endangered and threatened plant and wildlife species covered under the SJMSCP. Losses of habitat occupied by any these species would constitute a significant impact under CEQA. However, implementation of the following mitigation measures would reduce impacts to these species to less than significant levels and fully comply with the SJMSCP.

Mitigation Measure 5: Purchase compensation habitat or pay fee to offset losses of habitat of special-status species. Under the SJMSCP, mitigation for loss of habitat of federal and state endangered and threatened plant and wildlife species allows for a fee-based approach based on the habitat type that is to be converted from open space use. That fee structure is as follows:

A. \$7,195 per acre for Conversion of Multi-Purpose Open Space Lands

B. \$14,372 per acre for Conversion of Agricultural Habitat Lands and Natural Lands (except for vernal pools)

C. \$81,989 per acre for the wetted surface area of vernal pools and \$41,534 per acre for the upland grasslands surrounding vernal pools. The SJMSCP assumes a 12% wetted surface area for vernal pool grasslands.

The following 25 state species of special concern, state fully protected, and other SJMSCP covered plant and wildlife species have the potential to occur on one or more of the proposed City of Tracy long-term master plans project sites:

- Slough thistle
- diamond-petaled California poppy
- showy golden madia
- Sanford’s sagittaria
- caper-fruited tropidocarpum
- midvalley fairy shrimp
- western spadefoot
- western pond turtle
- San Joaquin coachwhip
- coast horned lizard
- burrowing owl



- Cooper’s hawk
- western grebe
- tricolored blackbird
- short-eared owl
- northern harrier
- white-tailed kite
- California horned lark
- loggerhead shrike
- western mastiff bat
- western red bat
- long-eared myotis
- Yuma myotis
- San Joaquin pocket mouse
- American badger

Injury or mortality of one or more of these species could occur during construction of infrastructure facilities throughout the project area. Injury or mortality of significant numbers of individuals of species of special concern, state fully protected, and other SJMSCP-covered species would constitute a significant impact under CEQA. However, implementation of Mitigation Measure 3 (above) in addition to the following mitigation measures would reduce impacts to these species to less than significant levels and fully comply with the SJMSCP.

Mitigation Measure 6: Incidental take minimization measures for sensitive and special-status species. Incidental take minimization measures shall be performed per the requirements of the SJMSCP (Table 6). Implementation of these measures would reduce the potential of injury or mortality of state species of special concern, state fully protected, and other SJMSCP covered wildlife species to less than significant levels and fully comply with the SJMSCP.

**Table 6
Incidental Take Minimization Measures – CSSC, State Fully
Protected and SJMSCP Covered Species**

Name	Status	Incidental Take Minimization Measures
Slough thistle (<i>Cirsium crassicaule</i>)	CNPS 1B.1	Pre-construction surveys shall be performed as detailed in Section 5.2.2.1(A, B, and D) and 5.2.2.2 through 5.2.2.5 of the SJMSCP. If slough thistle is found, complete avoidance of plant populations on site is required in accordance with the identified measures in Section 5.5.2.1 and 5.5.9(F).
Diamond-petaled California poppy (<i>Eschscholzia rhombipetala</i>)	CNPS 1B.1	Pre-construction surveys shall be performed as detailed in Section 5.2.2.1(A, B, and D) and 5.2.2.2 through 5.2.2.5 of the SJMSCP. If diamond-petaled California poppy is



Name	Status	Incidental Take Minimization Measures
		found, complete avoidance of plant populations on site is required in accordance with the identified measures in Section 5.5.2.1 and 5.5.9(F).
Showy golden madia (<i>Madia radiata</i>)	CNPS 1B.1	Pre-construction surveys shall be performed as detailed in Section 5.2.2.1(A, B, and D) and 5.2.2.2 through 5.2.2.5 of the SJMSCP. If showy golden madia is found, complete avoidance of plant populations on site is required in accordance with the identified measures in Section 5.5.2.1 and 5.5.9(F).
Sagittaria sanfordii (<i>Sanford's sagittaria</i>)	CNPS 1B.2	Pre-construction surveys shall be performed as detailed in Section 5.2.2.1(A, B, and D) and 5.2.2.2 through 5.2.2.5 of the SJMSCP. If showy Sanford's sagittaria is found, complete avoidance of plant populations on site is required in accordance with the identified measures in Section 5.5.2.1 and 5.5.9(F).
Caper-fruited tropidiocarpum (<i>Tropidiocarpum capparideum</i>)	CNPS 1B.1	Pre-construction surveys shall be performed as detailed in Section 5.2.2.1(A, B, and D) and 5.2.2.2 through 5.2.2.5 of the SJMSCP. If caper-fruited tropidiocarpum is found, Section 5.2.4.29C of the SJMSCP specifies acquisition or consultation measures required.
Midvalley fairy shrimp (<i>Branchinecta mesovallensis</i>)	SJMSCP	Delay construction until pools are dry, collect and store soil samples, as described in Section 5.2.4.4 of the SJMSCP.
Western spadefoot (<i>Spea hammondi</i>)	CSSC	Conduct species surveys in accordance with current Technical Advisory Committee (TAC)-approved protocol, as described in sections 5.2.4.5 and 5.2.4.6 of the SJMSCP.
Western pond turtle (<i>Actinemys marmorata</i>)	CSSC	300-400 foot buffer area required from known nesting sites, as described in Section 5.2.4.10 of the SJMSCP.
San Joaquin coachwhip (whipsnake) (<i>Masticophis flagellum ruddocki</i>)	CSSC	Incidental take measures to be formulated by TAC if discovered on a project site, as described in Section 5.2.4.10 of the SJMSCP.



Name	Status	Incidental Take Minimization Measures
Coast (California) horned lizard (<i>Phrynosoma blainvillii</i>)	CSSC	Incidental take measures to be formulated by TAC if discovered on a project site, as described in Section 5.2.4.10 of the SJMSCP.
Burrowing owl (<i>Athene cunicularia</i>)	CSSC	Allow growth of vegetation onsite to a height of 36 inches prior to construction, disk site to prevent colonization by owls, or evict resident owls, if present, as detailed in Section 5.2.4.15 of the SJMSCP.
Cooper's hawk (<i>Accipiter cooperii</i>)	SJMSCP	Establish 100-foot setback from nesting areas, as described in Section 5.2.4.19 of the SJMSCP.
Western grebe (<i>Aechmophorus occidentalis</i>)	SJMSCP	Establish a 500-foot setback from nesting areas during the nesting season, as described in Section 5.2.4.17 of the SJMSCP.
Tricolored blackbird (<i>Agelaius tricolor</i>)	CSSC	Avoid breeding colonies whenever possible. Otherwise, establish a 500-foot buffer during the nesting season, as described in Section 5.2.4.16 of the SJMSCP.
Short-eared owl (<i>Asio flammeus</i>)	CSSC	Establish a 500-foot setback from nesting areas during the nesting season, as described in Section 5.2.4.17 of the SJMSCP.
Northern harrier (<i>Circus cyaneus</i>)	CSSC	Establish a 500-foot setback from nesting areas during the nesting season, as described in Section 5.2.4.17 of the SJMSCP.
White-tailed kite (<i>Elanus leucurus</i>)	SP	Conduct pre-construction surveys, as described in Section 5.2.4.19 of the SJMSCP.
California horned lark (<i>Eremophila alpestris actia</i>)	SJMSCP	Establish a 500-foot setback from nesting areas during the nesting season, as described in Section 5.2.4.17 of the SJMSCP.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	CSSC	Establish a 100-foot setback from nesting areas, as described in Section 5.2.4.16 of the SJMSCP.
Western mastiff bat (<i>Eumops perotis</i>)	CSSC	Remove colonial roosting trees only outside the nursery/hibernation season and only



Name	Status	Incidental Take Minimization Measures
<i>californicus</i>)		after dusk, as described in Section 5.2.4.28 of the SJMSCP.
Western red bat (<i>Lasiurus blossevillii</i>)	CSSC	Remove colonial roosting trees only outside the nursery/hibernation season and only after dusk, as described in Section 5.2.4.28 of the SJMSCP.
Long-eared myotis (<i>Myotis evotis</i>)	SJMSCP	Remove colonial roosting trees only outside the nursery/hibernation season and only after dusk, as described in Section 5.2.4.28 of the SJMSCP.
Yuma myotis (<i>Myotis yumanensis</i>)	SJMSCP	Remove colonial roosting trees only outside the nursery/hibernation season and only after dusk, as described in Section 5.2.4.28 of the SJMSCP.
San Joaquin pocket mouse (<i>Perognathus inornatus</i>)	SJMSCP	Incidental Take Minimization Measures shall be formulated prior to ground disturbance by the TAC and approved by the JPA with the concurrence of the Permitting Agencies' representatives on the TAC in accordance with the SJMSCP's Adaptive Management Plan (Section 5.9.4).
American badger (<i>Taxidea taxus</i>)	CSSC	Monitor occupied dens and destroy only when burrow is unoccupied; establish a 200-foot buffer around natal dens, as described in Section 5.2.4.26 of the SJMSCP.

Source: *City of Tracy Infrastructure Master Plans Biotic Resources Report*, H.T. Harvey and Associates, May 2012.

The following plant species are not covered in the SJMSCP:

- California androsace
- big tarplant
- round-leaved filaree
- Lemmon's jewelflower
- Parry's red tarplant
- gypsum-loving larkspur
- hogwallow starfish

However, they are tracked by the CNDDDB and CNPS. These species could be directly impacted and killed by construction of infrastructure facilities throughout the project area. Implementation



of Mitigation Measure 7 would reduce the potential impact on these species to a less than significant level.

If any of the CNPS-listed plant species are found within or directly adjacent to the proposed work area, a species-specific determination of potential significance would be conducted for each plant species by a qualified plant ecologist. If project activities would result in the loss of:

- (a) suitable habitat for less than five percent of the known individual plants of the species documented as occurring within 50 miles of the impact location, if known; or,
- (b) less than five percent of the known populations of the species if the total number of individuals is unknown

then impacts would be deemed less than significant and no further mitigation measures would be required. This impact would be considered less than significant because regional populations would remain abundant following project implementation and the project would not substantially reduce the number or range of these species.

If project activities would result in loss of habitat for more than five percent of the known populations or individuals of these species regionally documented as occurring within 50 miles of the impact location, the project proponent shall implement Mitigation Measures 8 and 9 below.

