City Of Merced Wastewater Collection System Master Plan

DRAFT ENVIRONMENTAL IMPACT REPORT

EXECUTIVE SUMMARY

September 2020

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Executive Summary

ES.1 INTRODUCTION AND BACKGROUND

The City of Merced's (City's) Vision 2030 General Plan (2030 General Plan) discusses City growth that may occur by the year 2030. As a part of the infrastructure planning associated with accommodating this growth, the City prepared the 2017 Wastewater Collection System Master Plan (2017 WCSMP) that set forth a strategy to meet the long-term sewer system needs of the 2030 General Plan (City of Merced 2017). Key infrastructure needs relevant to the 2017 WCSMP include the wastewater collection system itself; wastewater treatment, disposal, and reuse facilities; and various potable and non-potable water needs for growing areas of the City. The City, as the lead agency pursuant to the California Environmental Quality Act (CEQA), is proposing to implement the 2017 WCSMP, which outlines a general roadmap or a programmatic plan (i.e., referred to as the 'Program' in this Environmental Impact Report [EIR]) as well as specific projects (capital improvement plan) for developing the City's wastewater collection system in the City (Figure ES-1) to reach reasonable buildout as identified in the 2030 General Plan (City of Merced 2012).

The Program, identified as Alternative Plan A in the 2017 WCSMP, describes the City's preferred approach for how the wastewater collection system infrastructure would be built to meet the future growth and sewer demands of the City's planning area, which is comprised of the 2030 General Plan Specific Urban Development Plan (SUDP)/Sphere of Influence (SOI) areas. The Program was selected for its ability to best meet the long-range sewer system conveyance needs of the City. These needs were determined by the Program's use of gravity sewers, which are more reliable, require no energy to operate, and no moving parts (i.e. pump stations) to maintain, where feasible. Thus limiting the life-cycle and energy costs associated with operation of the system.

The Program proposes the City's collection system take all municipal wastewater to the City's existing 12 million gallons per day (Mgal/d) capacity Wastewater Treatment and Reclamation Facility (WWTRF). The existing WWTRF would be expanded, as needed in 4 to 5 Mgal/d increments, to handle 2030 General Plan flows, referred to as WWTRF Expansion Projects in this EIR. The effluent disposal and reuse facilities at the WWTRF are believed to have sufficient land and disposal potential to serve reasonable build-out design flow estimates of 34 to 35 Mgal/d, if and when buildout is needed.

The Program proposes main trunk sewer locations within existing City road rights-of-way consistent with the 2030 General Plan Circulation Element to serve anticipated growth in North and South Merced. These sewers would maintain gravity flows where feasible. Where infeasible, forcemain sewers and pump/lift stations would be used. Specifically, two trunk sewer projects—the Northern Trunk Sewer Project and the Southern Trunk Sewer Project—have been identified as the first steps to supporting the construction of the 2017 WCSMP. These projects would be sized to accommodate the reasonable build-out of the SUDP/SOI and would be required prior to further development within North Merced or South Merced, respectively. These trunk sewers would serve as the key routes for wastewater to be delivered to the WWTRF and as interceptors for the new smaller collector sewers. Collectively, the Northern Trunk Sewer Project, Southern Trunk Sewer Project, and WWTRF Expansion Projects are referred to collectively as the 'proposed Projects' within this EIR. Please see Chapter 2.0 for a detailed Project Description.

This Draft EIR has been prepared in compliance with the CEQA of 1970 (as amended), codified at California Public Resources Code (PRC) Sections 21000 et seq., and the state CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. The Program and proposed Projects are described further in Chapter 2.0 of this document.

This Draft EIR also incorporates by reference the analysis and other information contained in the City's 2017 WCSMP, December 15, 2017 (City of Merced 2017), as well as the planning documents that helped define the Program Study Area, the 2017 WCSMP growth projections, program capacity estimates, and overlapping environmental analysis including the following:

