City Of Merced Wastewater Collection System Master Plan

DRAFT ENVIRONMENTAL IMPACT REPORT

CHAPTER 5.0 OTHER CEQA CONSIDERATIONS

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5.0 OTHER CEQA CONSIDERATIONS

This section describes required topics including growth inducing impacts, significant and unavoidable impacts, and significant irreversible environmental changes relative to the Program. It also provides an assessment of potential cumulative impacts resulting from the Program in conjunction with recent past, current, and reasonably foreseeable future projects.

5.1 GROWTH-INDUCING IMPACTS

The California Environmental Quality Act (CEQA) Guidelines Section 15126.2(e) requires that an Environmental Impact Report (EIR) evaluate the growth-inducing impact of a proposed action. The Guidelines describe the required growth inducement analysis as follows:

> *Discuss the ways in which the [Program] could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this definition are public works projects which would remove obstacles to population growth, would tax community service facilities, or encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or little significance to the environment.*

Direct growth inducement would result if the Program involved construction of new housing which would facilitate new population in an area. Indirect growth inducement or secondary growth-inducement potential would be present if the Program would establish substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises), remove a barrier to direct growth inducement, or if it would involve a substantial construction effort with substantial long-term employment opportunities which could indirectly stimulate the need for additional housing and services to support the new employment demand.

As a plan for wastewater collection system infrastructure and projects implemented as a result of that plan, the Program and proposed Projects would not directly develop housing or foster economic or population growth in the surrounding communities. However, the Program would indirectly accommodate growth by constructing sewer collection and treatment infrastructure that could accommodate additional housing and development. Construction of the Program cannot be considered isolated from immediate development since it would facilitate and serve growth that could occur if the Program is constructed to provide additional wastewater conveyance capacity. As such the Program could be the physical catalyst for future development in the Program Study Area. The growth-inducing potential of the Program would be considered significant if it fosters growth in excess of what is assumed in the local master plans and land use plans, or in projections made by regional planning agencies. However, the Program was developed consistently with one of these plans, the Merced Vision 2030 General Plan (2030 General Plan), and the Program was designed to meet the reasonable growth projections of the 2030 General Plan (City of Merced 2010, 2012). The 2030 General Plan and the 2030 General Plan EIR are incorporated by reference to this Draft EIR and the analysis in those documents, which considered the growth inducement associated with their adoption, was considered. A Statement of Overriding Considerations for the 2030 General Plan EIR was adopted upon certification of the EIR for those impacts.

Additionally, the Program would require construction efforts over the duration of reasonable build-out, which could result in multiple temporary demands on housing to support construction personnel. Depending on the frequency and duration of construction activities, construction personnel could potentially relocate to the area due to the Program's long-term potential for on-going new construction projects. However, this potential is speculative and is unlikely due to the uncertainty, irregularity, and unreliability of construction activities. Even if this were to occur, the number of personnel the construction under the Program would support would be inconsequential since it is anticipated that there would only be 55 construction workers maximum per day, which would not substantially induce growth within the area. The potential introduction of construction personnel requiring housing is an indirect effect of implementation of the 2030 General Plan, and the Statement of Overriding Considerations considered indirect effects of implementation of the 2030 General Plan (City of Merced 2012).

The Program would not result in further growth-inducing impacts beyond what was analyzed in the 2030 General Plan EIR, and therefore, no impact would occur from implementation of the Program, and no further growth-inducing analysis would be required.

5.2 SIGNIFICANT AND UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126(b) requires an EIR to "describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications, and the reasons why the project is being proposed, notwithstanding their effect, should be described."

No significant and unavoidable impacts were identified to be associated with the Program. After evaluation in Chapter 3.0, Environmental Impact Assessment, 26 potentially significant impacts were identified; however, all of these impacts are mitigated to less than significant levels by implementation of the mitigation measures prescribed. Therefore, the Program would not have significant and unavoidable impacts.

5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126.2(d) describes irreversible environmental changes as follows:

> *Uses of nonrenewable resources during the initial and continued phases of a project may be irreversible if it requires a large commitment of such resources or makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*

The CEQA Guidelines refer to the need to evaluate and justify the consumption of nonrenewable resources and the extent to which the project commits future generations to similar uses of nonrenewable resources. In addition, CEQA requires that irreversible damage that could result from an environmental accident associated with the Program be evaluated.

Construction of the Program would result in the commitment of nonrenewable natural resources used in the construction process and during operation, including gravel, petroleum products, steel, and other materials. As

discussed in Section 3.13, Public Services and Utilities, and Section 3.8, Hazards and Hazardous Materials, the Program would not generate large amounts of construction waste.

