Chapter 4.0
Other CEQA Considerations

Introduction

Chapter 4.0 of this draft subsequent environmental impact report (SEIR) contains discussions of several considerations required by the California Environmental Quality Act (CEQA), as follows:

- irreversible impacts;
- growth-inducing impacts; and
- cumulative impacts.

The CEQA Guidelines, Section 15126.2(c) require that an EIR must identify any irreversible impacts, also referred to as irreversible environmental changes, that may be caused by the proposed project, including current or future commitments to using non-renewable resources, secondary, or growth-inducing impacts that commit future generations to similar uses.

CEQA Guidelines, Section 15126.2(d) require that the EIR discuss how the proposed project, if implemented, could induce growth. Growth inducement may be an indirect or secondary project impact, and a project may be growth inducing if it indirectly fosters economic or population growth by removing obstacles to such growth. Under CEQA, growth is not assumed to be either beneficial or detrimental.

Cumulative impacts refer to two or more individual impacts that, when considered together, are considerable or that compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. Under CEQA, an EIR must discuss the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. An EIR does not need to discuss cumulative impacts that do not result in part from the project evaluated in the EIR.

More background and analysis regarding each of these considerations is given in the ensuing sections.

Chapter 4.1
Irreversible Impacts

Significant Irreversible Environmental Changes

Section 15126 of the CEQA Guidelines states that significant irreversible environmental changes associated with a proposed project may include the following:

- uses of non-renewable resources during the initial and continued phases of the project which may be irreversible because a large commitment of such resources makes removal or nonuse thereafter unlikely;
- primary impacts and, particularly, secondary impacts (such as highway improvement that provides access to a previously inaccessible area) that commit future generations to similar uses; and
- irreversible damage, which may result from environmental accidents associated with the project.

The irretrievable commitment of nonrenewable resources would occur both as a primary and secondary result of the Proposed Project. Implementation would involve the construction of the various proposed facilities, which would require the use of fossil fuels and other non-renewable resources. As discussed below, the provision of treated water would accommodate planned growth. That planned growth would result in an increase in automobile and transit trips. These additional trips, plus construction activities from development for planned growth, would also require the use of fossil fuels and other non-renewable resources.

Planned growth that is accommodated by provision of additional water supply would result in the conversion of non-urban agricultural areas to urban uses such as residential and commercial use uses. Conversion of agricultural areas and open space to urban and suburban uses is generally considered irreversible.

The only environmental accidents potentially associated with the Proposed Project would be construction-period spills of fuels or other materials used during construction; this impact is discussed in Section 3.4, *Hydrology and Water Quality*, and mitigation is identified to reduce this impact to less than significant.

Significant and Unavoidable Impacts

Section 15126.2(b) requires an EIR to describe any significant impacts that cannot be mitigated to a level of insignificance. All of the impacts associated with the proposed project would be reduced to a less-than-significant level through the implementation of identified mitigation measures and environmental commitments, with the exception of the impacts discussed below.

The following impacts have been identified as significant and unavoidable.

Impact AES-3. Adverse Effect on Open Space During Construction of Proposed Tank Sites (Significant and Unavoidable)

Proposed tank sites N-1, N-2, W-2, S-1, S-2, and S-3 are located in relatively isolated rural and industrial areas. Although the City's General Plan designates these areas for future urban development (see General Plan designations for each site in the Project Description), the existing setting is somewhat remote. Sites N-3, W-1, W-2, and W-3 are currently visible from residences in their vicinity.

Residents and businesses with views of the construction sites would be highly sensitive to changes in their views. Although construction activities at the proposed tank sites would have limited exposure and the project proponent would incorporate environmental commitments CS-1–CS-3 to reduce visual impacts of construction, this impact is considered significant and unavoidable for all proposed tank sites.

Impact AES-4. Adverse Effect on Views of Open Space During Operation (Significant and Unavoidable)

A tank built on any of the proposed tank sites may potentially obscure existing views of open space. Impacts on visual resources would affect residents and businesses, with the greatest impact on residents. The City has incorporated environmental commitments SD-1–SD-7 into the project design to minimize visual impacts of project facilities during operation, as well as has considered partially burying the northern and western tanks and painting the water storage tank in colors that match the surrounding landscape.

Proposed tank sites N-3, W-1, W-2, and W-3 all have existing single-family residences and residential communities as close as 50 to 200 yards. Tank sites N-1 and N-2 are planned for future urban development. If an aboveground tank is constructed at the north or west sites, the tank operation would make this impact significant and unavoidable. The impact of operation of the S-1, S-2, and S-3 sites is less than significant, and partial tank burial and implementation of environmental commitments SD-1 through SD-7 are not necessary at these sites.

Impact AG-3: Conflict with Agricultural Uses on Nearby Properties and Long-Term Indirect Conversion of Farmland to Non-Agricultural Use (Significant and Unavoidable)

The proposed project is intended to facilitate the build-out of the City's General Plan. As such, it would indirectly contribute to the conversion of the agricultural lands that currently exist in the City's sphere of influence. The City's General Plan Draft Master Environmental Impact Report Update (MEIR) (City of Modesto 2003a) identified this conversion as significant and unavoidable. As mitigation, the City incorporated several measures into the General Plan, including the policies listed in Chapter 3.2, *Agriculture*, under the heading "Regulatory Setting." The proposed project would adhere to the General Plan's policies. No other mitigation is available. The impact remains significant and unavoidable.

Impact AG-4: Conversion of Prime Farmland to Non-Agricultural Use at Proposed Tank Sites (Significant and Unavoidable)

The proposed project has the potential to convert up to ten acres of Prime Farmland to non-agricultural use if sites N-1, N-2, N-3, W-2 and/or W-3 are selected and developed. Although implementation of Mitigation Measure AG-4 would reduce the impacts of prime farmland conversion, this impact is considered significant and unavoidable.

Impact AG-5: Conflict with Existing Zoning for Agricultural Use or Williamson Act Contracts at Proposed Tank Sites (Significant and Unavoidable)

None of the proposed tank sites is designated for agricultural use in the City's General Plan. However, three sites are under a Williamson Act contract, which effectively prevents the land from being zoned in any category other than A-2 (general agriculture) (County of Stanislaus 2004): sites N-2, N-3, and W-2.

Due to compatibility conflicts between California guidelines for the Williamson Act and the County of Stanislaus, contract removal for acquisition of agricultural land for municipal use by a public entity is unattainable. While acquisition by a public entity is not strictly subject to compatibility guidelines, the impact would nonetheless be significant because of the loss of long-term agricultural productivity. Thus far, none of the lands under Williamson Act contract has filed for non-renewal of contract, and the proposed timeline for the project is such that filing for non-renewal would not remove the contract in time to eliminate the impact. There is no mitigation available. This impact is significant and unavoidable.