The 2017 WCSMP, December 15, 2017 (City of Merced 2017)
https://www.cityofmerced.org/depts/engineering_division/sewer_master_plan.asp
The 2030 General Plan (City of Merced 2012),
https://www.cityofmerced.org/departments/development-services/planning-division/merced-vision-2030-general-plan#:~:text=The%20Merced%20Vision%202030%20General%20Plan%20was%20adopted%20on%20January,which%20can%20be%20downloaded%20below
The 2030 General Plan Draft and Final EIRs (State Clearinghouse Number [SCH] No. 2008071069) (City of Merced 2010)
https://www.cityofmerced.org/civicax/filebank/blobdload.aspx?BlobID=9183
The 2009 University of California (UC) Merced 2020 Project Addendum Long-Range Development EIS/EIR (SCH Number 200841009) (UC California 2008)
https://merced2020.ucmerced.edu/sites/merced2020.ucmerced.edu/files/documents/2020_adeir102708web.pdf
City of Merced, North Merced Sewer Master Plan (City of Merced 2002, Draft)
Available upon request at the City
The City's Draft and Final Wastewater Treatment Plan Expansion Project EIR (SCH Number 2005101135) August 2006 (City of Merced 2006)
https://www.cityofmerced.org/civicax/filebank/blobdload.aspx?blobid=4782
The 2015 Bellevue Community Plan (City of Merced 2015)
https://www.cityofmerced.org/Home/ShowDocument?id=8608
The 2004 University Community Plan (Merced County 2004)
http://web2.co.merced.ca.us/pdfs/planning/cplan/completed/university/final_university_community_plan.pdf

As described in the 2017 WCSMP service demands based on varying growth projections identified by the 2030 General Plan, and as further refined in the localized community planning, were used as a basis for this Draft EIR. Communities such as Celeste, UC Campus, and University community area were considered as well as service to the Bellevue, University, and other community plan areas within the Program Study Area.