Construction and operation of the Program would also result in commitment of energy resources such as fossil fuels and electricity, as discussed in Section 3.7, Greenhouse Gases and Energy Resources. Direct energy use during construction and operation would involve using petroleum products and electricity to operate equipment, and indirect energy use would involve consuming energy to extract raw materials, manufacture items, and transport the goods and people necessary for construction activities. Construction-related energy consumption would be temporary and would be confined to the construction period. Nevertheless, construction and operation activities would, as with any construction project, cause irreversible and irretrievable commitments of finite nonrenewable energy resources, such as gasoline and diesel fuel.

The Program would include all feasible control measures to improve equipment efficiency and reduce energy use as required by the San Joaquin Valley Air Pollution Control District (SJVAPCD). These measures include a Construction Emission and Fugitive Dust Control Plan that would reduce unnecessary equipment idling and other policies that would help reduce energy use and are consistent with state and local legislation, and policies to conserve energy would be followed. In addition, the Program would comply with applicable federal, state, and local policies and regulations pertaining to energy standards and would ensure that natural resources are conserved to the maximum extent possible. Therefore, due to the rate and amount of energy consumed, the Program would not result in the unnecessary, inefficient, or wasteful use of resources and energy use would be accomplished in a manner consistent with applicable laws and regulations.

Finally, construction and operation of the Program has the potential to result in accidental release of hazardous materials, which may lead to irreversible damage. However, as stated in Section 3.8, Hazards and Hazardous Materials, hazardous materials used during construction would be typical of common construction activities. They would be handled by the contractor in accordance with applicable federal, state, and local regulations for hazardous substances. Additionally, the amount of these materials needed for onsite equipment maintenance would not be sufficient to cause a significant hazard to the public or any nearby schools if released since the quantity of these hazardous materials onsite at any one given time would amount to a refueling truck and construction equipment.

5.4 CUMULATIVE IMPACTS

CEQA requires an EIR to include a discussion of cumulative effects of a project when the project's incremental effect is "cumulatively considerable." An effect is cumulatively considerable when it is significant viewed in connection with the effects of past projects, other current projects, and future projects (CEQA Guidelines Section 15065(a)(3)).

A "cumulative impact" is an impact that is created as a result of the combination of a project together with other projects causing related impacts. Therefore, the first step in the cumulative analysis is to identify each impact of the project, and in each case, consider whether there are other projects (past, current, or future) that could have related impacts, and then determine whether the project's contribution to the overall impact is "cumulatively considerable."

For example, a project that constructs and operates a retail center would generate a substantial number of vehicle trips once the center is completed and opened for operation, which would affect road operations and conditions in the vicinity of the project site. A lead agency would be required to not only consider the effects of trips generated by the

project, but also those trips in combination with other projects that might contribute vehicle trips to the same roadway system. Thus, CEQA seeks to avoid situations in which a series of small projects with relatively minor effects eventually result in far larger effects as their effects are combined.

The CEQA Guidelines also state that the cumulative impacts discussion does not need to provide as much detail as is provided in the analysis of project-only impacts and should be guided by the standards of practicality and reasonableness.

In addition, Section 15130 of the CEQA Guidelines identifies that one of the following two options may be used to complete an adequate cumulative analysis:

1. **List Method –** A list of past, present, and reasonable anticipated future projects producing related or cumulative impacts, including those projects outside the control of the lead agency (i.e., the list approach), Section 15130(a).

2. **General Plan Method –** A summary of projections contained in an adopted General Plan or related planning document designed to evaluate regional or area-wide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency (i.e., the plan approach) Section 15130(b).

This Draft EIR uses both the List Method and the General Plan Method. The 2030 General Plan contains projections for growth and development within the Specific Urban Development Plan/Sphere of Influence (SUDP/SOI) (City of Merced 2012). The CEQA Guidelines (Section 15130(d)) state that a discussion of cumulative impacts contained in previously certified EIRs for land use plans may be incorporated by reference pursuant to provisions for tiering and program EIRs, which means that no further analysis of cumulative impacts beyond the incorporated information is required when a project is consistent with the general plan or "comparable programmatic plan" if the lead agency determines that the regional or areawide cumulative impacts relevant to the project have already been "adequately addressed" in a certified EIR for the plan (Section 15130(d)). The 2030 General Plan EIR considered the cumulative effects of these SUDP/SOI-wide projections, including the associated impacts associated with development and implementation of the Program (City of Merced 2010). The City of Merced's (City) 2030 General Plan EIR is incorporated by reference to account for the cumulative effects of the Program. The discussion in the remainder of this section is included to supplement the analysis of the 2030 General Plan EIR and where applicable review the adequacy. Where applicable the discussion is supplemented with related past, present, and reasonably foreseeable future projects identified by the City.