Impact AG-6: Conflict with Agricultural Uses on Nearby Properties and Long-Term Indirect Conversion of Farmland to Non-Agricultural Use (Significant and Unavoidable)

The proposed project is intended to facilitate the build-out of the City's General Plan. As such, it would indirectly contribute to the conversion of the agricultural lands that currently exist in the City's sphere of influence. The City's General Plan Draft Master Environmental Impact Report Update (MEIR) (City of Modesto 2003a) identified this conversion as significant and unavoidable. As mitigation, the City incorporated several measures into the General Plan, including the policies listed in Chapter 3.2, *Agriculture*, under the heading *Regulatory Setting*. The proposed project would adhere to the General Plan's policies. No other mitigation is available. The impact remains significant and unavoidable.

Impact AIR-1: Temporary Increase in Construction-Related Emissions During Construction Activities of the MRWTP Expansion (Significant and Unavoidable)

Proposed construction activities would increase fugitive dust and vehicle emissions. Specifically, excavation, grading, and vehicular traffic may generate temporary increases in ROG, NO_x, PM10, and ozone precursors. As described in Chapter 2, *Project Description*, MID has incorporated environmental commitment AQ-1, which involves implementation of SJVUAPCD Regulation VIII, into the project to minimize impacts of construction on air quality. SJVUAPCD Regulation VIII is summarized in Appendix C. Additionally, MID has incorporated environmental commitments AQ-2, GC-3, GC-6, GC-7, and GC-10 (described in the Project Description) into the project to reduce or eliminate construction-related effects.

Implementation of the environmental commitments would reduce any potentially significant air quality effects generated by construction activities at the project level. However, the environmental commitments may not eliminate all air quality effects and could therefore cause a significant impact because of the area's current nonattainment and serious nonattainment designations for PM10, and serious nonattainment and extreme nonattainment designations for ozone from the State of California and the EPA, respectively. Thus, this impact would be considered significant and unavoidable. A description of this impact in the cumulative setting and additional mitigation for cumulative impacts are presented in Chapter 4.

Impact AIR-2: Emissions During Operation of Standby Generators (Significant and Unavoidable)

A standby diesel generator would be employed at the proposed pump station to provide a backup power supply for the pumps in the event of an interruption in the facility's primary power supply. The diesel generator would have limited activity; it would be used only during emergencies and during periodic cycling of the generators. Although the generators would see limited use for periodic maintenance cycling of the equipment and infrequent short-term emergency operations, they would cause a significant and unavoidable impact due to the fact that they could generate PM10 and ozone precursors, both of which are designated at varying levels of nonattainment at both the federal and state level.

Impact Air-4: Growth-Related Vehicle Emissions (Significant and Unavoidable)

As stated in Chapter 2, *Project Description*, an objective of this project is to increase the water treatment to meet future water demands from a growing population. Therefore this project is supporting growth in Modesto by increasing the treated water supply. In conjunction with this population growth, the number of vehicles operated in the Modesto area will also increase and will likely lead to an increased emission of air quality pollutants.

Because of the area's current designations of nonattainment for PM10 and ozone, this increase in vehicle use and the resulting emissions of air quality pollutant emissions would cause a significant and unavoidable impact. No feasible mitigation is available.

Impact AIR-5: Temporary Increase in Construction-Related Emissions During Construction Activities of the City of Modesto (Significant and Unavoidable)

Proposed construction activities would increase fugitive dust and vehicle emissions. Specifically, excavation, grading, and vehicular traffic at proposed tank sites, associated tank pipelines, and main pipeline alignments may generate temporary increases in ROG, NO_x, PM10, and ozone precursors. As described in Chapter 2, *Project Description*, the City has incorporated environmental commitment AQ-1 into the project to minimize impacts of construction on air quality. SJVUAPCD Regulation VIII is summarized in Appendix C. Additionally, the City has incorporated environmental commitments AQ-2, GC-3, GC-4, GC-5, GC-6, GC-7, and GC-10 into the project to reduce or eliminate construction-related effects.

Implementation of the environmental commitments would reduce any potentially significant air quality effects generated by construction activities at the project level. However, the environmental commitments may not eliminate all air quality effects and could therefore cause a significant impact because of the

area's current nonattainment designations for PM10 and ozone. Thus, this impact would be considered significant and unavoidable. A description of this impact in the cumulative setting, and additional mitigation measures for cumulative impacts are presented in Chapter 4.

Impact AIR-6: Emissions During Operation of Standby Generators (Significant and Unavoidable)

Standby diesel generators would be employed to provide a backup power supply for the pumps in the event of an interruption in the primary power supply of the water storage tanks. The diesel generator would have limited activity; it would be used only during emergencies and during periodic cycling of the generators. Although the generators would see limited use for periodic maintenance cycling of the equipment and infrequent short-term emergency operations, they would cause a significant and unavoidable impact due to the fact that they could generate PM10 and ozone precursors, both of which are designated at varying levels of nonattainment at both the federal and state level.

Impact AIR-8: Growth-Related Vehicle Emissions (Significant and Unavoidable)

As stated in Chapter 2, *Project Description*, an objective of this project is to increase the water treatment and distribution capabilities and/or reliability to meet future water demands from a growing population. Therefore, this project is supporting growth in Modesto by increasing the treated water supply and the water distribution reliability. In conjunction with this population growth, the number of vehicles operated in the Modesto area will also increase and will likely lead to an increased emission of air quality pollutants.

Because of the area's current designations of nonattainment for PM10 and ozone, this increase in vehicle use and the resulting emissions of air quality pollutants would cause a significant and unavoidable impact.

Impact POP-2. Substantial Induction of Growth in the City of Modesto (Significant and Unavoidable)

The proposed project—including both MRWTP expansion and construction of downstream facilities—would remove infrastructural obstacles to growth through the increase in potable water supply. This impact was identified as significant and unavoidable in the City's Urban Area General Plan Master EIR (City of Modesto 2003a). In accord with this determination, this report considers growth-inducing impacts of the proposed project to be significant and unavoidable. The project's growth inducing impacts are analyzed in detail in Chapter 4.3, *Growth Inducement*.