It is likely that if found, impacts to small populations of List 4 species would be considered less than significant. These plant species are widely distributed, with many known, extant populations occurring in many counties. In other cases, the species are considered to be more rare but the amount of suitable habitat present on site is limited, meaning that any potentially present populations are likely to be small in size and therefore impacts to these would likely also be less than significant. However, impacts to populations of more restricted, rare, or declining species are likely to be considered significant unless mitigated. Finally, for those species that have a potential to occur on site as a large population due to the abundance of potentially suitable habitat on site, impacts to a large population of so-called “watch-list” (i.e., CNPS List 3 and 4) species may be considered significant unless mitigated.

Mitigation Measure 7: Pre-construction Surveys. WSMP and WWMP project sites shall be surveyed for special-status plant species in a year with rainfall totals within the normal range for the area. Surveys shall be floristic in nature and shall be conducted in accordance with the most current USFWS, CDFG, and CNPS guidelines (USFWS 2002, CDFG 2000, CDFG 2009, and CNPS 2001). Surveys shall cover all areas intended for both development and compensatory mitigation.

Mitigation Measure 8: Avoidance. Potentially significant impacts to special-status plants shall be avoided to the extent feasible. In consultation with a plant ecologist, the WSMP and WWMP projects shall to the extent feasible be redesigned, constructed, and operated to reasonably avoid direct and indirect impacts to special-status plant populations.



Mitigation Measure 9: Mitigation. To compensate for permanent impacts to special-status plant species, habitat that is not already public land shall be preserved and managed in perpetuity at a 1:1 mitigation ratio (one acre preserved for each acre impacted) or the appropriate fee shall be paid to purchase habitat to be preserved and managed in perpetuity at a 1:1 mitigation ratio. Impacts could include direct impacts resulting from loss of habitat or indirect impacts if a significant population or portion thereof is unable to be avoided. The preserved habitat for a significantly impacted plant species shall be of equal or greater habitat quality to the impacted areas in terms of soil features, extent of disturbance, vegetation structure, and dominant species composition, and shall contain verified extant populations of the special-status species impacted. The permanent protection and management of mitigation lands shall be ensured through an appropriate mechanism, such as a conservation easement or fee title purchase. A conservation easement could be held by CDFG or an approved land management entity and shall be recorded within a time frame agreed upon by CDFG.

The proposed WSMP and WWMP project sites would potentially result in losses of habitat for state species of special concern, state fully protected, other SJMSCP-covered wildlife species, and CNPS listed plant species covered under the SJMSCP. Losses of habitat occupied by any of these species could constitute a significant impact under CEQA. However, implementation of Mitigation Measures, 4, 5, 6, 7, and 9 (above) would compensate for losses of habitat of state species of special concern, state fully protected, other SJMSCP-covered wildlife species, and CNPS listed plant species to less than significant levels and fully comply with the SJMSCP.

b) *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 US Fish and Wildlife Service? Determination: Less Than Significant Impact with Mitigation Incorporated.*

The ephemeral drainages located within sample sites identified during the reconnaissance level surveys conducted by H.T. Harvey for the proposed City of Tracy Infrastructure Master Plans do meet the definition of a stream and may fall under the jurisdiction of CDFG. These features, in addition to all canals, ditches, and other irrigation features along Road 224, potentially qualify as “waters of the state” and are subject to regulation by the Regional Water Quality Control Board. The California Fish and Game Commission maintains a “no net loss” policy related to wetlands. Construction activities that impact areas defined as “wetlands” may be considered significant under CEQA. Mitigation Measure 5 identified above and the following Mitigation Measure 10 would reduce impacts to this habitat to a less than significant level.

Mitigation Measure 10: Pre-construction Surveys and SJMSCP coordination. Pre-construction surveys to identify significant impacts shall be conducted prior to any project-related activities that may encroach into regulated habitats or disturb native vegetation. If regulated habitats are impacted by project activities, planned activities can either avoid these resources or work in conjunction with the regulatory agencies to minimize, mitigate, and permit the activities. A



Streambed Alteration Agreement typically can be obtained within 90 days of submittal of a complete application, including a permit fee. Project activities that reduce the cross-sectional area of a stream and/or remove riparian and wetland vegetation require compensatory mitigation and monitoring. Moreover, CDFG agreements for projects in agricultural and native settings frequently include pre-construction surveys and reporting and construction monitoring to ensure protection of wildlife resources. Activities that result in impacts to waters of the state, may require that the project applicant file a Report of Waste Discharge with the Regional Water Quality Control Board.

- c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? Determination: Less Than Significant Impact with Mitigation Incorporated.*

A detailed wetland delineation was not conducted on any of the City of Tracy Infrastructure Master Plans project sites. A review of the United States Fish and Wildlife Service Wetlands Geodatabase (<http://wetlandsfws.er.usgs.gov/wtlnds/launch.html>) indicated the presence of several potential jurisdictional wetlands near the project area, although none occurred within any of the City of Tracy Infrastructure Master Plans project sites that were visited during the reconnaissance surveys of the project area.

The Delta Mendota Canal and the California Aqueduct may be subject to the jurisdiction of the USACE. However, the infrastructure identified by the WSMP and WWMP is unlikely to affect these canals, and likely to only affect small lateral canals and ditches excavated in uplands. These lateral canals and ditches are maintained on an annual basis and are dry for a significant part of the year. Based on prior experience with similar features and on field characteristics encountered in the project area, H.T. Harvey concluded that these lateral canals and ditches do not represent habitats within the regulatory jurisdiction of the USACE. Project activities within these locations are unlikely to affect jurisdictional waters. The streams and potential wetlands located within the Tracy Hills area and the northern region of the project area are likely subject to the jurisdiction of the USACE. H.T. Harvey recommends that the following avoidance and mitigation measure be implemented to reduce the potential impacts to wetlands to a less than significant level.

Mitigation Measure 11: Implement SJMSCP Clean Water Act requirements. Section 5.6 of the SJMSCP states that until such time that a Clean Water Act regional general permit or its equivalent is issued for coverage under the SJMSCP, acquisition of a Section 404 permit by project proponents shall continue to occur as required by existing regulations. Project proponents shall comply with all requirements for protecting federally protected wetlands.

- d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? Determination: Less Than Significant Impact with Mitigation Incorporated.*



The proposed WSMP and WWMP project sites are sufficiently small and widely dispersed such that no substantial interference with native wildlife movements or corridors would occur as a result of any individual project.

Projects in which nursery sites could be impacted are addressed in impact discussions associated with take of federal and state endangered and threatened wildlife species (Mitigation Measure 3) and injury or mortality of state species of special concern, state fully protected, and other SJMSCP-covered wildlife species (Mitigation Measure 4). Species with the potential to have nursery sites at individual water supply or wastewater project sites are identified in Table 4. However, implementation of Mitigation Measure 3, 4, and 5 above would incorporate the implementation of the relevant incidental take minimization measures detailed in the SJMSCP. Implementation of Mitigation Measures 3, 4, and 5 would reduce impacts to nursery sites to less than significant levels and fully comply with the SJMSCP.

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

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

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

The entire project area is located within the jurisdiction of the SJMSCP. The implementation of Mitigation Measures 3 through 11 described above would ensure that any potential impacts to special-status species or habitats, which may be associated with implementation of the WSMP or WWMP, are addressed accordingly to the provisions of the SJMSCP. Therefore, the WSMP and WWMP would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan, including the SJMSCP.

V. CULTURAL RESOURCES

CULTURAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



resource pursuant to '15064.5?

- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
- d) Disturb any human remains, including those interred outside of formal cemeteries?

Would the Project:

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

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

According to the General Plan EIR, policies and guiding mechanisms in the General Plan would reduce potential impacts on cultural resources, including historic resources that could occur as a result of total buildout of the General Plan to less than significant. The water supply and wastewater infrastructure identified by the WSMP and WWMP would be necessary during the total buildout development scenario analyzed in the General Plan EIR for this resource. As such, when specific infrastructure identified by the WSMP and WWMP is proposed for construction and operation, it would be expected to result in less than significant impacts on historic resources through the implementation of policies and guiding mechanisms identified in the General Plan.

No facilities associated with the WSMP or WWMP are proposed in areas that currently contain known historic resources. However, during construction, unknown and/or undocumented historic resources may be uncovered. With implementation of Mitigation Measure 12, impacts would be reduced to less than significant.

Mitigation Measure 12: If during ground-disturbance activities, unique cultural resources are discovered the following procedures shall be followed. Unique cultural resources are defined as being multiple artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to its sacred or cultural importance.

- 1. All ground disturbance activities within 100 feet of the discovered cultural resource shall be halted until a meeting is convened between the City and a qualified archaeologist to discuss the significance of the find.**



2. The archaeologist shall recommend appropriate actions, in cooperation with the City and contractor.
3. Grading or further ground disturbance shall not resume within the area of the discovery until a determination has been reached by the City as to the appropriate mitigation.

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

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

As described above, the General Plan EIR concluded that impacts on cultural resources resulting from total buildout of the General Plan would be reduced to less than significant with adherence to policies and guiding mechanisms identified by the General Plan. These policies and guiding mechanisms address potential impacts on archaeological resources. The infrastructure identified by the WSMP and WWMP would be necessary during the total buildout development scenario timeframe analyzed in the General Plan EIR for this resource. Therefore, implementation of the WSMP and WWMP would not be expected to result in any greater impacts on cultural resources than those identified by the General Plan EIR.

Construction activities associated with implementation of the proposed WSMP and WWMP facilities may result in adverse effects on unknown archaeological sites. Implementation of Mitigation Measure 13 would reduce potential impacts to less than significant.

Mitigation Measure 13: Prior to the issuance of a grading permit for individual infrastructure projects, an archaeological resource monitoring plan shall be developed by a qualified archaeologist and submitted to the City for review and approval. This plan shall include a grading observation schedule to be maintained when grading occurs on and offsite in upper soils to identify and further evaluate cultural resources that may be discovered in the Project area. A qualified archaeologist shall be retained to attend pregrade meetings and to monitor earth moving activities, including clearing, grubbing, cutting, and trenching at the site. The archaeologist shall carefully inspect these areas to assess the potential for significant prehistoric or historic remains. If potential archaeological and historical resources are uncovered, the construction contractor shall cease grading operations in the vicinity of the find until further evaluation is undertaken to assess the discovery. Further subsurface investigation may be needed if the resource is determined unique or important for its prehistoric or historic information.