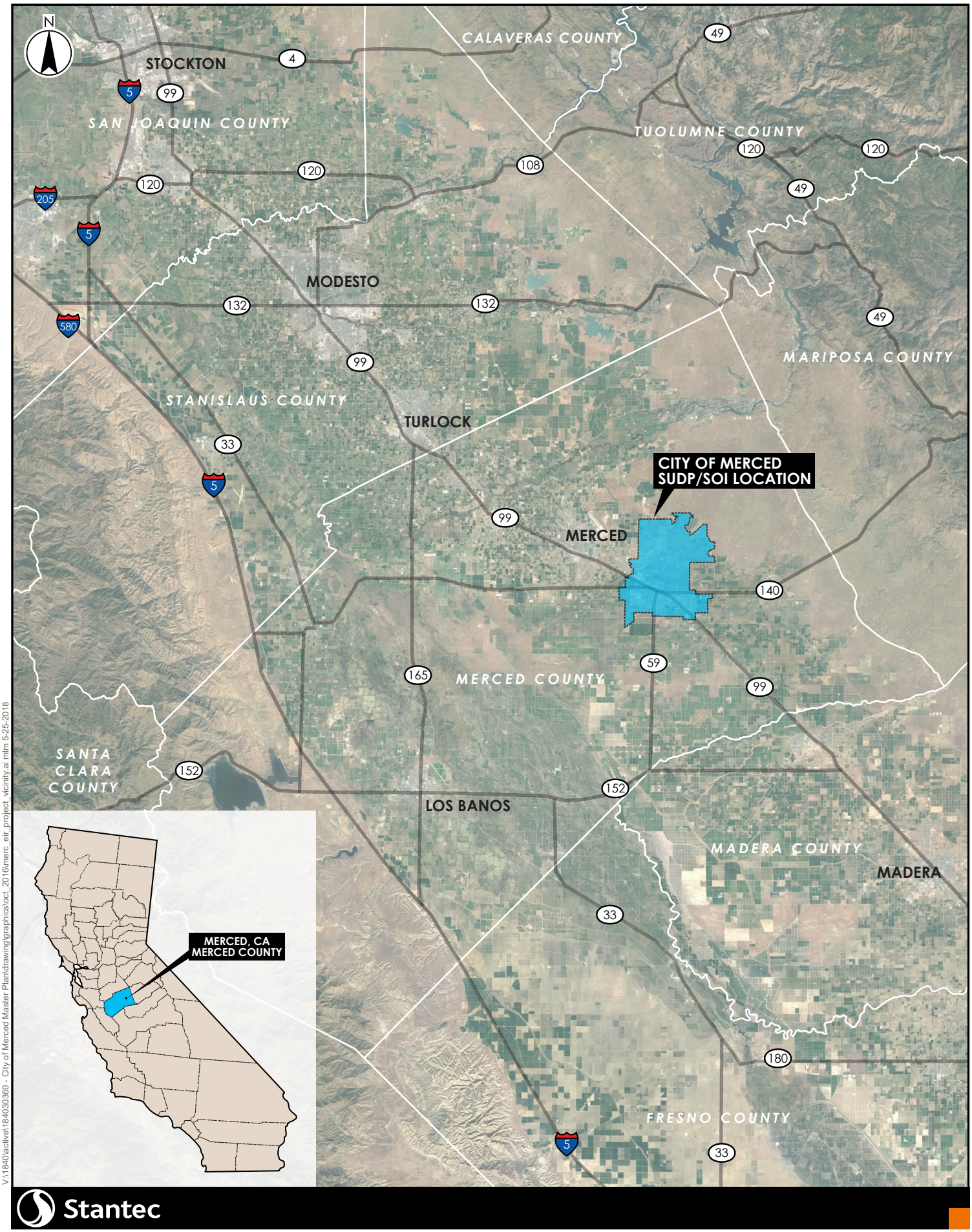

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Figure ES-1
Wastewater Collection System Master Plan Program Vicinity
City of Merced - Draft Environmental Impact Report

ES.2 PURPOSE AND OBJECTIVES

The purpose of the 2017 WCSMP was to strategically and comprehensively plan development of the wastewater infrastructure necessary to support reasonable build-out of the SUDP/SOI and meet these long-term projected needs. The primary objectives of the Program are to achieve the following:

1. Construct and maintain safe and reliable facilities.
2. Meet long-term sewer service collection system needs by constructing the components of the collection system in stages, as needed.
3. Achieve lower overall life-cycle cost and maintain relatively low costs for sewer service considering upfront costs and anticipated operation and maintenance costs over the coming decades.
4. Maintain high water quality and wastewater treatment standards.
5. Reduce or maintain relatively low operational costs and energy demand by selecting gravity systems where feasible.
6. Maintain consistency with the Merced Vision 2030 General Plan.
7. Plan collection system infrastructure that meets reasonable build-out conditions of 35 Mgal/d.
8. Minimize land use and environmental impacts.
9. Adhere to federal and state policies and regulations in support of regionalization, reclamation, recycling, and conservation for wastewater treatment plants (such as Central Valley Regional Water Quality Control Board [CVRWQCB] Resolution Number R5-2009-0028) (CVRWQCB 2009).
10. Use the existing publicly owned property, roadways, and rights-of-way (ROWs) to the extent feasible.

ES.3 PROJECT ALTERNATIVES

An EIR must describe a range of reasonable alternatives to the project or alternative project locations that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts of the proposed project. The alternative analysis must include the “No Project Alternative” as a point of comparison. The No Project Alternative includes existing conditions and reasonably foreseeable future conditions that would exist if the proposed project were not approved (CEQA Guidelines Section 15126.6). The following alternatives are discussed further in Chapter 4.0, Alternatives, of this document.

No Project Alternative

The No Project Alternative assumes that if selected, the Program would not be implemented, and the wastewater collection system within the City of Merced would remain operating under existing conditions. Aging infrastructure and facilities required to meet the capacity needs of the City, or address system deficiencies would be constructed or modified individually, which would hinder the City’s ability to holistically address existing system deficiencies, replace

aging infrastructure, or provide the facilities necessary to meet future growth. Addressing these needs individually as opposed to holistically would impede the expediency at which these needs are met, potentially interfering with the City's ability to provide wastewater infrastructure to its customers given anticipated future population growth. Under the No Project Alternative, wastewater would continue to be conveyed through existing City infrastructure, and the identified impacts associated with construction and operating the Program Study Area would be avoided for all resource areas. However, the No Project Alternative would not meet most of the City's identified Program objectives.

North Merced Satellite Treatment Alternative

This alternative was derived as a part of the 2017 WCSMP development. The alternative would consist of building a second wastewater treatment facility in north Merced to accommodate new wastewater associated with development as the area grows to reasonable build-out of the SUDP/SOI. The new facility would require the City to purchase the industrial zoned property located west of the intersection of West Yosemite Avenue and State Route (SR) 59. The facility would initially accommodate 4 to 5 Mgal/d wastewater flows with plans to expand to a maximum capacity of 14 to 15 Mgal/day at reasonable build-out, while the existing WWTRF would accommodate wastewater flows from the rest of the SUDP/SOI with an initial expansion to 16 Mgal/day and subsequent expansion as reasonable build-out is neared to reach a maximum capacity of 20 Mgal/day. Between the two treatment facilities the alternative would achieve the total 34 to 35 Mgal/day treatment capacity required to meet reasonable build-out conditions under the 2030 General Plan. Additionally, this alternative would require new effluent disposal and or reuse facilities and discharge permits to serve the new treatment facility. Additional land for effluent disposal could total approximately 4,550 acres. Key wastewater collection system trunk lines for this alternative would be similar to the proposed Projects, however, would exclude areas crossing from north to south Merced.