5.4.1 Geographic Scope

The geographic area that is analyzed for cumulative impacts depends on the resource being analyzed. The geographic area associated with a proposed project's different environmental impacts defines the boundaries of the area used for compiling the list of past, present, and probable future projects considered in the cumulative impact analysis. The geographic area that could be affected by implementation of the Program in combination with other projects varies depending on the type of environmental resource being considered. The general geographic area associated with different types of environmental effects of the Program defines the scope of the area considered in the cumulative impact analysis (Table 5.4-1). Also listed is the method of evaluation used to analyze cumulative impacts for each environmental resource.

Table 5.4-1: Geographic Scope of Cumulative Impact and Method of Evaluation

Resource Topic	Geographic Area
Aesthetics and Visual Resources	Immediate Program Study Area
Agriculture and Forestry Resources	Immediate Program Study Area
Air Quality	Immediate Program Study Area (Toxic Air Contaminants) Air Basin (Construction Related and Mobile Sources)
Biological Resources	Immediate Program Study Area
Cultural and Tribal Resources	Immediate Program Study Area
Geology, Soils, and Minerals	Immediate Program Study Area
Greenhouse Gases and Energy	Global (greenhouse gas) and Statewide (energy)
Hazards and Hazardous Materials	Immediate Program Study Area
Hydrology and Water Quality	Immediate Program Study Area Watershed
Land Use and Planning	Immediate Program Study Area
Noise	Immediate Program Study Area
Population and Housing	Immediate Program Study Area
Public Services and Utilities	Immediate Program Study Area
Recreation	Immediate Program Study Area
Transportation and Traffic	Immediate Program Study Area Regional roadway network

5.4.2 List of Related Plans and Projects

A list of past, current, and reasonably foreseeable future projects was compiled using information from the City, the county, and other local, state, and federal agencies. The past, present and reasonably foreseeable future projects within the City or directly adjacent to the Program Study Area were identified and categorized in Table 5.4-2. For the purposes of this discussion, these projects that may have a cumulative effect on the resources of the Program Study Area are often referred to as the “collective projects.” These projects are described in Table 5.4-2.

Table 5.4-2: List of Collective Past, Present, and Reasonably Anticipated Future Projects in the Region

Project/Action	Status *	Location	Acres	Description
Infrastructure Projects				
Campus Parkway	Pending	Campus Parkway	-	Campus Parkway public works streets and signals project. Estimated construction in 2020-2021 and 2022-2023.
Childs Widening at Highway 99	Pending	Childs Avenue at Highway 99	-	Widening of roadway along Childs Avenue at Highway 59. Estimated construction in 2021-2022.
Yosemite Avenue at Highway 59	Pending	Yosemite Avenue at Highway 59	-	Yosemite Avenue public works streets and signals project.
Roadway Improvements	Pending	Throughout the City's SUDP/SOI	-	Various roadway improvement projects throughout the City of Merced projected to occur after 2023.
Wastewater Collection System Improvements	Current	At the City's WWTRF and throughout the City	-	Various wastewater collection system upgrades and improvements occurring as needed.
Black Rascal Creek Flood Control Project	Current	Merced County	300	This project consists of a new perimeter levee, internal levee, and training levees to create a flood control detention basin and wetland area on Black Rascal Creek, which is a tributary to Bear Creek.
Merced Irrigation District (MID) Water Resources Management Plan	Pending	Throughout MID's service area.	-	MID's Waster Resources Management Plan provides long-term guidance to help optimize MID's water rights, facilities, operations, and finances. It takes into consideration a host of trends for land and water use, as well as existing and upcoming mandated regulations affecting both agriculture and MID operations. Additionally, the modernization of MID facilities will allow more water storage to be conserved in Lake McClure by improving operations and reducing operational water losses at key locations.
Development Projects				
Bellevue Ranch West Village 12	Approved 3/23/2016	Southwest Corner of M Street and Arrow Wood Drive	55	Single-family subdivision
Regency Court Apartments (B.P. Investors)	Approved 8/3/2015	North of Merrill Drive (extended), East of G Street	9.8	Apartments
Compass Pointe II Apartments	Approved 1/6/2016	Southeast Corner of Horizons and Pacific	10.42	Apartments