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

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

The General Plan EIR determined that potential impacts on cultural resources, including paleontological and unique geologic resources that could occur as a result of total buildout of the General Plan would be reduced to less than significant by adherence to policies and guiding mechanisms identified in the General Plan. The infrastructure identified by the WSMP and WWMP would be necessary during the total buildout development scenario analyzed in the General Plan EIR for this resource and would be expected to result in no greater impacts than identified in the General Plan EIR. Nonetheless, construction activities associated with implementation of the proposed WSMP and WWMP facilities may result in adverse effects on unknown paleontological resources. Implementation of Mitigation Measure 14 would reduce potential impacts to less than significant.

Mitigation Measure 14: A trained paleontological monitor shall be present during individual project excavation activities greater than 5.0 feet in depth. Excavations below 5.0 feet have a high likelihood of encountering older alluvial wash deposits, which may contain paleontological resources. The monitoring for paleontological resources shall be conducted on a half-time basis, and on a full-time basis during excavation greater than 5.0 feet in depth. If paleontological resources are located during excavation, the monitoring program would change to full-time. The monitor shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to paleontological resources. The monitor shall be equipped to rapidly remove any large fossil specimens encountered during excavation. During monitoring, samples shall be collected and processed to recover micro-vertebrate fossils. Processing shall include wet-screen washing and microscopic examination of the residual materials to identify small vertebrate remains.

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

Ground-disturbing activities, such as grading or excavation, have the potential to disturb human remains. If human remains are found, those remains would require proper treatment, in accordance with applicable laws. The Native American Graves Protection and Repatriation Act



(NAGPRA) includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American cultural items on federal and tribal lands, and penalties for noncompliance and illegal trafficking. California Public Resources Health and Safety Code Section 7050.5-7055 describes the general provisions regarding human remains, including the requirements if any human remains are accidentally discovered during excavation of a site.

The General Plan EIR found that compliance with policies and guiding mechanisms identified in the General Plan would reduce any impacts on human remains associated with buildout of the General Plan to less than significant. Given that the infrastructure identified in the WSMP and WWMP would occur within the buildout timeframe of the General Plan, the WSMP and WWMP would not be expected to result in any greater impacts on human remains than identified in the General Plan EIR.

Future proposals to construct the infrastructure identified by the WSMP and WWMP would be required to comply with all applicable governmental requirements regarding the treatment of human remains and burial items. Following compliance with federal and state regulations, which detail the appropriate actions necessary in the event human remains are encountered, impacts in this regard, would be considered less than significant.

VI. GEOLOGY AND SOILS

GEOLOGY AND SOILS -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



the loss of topsoil?

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

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

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Would the Project:

- a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*
 - i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. Determination: Less Than Significant Impact with Mitigation Incorporated.*

During the buildout timeframe of the General Plan, the General Plan EIR identified a slight risk of ground rupture for development within the southwest portion of the Tracy Planning Area along the Black Butte fault. Since the improvements and expansions identified by the WSMP and WWMP would occur during the buildout timeframe analyzed in the General Plan EIR for this resource, implementation of the WSMP and WWMP would not be expected to result in any greater impacts associated with earthquake fault rupture than identified by the General Plan EIR. Some of the infrastructure identified by the WSMP and WWMP would be constructed in the southwest portion of the Tracy Planning Area.

To reduce the risk associated with ground rupture along the Black Butte fault, individual water supply and wastewater infrastructure projects proposed for construction in the southwest portion of the Tracy Planning area would be required to adhere to Mitigation Measure 15, which requires the preparation of site-specific design-level geotechnical investigations pursuant to General Plan Safety Element Policy Objective SA-1.1, P1, which requires that geotechnical engineering studies be undertaken for any development in areas where potentially serious geologic risks exist.



Mitigation Measure 15: In accordance with the requirements of Tracy General Plan Objective SA-1.1, Policy 1, potential for geological hazards shall be addressed in design-level geotechnical engineering investigations. The Development and Engineering Services Department shall ensure that all appropriate measures are implemented in order to reduce the risk of geological hazards prior to the issuance of a grading permit.

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

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

The General Plan EIR analyzed the seismic groundshaking risks associated with buildout of the General Plan and found risks would be less than significant with compliance with the latest California Uniform Building Code (UBC) standards and policies identified in the General Plan. The infrastructure identified by the WSMP and WWMP would be required to comply with the latest UBC, as required by the City Municipal Code 9.04.030, which would reduce risks associated with seismic groundshaking to the maximum extent practicable. Additionally, the infrastructure identified by the WSMP and WWMP would be necessary during the buildout timeframe of the General Plan. As such, the infrastructure identified by the WSMP and WWMP would be at no greater risk from seismic groundshaking than what was identified in the General Plan EIR.

iii) *Seismic-related ground failure, including liquefaction? Determination: Less Than Significant Impact with Mitigation Incorporated.*

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

As described in the General Plan EIR, the potential risk of liquefaction for development envisioned for the City during the buildout timeframe of the General Plan would be reduced to less than significant through the implementation of General Plan Safety Element Policy Objective SA-1.1, P1, which requires that geotechnical engineering studies be undertaken for any development in areas where potentially serious geologic risks exist. Given that the infrastructure identified by the WSMP and WWMP would be necessary during the total buildout



development scenario analyzed in the General Plan EIR for this resource, impacts associated with the WSMP and WWMP would not be expected to be any greater than those identified by the General Plan EIR. Regardless, individual water supply and wastewater infrastructure projects identified by the WSMP and WWMP would be required to implement General Plan Safety Element Policy Objective SA-1.1, P1, as identified in Mitigation Measure 15 above, which would reduce the potential risk of liquefaction. Any potential impact from liquefaction is, therefore, considered to be less than significant with incorporation of Mitigation Measure 15.

iv) Landslides? Determination: Less Than Significant Impact with Mitigation Incorporated.

The General Plan EIR determined that implementation of the General Plan would not result in significant risk of landslides or ground failure, given the relatively flat nature of the Tracy Planning Area. However, it noted that in the wider Tracy Planning Area, some limited potential for risk exists in the foothills and mountain terrain of the upland areas in the southwest and the potential for small scale slope failures along river banks also exists. The WSMP and WWMP identify water supply and wastewater infrastructure necessary to accommodate the growth envisioned by the General Plan at buildout, consistent with the timeframe analyzed by the General Plan EIR for this resource. Thus, the infrastructure identified by the WSMP and WWMP would not be expected to result in any greater impacts than identified in the General Plan EIR.

The WSMP identifies some improvements, such as water pipelines, storage tanks, and a booster pump station in the Tracy Hill area, which is a little hilly and could be expected to result in topsoil loss and erosion. However, no WWMP facilities are proposed within these types of areas. Implementation of Mitigation Measure 15, identified above, would reduce the potential landslide risk to less than significant for those facilities identified by the WSMP that would be located in hilly areas that could be subject to landslides.

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

Soil erosion is defined as the detachment and movement of soil particles by the erosive forces of wind or water. As described by the General Plan EIR, the majority of Tracy is on flat land with little risk of erosion but, there is potential for the loss of topsoil with any development that occurs on hillsides because removal of vegetation can increase erosion. The General Plan EIR concluded that the implementation of the General Plan would not result in significant topsoil and erosion impacts. The WSMP identifies some improvements, such as water pipelines, storage tanks, and a booster pump station in the Tracy Hill area, which is a little hilly and could be expected to result in topsoil loss and erosion. However, no WWMP facilities are proposed within these types of areas.

Moreover, the WSMP and WWMP are policy documents and do not propose any construction or operation of specific improvements and expansions at this time. Consequently, adoption of the WSMP and WWMP would not directly result in the construction and operation of improvements and expansions that could result in substantial soil erosion or loss of topsoil. Regardless, their adoption would indirectly facilitate the construction and operation of improvements and expansions that could result in soil erosion or the loss of topsoil. Erosion can be controlled using



standard construction practices, based on a site-specific geotechnical study that is required by Mitigation Measure 15. Implementation of this measure would ensure that impacts associated with construction related soil erosion would be less than significant.

- c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? Determination: Less Than Significant Impact with Mitigation Incorporated.*

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

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

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

The water supply and wastewater infrastructure improvements identified by the WSMP and WWMP, respectively would be necessary during the implementation timeframe analyzed in the General Plan EIR and would be expected to result in no greater impacts than identified in the General Plan EIR for this resource, given that individual projects would be required to comply with General Plan policy Objective SA-1.1, P2, as identified by Mitigation Measure 15. Therefore, with implementation of Mitigation Measure 15, impacts would be less than significant.

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

Neither the WSMP nor WWMP identify septic tanks or alternative wastewater disposal systems as infrastructure necessary to serve the City's water supply or wastewater demands at buildout of the General Plan. Therefore, no impacts would result.



VII. GREENHOUSE GAS EMISSIONS

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

Would the Project:

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

Greenhouse gases (GHGs) are gases in the atmosphere that absorb and emit radiation. The greenhouse effect traps heat in the troposphere through a three-fold process, summarized as follows: short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This “trapping” of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect. The main GHGs in the Earth's atmosphere are water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone (O₃), hydrofluorocarbons (HCFs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

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

Regulatory Environment

In June 2005, California established GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050. In 2007, California further solidified its dedication to reducing GHGs by setting a new Low Carbon Fuel Standard for transportation fuels sold within the state with Executive Order S-1-07. Executive Order S-1-07 sets a declining standard for GHG emissions measured in CO₂ equivalent gram per unit of fuel energy sold in California.



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 the California Air Resources Board (CARB) to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is noncommercial personal transportation in the state. Additionally, the California legislature enacted AB 32 (AB 32, Nuñez) in 2006 to further the goals of Executive Order S-3-05. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major industries, with penalties for noncompliance.

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

The General Plan EIR found that buildout of the General Plan would result in a significant and unavoidable GHG emission impact. Given that the WSMP and WWMP propose infrastructure improvements that would serve the growth envisioned by the General Plan at buildout, which is consistent with the total buildout timeframe analyzed by the General Plan EIR for GHG emissions, the infrastructure identified by the WSMP and WWMP is not expected to result in any greater GHG emission impacts than identified in the General Plan EIR. However, the WSMP and WWMP are policy documents, and as such, neither proposes the construction or operation of any water supply or wastewater infrastructure at this time, but would indirectly facilitate the construction of water supply and wastewater infrastructure.