Chapter 4.2

Growth-Inducing Impacts

Purpose of Growth Inducing Impact Analysis

Section 21100 of the California Public Resources Code requires an EIR to include a detailed statement of the proposed project's anticipated growth-inducing impacts. More specific guidance is provided by Section 15126.2(d) of the state's CEQA Guidelines, which require that the analysis of growth-inducing impacts discuss the ways in which the proposed project could foster economic or population growth or the construction of additional housing in the project area. The analysis must also address project-related actions that, either individually or cumulatively, would remove existing obstacles to population growth. The purpose of this chapter is to examine the proposed project's likely effects related to population growth, consistent with these statutory requirements.

Modesto Urban Area General Plan

Overview and Scope

California law requires each city to develop a comprehensive, long-term general plan to guide its land use decision-making and physical development (Government Code Section 65300 *ff*.). The intent is to ensure that growth takes place in a controlled manner, with an appropriate balance of land uses maintained and all needed services provided. This goal is reflected in the general plan contents mandated under Government Code Section 65302—of the seven mandatory "elements" or chapters, three relate directly to growth: the land use element establishes the pattern of future land uses, the circulation element plans the road system that will serve approved land uses, and the housing element identifies the means by which the city will meet its fair share of projected regional housing needs for all income groups.

The Modesto Urban Area General Plan, adopted on August 15, 1995, articulates the City's development and land use policies through the build-out of the General Plan area. Typical of a long-term land use plan, it provides for development and services to accommodate significant population growth, estimating a maximum of 400,000 residents at build-out of the General Plan, as compared to the current

(2004) population of approximately 206,200 (California Department of Finance 2004). Similarly, as of 2004, the City's incorporated area encompasses some 23,000 acres, but is expected to expand to approximately 42,700 acres at full build-out.

Growth-Inducing Impact Mitigation in the Modesto Urban Area General Plan

Recognizing that growth is inevitable in many, if not all, communities, a primary purpose of general plan development is to provide strategies and policies that will ensure orderly and "healthy" growth for the community. In rapidly growing Modesto, this need is met by the Urban Area General Plan's Community Growth Strategy and Comprehensive Planning District policies (Chapters II-C and III-D), which stipulate that development within each planning district will be timed to coincide with the availability of sewer service and will be required to comply with individual comprehensive plans adopted for each district.

The following General Plan policies reduce the impacts of growth by encouraging compact growth coordinated with the provision of urban services.

> II-C.1 Urban Area Growth Policy Review
>
> A review of the growth trends in the Modesto Urban Area should be held on a periodic basis, perhaps annually. This Periodic review should provide for the selection of potential urban areas to be served with urban infrastructure during the ensuing five years. This review should be focused on the information presented in Section 2, 3, and 4, below, and on the following policies:
>
> II-C.1[a.] In general, maintenance of a five-year supply of available vacant and agricultural land served with urban infrastructure will be desirable.
>
> II-C.1[b.] Urban development should be kept as contiguous as possible in order to avoid premature urbanization of valuable farm land, foster resident convenience, and provide for economy in City services.
>
> II-C.1[c] Residential growth and development within the Modesto Urban Area General Plan shall take place only following annexation to the City.
>
> II-C.1[d] Urban growth should be directed, as long as economically feasible, to areas currently served with City services.
>
> II-C.1[e] The Master EIR data base should be updated when necessary (see Section 3, below).

Additional mitigating policies in the Urban Area General Plan include the following.

> III-D.1[d] Each Comprehensive Plan should include a long-range financing strategy which provides reasonable estimates of the costs of on- and off-site infrastructure to support the proposed development pattern. The strategy should generally address public facility funding, including schools, for any development project which serves to implement the subject Comprehensive Plan. If new public facilities are required which will also serve the broader community, the Comprehensive Plan should include options for broad-based funding mechanisms.
>
> III-D.1[j] Each Comprehensive Plan for each Comprehensive Planning District shall address the policies for the relevant Growth Strategy Designation (Baseline Developed Area or Planned Urbanizing Area) presented in Chapters II, III, IV, V, VI, and VII.
>
> III-D.1[k] Each Comprehensive Planning District shall address the need to provide sanitary sewer service, using the Sanitary Sewer Diagram presented in Chapter V.
>
> V-C.3[b] The City of Modesto shall coordinate land development projects with the expansion of water treatment and supply facilities.
>
> V-D.3[b] The City of Modesto will require each new development project to be served with public sanitary sewers.
>
> V-D.3[c] The City of Modesto will coordinate land development proposals with the expansion of wastewater facilities.

This approach ensures that development within the Planned Urbanizing Area will occur as demand arises and services are available, and that future roads and utility extensions will be sized appropriately to serve planned development. This will not eliminate the growth approved by the Urban Area General Plan, but will control the rate at which it occurs and offset the adverse effects of random or excessively rapid growth.

Growth-Related Impacts of the Proposed Project

Direct Impacts

As discussed above, the City's population is currently estimated at some 206,200 persons (California Department of Finance 2004). It is expected to grow by about 1.6% annually (City of Modesto 2004), resulting in a projected population of between 249,100 and 259,000 for the years 2017 and 2020, respectively, the approximate range within which the surface water from the proposed project is anticipated to become fully utilized.

As discussed in Chapter 2, *Project Description*, the proposed water transfer would serve multiple purposes, including improved domestic water quality, meeting peak demands and maintaining water pressures for existing users, avoiding groundwater overdraft, and improved supply reliability and operational reliability and flexibility, given the City's loss of groundwater wells. However, one of the purposes of the water transfer is to support planned development in the Modesto area. As outlined in Section 3.4, *Water Resources*, the present domestic water supply is insufficient to meet the demand associated with this anticipated growth, and without additional supply, the City will be both pragmatically and legally unable to complete development plans laid out for the Planned Urbanizing Area in the Urban Area General Plan.[1] By expanding water treatment and delivery capacity to provide additional domestic supply, the proposed project would remove this existing obstacle to growth, at least in part.

Current per capita water consumption in the City is on the order of 289 gallons per day (gpd), and the proposed project would treat and supply an additional 33,600 acre-feet per year of water to the City. At the current rate of consumption, and considering that some of the additional surface water will be used to offset lost well production capacity, the proposed expansion in treatment capacity is anticipated to accommodate approximately 43,000 to 53,000 additional City residents, or a total population of approximately 249,100 to 259,000, which is not sufficient to reach buildout of the City's Sphere of Influence (City of Modesto 2004). The proposed project would not induce unplanned growth, or growth at rates in excess of those supported by existing planning and land use policies. However, it does provide additional domestic water supply, and would enable growth and development. The proposed project's direct impacts related to population growth are considered significant and unavoidable.

Indirect Impacts

Population growth in the City resulting from the proposed project is expected to lead to a number of impacts on the natural and built environment, as summarized below. This growth is anticipated to be located primarily within the existing City sphere of influence.