Project/Action	Status *	Location	Acres	Description
Mansionette Estates Unit 5	Approved 8/20/2014 and 6/20/2016	Southeast Corner of Mercy Avenue and Mansionette Drive	5.92	Single-family subdivision
University Village Merced Annexation (Pending)	Pending	Northeast Corner of Gardner Avenue and Yosemite	28.6 (Annex Area= 70 ac)	Student housing, mixed use, and neighborhood commercial
Bianchi/Norcal Cajun Annexation	Pending	Northwest Corner of Santa Fe Drive and North Highway 59	7.83	Retail/Commercial
Starbucks	Approved 2/3/2016	North of Olive and West of M Street (645 West Olive Avenue)	1	Coffee Shop
Yosemite & McKee Commercial Center	Approved 8/3/2015	Southeast Corner of Yosemite Avenue and McKee Road	5.42	Commercial
University Village Merced-Lake (“Merced Station”)	Approved 6/5/2017	Southeast Corner of Yosemite Avenue and Lake Road	14.5	Apartments (Student Housing)/Retail
Prime Shine	Approved 3/22/2017	16th Street and P Street (930 West 16th Street (Pending)	1.7	Car Wash
Pro Lube	Approved 11/5/2014	Northwest Corner of G Street and 23rd Street	1.93	Pro-Lube/Car Wash/Sandwich Shop
Gas Station/Convenience Mkt/Car Wash- Carol Ave	Approved 7/20/2016	Carol Avenue, North of Childs (764 and 782 Carol Avenue)	1	Gas Station, Convenience Market, Retail Space
Towne Place Suites	Approved 7/22/2015	247 South Parsons Avenue	1.90	Hotel
Childs & Parsons (Old Bowling Alley)	Approved 3/3/2016	Southwest Corner of Childs and Parsons	3.21	Arco Gas Station/Car Wash/Convenience Market, KFC, and Fast Food Restaurant

Project/Action	Status *	Location	Acres	Description
Merced Gateway Center	Approved 8/7/2017	Northeast and Southeast Corner of Coffee and Campus Parkway	77.5	Shopping Center, Apartments, and Fire Station
Super Shop	Approved 11/12/2015	North of 14th Street, West of V Street (1535 West 14th Street)	1.1	Automotive Repair Shop and future Building
Mainzer Theater	Approved 8/25/2016	North side of Main Street, East of N Street (655 West Main)	0.50	Restaurant/Entertainment Stage/Bowling Alley/Theater
El Capitan Hotel	Approved 9/21/2016	Southwest Corner of Main and M Street (611, 613-621 West Main)	0.48	Rehab/Addition for 100-room hotel and retail space
Advanced Chemical Transportation (ACT)	Approved 11/17/2016	271 Riggs Avenue	2	Processing Plan and Warehouse (2 phases)
Bellevue Ranch East Village 15 (Remaining Lots)	Approved 9/25/1996 and 4/17/2006	Bellevue Ranch East South of Mandeville Lane	9.23	Single-family subdivision (Remaining Lots)
Bellevue Ranch East Village 7 (Remaining Lots)	Approved 9/25/1996 and 11/6/2006	Bellevue Ranch East South of Merrill Place	25.70	Single-family subdivision (Remaining Lots)
Bellevue Ranch East Lot Q (Remaining Lots)	Approved 2/22/2006 and 7/17/2006	Bellevue Ranch East Northeast Corner M and Cardella	39	Single-family subdivision (Remaining Lots)
Bellevue Ranch West Village 1 (Remaining Lots)	Approved 9/25/1996 and 8/1/2005	Bellevue Ranch West, West of M Street at Ironstone Drive	-	Single-family subdivision (Remaining Lots)
Campus Vista Unit 2 (Remaining Lots)	Approved 8/4/2004 and 3/7/2005	North of Campus Drive, West of G Street	10.60	Single-family subdivision (Remaining Lots)
Lantana Estates South (Phase 1)	Approved 2/8/2006 and 6/18/2007	East of San Augustine at Cassis Drive	32.20	Single-family subdivision (Remaining Lots)

Project/Action	Status *	Location	Acres	Description
The Meadows Subdivision (Remaining Lots)	Approved 7/20/2005 and 5/1/2006	South of Gerard Avenue, West of Barroso Avenue	19.90	Single-family subdivision (Remaining Lots)
Mission Ranch (Remaining Lots)	Approved 2/6/2006 and 12/4/2006	West of G Street, North of Mission Avenue	16.60	Single-family subdivision (Remaining Lots)
Golden Valley Health Centers (Part of Northview)	Approved 2/8/2018	East of Sandpiper Drive, Approximately 200 feet South of Mercy Avenue	1.80	2-Story Medical Office Building
Northview Medical Offices	Approved 8/21/2013	Southeast Corner if Mercy Avenue and Sandpiper Drive	6	Medical Offices (4 Buildings)
PG&E Regional Utility Center	Approved 4/26/2018	Northeast Corner of Childs Avenue and Kibby Road	28	9,100-square-foot Operations Building, 15,400-square-foot Management Office, and 23,500-square-foot Garage/Maintenance Building
Merced Mall Expansion & Redevelopment (Pending)	Pending	Northeast Corner of West Olive Avenue and R Street	52	Mall Expansion in 2 phases, including 50,000-square-foot retail and expanded 72,000-square-foot Theater
Stoneridge South Subdivision	Approved 5/9/2018	Northeast and Northwest Corner of Mission Avenue and la Hambra (extended)	39.70	Single-family subdivision with future 100 Apartments
Bellevue Ranch East Village 16 (Remaining Lots)	Approved 9/25/1996 and 4/17/2006	Northwest Corner of G Street and Mandeville Drive	17.20	Single-family subdivision (Remaining Lots)
Bellevue Ranch East Village 8 (Remaining Lots)	Approved 9/25/1996 and 916/2006	Southwest Corner of G Street and Foothill Drive	8.62	Single-family subdivision (Remaining Lots)
University Park II, Phase 2 Subdivision (Remaining Lots)	Approved 8/6/2003 and 12/5/2005	East of Highway 59 North of Yosemite Avenue	18.98	Single-family subdivision (Remaining Lots)
Sierra Vista Units 2 & 3 (Remaining Lots)	Approved 10/6/2004 and 7/18/2005	East of Coffee Road, North of Childs Avenue	41	Single-family subdivision (Remaining Lots)