Implementation of the WSMP and WWMP would not induce substantial growth and would not result in significant generation of construction or operational GHG emissions. Construction related GHG emissions would be temporary and would cease upon project completion. During operation, the water supply and wastewater infrastructure proposed by both the WSMP and WWMP is not anticipated to generate substantial amounts of GHGs either directly or indirectly as the majority of the infrastructure consists of pipelines, pump stations, pressure regulating stations, and wells, etc. that do not rely on sources of GHG emitting inputs for their operation. Emissions associated with these activities would not be great enough to approach established significance thresholds. Therefore, impacts would be less than significant.

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

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 Sustainability Action Plan goals and best practices are incorporated in the General Plan.



The 2010 General Plan EIR found that although the General Plan and the City’s SAP include many goals, policies, and measures that would reduce the GHG emissions associated with buildout of the General Plan from projected BAU levels, these goals, policies, and measures would not meet the San Joaquin Valley Air Pollution Control District’s threshold of a 29 percent reduction in GHG emissions from BAU projected emissions, resulting in a significant and unavoidable GHG emission impact.

The WSMP and WWMP both propose infrastructure improvements that would serve the built out condition of the City as envisioned by the General Plan, which is consistent with the total buildout timeframe analyzed by the General Plan EIR for these resources. Thus, the infrastructure identified by the WSMP and WWMP is not expected to result in any greater GHG emission impacts than identified in the General Plan EIR. Nonetheless, both the WSMP and WWMP are policy documents that do not propose the construction or operation of any water supply or wastewater infrastructure at this time, although these documents would indirectly facilitate the construction of water supply and wastewater infrastructure.

Phasing of the various facilities identified by the WSMP and WWMP would be dependent on development and the need for additional water supply and wastewater facilities. It is anticipated that these various facilities would be developed over time. The proposed WSMP and WWMP facilities would serve existing and planned development consistent with the General Plan. As described above, implementation of the WSMP and WWMP would not induce substantial growth and would not result in significant generation of construction or operational GHG emissions. As the WSMP and WWMP are consistent with the General Plan, neither master plan would conflict with the City’s Sustainability Action Plan. Therefore, neither the WSMP, nor the WWMP would conflict with applicable GHG, policies, and/or regulations. Less than significant impacts would result.

VIII. HAZARDS AND HAZARDOUS MATERIALS

HAZARDS AND HAZARDOUS MATERIALS - Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Would the project:

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

The WSMP and the WWMP identify necessary new infrastructure to serve the City’s water and wastewater needs at buildout of the City’s General Plan, which consists of buildout of development projects with approved water supply (including infill) and future service areas within the City’s SOI. The majority of the infrastructure proposed by the WSMP and WWMP would not result in the routine use or generation of hazardous materials that would require routine transport or disposal. However, a variety of water supply infrastructure would likely require the use of chemicals to enhance and maintain water purity, while upgrades to the City’s



WWTP could involve processes that require the use of hazardous chemicals to treat wastewater. These hazardous chemicals would require routine transport and disposal. Moreover, the wastewater infrastructure identified by the WWMP would routinely transport sewage which is a hazardous material and if this infrastructure fails it could result in a significant hazard to the public or the environment.

The General Plan EIR found that the safety risk from the routine transport of hazardous materials in the Tracy Planning would be less than significant due to a combination of General Plan policies and actions and existing federal and state regulation. The WSMP and WWMP would not result in any greater impacts than identified in the General Plan EIR, as the water supply and wastewater infrastructure the documents identify would be necessary to accommodate growth envisioned by the General Plan within the total buildout timeframe analyzed by the General Plan EIR for this resource. Nonetheless, as noted above, the WSMP and WWMP are policy documents and as such neither would result in the construction or operation of specific infrastructure projects at this time, but both documents would indirectly facilitate the construction and operation of water supply and wastewater infrastructure.

Transport of hazardous material would occur on public roads and be subject to Occupational Health and Safety Standards Guidelines (Hazardous Waste Operations and Emergency Response Standard, Title 29 Code of Federal Regulations (CFR) Part 1910.120), as well as the Department of Toxic Substances Control (DTSC). Unless specifically exempted, hazardous waste transporters must comply with the California Highway Patrol Regulations; the California State Fire Marshal Regulations; and the U.S. Department of Transportation Regulations. In addition, hazardous waste transporters must comply with Division 20, Chapter 6.5, Article 6 and 13 of the California Health and Safety Code and the Title 22, Division 4.5, Chapter 13, of the California Code of Regulations, which are administered by DTSC (<http://www.dtsc.ca.gov/HazardousWaste/Transporters.html>). All of these regulations are designed to minimize the danger of hazardous materials being released and causing a significant hazard to the public or the environment. Adherence to guidelines discussed above would reduce potential impacts to less than significant.

The potential for the wastewater infrastructure identified by the WWMP to fail, resulting in a significant hazard to the public or the environment would be mitigated to the greatest extent feasible by compliance with standard engineering practice and adherence to the latest version of the California Plumbing Code, which strives to minimize public risk by specifying technical standards of design, materials, workmanship and maintenance for plumbing systems, as well as the standards and policies enforced by the City of Tracy. Adherence to standard engineering practice, the latest version of the California Plumbing Code, and the standards and policies of the City of Tracy would reduce potential impacts to less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? Determination: Less Than Significant Impact with Mitigation Incorporated.

The General Plan EIR acknowledges two superfund sites in the City of Tracy, in addition to areas in the City that have the potential to contain contamination in the buildings (such as



asbestos), soil, or groundwater from past uses. According to the General Plan EIR, because no growth is planned on either superfund site through the implementation timeframe of the General Plan there would be no related impact. In addition, the General Plan EIR concluded that adherence to General Plan policy (Objective SA-4.1, P2), which requires developers to conduct the necessary level of environmental investigation prior to project approval, buildout of the General Plan involving redevelopment of areas with hazardous materials present would not result in significant accidental releases of hazardous materials.

The WSMP and WWMP identify the infrastructure necessary to accommodate the water supply and wastewater demands of the growth envisioned by the General Plan at buildout. This time period is consistent with the total buildout timeframe analyzed by the General Plan EIR for this resource. Thus, the water supply and wastewater infrastructure identified by the WSMP and WWMP respectively would not be expected to result in any greater impacts than identified in the General Plan EIR. The WSMP and WWMP would indirectly facilitate the construction and operation of water supply and wastewater infrastructure projects. Construction of individual projects could potentially result in exposure to contaminated soil or groundwater from past uses. Developers of future projects would be required to conduct the necessary level of environmental investigation prior to project approval, consistent with General Plan policy (Objective SA-4.1, P2), as described above as identified in Mitigation Measure 16 below.

Mitigation Measure 16: In accordance with the requirements of Tracy General Plan policy (Objective SA-4.1, P2), potential for significant accidental releases of hazardous materials shall be addressed based on the findings of design-level environmental investigations. Design-level investigations shall be required to document any reasonably foreseeable storage, use, production or storage of hazardous or potentially hazardous materials or substances associated with implementation of the infrastructure improvements. The Development and Engineering Services Department shall ensure that all appropriate measures are implemented in order to reduce the risk of accidental releases of hazardous materials prior to the issuance of a grading permit.

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

As described above in response to Checklist Item VIII.a, the WSMP and WWMP are policy documents that identify the water supply and wastewater infrastructure required to accommodate growth envisioned by the General Plan at buildout, which is consistent with the total buildout development scenario studied in the General Plan EIR for this resource. Moreover, as noted above in the Checklist Item VIII.a response, the infrastructure identified in WSMP and WWMP would require the use of, as well as handle hazardous materials. It is likely that this infrastructure would be within one-quarter mile of schools throughout the City.

The General Plan EIR determined that adherence to General Plan policies and actions along with existing federal and state regulation would reduce the potential threat of hazardous materials to



human health through buildout of the General Plan to a less than significant level. Given that the infrastructure identified by the WSMP and WWMP would accommodate growth in the City's SOI and Planning Area during the total buildout timeframe analyzed by the General Plan EIR, it would not be expected to result in any greater threat of exposure to hazardous materials than identified in the General Plan EIR. In addition, as individual water supply or wastewater infrastructure projects identified by the WSMP and WWMP come forward, they would be required to adhere to General Plan policies and actions along with existing federal and state regulation regarding hazardous materials, which would reduce the threat of potential exposure of hazardous materials within one-quarter mile of a school to a less than significant level. Moreover, individual projects would be required to implement Mitigation Measure 16, identified above, which would further reduce the risk of exposure to hazardous materials within one-quarter mile of a school by requiring individual projects to address the potential for significant accidental releases of hazardous materials based on the findings of design-level environmental investigations.

- d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? Determination: No Impact.*

The Environmental Protection Agency (EPA) has listed two hazardous waste sites on the Superfund National Priorities List (NPL) within the Tracy Planning Area. One is the Tracy Defense Depot, which is located on the east side of Tracy, on Chrisman Road between Valpico and Schulte Roads. The second is the Lawrence Livermore National Lab, which is located in the southwest corner of the Tracy Planning Area. Both sites currently have human exposure under control, but have not yet mitigated effects to groundwater migration. The WSMP and the WWMP do not identify any water supply or wastewater infrastructure improvements within these two sites. As noted above in the response to Checklist Item VIII.a., the General Plan EIR found that there would be no significant impact through buildout of the General Plan in regard to either superfund site, as no growth is planned on either site. Therefore, there would be no related impact.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? Determination: No Impact.*

The Tracy Municipal Airport is a general aviation airport owned by the City and managed by the Parks and Community Services Department. It is located in the southern portion of the City. The WSMP and WWMP identify water supply and wastewater infrastructure improvements within two miles of the Tracy Municipal Airport. According to the 2006 General Plan EIR, implementation of the General Plan would result in increased development in areas within a two-mile radius of the Tracy Municipal Airport. This has the potential to create a significant impact if incompatible development is allowed within airport hazard zones, but implementation of policies and actions identified in the General Plan (Objective LU-6.3, P1 and P2, Objective SA5.1, P1, and Objective SA-5.1, A1) would avoid a significant safety impact with the Tracy Municipal Airport.



The WSMP and WWMP identify infrastructure improvements necessary to accommodate the growth envisioned by the General Plan though buildout consistent with the timeframe analyzed by the 2006 General Plan EIR for this environmental topic. Thus, the infrastructure improvements identified by the WSMP and WWMP would not be expected to result in any greater impacts than identified in the General Plan EIR. Moreover, due to the passive nature of proposed uses associated with the WSMP and WWMP facilities, no impacts would occur with regard to safety hazards and airport use.