Decentralized Treatment Facilities Alternative

This alternative would consist of a decentralized system with multiple treatment facilities developed in phases to accommodate anticipated growth within the City. These new WWTRFs would be built in new development areas and would treat the wastewater associated with each new development as they occur. This alternative would require the placement of trunk and collector pipelines, using gravity fed systems to the maximum extent feasible to convey wastewater flows to the new decentralized facilities as well as to the existing WWTRF throughout the City's SUDP/SOI. This alternative would require the individual treatment and permitted disposal of effluent at each new site as well as operations and maintenance associated with each new facility added. Each facility would require a treatment train sufficient to treat the wastewater generated within a particular development area and would be required to meet waste discharge permitting requirements and maintain an individual National Pollutant Discharge Elimination Service (NPDES) permit, or provide reclamation lands on which to reuse treated effluent, as well appropriate discharge permits issued by the CVRWQCB.

Campus Parkway Alternative

The Campus Parkway Alternative is a variation on the Eastern Trunk Servicing Concept that was explored during the WCSMP development process (which is described in Appendix E) and was based on public input. The alternative would require an additional trunk sewer to be placed outside of the City's SUDP/SOI from the University of California, Merced (UC Merced) Campus to Campus Parkway where it would connect with the existing sewer collection system. This alternative would involve two phases to reach the reasonable build-out capacity needed and analyzed in the

2030 General Plan. Phase 1 of the Campus Parkway Alternative would involve conveyance of wastewater within the Campus Community area, and possibly from additional portions of the service area to flow down through this system and eventually reach the City's existing WWTRF near the southwest portion of the City's SUDP/SOI. Trunk sewers in the north would be reduced in size as flow from the northwestern portion of the service area would be conveyed via this expansion of the existing WWTRF. Phase 2 of this alternative would require additional wastewater infrastructure for the new development in the far north and northwestern portions of the City (partially outside of the City's SUDP/SOI).

Recycled Water Reclamation Alternative

This alternative would implement that concept to recharge groundwater use in north Merced by returning effluent from the WWTRF to North Merced through a network of reclaimed water pipes. Based on the evaluation for pipeline placement of the proposed Projects for implementation of the Program, it is assumed that recycled pipelines would follow the same alignments as the proposed Projects and future program collector infrastructure. These recycled water pipelines would likely be required to have appropriate health and safety setbacks from the Program pipelines (typically a minimum distance of 50 feet or other form of sewer containment such as double walled pipes). Recycled water uses and connections within the City would be required under this alternative for areas such as City parks or landscaped areas. Where the Program pipelines gravity flow to the WWTRF, pumping the recycled water back up the system would be required. Pumping would require placement of one or more pumps or lift stations.

Reduced Build-Out Sewer Capacity Alternative

The 2017 WCSMP and the former administrative drafts as described in Appendix E, evaluated different scenarios in which interim conditions with or without participation of certain neighborhoods within the City would occur. These evaluations are extrapolated out to develop this reduced build-out alternative that would serve 20 Mgal/d capacity. This alternative would have the same footprint and construction and operations activities as the Program and proposed Projects; however, it would be downsized, and development would only need to accommodate 20 Mgal/d capacity. The 20 Mgal/d capacity would likely not be able to serve the development of the City's entire SUDP/SOI at the densities illustrated in the 2030 General Plan. Trunk sewer pipelines would be downsized from the proposed Projects and the pump station would have a smaller footprint; no expansion beyond what was previously planned in the 2006 WWTRF EIR would be required.

Parallel or Upsized Existing System Alternative

The 2017 WCSMP also explored installing parallel sewers adjacent to the main existing trunk lines within the City limits to accommodate interim wastewater flows and to allow for additional sewer connections within north and eastern Merced. This alternative expands on that concept by considering the parallel or upsized trunk lines within the City adjacent to trunk sewers. This alternative would target critically impacted sewers, installing a parallel or upsized trunk sewer within the ROW associated with West Avenue and Olive Avenue and adjacent to or within the ROW of existing sewers at or near capacity. This alternative would require construction throughout many of the developed areas within the City, would require utility relocations, and would require resolution of conflicts with other utilities and infrastructure. This alternative would be designed to meet reasonable build-out flows identified within the 2030 General Plan and would require parallel pipes or upsized replacement pipes throughout much of the existing system.

ES.4 RESPONSIBLE AND TRUSTEE AGENCIES

In accordance with CEQA, a responsible agency is a public agency, other than the Lead Agency, that has responsibility to carry out or approve a project (PRC Section 21069). A trustee agency is a state agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California (PRC Section 21070).