- Land use changes and agricultural conversion. Land use changes would likely include urban infill and densification and "absorption" of undeveloped lands in less urbanized regions, as housing and businesses are built to serve the area's expanding population. This would include the conversion of lands currently in agricultural use to urban uses.
- Traffic impacts. Area and local traffic is expected to increase due to new development and increased numbers of through commuters traveling to employment hubs.

[1] Consistent with Senate Bills 221 and 610 of 2001, California law prohibits approval of moderate-sized and large development projects without documentation that adequate water supply will be available to support the resulting new demand.

- Air quality impacts. Local air quality would likely worsen because of growth, primarily as a result of elevated levels of vehicle emissions and increases in dust generated by intermittent construction activities.
- Public services and utilities impacts. As the population grows, the demand for police and fire protections and for services such as schools, hospitals and parks would undergo a corresponding increase. Additional utilities, such as increased wastewater treatment capacity and extensions of utility infrastructure, would also be needed.
- Biological impacts. The conversion of undeveloped land to homes, roads, businesses, and other built uses would reduce the area of wildlife habitat remaining in the region.

Other potential impacts associated with growth include degradation of water quality from urban runoff, loss of cultural resources, increased noise levels, degraded visual quality, and increased consumption of energy and natural resources.

By enabling growth, the proposed project would indirectly foster, in varying degrees, all of the growth-related impacts identified above. Growth enabled by the proposed project would not exceed that modeled in the Urban Area General Plan, and the impacts of the growth envisioned under the General Plan are addressed by mitigation included in the General Plan itself (City of Modesto 1995a) as well as the Master Environmental Impact Report (MEIR) prepared when the General Plan underwent CEQA environmental review (City of Modesto 2003a) (see section *Growth-Inducing Impact Mitigation in the Modesto Urban Area General Plan*, above). Development projects subject to the City's discretionary action are required to complete project-level CEQA environmental review to identify and mitigate project-specific impacts. The City is responsible for effectively implementing General Plan policies and other measures intended to mitigate the potential adverse effects of future growth. Although growth enabled by the proposed project is within the range identified by the General Plan, the proposed project would enable growth. No further analysis is required, and no additional mitigation beyond that identified in the MEIR and this SEIR is proposed. The indirect effects of the growth facilitated by this project are considered significant and unavoidable.

Chapter 4.3
Cumulative Impacts

Legal Requirements for Analysis of Cumulative Impacts

Cumulative impact refers to the combined effect of "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines Sec. 15355). As defined by the state of California, cumulative impacts reflect

> … the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines Sec. 15355[b]).

The state's CEQA Guidelines (Sec. 15130[a]) require that an EIR address the cumulative impacts of a proposed project when

- the cumulative impacts are expected to be significant; and
- the project's contribution to the cumulative impact is expected to be cumulatively considerable, or significant in the context of the overall (cumulative) level of effect.

In order to meet the adequacy standard established by Section 15130 of the CEQA Guidelines, an analysis of cumulative impacts must contain the following elements.

- An analysis of related future projects or planned development that would affect resources in the project area similar to those affected by the proposed project.
- A summary of the environmental effects expected to result from those projects with specific reference to additional information stating where that information is available.
- A reasonable analysis of the combined (cumulative) impacts of the relevant projects.

It must also evaluate the proposed project's potential to contribute to the significant cumulative impacts identified, and discuss feasible options for mitigating or avoiding any contributions assessed as cumulatively considerable.

The discussion of cumulative impacts is not required to provide as much detail as the discussion of the project's *incremental impacts*, or the effects attributable to the project alone. Rather, the level of detail should be guided by what is practical and reasonable. In addition, Section 15130(e) of the CEQA Guidelines directs that if a cumulative impact was adequately addressed in a prior EIR for a general plan, and the proposed project is consistent with that general plan, the project EIR need not further analyze that cumulative impact.

Lead agencies may use a "list" approach to identify related projects, or may base the identification of cumulative impacts on a summary of projections in an adopted general plan or related planning document (CEQA Guidelines Sec. 15130[b]) (the "projection" approach).

Methods Used in this Analysis

Analysis of cumulative impacts for this EIR focused on identifying and evaluating any "new" impacts not discussed in the 1990 EIR, and identifying any impacts that may be more severe than they were at the time the 1990 document was prepared. Cumulative impacts in the City of Modesto's (City's) Water Service Area were analyzed in the context of regional effects throughout the whole of Stanislaus County (County). This analysis focused on the following subject areas, for which cumulative concerns have been identified in the County (e.g., City of Modesto 2004).[1]

- Agricultural resources.
- Air quality.
- Water resources.
- Noise.
- Biological resources.
- Transportation and circulation.

As appropriate, analysis considered short-term (construction-related) and long-term (operational) contributions separately. For the most part, analysis of the proposed project's contribution to cumulative regional impacts focused on the project's direct impacts. The project also has the potential to make an indirect contribution to impacts on agricultural resources, air quality, water resources, noise levels, biological resources, and traffic by supporting planned growth in the County. This issue is discussed in Chapter 4.2, *Growth-Inducing Impacts*.

[1] Existing or future cumulative impairments to the ability to engage in recreational activities on Don Pedro Reservoir and the Tuolumne River have not been identified; for this reason, these have not been discussed in the cumulative impact analysis.

For all resource topics except water resources, analysis used the projection approach. Table 4.3-1 provides an overview of the planning documents used in the analysis; additional information is provided in the *Regulatory Framework* section of each impact discussion.

Analysis of cumulative impacts on water resources used a combination of the projection approach and the list approach. The projection approach was used to assess the Countywide status of water resources, including surface and groundwater quality, drainage, and supply. In addition, to ensure thorough assessment of impacts on the Tuolumne River/Don Pedro Reservoir system, a list of projects proposed for that corridor was developed and used to augment the more general picture established by the projection-based analysis.

Based on the list analysis, the only project identified as reasonably foreseeable for the Tuolumne River/Don Pedro Reservoir system during the project timeframe is the proposed Turlock Irrigation District (TID) Surface Water Supply Project. This project would offer the City a cooperative approach to providing enhanced supply and reliability in the future, and is currently being evaluated against other alternatives. As of the date of preparation of this EIR, the City has not entered into any agreements with TID and does not have any immediate plans of doing so, but discussions have been ongoing since April 2003. To permit TID to proceed with their conceptual planning, the City has estimated its need from a possible future TID treatment plant at approximately 11.5 million gallons per day (mgd).

Cumulative Impact Analysis

Table 4.3-3, *Summary of Cumulative Impacts and Mitigation Measures*, at the end of this section summarizes projected cumulative impacts and their respective significance levels at each of the project sites. It also summarizes proposed mitigation measures.