Project/Action	Status *	Location	Acres	Description
Bellevue Ranch East Village 14 (Remaining Lots)	Approved 9/25/1996 and 4/7/2006	Northeast Corner of M Street and Arrow Wood Drive	12.40	Single-family subdivision (Remaining Lots)
Moraga Subdivision Phase 1 (Remaining Lots)	Approved 5/4/2005 and 2/21/2006	South of Yosemite between McKee and Lake Road	60	Single-family subdivision (Remaining Lots)
Cypress Terrace East (Remaining Lots)	Approved 3/8/2006 and 9/17/2006	La Mesa Street and Gerard Avenue	19.70	Single-family subdivision (Remaining Lots)
Sandcastle Phase 2 & 3 Subdivision (Remaining Lots)	Approved 4/23/2003, 5/16/2005, and 11/7/2005	Northeast Corner of Gerard Avenue and Coffee Street	40	Single-family subdivision (Remaining Lots)
Cypress Terrance East Phase 4 (Remaining Lots)	Approved 3/8/2006 and 9/17/2006	La Mesa Street and Gerard Avenue	19.70	Single-family subdivision (Remaining Lots)
Tuscany East Subdivision (Remaining Lots)	Approved 2/23/2005 and 3/6/2006	North of Childs Avenue, West of Hartley Lateral	8.60	Single-family subdivision (Remaining Lots)
Shadow Creek at Compass Point (Remaining Lots)	Approved 6/4/2003 and 10/18/2004	North of Yosemite, West of R Street	108.80	Single-family subdivision (Remaining Lots)

Notes:
ac = acre
MID = Merced Irrigation District
SUDP/SOI = 2030 General Plan Specific Urban Development Plan/Sphere of Influence
WWTRF = Wastewater Treatment and Reclamation Facility
Source: City of Merced Planning Division 2018; City of Merced Capital Improvements Program 2018

5.4.3 Methods

The analysis below examines the cumulative impacts of the Program for each of the resource topics analyzed in Chapter 3.0, Environmental Impact Assessment. The cumulative impacts are assessed by adequacy of the 2030 General Plan EIR and looking at the short-term (construction) and long-term (operational) impacts of the Program combined with the impacts of the past and planned projects listed in Table 5.4-2 (collectively referred to as projects).

The following objectives were set forth to analyze the short-term construction and long-term operational cumulative impacts:

1. Identify if the combined impacts of the Program and the projects in Table 5.4-2 are significant. If so,
2. Determine whether the Program's incremental contribution to that significant impact is cumulatively considerable. If so,
3. Determine if mitigation is feasible.

"**Cumulatively considerable"** means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CCR Section 15064(h)(1))

Note: it is possible that even when the cumulative impacts of multiple projects are significant, the incremental contribution of the impact for the Program may itself not be cumulatively considerable (California Code of Regulations [CCR] Section 15064.H4, Communities for Better Environment Case Law). Furthermore, a project's contribution is less than cumulatively considerable if the project implements mitigation measures designed to alleviate the cumulative impact (CEQA Guidelines Section 15130 (a)(3)). In this case, the Program's impact would not be cumulatively considerable.

5.4.4 Resource-Specific Cumulative Analysis

5.4.4.1 Aesthetics and Visual Resources

The 2030 General Plan EIR found the cumulative impact to aesthetic resources from build-out within the SUDP/SOI cumulatively less than significant. For the Program, the geographic scope for potential cumulative impacts to aesthetics and visual resources include foreground views immediately surrounding the Program components, as well as the long-distance views of the Program Study Area. As described in Section 3.1, Aesthetics and Visual Resources, the Program requires very few above-ground elements added to the built environment of homes, roadways, shopping centers, and other buildings and was found to be less than significant with mitigation incorporated to blend above-ground features into the environment. When considered with the projects in the cumulative list (Table 5.4-2) there is a slight potential to affect key views and sensitive aesthetic resources within the Program Study Area. As stated in the 2030 General Plan, many of the projects in Table 5.4-2 would require above-ground facilities and the conversion of undeveloped land to developed, which could result in a substantial changes in the existing visual environment within the Program Study Area. Consistent with the findings of the 2030 General Plan EIR, compliance with general plan policies and standards in conjunction with adopted City regulations would reduce project-level significant impacts, but when combined with the overall growth trends, such as those associated with buildout of the SUDP/SOI, the conversion from agricultural feel to a more urban environment could result in a cumulative significant and unavoidable aesthetic impact. However, given the pace and extent of planned development within the City within the last 20 to 30 years and the timeframe of 2030 General Plan, it is unlikely that there would be a significant conversion of agricultural