The following public or State agencies may serve as responsible and/or trustee agencies for the Program:

California Air Resources Board
San Joaquin Valley Air Pollution Control District
CVRWQCB
California Department of Fish and Wildlife
Office of Historic Preservation

ES.5 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

During the Notice of Preparation (NOP) public review period, concerns were raised regarding the potential adverse impacts to the following: air quality and greenhouse gases, agricultural resources, hydrology and groundwater resources, hazards and hazardous materials, noise, odor, aesthetics, biological resources, and traffic and transportation. Additionally, concerns regarding alternatives, cumulative impacts, and general plan consistency were also raised. These concerns have been addressed in Chapter 3.0, Environmental Impact Assessment. Additionally, concerns of urban blight, environmental justice, impacts to minority communities, and economic impacts were also raised during the NOP process. Generally, and as raised by comments, these topics would not result in an environmental impact as a result of the project and are not topics that are required for consideration under the CEQA Guidelines. Where these topics overlap discussions of potential environmental impacts, potential impacts from these topics were also discussed within a specific environmental resource area as applicable. The NOP and comments received on the NOP are included in Appendix A of this Draft EIR and a summary of issues raised in these comments is included in Section 1.1.2.1, Notice of Preparation.

ES.6 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table ES-1 summarizes the potential environmental effects of the Program, the recommended mitigation measures, if applicable, and the level of significance after mitigation. Pursuant to CEQA Guidelines Section 15093, if the Program is approved as proposed, any impact noted in the summary as “significant” after mitigation would require the adoption of overriding considerations. As shown in Table ES-1, development of the Program with mitigation measures would not result in any significant and unavoidable impacts. Therefore, a statement of overriding considerations would not be required.

Additionally, CEQA requires public agencies to establish a monitoring and reporting program for the purpose of ensuring compliance with those mitigation measures adopted as conditions of approval in order to mitigate or avoid significant environmental impacts identified in an EIR. A Mitigation Monitoring and Reporting Program (MMRP), incorporating the mitigation measures set forth in this document, would be adopted at the time of certification of the Final EIR.

Table ES-1 Executive Summary of Impacts and Mitigation Measures

Environmental Impact	Finding			Mitigation Measure
	Overall Program	New Trunk Sewer Infrastructure Projects	WWTRF Expansion Projects	
3.1 Aesthetics and Visual Resources				
AES-1: Potential to have a substantial adverse effect on a scenic vista.	LTS	LTS	NI	**None Required**
AES-2: Potential to damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a scenic highway.	NI	NI	NI	**None Required**
AES-3: In non-urbanized areas, potential to substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public Views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, the potential of the project to conflict with applicable zoning and other regulations governing quality.	LTS/M	LTS/M	LTS	**MM AES-1:** Restoration of Disturbed Areas **MM AES-2:** Guidance for Design and Maintenance of Above Ground Facilities
AES-4: Potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LTS/M	LTS/M	LTS/M	**MM AES-3:** Use of Best Management Practices to Minimize Lighting Impacts from Construction and Operation
3.2 Agricultural and Forestry Resources				
AG-1: Potential to result in the loss of forest land or conversion of forest land to non-forest use.	LTS	LTS	NI	**None Required**
AG-2: Potential to covert 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.	NI	NI	NI	**None Required**
AG-3: Potential to conflict with existing zoning for agricultural use, or Williamson Act contract.	NI	NI	NI	**None Required**
AG-4: Potential to conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as	NI	NI	NI	**None Required**

Environmental Impact	Finding			Mitigation Measure
	Overall Program	New Trunk Sewer Infrastructure Projects	WWTRF Expansion Projects	
defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).				
AG-5: Potential to involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use.	NI	NI	NI	**None Required**
3.3 Air Quality				
AIR-1: Potential to conflict with or obstruct implementation of the applicable air quality plan.	LTS	LTS	LTS	**None Required**
AIR-2: Potential to 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.	LTS	LTS	LTS	**None Required**
AIR-3: Potential to expose sensitive receptors to substantial pollutant concentrations.	LTS/M	LTS/M	LTS/M	**MM AIR-1:** Pre-Construction Worker Environmental Awareness Program (Air Quality) **MM AIR-2:** Implement Hazardous Materials Measures **MM AIR-3:** Minimize Construction Emissions **MM AIR-4:** Design Considerations for Future WWTRF Improvements
AIR-4: Potential to result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LTS	LTS	LTS	**None Required**
3.4 Biological Resources				
BIO-1: Potential to 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 Wildlife or U.S. Fish and Wildlife Service.	LTS/M	LTS/M	LTS/M	**MM BIO-1:** Pre-Construction Botanical Surveys **MM BIO-2:** Pre-Construction Worker Environmental Awareness Program Training (Biological Resources) **MM BIO-3**: Reduce the Spread and Introduction of Invasive Noxious Weeds