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

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

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

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

The infrastructure improvements identified by the WSMP and WWMP would be necessary during the total buildout development scenario analyzed in the General Plan EIR and would not be expected to result in any greater demand for emergency services during disasters than identified in the General Plan EIR.

Implementation of the proposed facilities is not expected to cause significant impacts on emergency response plans or emergency evacuation plans with the implementation of mitigation for linear construction work (e.g., pipelines, gravity mains, etc.). Mitigation implementing a Traffic Management Plan would allow the continued vehicular use of the existing roadways or relegate traffic to agency-approved detour routes around the construction site. The construction of those facilities located outside of urbanized areas would not produce adverse impacts in this regard. Therefore, with implementation of Mitigation Measure 17, impacts would be less than significant.

Mitigation Measure 17: A Traffic Management Plan (TMP) shall be prepared and implemented to the satisfaction of the City of Tracy where construction of infrastructure improvements would affect roadways. The TMP shall include, but not limited to, the following measures:



- **Limit construction to one side of the road or out of the roadbed where possible.**
- **Provision of continued access to commercial and residential properties adjacent to construction sites.**
- **Provide alternate bicycle routes where existing bicycle routes are disrupted by construction activities.**
- **Submit a truck routing plan, for approval by the City of Tracy in order to minimize impacts from truck traffic during material delivery and disposal.**
- **Where construction is proposed for two-lane roadways, confine construction to one half of the pavement width. Establish one lane of traffic on the other half of the roadway using appropriate construction signage and flagmen, or submit a detour plan for approval by the City Traffic Engineer.**

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? Determination: Less Than Significant Impact with Mitigation Incorporated.

The WSMP and WWMP identify infrastructure improvements necessary to accommodate growth envisioned by the General Plan at buildout, which is consistent with the total buildout development scenario studied in the General Plan EIR for this environmental topic. Some of these improvements and expansions would be located adjacent to or within wildland fire areas. According to the General Plan EIR, implementation of General Plan policies would reduce the risk of exposure to wildland fire throughout the buildout of the General Plan to less than significant. Because the WSMP and WWMP identify infrastructure improvements necessary to accommodate growth envisioned by the General Plan through total buildout, consistent with the timeframe analyzed by the General Plan EIR for this environmental topic, it would not result in any greater impacts than identified in the General Plan EIR. Nevertheless, the WSMP and WWMP are policy documents and would not result in the construction or operation of specific improvements or expansions at this time, but they would facilitate the construction and operation of water supply and wastewater infrastructure projects.

Facilities proposed as part of the WSMP and WWMP would be located throughout the City, including within urbanized and undeveloped land. Those facilities located adjacent to or within undeveloped wildland areas have the potential to be subject to increased fire hazards. Depending on a facility's proximity to areas of high susceptibility to wildfires, that facility may be exposed to significant impacts due to wildfires. Implementation of Mitigation Measure 18, which includes requirements for fuel-modification zones, fire equipment access, and emergency preparedness protocol, would reduce these impacts to less than significant.

Mitigation Measure 18: Prior to approval of site design, facilities located within area of high susceptibility to wildfire hazards shall include fuel-modification zones, road standards that provide for fire equipment access, the assured provision of minimum water supply reserves for emergency fire



use, fuel breaks and greenbelts, clearances around structures, and emergency preparedness protocol and procedures as recommended by the General Plan.

IX. HYDROLOGY AND WATER QUALITY

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



Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Would the Project:

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

As identified in the General Plan EIR and Draft Storm Drain Master Plan, the City’s Storm Water Management Plan (SWMP) establishes Best Management Practices (BMPs) to limit the discharge of pollutants from the City’s storm sewer system to the Maximum Extent Practicable (MEP), as specified by Section 402(p) of the Clean Water Act. The Storm Water Management Plan includes BMPs related to construction site and post-construction runoff controls, illicit discharge detection and elimination, pollution prevention, as well as public education and outreach. The General Plan EIR concludes that implementation of the BMPs identified in the City’s Storm Water Management Plan, as well as General Plan policies and other regulatory requirements regarding stormwater management ensure that the buildout of the General Plan would not have a significant impact on storm water quality or waste discharge requirements.

The WSMP and WWMP identify infrastructure improvements necessary to accommodate the growth envisioned by the General Plan through buildout. This time period is consistent with the timeframe analyzed by the General Plan EIR for this resource. Thus, the improvements and expansions identified by the WSMP and WWMP would not be expected to result in any greater impacts than identified in the General Plan EIR.

Short-term water quality impacts during construction of proposed facilities could result from sediment from grading operations, oil and grease from equipment, trash from worker and construction activities, nutrients from fertilizers, heavy metals, pathogens, and other substances. Discharge of these pollutants into waters of the U.S. is regulated by the State Water Resources Control Board (SWRCB). The SWRCB has adopted General Permit No. CAS000002- Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity (General Permit) for California that applies to most construction-related storm water discharges within California. The General Permit requires that projects disturbing greater than one acre develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that specifies Best Management Practices (BMPs) to prevent all construction pollutants from



contacting storm water with the intent of keeping all products of erosion from moving offsite into receiving waters. The projects proposed as part of the WSMP and WWMP would be subject to the provisions of the General Permit, and would be required to submit a SWPPP to the SWRCB, Central Valley Region (Regional Board).

During the operational phase, long-term water quality impacts in urban settings typically are a result of increases in impervious surface areas that in turn, increase the amount of stormwater runoff from a site and introduce pollutants into storm water that are typically associated with urban runoff. Pollutants would be washed by rainwater from rooftops, landscaped areas, parking areas and other impervious surfaces. The potential pollutants include chemicals from maintenance and cleaning supplies; landscape materials and products (pesticides, herbicides and fertilizers); oil, grease and heavy metals from automobiles; and petroleum hydrocarbons from fuels. The introduction of polluted runoff into receiving waters is a potentially significant impact.

However, due to the nature of the proposed facilities, no long term operational impacts are anticipated. This is because the majority of the proposed facilities would be located underground within existing right-of-way (groundwater wells, potable/recycled water pipelines, gravity sewer pipelines, and force mains) or would be installed within already existing or proposed facilities (SCADA systems/backup power at all new water supply facilities, upgrades to the MacArthur Pump Station and Hanson Pump Station, and infrastructure necessary to expand the City's existing JJWTP and WWTP), and as such would not create new impervious surface areas that could increase the amount water quality pollutants washed by rainwater into receiving waters. Other facilities that would be located above ground (new booster pumping facilities, pressure regulating stations, pump stations, and diurnal storage) would have minimal increases in impervious surface area and would also be required to comply with applicable City policies and regulations, which would reduce this impact to less than significant.

In particular, individual projects would be required to implement BMPs identified in the City's SWMP, which have been identified to limit the discharge of pollutants from the City storm sewer system to the MEP. Moreover, the individual projects would be required to comply with the general site design control measures for Low Impact Design (LID) identified in the City's Stormwater Quality Control (SWQC) Manual, as well as appropriate site-specific source and treatment control measures. 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. LID would help filter pollutants and provide effective water quality treatment. In addition, individual projects would be required to comply with maintenance procedures identified in the City's SWQC Manual to ensure that selected control measures would be maintained to provide effective, long-term pollution control. Therefore, there would be less than significant impacts on water quality during construction and operation.

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



As described previously, the WSMP and WWMP identify water supply and wastewater infrastructure improvements required to accommodate future growth anticipated by the General Plan. The General Plan EIR found that the City's current use of groundwater can be supported without negatively impacting the aquifer beneath the City. This in combination with adopted City policies and General Plan policies would result in less than significant impacts on groundwater supply due to buildout of the General Plan.

The WSMP and WWMP would not result in any greater impacts than identified in the General Plan EIR, as the infrastructure improvements these documents identify would be necessary to accommodate growth envisioned by the General Plan under the total buildout timeframe analyzed by the General Plan EIR for this resource. Nonetheless, as noted above, the WSMP and WWMP are policy documents and as such neither would result in the construction or operation of specific improvements or expansions at this time. Regardless, both would facilitate the construction and operation of improvements. However, by their very nature, the wastewater improvements and expansions identified by the WWMP (e.g., force mains, pump stations, and gravity sewer pipelines, etc.) would not require the use of groundwater and therefore, would not deplete groundwater supplies.

The water supply improvements identified by the WSMP (e.g., pipelines, water storage wells, pumping stations, pressure regulating stations, etc.) do not create demand for water, but rather would be necessary to accommodate the water demand created by the future growth allowed by the General Plan, and thus would not be considered as potential sources that could substantially deplete groundwater. They are merely the means by which the water is supplied to the end users, who create the demand for water that could result in groundwater depletion. Nonetheless, the City's 2010 Urban Water Management Plan (UWMP) identifies sufficient water supplies, including groundwater, to serve the City's demand through buildout of the General Plan. Impacts would be less than significant.

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?* Determination: Less Than Significant Impact with Mitigation Incorporated.

The General Plan EIR identified that development proposed under the General Plan during the buildout timeframe is not anticipated to significantly alter existing drainage patterns or stream alignments because no new development would be located adjacent to existing streams or other waterways. However, some of the infrastructure improvements identified by the WSMP and WWMP may be located adjacent to existing streams or other waterways or would require crossing waterways. For example, the WWMP identifies several improvements that would require crossing waterways. These improvements consist of:

- A new 14-inch diameter force main necessary to convey sewage flows from the east catchment future service areas to the Tracy WWTP that would require crossing the Eastside Drainage Channel;
- A new 30-inch-diameter force main necessary to convey sewage flows from the west catchment future service areas (not including the wastewater diverted to the Corral



Hollow Sewer System) to the Tracy WWTP that would require crossing an irrigation/drainage canal located near Naglee Road; and,

- A new gravity sewer line, referred to as the Lammers Trunk Sewer, necessary to convey wastewater generated from the west catchment future service areas to the new pump station located at the intersection of Naglee Road and Larch Road that would require crossing an irrigation canal and siphon.