lands to urban uses or substantial changes in visual profiles. Thus, the combined visual effects would not be cumulatively significant.

As such, when Program activities are added to the consideration of a potentially significant visual impact, the effects of the Program would have a very limited incremental contribution to the cumulative impacts on aesthetic resources since the mitigation measures described in Section 3.1, Aesthetic and Visual Resources, would restore disturbed areas (mitigation measure [MM] AES-1), set design parameters for above-ground facilities (MM AES-2), and minimize construction and operational lighting (MM AES-3). These measures would reduce any potential contribution from implementation of the Program to any potential significant cumulative aesthetic impacts. Therefore, consistent with the 2030 General Plan EIR analysis, the Program's incremental contribution to aesthetic impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.2 Agriculture and Forestry Resources

The 2030 General Plan EIR found that the cumulative impact to agricultural resources from reasonable build-out within the SUDP/SOI would be cumulatively significant and that new development in conformance with the 2030 General Plan would contribute to these cumulatively significant impacts. For the Program, the geographic scope for potential cumulative impacts to agriculture and forestry resources would include the areas where Program components would be constructed and operated. As discussed in Section 3.2, Agriculture and Forestry Resources, implementation of the Program would occur within existing and proposed rights-of-way (ROW) and would not convert or conflict with these farmlands. All Program components would be consistent with existing agricultural uses and would not result in substantial conversion of agricultural lands. When the new development projects described in Table 5.4-2 occur in combination with the Program, as described in the 2030 General Plan EIR, there would be a significant cumulative effect.

When Program activities are considered for their contribution to the cumulative impact, it is not considered significant because the Program's contribution would be within existing or future road rights-of-ways and would not result in any substantial conversions of agricultural land. Therefore, when considered in addition to the anticipated impacts of other projects in the cumulative scenario, the Program's incremental contribution to agricultural impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.3 Air Quality

The 2030 General Plan EIR found the cumulative impact to air quality resources from reasonable build-out within the SUDP/SOI cumulatively significant and unavoidable. When the Program's contribution to this impact is considered the short term construction-related, and long-term operation-related (regional) emissions of reactive organic gases (ROG), oxides of nitrogen (NO_x), respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$). all factor

into the Program's potential contribution to the cumulative impact. As described in Section 3.3, Air Quality, Ozone and PM_{10} have the potential for severe cumulative concentrations that could result in significant and unavoidable cumulative impacts.

For the evaluation of cumulative impacts, SJVAPCD recommends that lead agencies use the project-level significance standards to determine whether a project's construction or operational emissions of criteria pollutants would have a cumulatively considerable contribution to a significant cumulative impact. Based on this methodology and described in Section 3.3, Air Quality, the Project-level impact of construction emissions associated with construction and operation of the Program would not be cumulatively considerable after implementation of the dust reduction and ozone precursor limiting mitigation incorporated.

Other projects in the cumulative list (Table 5.4-2) would be required to analyze construction emissions in a similar manner and if determined emissions are below the thresholds, would also not be cumulatively considerable. If emissions are above the thresholds, then mitigation would be required to reduce potential cumulative impacts from construction emissions to a less than significant level and would be able to incorporate the 2030 General Plan's EIR's significant and unavoidable cumulative impact into their project. So while, land use development in the Program Study Area and the overall air basin would result in a significant and unavoidable impacts, the Program's contribution would not be significant itself and would not result in a cumulatively considerable incremental increase to a cumulative impact related to air quality.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.4 Biological Resources

The 2030 General Plan EIR found the cumulative impact to biological resources from reasonable build-out within the SUDP/SOI cumulatively less than significant. The projects in Table 5.4-2, similar to the 2030 General Plan discussion, would have the potential to effect special-status species within the Program Study Area that find habitat within the existing intensive urbanization and agricultural uses. As found in the 2030 General Plan EIR, compliance with General Plan policies and standards as well as agency-mandated surveys and project-level mitigation measures would result in a less than significant cumulative impact to biological resources.