Environmental Impact	Finding			Mitigation Measure
	Overall Program	New Trunk Sewer Infrastructure Projects	WWTRF Expansion Projects	
				MM BIO-4: Avoid Disturbance to Breeding Burrowing Owl **MM BIO-5:** Avoid Disturbance to Nesting Swainson's Hawk **MM BIO-6:** Avoid Disturbance to Breeding Colonies of Tricolored Blackbird **MM BIO-7:** Avoid Disturbance to Nesting Raptors and Other Migratory Birds **MM BIO-8**: Avoid Disturbance to Roosting Bat Species **MM BIO-9:** Avoid Disturbance to Breeding San Joaquin Fox **MM BIO-10**: Install Exclusion Fencing for Environmentally Sensitive Areas
BIO-2: Potential to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	LTS/M	LTS/M	LTS	**MM BIO-2:** Pre-Construction Worker Environmental Awareness Program Training (Biological Resources) **MM BIO-10**: Install Exclusion Fencing for Environmentally Sensitive Areas **MM BIO-11:** Avoid and Reduce Disturbance and Impacts to Riparian Habitat and/or Sensitive Natural Communities **MM GEO-1:** Prepare an Erosion Control Plan and Stormwater Pollution Prevention Plan
BIO-3: Potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance or potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	LTS/M	LTS/M	NI	**MM BIO-1:** Pre-Construction Botanical Surveys **MM BIO-2:** Pre-Construction Worker Environmental Awareness Program Training (Biological Resources) **MM BIO-3**: Reduce the Spread and Introduction of Invasive Noxious Weeds **MM BIO-4:** Avoid Disturbance to Breeding Burrowing Owl **MM BIO-5:** Avoid Disturbance to Nesting Swainson's Hawk

Environmental Impact	Finding			Mitigation Measure
	Overall Program	New Trunk Sewer Infrastructure Projects	WWTRF Expansion Projects	
				MM BIO-6: Avoid Disturbance to Breeding Colonies of Tricolored Blackbird **MM BIO-7:** Avoid Disturbance to Nesting Raptors and Other Migratory Birds **MM BIO-8**: Avoid Disturbance to Roosting Bat Species **MM BIO-9:** Avoid Disturbance to Breeding San Joaquin Fox **MM BIO-10**: Install Exclusion Fencing for Environmentally Sensitive Areas
BIO-4: Potential to have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	LTS/M	LTS/M	NI	**MM BIO-2:** Pre-Construction Worker Environmental Awareness Program Training (Biological Resources) **MM BIO-10**: Install Exclusion Fencing for Environmentally Sensitive Areas **MM BIO-12:** Avoid and Reduce Disturbance to WOTUS, Other WOTUS, and/or Wots **MM GEO-1:** Prepare an Erosion Control Plan and Stormwater Pollution Prevention Plan
BIO-5: Potential to 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.	LTS	LTS	NI	**None Required**
3.5 Cultural and Tribal Resources				
CUL-1: Potential to cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.	LTS/M	LTS/M	LTS/M	**MM CUL-1:** California Environmental Quality Act-Level Cultural Resource Study for Proposed Projects **MM CUL-2**: Evaluation of Cultural Resources and Treatment of Cultural Resources if Found Eligible for the California Register of Historical Resources

Environmental Impact	Finding			Mitigation Measure
	Overall Program	New Trunk Sewer Infrastructure Projects	WWTRF Expansion Projects	
				MM CUL-3: Proper Handling of Inadvertent Discovery of Cultural and Tribal Cultural Resources **MM CUL-5:** Worker Environmental Awareness Program (Cultural Resources)
CUL-2: Potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.	LTS/M	LTS/M	LTS/M	**MM CUL-1:** California Environmental Quality Act-Level Cultural Resource Study for Proposed Projects **MM CUL-2**: Evaluation of Cultural Resources and Treatment of Cultural Resources if Found Eligible for the California Register of Historical Resources **MM CUL-3:** Proper Handling of Inadvertent Discovery of Cultural and Tribal Cultural Resources **MM CUL-5:** Worker Environmental Awareness Program (Cultural Resources)
CUL-3: Potential to disturb human remains, including those interred outside of formal cemeteries.	LTS/M	LTS/M	LTS/M	**MM CUL-4:** Proper Handling of Inadvertent Discovery of Human Remains
CUL-4: Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is 1) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or 2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.	LTS/M	LTS/M	LTS/M	**MM CUL-1:** California Environmental Quality Act-Level Cultural Resource Study for Proposed Projects **MM CUL-3:** Proper Handling of Inadvertent Discovery of Cultural and Tribal Cultural Resources **MM CUL-5:** Worker Environmental Awareness Program (Cultural Resources)