Agricultural Resources

The key concerns with regard to cumulative impacts on agricultural resources in Stanislaus County relate to

- progressive conversion of agricultural land to nonagricultural uses as the County's urban and suburban areas expand (direct loss of agricultural production); and
- conflicts between expanding urban/suburban uses and remaining agricultural areas, creating pressure on remaining agricultural uses and potentially leading over time to further conversion of agricultural lands to nonagricultural uses (indirect loss of agricultural production).

Both of these represent long-term issues, and no additional short-term cumulative impacts on agricultural resources have been identified. Analysis of cumulative impacts on agricultural resources accordingly focuses on the long term. Additional discussion of growth-related loss of agricultural lands is provided in Chapter 4.2, *Growth-Inducing Impacts*.

Over the foreseeable future, development is expected to continue in Stanislaus County, with the bulk of the area's population growth—and hence the bulk of the County's new construction—centered in the vicinity of Modesto, which is expected to continue as the largest city in the County. Recognizing these trends, both the County and City general plans provide for substantial growth and development, and both contain policies to mitigate adverse effects of development on the area's agricultural base. Nonetheless, continuing development is expected to result in progressive loss of agricultural lands as agricultural open space is converted to suburban/urban residential, commercial, and light industrial uses. Although this loss is identified and planned for in both City and County general plans, it nonetheless represents a significant cumulative impact on agricultural resources and agricultural production in Stanislaus County.

As discussed in Chapter 3.2, *Agriculture*, the proposed project would result in direct loss of agricultural lands and could also contribute to indirect loss of agricultural lands over time. The MRWTP expansion would not take place on prime farmland or land under Williamson Act contract; however, alternative sites N-1, N-2, N-3, W-2, and W-3 are all located on prime farmland, and sites N-2, N-3, and W-2 are presently under Williamson Act contracts; construction of the City facilities could thus result in the conversion of as much as 10 acres of prime farmland and Williamson Act lands, should these sites be selected. **This would constitute a cumulatively considerable contribution to significant regional impacts on agricultural resources,** and would be exacerbated by further long-term indirect effects that could result from conflict between new, nonagricultural uses and remaining agricultural production.

As discussed in Chapter 3.2, *Agriculture*, contribution to the California Farmland Conservancy fund or an equivalent program that supports farmland preservation projects in the County would offer an avenue to compensate for the loss of farmland resulting from construction of project facilities. However, it would not fully offset the direct loss of prime farmland on the project sites. Alternatively, farmland could be restored or recovered from existing urban uses to offset the project-related loss, but this would be extremely costly, and would not offer guaranteed success—construction typically alters site drainage and removes or impairs topsoil resources, and restoration of these values would be difficult at best. Moreover, even if successful, farmland recovery would likely create isolated parcels of agricultural land in a predominantly urban area, and thus would not adequately offset the loss of contiguous agricultural lands. Consequently, although at least two approaches would offer partial compensation, **no feasible mitigation is available to reduce the cumulative effect on agricultural resources, or to mitigate the proposed project's contribution to a less-than-considerable level. The proposed project's**

Table 4.3-1. Key Planning Documents Used in Cumulative Impacts Analysis

Resource Topic	Document	Goals Relevant to Proposed Project
Agricultural Resources	City General Plan	Provides guidelines for conversion of agricultural lands to other uses as the City expands, with the goal of preserving the area's agricultural base.
	County General Plan	Identifies the need for long-term conservation of agricultural lands and preservation of agricultural uses. Provides specific measures to prevent incompatible uses in Agriculture-designated areas and discourage land divisions that could foster "premature cessation" of agricultural uses.
Air Quality	City General Plan	Commits the City to implement measures to reduce vehicle use and vehicle-related pollutant emissions through retrofits to existing infrastructure and design of new infrastructure, as well as measures to reduce emissions from business and residential energy consumption. Requires the City to work with agencies and neighboring jurisdictions to address air quality issues. Requires the City to implement public outreach and education programs for air quality improvement. Establishes land use planning guidelines to minimize effects of new pollutant sources on sensitive receptors.
Water Resources	Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan)	Designates beneficial uses for waters in the San Joaquin River watershed, including the Tuolumne River and Don Pedro Reservoir, and identifies specific water quality objectives to ensure protection and maintenance of those designated uses.
	Modesto Urban Water Management Plan 2000	Developed to serve as a planning tool for MID and the City in delivering municipal water supplies within the City's Water Service Area. Identifies a range of strategies—including those guiding existing City programs—to ensure continuing supply reliability. Coordinates with groundwater management plans of MID and the City.
	City General Plan	Identifies the need to protect and enhance the Modesto area's surface and groundwater resources. Commits the City to working to stabilize groundwater levels and eliminate groundwater overdraft, as part of a conjunctive groundwater–surface water management program; continuing to establish guidelines, policies and programs to implement water conservation to the maximum extent feasible; and coordinating land development projects with the expansion of water treatment and supply facilities. Requires that all new developments reduce their potable water demand.
	County General Plan	Identifies the need to conserve water resources, protect the County's water quality, and protect groundwater aquifers and recharge areas. Stipulates that new development not served by existing domestic and public water systems must have a documented source of supply that would not adversely impact County

Resource Topic	Document	Goals Relevant to Proposed Project
		water resources. Commits the County to continue and, if necessary, expand its water monitoring program, and to investigate additional sources of water for domestic use.
Noise	City General Plan	Provides guidelines regarding noise levels compatible with various types of land uses, consistent with Title 4 of the California Administrative Code. Identifies specific planning goals and policies to implement these guidelines, to support appropriate land use and development planning.
Biological Resources	City General Plan	Identifies importance of preserving biological resources and defines procedures for assessing and minimizing impacts on wildlife habitats and special-status species. Prohibits development on and immediately adjacent to special-status species habitat to the extent feasible, and requires incorporating recommendations of resource agencies (e.g., DFG) into development planning.
Transportation and Circulation	City General Plan	Establishes general policy of maintaining the highest possible level of service on City roadways, without imposing undue financial burden. Sets generalized minimum standards for roadway design and commits City to carry out Citywide transportation improvement plan. Identifies need to ensure that roadway design is consistent with transit planning, rail transportation, and bicycle use, and that new development encourages pedestrian use. Requires site access studies for new development in City's Baseline Developed Area. Requires comprehensive traffic studies as part of comprehensive plan process in Planned Urbanizing Area.
	County General Plan	Establishes LOS C as the minimum level of service on County roadways. Sets goal of providing roadway system that meets the needs of all County land uses. Permits development only when adequate circulation facilities exist or will be provided as part of the planned development and requires that circulation systems be designed and maintained for safety and efficient flow. Establishes review process to ensure that County's Capital Improvement Program is consistent with General Plan. Mandates development of a system that includes roadways in all classifications (freeway, expressway, major, collector, local, minor and private), as needed. Sets goal of supporting a broad range of transportation modes; provides for bikeways and pedestrian paths as well as viable public transit. Mandates review, updates, and enforcement of airport plans and regulations.

contribution to this cumulatively significant impact is considerable, long-term, and unavoidable.