As described in Section 3.4, Biological Resources, the Program would avoid or mitigate impacts to sensitive biological resources through its placement in existing and proposed disturbed areas such as road ROWs, the use of trenchless technology for stream crossings, and implementation of mitigation measures. Additionally, the avoidance and mitigation of potential impacts to special status species would not result in a significant contribution to any potential cumulative effect. Therefore, when combined, these projects would not result in a substantial cumulative impact to biological resources. Therefore, the Program would not substantially contribute to an incremental cumulative impact related to biological resources.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.5 Cultural and Tribal Resources

The 2030 General Plan EIR found there was no cumulative impact to cultural resources from reasonable build-out within the SUDP/SOI. The projects in the cumulative list (Table 5.4-2) would have the potential to result in potentially significant impacts to cultural or tribal resources if any of the projects listed in Table 5.4-2 would substantially disrupt or change the significance or importance of any cultural or tribal resources. The projects listed in Table 5.4-2 would be located within fixed locations and would require environmental review and related identification of known cultural resources within their individual footprints. All of these sites would either be located in areas that do not contain significant cultural or tribal resources or would require mitigation to avoid any known resources. Additionally, as part of the stipulations of the permits required for these projects and provided through state and local requirements, any unknown cultural or tribal resources discovered onsite during construction of these projects would require evaluation and subsequent analysis if deemed necessary by an archaeologist, thus preventing any significant impacts to cultural or tribal resources.

As discussed in Section 3.5, Cultural and Tribal Cultural Resources, impacts from the Program would be less than significant with mitigation incorporated. Consistent with the 2030 General Plan EIR, the Program and other projects within the Program Study Area would comply with federal, state, and local laws and regulations protecting cultural resources, including historical resources, and as such, the Program's incremental effect to the combined cumulative effect would not be substantial. Therefore, the Program's incremental contribution to cumulative impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.6 Geology, Soils, and Minerals

The 2030 General Plan EIR found the cumulative impact to geology and soil resources from reasonable build-out within the SUDP/SOI cumulatively less than significant and no cumulative impact to mineral resources. For the Program, as described in Section 3.6, Geology, Soils, and Minerals, construction would involve excavation and grading that would disturb soils and potentially expose them to erosion or topsoil loss.

When combined, projects in the cumulative list (Table 5.4-2) have the potential to result in cumulative impacts to geologic, soil, and seismic conditions if substantial erosion and overall lack of stability of soils occurs from combined actions. In particular, the projects listed in Table 5.4-2 consist of commercial, residential, and infrastructure projects within the Program Study Area and areas immediately adjacent to it. Based on comparison of the project locations, none of the projects listed in Table 5.4-2 would be located in geologic hazard zones or liquefaction, landslide, or Mineral Resource Zones (MRZ). As such, consistent with the 2030 General Plan EIR, impacts associated with geology, soils and seismicity for related projects would not combine to create a greater impact.

The Program's incremental effect to the combined cumulative scenario is not substantial because the Program, along with other projects implemented under the 2030 General Plan and the projects in Table 5.4-2, would meet the policies of the 2030 General Plan along with compliance with federal, state, and local regulations addressing building construction, engineering regulations, and permitting conditions that would restrict the Program's contribution to cumulative significance. These impacts would be site-specific, and when considered together with related projects,

would not combine to create greater cumulative impacts due to geology, soils, seismicity, or paleontological resources. Therefore, the Program's incremental effect to cumulative geology and soils impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.7 Greenhouse Gases and Energy Resources

Cumulative effects of greenhouse gases (GHG) were addressed with the air quality evaluation of cumulative impacts in the 2030 General Plan EIR which found a significant an unavoidable impact to GHGs and looked at energy resources for the plans ability to irreversibly commit energy resources. Relevant to the Program, GHG and energy resources are global and in their very nature cumulative. As discussed in Section 3.6, Greenhouse Gases and Energy Resources, impacts would result in a less than significant impact with mitigation incorporated. Although the Program would involve the use of increased electricity and fuel during construction and operation, it is intended to improve or replace aging wastewater collection system infrastructure with newer, more efficient machinery that would provide reliable future wastewater infrastructure necessary to meet the projected growth of the City's SUDP/SOI service area. For the full analysis of cumulative impacts related to GHGs from the Program, see Section 3.6. The Program's incremental contribution to cumulative GHG and energy impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.8 Hazards, Hazardous Materials, and Wildfires

The 2030 General Plan EIR found the cumulative impact to hazards and hazardous material resources from reasonable build-out within the SUDP/SOI cumulatively less than significant. As the 2030 General Plan evaluated, local, region, state, and federal regulations and policies of the 2030 General Plan would limit the potential cumulative impacts by limiting the risk of exposure to hazardous materials, wastes, safety hazards near airports and airstrips, and wildland fires. When combined, projects in Table 5.4-2 have the potential to generate hazards and hazardous materials or place people at risk from them as identified in Section 3.8, Hazards and Hazardous Materials, this temporary risk of increase in short-duration hazards transport in compliance with governing laws and regulations and mitigation measures, the combined impacts to hazards and hazardous materials within the geographic scope would not be cumulatively significant.