Environmental Impact	Finding			Mitigation Measure
	Overall Program	New Trunk Sewer Infrastructure Projects	WWTRF Expansion Projects	
3.6 Geology, Soils, and Minerals				
GEO-1: Potential to directly or indirectly expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault as defined by the Division of Mines and Geology Special Publication 42 or strong seismic ground shaking; Seismic-related ground failure, including liquefaction; or Landslides.	LTS	LTS	LTS	**None Required**
GEO-2: Potential to result in substantial soil erosion or the loss of topsoil.	LTS/M	LTS/M	LTS/M	**MM GEO-1:** Prepare an Erosion Control Plan and Stormwater Pollution Prevention Plan
GEO-3: Potential to 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.	LTS	LTS	LTS	**None Required**
GEO-4: Potential to be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	LTS	LTS	LTS	**None Required**
GEO-5: Potential to 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.	NI	NI	NI	**None Required**
GEO-6: Potential to directly or indirectly destroy a unique paleontological resources or site or unique geologic feature.	LTS/M	LTS/M	LTS/M	**MM GEO-2:** Pre-Construction Worker Environmental Awareness Training (Paleontological Resources)

Environmental Impact	Finding			Mitigation Measure
	Overall Program	New Trunk Sewer Infrastructure Projects	WWTRF Expansion Projects	
				MM GEO-3: Proper Handling of the Unanticipated Discovery of Paleontological Resources or Unique Geologic Features
GEO-7: Potential to 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.	NI	NI	NI	**None Required**
GEO-8: Potential to result in the loss of availability of a local-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.	NI	NI	NI	**None Required**
3.7 Greenhouse Gases and Energy Resources				
GHG-1: Generate greenhouse gas emissions, either directly, or indirectly, that may have a significant impact on the environment.	LTS	LTS	LTS	**None Required**
GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases.	LTS	LTS	LTS	**None Required**
GHG-3: Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	LTS	LTS	LTS	**None Required**
GHG-4: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	LTS	LTS	**None Required**
3.8 Hazards, Hazardous Materials, and Wildfires				
HAZ-1: Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LTS	LTS	LTS	**None Required**
HAZ-2: Potential to 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.	LTS/M	LTS/M	LTS/M	**MM AIR-2:** Implement Hazardous Materials Measures **MM HYD-1:** Avoid/Minimize Potential Impacts from Construction Material Release

Environmental Impact	Finding			Mitigation Measure
	Overall Program	New Trunk Sewer Infrastructure Projects	WWTRF Expansion Projects	
				MM HAZ-1: Prepare and Implement a Hazardous Materials Release Prevention Plan **MM HAZ-2**: Worker Environmental Awareness Program (Hazards)
HAZ-3: Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	LTS/M	NI	NI	**MM AIR-2:** Implement Hazardous Materials Measures **MM AIR-3**: Minimize Construction Emissions
HAZ-4: Potential to 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.	LTS/M	LTS/M	NI	**MM HAZ-3:** Updated Active Cortese List Site Identification and Hazardous Site Remediation
HAZ-5: Potential to be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public or private airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.	LTS/M	LTS/M	LTS	**MM HAZ-4:** Coordination with Airports
HAZ-6: Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS/M	LTS/M	LTS	**MM TRA-1:** Prepare and Implement a Traffic, Pedestrian, and Bicycle Control Plan
HAZ-7: Potential to expose people or structures either directly or indirectly, to a significant loss, injury or death involving wildland fires.	LTS	LTS	LTS	**None Required**
HAZ-8: If located in or near a state responsibility area or lands classified as very high fire hazard severity zones: Impair an adopted emergency response plan or emergency evacuation plan; Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire	LTS	LTS	LTS	**None Required**