Air Quality

As described in Chapter 3.3, *Air Quality*, the San Joaquin Valley Air Basin (SJVAB), including Stanislaus County, is currently in nonattainment for PM10 (including the recently issued federal PM2.5 standard) and ozone. This represents a significant cumulative impact; generation of particulate matter and ozone/ozone precursors are thus the principal cumulative air quality concerns in Stanislaus County.

Operation of the proposed project would generate minimal increases in pollutant emissions, primarily associated with infrequent cycling of the standby generators (see Chapter 3.3), and a small additional amount of periodic emissions that would be generated by vehicles used in maintenance and inspection visits. The project's principal direct contribution to cumulative regional air quality issues would likely occur during construction. This analysis accordingly concentrated on construction-related pollutant emissions.

As identified in Chapter 3.3, the construction of project facilities would have the potential to result in increased local generation of PM10 (including PM2.5); ozone precursors in gasoline and diesel vehicle exhaust; and carcinogenic particulates in diesel exhaust.

> Construction-related increases in PM10 and ozone precursor emissions would be comparatively small and of fairly short duration. The San Joaquin Valley Unified Air Pollution Control District's (SJVUAPCD's) required Regulation VIII PM10 control measures (Environmental Commitment AQ-1, described in Chapter 2) would be implemented to reduce the potential pollutant emissions. Additionally, the City would ensure that all diesel and gasoline-powered equipment is correctly tuned and maintained in accordance with manufacturer specifications and California air quality regulations (Environmental Commitment AQ-2). Although implementation of environmental commitments AQ-1, AQ-2, GC-3, GC-4, GC-5, GC-6, GC-7, and GC-10 would reduce the potential pollutant emissions, the impact of these pollutants would still be considered significant and unavoidable at the project level because of the area's nonattainment status for these pollutants. They would also represent a **cumulatively considerable contribution to regional air quality issues** because of the area's nonattainment status for these pollutants.

To provide more stringent control of project-related PM10 emissions, the City and MID have committed to implementing additional precautions beyond those required under Regulation VIII, as described in the following mitigation measure.

Mitigation Measure CUME1—Implement enhanced measures to control PM10 generation, as recommended by SJVUAPCD (2002). The City and MID will require construction contractors to implement the SJVUAPCD's optional and enhanced PM10 control measures, listed below.

- Limit traffic speeds on unpaved roads to 15 mph.
- On sites with a slope greater than 1%, install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.
- Install wind breaks at windward side(s) of construction areas.
- Suspend excavation and grading activity when Regulation VIII's 20% opacity limitation is exceeded.
- Ensure that the accumulation of mud or dirt is expeditiously removed from adjacent public streets throughout the duration of construction activities, where such accumulation is visible (the use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions).
- Limit the area subject to excavation, grading, or other construction activity at any one time.

These measures will be incorporated into project construction documents (plans and specifications) to ensure that they are contractually enforceable. For each phase of the project, the entity responsible for retaining construction contractors will be responsible for ensuring that these measures are correctly and effectively implemented; MID will be responsible during construction of MID facilities, and the City will be responsible during the construction of City facilities.

To address the proposed project's contribution to cumulative ozone levels in the San Joaquin Valley, the City and MID will implement the following measure to control ozone precursor emissions.

Mitigation Measure CUME2—Require use of measures to reduce emissions. The City and MID will require construction contractors to implement the following measures to reduce emissions of combustion byproducts.

- Minimize idling time to 10-minute maximum.
- Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use to the minimum practical.
- Take steps to curtail construction activity during periods of high ambient pollution concentrations, such as reducing construction activity during the peak hours of vehicular traffic on adjacent

roadways and ceasing construction activity during days declared as Spare the Air days by the SJVAPCD.

These measures will be incorporated into project construction documents (plans and specifications) to ensure that they are contractually enforceable. For each phase of the project, the entity responsible for retaining construction contractors will be responsible for ensuring that these measures are correctly and effectively implemented; MID will be responsible during construction of MID facilities, and the City will be responsible during the construction of City facilities.

Generation of carcinogenic particulates in diesel exhaust has not been identified as a cumulatively significant impact in the study area. For this reason, the potential for project construction to contribute to such a cumulative impact is not discussed further.

While implementation of environmental commitments AQ-1 and AQ-2 and mitigation measures CUME1 and CUME2 will reduce cumulative air quality impacts, they are not anticipated to entirely eliminate the project's contribution to cumulative effects on air quality in the San Joaquin Valley—specifically to identified problems with PM10 and ozone levels—and the proposed project's contribution to this cumulatively significant impact is considerable, short-term, and unavoidable.

Water Resources

As of the preparation of this EIR, the principal existing cumulative impacts on water resources at the Countywide scale relate to water quality: both ground and surface waters are affected by a variety of pollutants. The following sections provide additional information.

Surface Water

A number of the County's surface water bodies are included on the SWRCB's most recent Section 303(d) list of water quality–limited segments in California, as shown in Table 4.3-2.

All of the identified impairments shown in Table 4.3-2 represent significant cumulative impacts, but the proposed project is not expected to affect water quality significantly over either the short or long term.