Improvements identified by the WSMP that involve crossing waterways consist of:

- A new 30-inch diameter recycled water pipeline that would require crossing an irrigation/drainage channel at Lammers Road;
- A new 30-inch diameter recycled water pipeline that would require crossing irrigation at Lammers Road and West Schulte Road;
- A new 30-inch diameter recycled water pipeline that would require crossing irrigation at West Schulte Road between Lammers Road and Corral Hollow Road; and,
- A new 30-inch diameter recycled water pipeline that would require crossing irrigation at Corral Hollow Road south of West Schulte Road.

In addition to the identified improvements, a variety of other improvements may require crossing waterways, but have not been identified in the Tier I evaluations and, if required, would be identified during the final design process.

Construction in these areas may alter drainage patterns or alignments, resulting in on or offsite erosion, siltation, or flooding. Implementation of Mitigation Measure 19 would require minimization of time periods in which natural drainages would be disturbed. Therefore, with the implementation of Mitigation Measure 19, construction impacts would be less than significant. During operation, implementation of LID features and site-specific source and treatment control measures required by existing state and City regulations would reduce potential erosion and siltation impacts associated with altering existing drainage patterns to a less than significant level.

Mitigation Measure 19: Where drainage courses are crossed, temporarily altering their capacity or flow characteristics, appropriate precautions shall be incorporated into the project design to minimize the time period in which drainages are disturbed while maintaining the natural flow or provide additional capacity within the drainages during the construction period to handle designed flows.

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

Refer to Response IX(c), above.



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

According to the General Plan EIR, total buildout of the General Plan has the potential to cause significant impacts by increasing stormwater runoff associated with construction activities and increasing impermeable surfaces, thereby placing greater demands on the stormwater handling system. The General Plan EIR found that policies in the General Plan, as well as other regulatory requirements regarding stormwater management ensure that the General Plan would not have a significant impact on storm drainage facilities. The WSMP and WWMP would not result in any greater impacts than identified in the General Plan EIR, as the infrastructure improvements identified by both documents would be necessary to accommodate growth envisioned by the General Plan through the total buildout timeframe analyzed by the General Plan EIR for this resource.

The City has prepared an update to its 1994 Storm Drain Master Plan that is currently in progress and under environmental review. The proposed *City of Tracy, Citywide Storm Drainage Master Plan* (SDMP), dated March 2012, is intended to be utilized as a guideline document for the identification of storm drainage facilities needed to serve future land development projects under buildout conditions 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 purpose of the existing and proposed SDMP is to provide improved storm drain facilities to adequately handle sources of runoff throughout the City. Therefore, it is anticipated that, storm drainage impacts would be less than significant.

- f) *Otherwise substantially degrade water quality? Determination: Less Than Significant Impact with Mitigation Incorporation.*

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

- g) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? Determination: No Impact.*

Implementation of the WSMP and WWMP would not include the construction of housing. Therefore, no impacts would result.

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

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



Plan would reduce the potential impact associated with exposure to the 100-year flood plain to a less than significant level.

Because the infrastructure proposed by the WSMP and WWMP would accommodate growth envisioned for the City by the General Plan through the total buildout scenario timeframe, the WSMP and WWMP would not be expected to result in any greater impacts associated with exposure to the 100-year flood plain than those identified by the General Plan EIR.

The WSMP identifies some infrastructure within the 100-year flood zone, including new water supply pipelines, a new ASR groundwater well, and a new booster pump station. The pipelines and well would not impede or redirect flood flows, as these structures would be underground. The booster pump station would not be large enough of a facility to impede or redirect flood flows. Moreover, future projects would be required to comply with adopted City policies that require development, including public facilities, within the 100-year floodplain to be flood-proofed at or above the base year flood elevation, and to not construct flood barriers that divert flood water or increase flooding in other areas. In addition, the City's existing SDMP, as well as its proposed SDMP provides for storm drainage capacity sufficient to contain 100-year and 10-year flood flows under specific conditions, and requires structures that are allowed to be built in areas of flood risk to be built in a manner to minimize that risk. The WWMP identifies force mains and gravity mains, which would be underground, within the 100-year flood zone, and as such would not impede or redirect flood flows. Thus, for the reasons identified above, potential exposure of proposed water supply and wastewater infrastructure to the 100-year flood plain would be reduced to a less than significant level.

- i) *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? Determination: Less Than Significant Impact.*

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

The WSMP and WWMP identify water supply and wastewater infrastructure improvements necessary to accommodate the growth envisioned by the General Plan through buildout, which is consistent with the timeframe analyzed in the General Plan EIR. Thus, the water supply and wastewater infrastructure improvements identified by the WSMP and WWMP would not be expected to result in any greater impacts than identified in the General Plan EIR.

As noted in Response IX (h), above, the WSMP identifies new water supply pipelines, a new ASR groundwater well, and a new booster pump station in the northern portion of the City and



the WWMP identifies force mains and gravity mains in this area. This infrastructure would be within an area that could be affected by dam failure inundation. However, it is unlikely that the water supply pipelines, ASR well, and sewage pipelines (force mains and gravity mains) would be at risk from flooding as result of dam failure or would put people at risk from dam failure flooding as they would be underground and would require minimal maintenance. Moreover, the booster pump station would not likely be affected by flooding from dam failure given the policies enforced by the City that require development, including public facilities, within the 100-year floodplain to be flood-proofed at or above the base year flood elevation. Nor is it likely that the minimal maintenance that would be required by the booster pumping station would put people at risk from flooding caused by dam failure. In addition, the City's existing SDMP, as well as its proposed SDMP provides for storm drainage capacity sufficient to contain 100-year and 10-year flood flows under specific conditions, and requires structures that are allowed to be built in areas of flood risk to be built in a manner to minimize that risk. Finally, as identified by to the General Plan EIR, the risk of dam failure for Tracy is small, because the County continues to maintain its dam to withstand probable seismic activity. Therefore, the potential risk of flooding for people or structures as a result of dam failure would be less than significant.

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

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

The improvements identified by the WSMP and WWMP would accommodate growth in the City's SOI and Planning Area during through the total buildout timeframe analyzed by the General Plan EIR and because of this, they would not be expected to result in any greater seiche, tsunamis, or mudflow impacts than identified in the General Plan EIR.

The proposed water supply and wastewater infrastructure improvements identified by the WSMP and WWMP would not be at risk from inundation by seiche, tsunamis or mudflows for the following reasons: the City is not located near areas likely to be affected by seiche flooding; the the City is located inland and could not be affected by a tsunami; and the none of the infrastructure improvements would be located near any physical or geologic features that would pose a mudflow hazard, such as a volcano or hillsides. While some water supply improvements are identified for the Tracy Hills area, which is relatively hilly, this area is not close enough to the steep hillsides of the Diablo Range that would be more likely to be subject to mudflow hazards. Impacts would be less than significant.



X. LAND USE AND RELEVANT PLANNING

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

Would the Project:

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

According to the General Plan EIR, buildout of the General Plan would not physically divide an established community and no associated impact is anticipated because the majority of development would occur on vacant land where no established community exists, and the General Plan contains several policies that when implemented would preserve the character, identity, and quality of redeveloped neighborhoods. The WSMP and WWMP would not result in any greater impacts than identified in the General Plan EIR, as the water supply and wastewater improvements they identify would be necessary to accommodate growth envisioned by the General Plan through the total buildout timeframe analyzed by the General Plan EIR for this resource.

An example of a project that has the potential to divide an established community includes the construction of a new freeway or highway through an established neighborhood. The proposed facilities would consist of the installation of buried water and sewer pipelines within and adjacent to existing improved and unimproved roadway rights-of-way, which would not have any impact on General Plan designations, Zoning classifications, or the physical arrangement of an established community. Moreover, SCADA systems/backup power at all new water supply facilities, upgrades to the MacArthur Pump Station and Hanson Pump Station, and infrastructure necessary to expand the City’s existing JJWTP and WWTP would be implemented within existing City owned facilities and would not have an impact on General Plan designations, Zoning classifications, or the physical arrangement of an established community. New



groundwater wells, booster pumping facilities, pressure regulating stations, pump stations, and diurnal storage are proposed throughout the Project area but would not result in significant impacts to established communities, as they are small in nature and not of the size or scope to physically divide an established community. Therefore, less than significant impacts would result.

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

The WSMP is a comprehensive update of the 1994 City of Tracy WSMP in fulfillment of Objective PF-6.1, Action A1 of the Public Facilities and Services Element of the General Plan, which states, “Update the Water Master Plan upon adoption of the General Plan and on a regular basis.” The WSMP builds upon the goals and objectives contained in the Public Facilities and Services Element of the General Plan as it identifies water supply infrastructure improvements required to accommodate future growth anticipated by the General Plan. As noted in the Public Facilities and Services Element of the General Plan EIR, Objective PF-6.3, Policy P4, “All new water facilities shall be designed to accommodate expected capacity for buildout of areas served by these facilities but may be constructed in phases to reduce initial and overall costs.”

Similarly, the WWMP is a comprehensive update of the 1994 City of Tracy WWMP in fulfillment of Objective PF-7.1, Action A1 of the Public Facilities and Services Element of the General Plan and builds upon the goals and objectives contained in the Public Facilities and Services Element of the General Plan as it identifies water supply infrastructure improvements required to accommodate future growth anticipated by the General Plan. Objective PF-7.1, Action A1 of the Public Facilities and Services Element states, “Prepare a comprehensive update to the Wastewater Master Plan upon adoption of the General Plan and update on a regular basis. The Wastewater Master Plan shall identify the expected number of additional wastewater facilities, potential locations for those facilities and locations for the land application of treated effluent.”

For these reasons, the WSMP and WWMP would not conflict with applicable policies and regulations in the Tracy area.

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

Refer to Response IV(f), above.



XI. MINERAL RESOURCES

MINERAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? Determination: No Impact.*

The General Plan EIR found that development of urban uses permitted under the proposed General Plan through buildout could occur on or near land with important mineral resources, which could result in significant loss of mineral resources, and the loss of availability of locally important mineral resource recovery sites. According to the General Plan EIR, these potentially significant impacts would be less than significant due to policies in the General Plan designed to minimize potential land use conflicts between aggregate resource activities and other uses, and generally ensure that new development would not impact the future availability of mineral resources or mineral resource recovery sites. The WSMP and WWMP identify infrastructure improvements necessary to accommodate the growth envisioned by the General Plan through buildout, which is consistent with the timeframe analyzed by the General Plan EIR for this resource. Thus, the improvements and expansions identified by the WSMP and WWMP would not be expected to result in any greater impacts than identified in the General Plan EIR.