Environmental Impact	Finding			Mitigation Measure
	Overall Program	New Trunk Sewer Infrastructure Projects	WWTRF Expansion Projects	
Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or Expose people or structures to significant risks, including downslope downstream flooding or landslides, as a result of, runoff, post-fire slope stability, or drainage change.				
3.9 Hydrology and Water Quality				
HYD-1: Violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	LTS/M	LTS/M	LTS/M	**MM HYD-1:** Avoid/Minimize Potential Impacts from Construction Material Release **MM HYD-2:** Construction Dewatering Management Plan **MM GEO-1:** Prepare an Erosion Control Plan and Stormwater Pollution Prevention Plan
HYD-2: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	LTS/M	LTS/M	LTS/M	**MM HYD-2:** Construction Dewatering Management Plan
HYD-3: Potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner which would: Result in substantial erosion or siltation on- or off-site; Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	LTS/M	LTS/M	LTS/M	**MM HYD-1:** Avoid/Minimize Potential Impacts from Construction Material Release **MM GEO-1:** Prepare an Erosion Control Plan and Stormwater Pollution Prevention Plan

Environmental Impact	Finding			Mitigation Measure
	Overall Program	New Trunk Sewer Infrastructure Projects	WWTRF Expansion Projects	
Impede or redirect flood flows.				
HYD-4: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	LTS	LTS	LTS	**None Required**
HYD-5: Potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	LTS	LTS	LTS	**None Required**
3.10 Land Use and Planning				
LAND-1: Potential to physically divide an established community.	NI	NI	NI	**None Required**
LAND-2: Potential to cause a significant environmental impact due to a conflict with any land use, plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	NI	NI	NI	**None Required**
3.11 Noise and Vibrations				
NOS-1: Potential to generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards or other agencies.	LTS/M	LTS/M	LTS/M	**MM NOS-1:** Noise and Vibration Reduction Measures **MM NOS-2:** Notification and Coordination with Noise Sensitive Receptors **MM NOS-3:** Implement Standards for Noise Reduction of Pump Stations
NOS-2: Potential to generate excessive groundborne vibration or groundborne noise levels.	LTS/M	LTS/M	LTS	**MM NOS-1:** Noise and Vibration Reduction Measures **MM NOS-2:** Notification and Coordination with Noise Sensitive Receptors
3.12 Population and Housing				
POP-1: Potential to induce substantial unplanned 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).	LTS	LTS	LTS	**None Required**

Environmental Impact	Finding			Mitigation Measure
	Overall Program	New Trunk Sewer Infrastructure Projects	WWTRF Expansion Projects	
POP-2: Potential to displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	NI	NI	NI	**None Required**
3.13 Public Services and Utilities				
PUB-1: Potential to result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection; Police protection; Schools; Parks; or Other public facilities	NI	NI	NI	**None Required**
PUB-2: Potential to require or result in the relocation or construction of new or expanded water, wastewater, or stormwater drainage, electrical power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects.	LTS	LTS	LTS	**None Required**
PUB-3: Potential to have sufficient water supply to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LTS	LTS	LTS	**None Required**
PUB-4: Potential to 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.	LTS	LTS	LTS	**None Required**
PUB-5: Potential to generate waste in excess of State or local standards, or in excess of the capacity of local	LTS	LTS	LTS	**None Required**

Environmental Impact	Finding			Mitigation Measure
	Overall Program	New Trunk Sewer Infrastructure Projects	WWTRF Expansion Projects	
infrastructure, or otherwise impair the attainment of solid waste reduction goals.				
PUB-6: Potential to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	LTS	LTS	LTS	**None Required**
3.14 Recreation				
REC-1: Potential to 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; or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	NI	NI	NI	**None Required**
3.15: Transportation and Traffic				
TRA-1: Potential to conflict with a program plan, ordinance, or policy, addressing the circulation systems, including transit, roadway, bicycle and pedestrian facilities.	LTS/M	LTS/M	LTS	**MM TRA-1**: Prepare and Implement a Traffic, Pedestrian, and Bicycle Control Plan **MM TRA-2:** Inform Public and Emergency Service Agencies of Lane Closures and Detours
TRA-2: Potential to conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	LTS	LTS	LTS	**None Required**
TRA-3: Potential to substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersection(s) or incompatible uses (e.g. farm equipment)).	LTS/M	LTS/M	LTS/M	**MM TRA-1**: Prepare and Implement a Traffic, Pedestrian, and Bicycle Control Plan
TRA-4: Potential to result in inadequate emergency access.	LTS/M	LTS/M	LTS/M	**MM TRA-1**: Prepare and Implement a Traffic, Pedestrian, and Bicycle Control Plan **MM TRA-2:** Inform Public and Emergency Service Agencies of Lane Closures and Detours

Notes:

NI = No Impact
LTS = Less than Significant
LTS/M = Less than Significant with Mitigation
MM = Mitigation Measure