Project construction would have some potential to temporarily increase sediment delivery to waterways in the vicinity of project sites, and could also result in spills of fuel, lubricants, or other substances used in construction. However, as discussed in Chapters 2 and 3.4, significant impacts should be effectively precluded by best management practices incorporated in the project stormwater pollution prevention plan (SWPPP) (see Environmental Commitments WQ-1,

WQ-2, and WQ-3) together with the environmental measures identified in the 1990 EIR, and in any case construction would not contribute to the types of pollution identified as impairments for County water bodies. **No further analysis of construction-related cumulative impacts on water quality is required.**

As shown in Table 4.3-2, Don Pedro Reservoir has been identified as impaired for mercury derived from resource extraction, and the Lower Tuolumne River is impaired for pesticides reflecting agricultural uses. Neither the TID project nor the proposed project would make any operational contribution to these impairments, and **no further analysis of these issues is required.** Moreover, although the TID Project is still in the early conceptual planning stages, and the timing and volume of diversions it might entail cannot be reliably estimated at this time, there is no expectation that the TID Project would substantially alter existing water rights or allocations; it is expected to result in only minor changes to reservoir operations. The proposed project is also expected produce only minor alterations in reservoir operations and water quality, and the quality, temperature, and volume of releases to the Tuolumne River. Consequently, no significant cumulative effect specific to water quality in the Tuolomne River/Don Pedro River system is expected, and **no further analysis of direct cumulative effects on water resources or indirect cumulative effects on biological resources in this system is required.**

Table 4.3-2. Principal Impaired Water Bodies in Stanislaus County

Water Body	Identified Impairment(s)	Contaminant Source(s)
Del Puerto Creek	Chlorpyrifos, diazinon	Agriculture
Don Pedro Reservoir	Mercury	Resource extraction
Merced River, Lower (McSwain Reservoir to San Joaquin River)	Chlorpyrifos, diazinon, Group A pesticides	Agriculture
Orestimba Creek	Azinphos-methyl, chlorpyrifos, diazinon	Agriculture
	DDE	Historic agricultural use of DDT
	Unknown toxicity	Unknown
San Joaquin River	Boron, chlorpyrifos, DDT, electrical conductivity (elevated electrolyte content), Group A pesticides, selenium	Agriculture
	Mercury	Resource extraction
	Unknown toxicity	Unknown
Stanislaus River, Lower	Diazinon, Group A pesticides	Agriculture
	Mercury	Resource Toxicity
	Unknown toxicity	Unknown
Tuolumne River, Lower (Don Pedro Reservoir to San Joaquin River)	Diazinon and Group A pesticides	Agriculture

Source: State Water Resources Control Board 2003

Groundwater

As discussed in Chapter 3.4, *Water Resources*, groundwater quality in the Modesto sub-basin is locally impaired by high concentrations of chloride, boron, nitrate, iron, and/or manganese. In addition, portions of the aquifer underlying the City are contaminated by chlorinated solvents such as TCE and PCE, and some City wells have been taken out of service as a result. Together, these conditions constitute a significant cumulative impact on groundwater quality in the County. However, the proposed project is anticipated to reduce the City's reliance on groundwater as a source, and is not expected to adversely affect groundwater quality. **No further analysis is required.**

Noise

The principal concerns with regard to cumulative noise impacts in Stanislaus County relate to

- short-term combined noise levels generated by construction projects with overlapping timeframes; and
- long-term increases in ambient noise levels resulting from population growth and progressive urbanization in a largely rural area.

Long-term effects. Effects of population growth, including increases in ambient noise levels, are addressed through the Urban Area General Plan process and City and County noise ordinances. The project incorporates measures such as housing the pump stations in noise-attenuating enclosures (see Chapter 2), and would generate very little operational noise; its contribution to long-term noise increases would be almost entirely indirect, and would result from its potential to support or enable planned growth in the County. This effect is discussed at the City scale in Chapter 4.2, *Growth-Inducing Impacts*. No additional analysis at the County scale is needed, because most of the County's growth over the foreseeable future is projected to occur in the Modesto vicinity. The project is not expected to support growth in the unincorporated County, and noise effects are by nature very localized; except for noise related to increased traffic, growth in the City is not expected to increase noise levels in outlying areas. Accordingly, to avoid redundancy, analysis of cumulative noise effects concentrated on short-term construction-related noise.

Short-term effects. As discussed in Chapter 3.5, *Noise*, construction of project facilities would generate some level of equipment and traffic noise. Project construction noise would be reduced to the extent feasible by best management practices (BMPs) incorporated in the project (see Environmental Commitments NR-1, NR-2, and NR-3), and is not expected to be incrementally significant. Nonetheless, it could represent a cumulatively considerable contribution to regional noise levels. No additional mitigation has been identified to further reduce the project-specific contribution. **Overall, the proposed project's**

contribution to this cumulatively significant impact is considerable, short-term, and unavoidable.

Biological Resources

In Stanislaus County, as in other rapidly urbanizing areas, cumulative impacts on biological resources include both short-term effects related to construction of multiple projects during the same timeframe (e.g., temporary unavailability and/or degradation of wildlife habitat; short-term disturbance of wildlife as a result of construction noise), and long-term effects such as permanent loss of habitat. The following sections provide additional details.

Short-Term Impacts

The project includes a number of mitigation measures, described in Chapter 3.9, *Biological Resources*, to reduce and compensate for disturbance of wildlife during construction. With these measures in place, the incremental impact of project construction on wildlife and wildlife habitat in the project area—including both the MID and City sites—is expected to be less than significant. While multiple projects could be constructed in the region during the same time period, which could result in a cumulative impact on wildlife that could be significant, due to the mitigation measures identified for this project, the proposed project's contribution is not considered cumulatively considerable. **This project's contribution to any cumulative short-term biological impacts is not considered to be considerable.**

Long-Term Impacts

Over the past century, changes in Stanislaus County land use have substantially altered the area's natural mosaic of habitats. In particular, native grassland, wetland, and riparian habitats have been replaced by crop- and pasturelands, with areas of remaining "natural" habitat disturbed and fragmented to varying degrees. More recently, expansion in the County's urban and suburban areas, most notably in the Modesto vicinity, has in turn begun to replace agricultural fields with urban/suburban uses.

From a biological perspective, the net result has been progressive loss and degradation of wildlife habitat, including habitat that supports a wide range of special-status invertebrate, bird, and mammal species. As identified in Chapter 4.2, *Growth-Inducing Impacts*, such loss and degradation of habitat is expected to continue and intensify as the County's population grows through the coming century, representing a significant cumulative impact on biological resources. Construction of project facilities would contribute to this impact both directly and indirectly. The project's indirect contributions to impacts on biological resources are related to its potential to support/enable planned growth, and are

discussed in Chapter 4.2. This analysis focuses on direct contributions to cumulative biological impacts.

Construction of the proposed project would directly result in permanent loss of the following.

- As much as 15 acres of nonnative annual grassland and agricultural habitat offering foraging habitat for Swainson's Hawk, White-tailed Kite, Northern Harrier, and Loggerhead Shrike, as well as a variety of common migratory birds and raptors; and nesting and foraging habitat for Burrowing Owl.
- Six elderberry bushes that offer habitat for the Valley elderberry longhorn beetle.

Swainson's Hawk and other birds potentially affected by direct loss of nonnative annual grassland and agricultural habitat are wide-ranging and are expected to be able to use additional areas of similar habitat near the project sites. However, California Department of Fish and Game (DFG) considers removal of suitable foraging habitat in proximity to a known occupied Swainson's Hawk nest a significant impact on the species. It would also represent a cumulatively considerable contribution to long-term Countywide loss of habitat for Swainson's Hawk, White-tailed Kite, and the other species listed above.