No facilities proposed as part of the WSMP or WWMP would be located in areas designated as Aggregate in the General Plan. Therefore, no impacts would result.

b) *Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? Determination: No Impact.*

Refer to Response XI(a), above.



XII. NOISE

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

Would the Project result in:

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

As discussed in the General Plan EIR, the City's Noise Ordinance and policies in the General Plan serve to control excessive sources of noise in the City and ensure that noise impacts from new projects are evaluated when they are reviewed. Despite these policies and regulations, the



General Plan EIR found that as development proceeds and the City's population increases through buildout, increased traffic would increase noise levels substantially (3 dBA Ldn or greater) along major roadways throughout Tracy, including portions of I-205, I-580, Grant Line Road, Schulte Road, Valpico Road, Linne Road, Lammers Road, Corral Hollow Road, Tracy Boulevard, and MacArthur Drive. Other than Valpico Road and I-580, all significant increases would occur adjacent to existing noise sensitive areas.

Traffic on new roadways planned in the General Plan would also create noise increases of 3dB Ldn or greater. These planned roadways include connections from I-205 to Byron, Lammers, and Grant Line Roads; a major arterial connecting Chrisman Road to I-205 and Arbor Avenue to the north; and several minor arterial and collector roadways at the east end of Tracy. Many of these roadways would be located adjacent to existing or new residential areas. New arterial roadways and interchanges are proposed to serve new development. New roadways would substantially increase the noise environment at receivers in the vicinity.

The water supply and wastewater infrastructure improvements identified by the WSMP and WWMP would be necessary during the total buildout development scenario timeframe analyzed in the 2010 General Plan EIR. As such, implementation of the WSMP and WWMP would not be expected to result in any greater impacts associated with noise increases than those identified by the General Plan EIR. The General Plan EIR concluded that it is unlikely that likely that all traffic noise impacts resulting from the proposed General Plan will be adequately mitigated given the anticipated growth of the community and expected traffic noise level increases resulting in a significant and unavoidable impact. In addition, the General Plan EIR found that development under buildout of the General Plan would introduce new noise-generating sources adjacent to existing noise-sensitive areas, but that policies in the General Plan would adequately reduce this impact to less than significant.

Construction and implementation of proposed facilities identified in the WSMP and WWMP would be dependent upon increased water demands and wastewater generation in the Tracy Planning Area. Short-term construction noise would be dependent upon the phasing schedule of subsequent components. However, it is anticipated that future construction impacts associated with the WSMP and WWMP would result in similar construction noise impacts.

Construction activities are generally short-term and temporary in duration, lasting from a few days to a period of several months. 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 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 7, Maximum Noise Levels Generated By Construction Equipment, indicates the anticipated equipment noise levels during the construction period. 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 random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).



Table 7
Maximum Noise Levels Generated By Typical 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
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-dB 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: EPA, Bolt, Beranek, and Newman, <i>Noise Control for Buildings and Manufacturing Plants</i> , 1987.				

A reasonable worst-case assumption is that the three loudest pieces of equipment would operate simultaneously and continuously over at least one hour within a focused area of 15 yards of each other. The combined sound level of three of the loudest pieces of equipment (scraper, backhoe, and heavy truck) is 93 dBA measured at 50 feet from the noise source. Table 8, Estimated Construction Noise in the Project Area, which assumes this combined source level, summarizes predicted noise levels at various distances from an active construction site. These estimations of noise levels take into account distance to receptor attenuation, attenuation from molecular absorption, and anomalous excess attenuation. Construction noise would be most noticeable during the initial months of site-intensive grading.



Table 8
Estimated Construction Noise in the Project Area

Distance Attenuation	
Distance to Receptor (Feet)	Sound Level at Receptor (dBA)
50	93
100	87
200	81
400	74
600	70
800	68
1,000	65
1,500	61

The following assumptions were utilized:
 Basic sound level drop-off rate: 6.0 dB per doubling distance
 Molecular absorption coefficient: 0.7 dB per 1,000 feet
 Analogous excess attenuation: 1.0 dB per 1,000 feet
 Reference sound level: 93 dBA
 Distance for reference sound level: 50 feet
 Simultaneous operation of 1 scraper, 1 heavy truck, and 1 backhoe
 Source: EPA, Bolt, Beranek, and Newman, *Noise Control for Buildings and Manufacturing Plants*, 1987.

Many proposed facilities would be located adjacent to urbanized areas that contain sensitive receptors, including schools, hospitals, and residential areas. 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. To further minimize any extraneous construction noise impacts on adjacent sensitive land uses, the developers of proposed facilities would be required to install noise attenuating buffers near residential areas, place mufflers on equipment engines, and orient stationary sources to direct noise away from sensitive uses as specified in Mitigation Measure 20. Implementation of Mitigation Measure 20 would reduce short-term construction impacts to less than significant.

Operational noise associated with proposed WSMP and WWMP facilities would mainly consist of stationary noises, as the WSMP and WWMP facilities are not traffic-generating uses, with the exception of occasional maintenance-related traffic or operational related traffic associated with the JJWTP and the City’s WWTP. Thus, significant traffic related noise impacts would not occur. Additionally, all facilities would be constructed according to industry standards and according to the City Noise Ordinance requirements, which would ensure that any operational noise impacts would not be excessive or significant. Excessive construction-related noise levels



generally would occur in the daytime hours only, as 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 Mitigation Measure 20 (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 reduce construction related noise exposure to less than significant noise levels.

Mitigation Measure 20: *Prior to the issuance of grading permits and to the satisfaction of the City of Tracy, the Project Contractor 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 infrastructure projects located within 500 feet of any noise-sensitive receptors (e.g., residences, schools, childcare canters, churches, hospitals, and nursing homes). Such control measures could include any of the following, as appropriate:*

- *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.*
- *Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.*
- *All residential units located within 1,000 feet of the construction site shall be sent a notice regarding the construction schedule of the proposed project. A sign, legible at a distance of 50 feet shall also be posted at the construction site. All notices and signs shall indicate the dates and duration of construction activities, as well as provide a telephone number where residents can inquire about the construction process and register complaints.*
- *A “noise disturbance coordinator” shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and would be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to residential units within one-quarter mile of the construction site and all signs posted at the construction site shall list the telephone number for the disturbance coordinator.*
- *Construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.*
- *During construction, stationary construction equipment shall be placed*



such that emitted noise is directed away from sensitive noise receivers.

- *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).*
- *If impact equipment (e.g., jack hammers, pavement breakers, and rock drills) is used during 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).*

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

The General Plan EIR found that development under the General Plan would not introduce new sources of groundborne vibration. In addition, General Plan Objective N-1.3, Policy 6 is intended to reduce impacts from groundborne vibration associated with rail operations by requiring that vibration-sensitive buildings (e.g., residences) are sited at least 100-feet from the centerline of the railroad tracks whenever feasible. For these reasons, the General Plan EIR concluded that through buildout of the General Plan, development allowed under the General Plan would not expose people to excessive groundborne vibration or noise and no significant impact would occur.

The WSMP and WWMP identify water supply and wastewater infrastructure improvements to accommodate the growth envisioned by the General Plan through buildout, which is consistent within the timeframe analyzed by the General Plan EIR for noise. Thus, the water supply and wastewater infrastructure improvements identified by the WSMP and WWMP would not be expected to result in any greater impacts than identified in the General Plan EIR.

Refer to Response 4.XII (a), above. Similar to temporary noise impacts, groundborne vibration would occur during grading and construction, and would expose adjacent uses to increased noise/vibration levels. Implementation of Mitigation Measure 20 would reduce potential impacts to less than significant.

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

Operational noise associated with the proposed WSMP and WWMP facilities would mainly consist of stationary noises (including the pumping facilities, which would be enclosed), as the WSMP and WWMP facilities would not be traffic-generating uses, with the exception of the occasional maintenance-related traffic and operational traffic associated with the JJWTP and the WWTP. This noise is anticipated to be minimal and infrequent. Therefore, less than significant impacts would result.



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

Refer to Response 4.XII (a), above. Impacts would be less than significant with implementation of Mitigation Measure 20.

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

The Tracy Municipal Airport (TMA) is a general aviation airport owned by the City and managed by the Parks and Community Services Department. The General Plan EIR found that because noise sensitive uses were not proposed within areas that would be exposed to excessive airport noise from the Tracy Municipal Airport, buildout of the General Plan would not result in exposure to excessive airport related noise. The infrastructure identified by the WSMP and WWMP would accommodate growth envisioned by the General Plan though buildout, which is consistent with the total buildout timeframe analyzed by the General Plan EIR for this environmental resource. Consequently, construction and operation of the water supply and wastewater infrastructure improvements identified by the WSMP and WWMP would not be expected to result in any greater impacts than identified in the General Plan EIR.

The WSMP and WWMP identify water supply and wastewater infrastructure necessary to serve buildout of the General Plan, and, therefore, would not include development that would expose people to excessive noise levels. Impacts would be less than significant.

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

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

XIII. POPULATION AND HOUSING

POPULATION AND HOUSING -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Would the Project:

- a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?* Determination: Less Than Significant Impact.

The WSMP and WWMP identify water supply and wastewater infrastructure improvements necessary to accommodate the growth envisioned by the General Plan through buildout, consistent with the total buildout timeframe analyzed by the General Plan EIR for this environmental topic. Because of this, implementation of the WSMP and WWMP would not induce any additional or new population growth not already identified in the General Plan or studied in the General Plan EIR.

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

The WSMP and WWMP do not identify any water supply or wastewater infrastructure improvements that would displace existing housing.

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

Refer to Response XIII(b), above.

XIV. PUBLIC SERVICES

PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could



cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

1) *Fire protection? Determination: Less Than Significant Impact with Mitigation Incorporated.*

Implementation of the WSMP and WWMP could delay Fire Department response times during pipeline construction within roadways. Similarly, Fire Department response time could be impacted due to roadblocks, construction delays, and detours of the various facilities. However, with implementation of detour plans and coordination with the Tracy Fire Department, prior to construction, as identified in Mitigation Measure 21, impacts to fire services would less than significant. Long-term operational impacts include the need for fire protection services of additional facilities. However, these impacts would be minimal and are considered less than significant.