As discussed in Chapter 3.9, the City has committed to mitigate loss of grassland and agricultural within 10 miles of any known, active Swainson's Hawk nest at a ratio stipulated by DFG, offsetting not only impacts on Swainson's Hawk, but also White-tailed Kite, Northern Harrier, Loggerhead Shrike, and other special-status and common species with similar foraging needs. This commitment would also address the project's potential contribution to loss of Burrowing Owl habitat. **With this commitment in place, the proposed project's contribution to cumulative loss of raptor and migratory bird habitat in the County would be effectively mitigated, and would not be cumulatively considerable.**

Transportation and Circulation

The principal concerns with regard to cumulative impacts on transportation and circulation in Stanislaus County relate to

- short-term impairment of traffic flow as a result of construction traffic generated by projects with overlapping timeframes; and
- long-term increases in traffic volumes as the area's population continues to expand.

The City is growing at a rapid pace and infrastructure upgrades are costly; recent studies anticipate significant cumulative impacts on traffic in some parts of the City over the next 10–15 years (e.g., City of Modesto 2004). Growth in the City will likely also increase traffic in outlying County areas and along key commute

corridors, and cumulative impacts at some County locations could also be significant (City of Modesto 2004).

Because operation of the proposed project would generate very little additional traffic (only the few vehicles required for project staffing and maintenance), the project's contribution to long-term traffic increases in the City would be almost entirely indirect, and would result from its potential to support or enable planned growth. This effect is discussed in Chapter 4.2, *Growth-Inducing Impacts*, and **no further analysis of effects at the City level is required.**

Similarly, the proposed project's direct contribution to long-term Countywide traffic concerns would be almost none because of the small number of vehicles involved. As identified above, the proposed project would contribute indirectly to effects at the County level by enabling planned growth; however, Countywide traffic effects related to population growth are addressed and mitigated to the extent feasible through General Plan development; County and State infrastructure and transit planning efforts; and the environmental reviews required for both these processes. **No additional analysis of indirect contributions to Countywide traffic impacts from growth inducement is required.**

As discussed in Chapter 3.10, *Transportation and Circulation*, construction of project facilities would generate traffic, including construction worker commute vehicles and heavy equipment. The effects of project traffic would be reduced to the extent feasible by Environmental Commitment TC-1, which requires preparation of a detailed traffic control plan in combination with individual mitigation measures that target sites where construction traffic could be particularly problematic (see Chapter 3.10). **With these measures in place, the project's contribution to cumulative construction-related traffic effects is not expected to be cumulatively considerable.**

MID versus City Cumulative Impacts

All of the cumulative impacts identified above apply to the proposed City facilities. However, because of the nature and location of the proposed MID facilities outside of the City and in a relatively rural area, only a subset of the identified cumulative impacts apply to that portion of the project, as follows:

- Indirect cumulative loss of agricultural land as a result of growth in the Modesto area that would be supported by the MRWTP expansion.
- Air quality impacts of construction.

Table 4.3-3 Summary of Cumulative Impacts and Mitigation Measures

Impact	MID	City Facilities																	
		Tank Sites & Associated Pipelines									Main Pipelines								
	MRWTP	N-1	N-2	N-3	W-1	W-2	W-3	S-1	S-2	S-3	Control Valves	Briggsmore Ave	Orangeburg Ave	Virginia Corridor	Tully Road	Yosemite Boulevard	M&ET Railroad	Oregon Drive	Mitigation
Agriculture																			
Direct Loss of Prime Farmland	NI	SU	SU	SU	NI	SU	SU	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	No mitigation feasible.
Direct Loss of Williamson Act Lands	NI	NI	SU	SU	NI	SU	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	No mitigation feasible.
Indirect Conversion of Agricultural Lands from Growth	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	No mitigation feasible.
Air Quality																			
Construction-Related Emissions of PM10, Ozone, and Ozone Precursors	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	Environmental Commitments AQ-1, AQ-2, GC-3, GC-4, GC-5, GC-6, GC-7, and GC-10 as stated in the Project Description. Mitigation Measure CUME1—Implement enhanced measures to

Impacts:

SU = significant and unavoidable

S = significant but mitigable

PS = potentially significant but mitigable

LS = less than significant

NI = no impact

B = beneficial impact

n/a = not applicable

Impact	MID	City Facilities																	Mitigation
		Tank Sites & Associated Pipelines									Main Pipelines								
	MRWTP	N-1	N-2	N-3	W-1	W-2	W-3	S-1	S-2	S-3	Control Valves	Briggsmore Ave	Orangeburg Ave	Virginia Corridor	Tully Road	Yosemite Boulevard	M&ET Railroad	Oregon Drive	
																			control PM10 generation, as recommended by SJVUAPCD (2002). Mitigation Measure CUME2—Require use of other measures to reduce emissions.
Water Resources																			
Effects on Water Bodies Listed as Impaired	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	No mitigation required.
Noise																			
Short-Term Effects from Construction	LS	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	SU	Environmental Commitments NR-1, NR-2, and NR-3

Impacts:

SU = significant and unavoidable

S = significant but mitigable

PS = potentially significant but mitigable

LS = less than significant

NI = no impact

B = beneficial impact

n/a = not applicable

Impact	MID	City Facilities																	Mitigation
		Tank Sites & Associated Pipelines									Main Pipelines								
	MRWTP	N-1	N-2	N-3	W-1	W-2	W-3	S-1	S-2	S-3	Control Valves	Briggsmore Ave	Orangeburg Ave	Virginia Corridor	Tully Road	Yosemite Boulevard	M&ET Railroad	Oregon Drive	
Biological Resources																			
Short-Term Disturbance of Wildlife due to Multiple Construction Projects Occurring at the Same Time	LS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	Mitigation Measure BIO-4: Retain a Qualified Biologist to Conduct a Preconstruction Survey for Nesting Swainson's Hawk.
Long-Term Loss of Foraging Habitat	NI	PS	PS	PS	PS	PS	PS	PS	PS	PS	LS	LS	LS	LS	LS	LS	LS	LS	Mitigation Measure BIO-3: Implement the DFG Guidelines for Swainson's Hawk Foraging Habitat Mitigation.
Traffic																			
Construction-Related Traffic Impacts	LS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS	Environmental Commitment TC-1

Impacts:

SU = significant and unavoidable

S = significant but mitigable

PS = potentially significant but mitigable

LS = less than significant

NI = no impact

B = beneficial impact

n/a = not applicable