Mitigation Measure 21: Prior to construction of individual infrastructure facilities, the City shall coordinate with the Fire Department and other affected fire protection services in surrounding jurisdictions to review construction detour plans. Specifically, the following shall occur:

- *Emergency vehicle access to structures and fire hydrants in the project area shall be maintained*
- *A prior notice of at least 24 hours in advance of an impact even such as a road closure or disruption of water service shall be given to the appropriate authorities*
- *Traffic control measures, such as the use of flagmen, shall be used, if deemed necessary, in order to regulate traffic to ensure that access will be maintained to all structures for emergency response*



2) *Police protection? Determination: Less Than Significant Impact with Mitigation Incorporated.*

Implementation of the WSMP and WWMP could delay Police Department response times during pipeline construction within roadways. Similarly, Police Department response times could be impacted due to roadblocks, construction delays, and detours of the various facilities. However, with implementation of detour plans and coordination with the Tracy Police Department prior to construction, as identified in Mitigation Measure 22, impacts to police services would be less than significant. Long-term operational impacts include the need for police protection services of additional facilities. However, these impacts would be minimal and are considered less than significant.

Mitigation Measure 22: Prior to construction of individual infrastructure facilities, the City shall coordinate with the Tracy Police Department to review construction detour plans. Specifically, the following shall occur:

- *A prior notice of at least 24 hours in advance of an impact event such as a road closure or disruption of water service shall be given to the appropriate authorities*
- *Prior to construction, the Tracy Police Department and California Highway Patrol shall be notified of all roadway areas, which will be obstructed to allow them to efficiently respond to any emergencies*
- *Traffic control measures, such as the use of flagmen, shall be used, if necessary, in order to regulate traffic to ensure that access will be maintained to all structures for emergency response*

3) *Schools? Determination: No Impact.*

The proposed facilities would not generate students either directly or indirectly and, therefore, would not result in impacts to school services.

4) *Parks? Determination: No Impact.*

The proposed facilities would not generate residents either directly or indirectly and, therefore, would not result in impacts to parks.

5) *Other public facilities? Determination: No Impact.*

The proposed facilities would not generate residents either directly or indirectly, therefore, would not result in impacts to other public facilities.



XV. RECREATION

RECREATION --	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

a) Would the proposed project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? Determination: No Impact.

Refer to Response XIV(a)4, above.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse effect on the environment? Determination: No Impact.

The WSMP and WWMP do not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, no impacts would result.

XVI. TRANSPORTATION/TRAFFIC

TRANSPORTATION/TRAFFIC -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system,



including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

- | | | | | |
|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| b) Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads and highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Would the Project:

- a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? Determination: Less Than Significant Impact.*

Construction and operation of proposed facilities identified in the WSMP and WWMP would generate minimal traffic, and, therefore, would not affect the level of service of intersections, streets, highways, freeways, or alternative transportation modes. Impacts would be less than significant.

- b) *Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? Determination: Less Than Significant Impact.*



Refer to Response 4.XVI (a), above. Impacts would be less than significant.

- c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? Determination: No Impact.*

The WSMP and WWMP identify the water supply and wastewater infrastructure improvements and expansions needed to accommodate future development envisioned by the General Plan through buildout. The Tracy Municipal Airport (TMA) is a general aviation airport owned by the City and managed by the Parks and Community Services Department. It is located in the southern portion of the City. Due to the nature of the proposed facilities, the Project would not result in a change in air traffic patterns. No impact would result.

- d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? Determination: No Impact.*

Due to the nature and scope of the proposed WSMP and WWMP, Project implementation would not have the capacity to increase hazards due to a design feature or incompatible uses. The vast majority of proposed facilities would be underground pipelines and would not affect roadway operations. Therefore, no impacts would result.

- e) *Result in inadequate emergency access? Determination: Less Than Significant Impact with Mitigation Incorporated.*

Construction of facilities identified in the proposed WSMP and WWMP could delay emergency response times due to roadblocks, construction delays, and detours. However, with implementation of Mitigation Measures 17, 21, and 22 above, impacts associated with inadequate emergency access would be less than significant.

- f) *Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? Determination: No Impact.*

The WSMP and WWMP identify the water supply and wastewater infrastructure improvements and expansions needed to accommodate future development envisioned by the General Plan through buildout. Therefore, implementation of either the WSMP or WWMP would not conflict with adopted policies, plans, or programs supporting alternative transportation.



XVII. UTILITIES AND SERVICE SYSTEMS

UTILITIES AND SERVICE SYSTEMS B Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



Would the Project:

- a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? Determination: Less than Significant Impact.*

The WWMP identifies the wastewater infrastructure necessary to serve future wastewater flows in the City. It also recommends a variety of improvements for the City's existing WWTP that would not only increase capacity, but would also improve the quality of discharged effluent. Moreover, the WWMP acknowledges that it is unlikely that the City would be allowed to discharge more than its current limit of 16 mgd to Old River in the future and assumes that flows exceeding 16 mgd would need to be land applied and provides recommendations for how to achieve this. Thus, as proposed, the WWMP is anticipated to comply with the requirements of the RWQCB and less than significant impacts are anticipated.

- b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? Determination: Less than Significant Impact with Mitigation Incorporated.*

As described throughout this document, the proposed WSMP and WWMP identify the Tier 1 water supply and wastewater infrastructure improvements and expansions needed to accommodate future development envisioned by the General Plan through buildout. As described herein, variety of environmental effects could occur as a result of the construction of new improvements or expansion of existing improvements as identified in the WSMP and WWMP. All identified impacts would be reduced to less than significant with implementation of Mitigation Measures 1-22 identified in this document.

- c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? Determination: Less Than Significant Impact.*

The WSMP and WWMP identify the Tier 1 water supply and wastewater infrastructure improvements and expansions needed to accommodate future development envisioned by the General Plan through buildout. Neither document identifies the construction of new storm water drainage facilities or expansion of existing facilities.

Proposed groundwater wells, potable/recycled water pipelines, gravity sewer pipelines, and force mains would be placed underground within existing or proposed rights-of-way, or within water or sewer easements and, therefore, would not require the construction of new storm water drainage facilities or the expansion of existing facilities. New and upgraded booster pumping facilities, new pressure regulating stations, pump stations, and diurnal storage would be located above ground and could potentially require storm drainage improvements. As part of the future detailed design of these facilities recommended by the WSMP and WWMP, the City would require adequate site drainage. SCADA systems/backup power at all new water supply facilities, upgrades to the MacArthur Pump Station and Hanson Pump Station, and infrastructure necessary to expand the City's existing JJWTP and WWTP would be implemented within existing City



owned facilities and, therefore, are not anticipated to require the construction of new storm water drainage facilities or expansion of existing facilities. Impacts would be less than significant.

d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? Determination: No Impact.*

As explicitly stated in the WSMP, it is not the purpose of that document to provide a water supply plan for the City that is the purpose of the City's 2010 Urban Water Management Plan, adopted by the City May 2011. The purpose of the WSMP is to identify the water supply infrastructure improvements and expansions needed to accommodate future development envisioned by the General Plan through buildout. Further, as in Response IX (b), the water supply improvements identified by the WSMP (e.g., pipelines, water storage wells, pumping stations, pressure regulating stations, etc.) do not create demand for water, but rather would be necessary to accommodate the water demand created by the future growth allowed by the General Plan. They are merely the means by which the water is supplied to the end users, who create the demand for water that could result in groundwater depletion. Nonetheless, the City's 2010 Urban Water Management Plan (UWMP) identifies sufficient water supplies, including groundwater, to serve the City's demand through buildout of the General Plan. No impact is anticipated.

e) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments? Determination: Less Than Significant Impact.*

The purpose of the WWMP is to identify the wastewater infrastructure improvements and expansions needed to accommodate future development envisioned by the General Plan through buildout. As such, its implementation would not result in a determination that there is inadequate capacity to serve the demand projected in the WWMP. Therefore, impacts would be less than significant.

f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? Determination: Less Than Significant Impact.*

Construction debris from pipeline trenching and site preparation of the various facilities would generate solid waste that would need to be properly disposed of in the appropriate landfill. The generation of additional construction-related waste would be temporary and would cease upon completion of the proposed facilities. Solid waste generation during operation of the proposed facilities is anticipated to be minimal, and would not result in a significant increase in waste for disposal in area landfills. Therefore, impacts would be less than significant.

g) *Comply with federal, state, and local statutes and regulations related to solid waste? Determination: Less Than Significant Impact.*

Refer to Response XVII(f), above.



XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

MANDATORY FINDINGS OF SIGNIFICANCE --	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following findings have been made, regarding the mandatory findings of significance set forth in Section 15065 of the CEQA Guidelines, based on the results of this environmental assessment:

a) *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? Determination: Less Than Significant Impact with Mitigation Incorporated.*

As discussed in Section IV (Biological Resources) and Section V (Cultural Resources) of this Initial Study/CEQA Guidelines Section 15183 Analysis, the WSMP and WWMP have the



potential to result in potentially significant impacts on the environment. However, Mitigation Measures 3 through 11 would reduce impacts on biological resources to less than significant, while Mitigation Measures 12 through 14 would reduce impacts on cultural resources to less than significant.

b) *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?* Determination: Less Than Significant Impact with Mitigation Incorporated.

Construction of improvements and expansions identified in the WSMP and WWMP would occur over time and would be dependent on future development. Therefore, it is not anticipated that cumulative impacts would result from implementation of improvements. Adherence to the mitigation measures identified throughout this document would reduce potential short-term and long-term impacts to less than significant.

c) *Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?* Determination: Less Than Significant Impact with Mitigation Incorporated.

As stated in various sections of this Initial Study/CEQA Guidelines Section 15183 Analysis, the WSMP and WWMP have the potential to result in significant impacts on the environment. However, with implementation of mitigation measures identified throughout this document, impacts would be less than significant.



I. REFERENCES

The following references were utilized during preparation of this Initial Study/CEQA Guidelines Section 15183 Analysis.

California Department of Conservation, California Geological Survey website,
www.consrv.ca.gov.

California Environmental Quality Act (CEQA) Guidelines, 2012.

City of Tracy, *Amendment to the Draft EIR*, March 2006.

City of Tracy *General Plan EIR*, October 2005.

City of Tracy, *General Plan*, February 2011.

City of Tracy, *General Plan Supplemental EIR*, February 2010.

City of Tracy, *City of Tracy, Citywide Water System Master Plan*, August 2012.

City of Tracy, *Tracy Wastewater Master Plan*, November 2012.

H.T. Harvey and Associates, *City of Tracy Infrastructure Master Plans Biotic Resources Report*, May 2012.