The Program's incremental effect to the combined cumulative impact is also not substantial because the Program would not result in substantial impacts and would not contribute to the worsening of impacts caused overall because of the implementation of the project-level mitigation and compliance with regulations incorporated. Therefore, when considered in addition to the anticipated impacts of other projects and evaluation of cumulative impacts in the 2030 General Plan EIR, the Program's incremental contribution to cumulative hazards and hazardous material impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.9 Hydrology and Water Quality

The 2030 General Plan EIR found the cumulative impact to hydrology and water quality resources from reasonable build-out within the SUDP/SOI cumulatively less than significant for hydrology, water quality, and flooding, but cumulatively significant for groundwater. When combined, projects listed in Table 5.4-2 have the potential to affect surface and groundwater hydrology and water quality within the watershed and groundwater basin. Construction and operation of these projects could introduce sediment and other pollutants to surface waters or groundwater and could impact water quality or disrupt the existing drainage and flood patterns, causing damage to structures or people. These projects, along with projects under the 2030 General Plan, would be required to comply with local and state regulations, such as the Stormwater Pollution Prevention Plan (SWPPP) and best management practices (BMP) to regulate water quality and drainage patterns such that receiving water bodies are not impaired. As a result of adherence to these regulations, the combined effects from the construction and operation related to water quality and surface water drainage would not be considered cumulatively significant.

As described in the 2030 General Plan EIR, groundwater depletion and recharge have the potential for overdraft if not properly managed, resulting in the potential for a significant cumulative impact. With the passage of the Sustainable Groundwater Management Act since certification of the 2030 General Plan EIR, local agencies are addressing this cumulative impact through Groundwater Sustainability Plans. These plans, in conjunction with the implementation of project-specific mitigation measures, would help reduce the impacts within the Program study area to less than cumulatively significant.

The Program's incremental effect to these combined effects is not substantial because the Program would also implement mitigation that would reduce any potential project or cumulative effect to a less than significant level. Additionally, compliance with applicable federal, state, and local regulations described in Section 3.9, Hydrology and Water Quality, would reduce the likelihood of impacts to water quality, drainage, and groundwater management. Therefore, the Program's incremental effect to cumulative hydrology and water quality impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.10 Land Use and Planning

The 2030 General Plan EIR found that there would be no cumulative impact to land use and planning resources from reasonable build-out within the SUDP/SOI. For the Program, impacts involving land use plans or policies and zoning generally would not combine to result in cumulative impacts. The determination of significance for impacts related to these issues as considered in Appendix G of the CEQA Guidelines is whether a project would conflict with any applicable land use plan or policy adopted for the purpose of reducing or avoiding environmental impacts. Such a conflict is site-specific and is addressed on a project-by-project basis. As described in Section 3.10, Land Use and Planning, implementing the Program is consistent with the existing land use designation and zoning, and land use plans and policies and would not result in a significant impact. The Program is also consistent with the 2030 General Plan, and components under the Program would be developed as needed, consistent with approved land use plans,

policies, and zoning. Therefore, the Program would not contribute to any incremental cumulative impacts regarding this issue.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.11 Noise

The 2030 General Plan EIR found the cumulative impact to noise resources from reasonable build-out within the SUDP/SOI less than significant. When combined, with the projects listed in Table 5.4-2 have the potential to result in substantial increases in noise or vibration levels beyond acceptable levels defined by the 2030 General Plan and Merced County Noise Ordinance would occur if multiple noise sources were occurring at the same time. The City would have discretion with approvals of projects that could cumulatively generate noise, and the 2030 General Plan Noise Element has several specific development policies and standards to minimize and mitigate noise impacts. Specifically, the development projects and some of the transportation projects listed in Table 5.4-2 would result in increases in operational noise or vibration, which could result in a cumulatively considerable effect if appropriate design measures and construction noise reduction measures are not taken. Prior to issuance of any building permits for these projects, environmental reviews would be required to determine construction and operational noise levels for nearby sensitive receptors. Permanent or temporary noise and vibration measures (e.g., sound barriers) could be required. All of the projects would be required to show compliance with the 2030 General Plan policies and to ensure combability with surrounding land uses.

The Program's incremental effect to the combined cumulative scenario is not substantial because the Program construction activities would adhere to the existing policies noise regulations and would implement mitigation measures, which would reduce impacts from construction related noise and vibration to a less than significant level. Further, as described in Section 3.11, Noise, because construction of the Program includes largely linear activities and activities away from receptors in rural areas, no single sensitive receptor would be substantially affected by construction noise for extended periods of time. It is unlikely that noise impacts as a result of Program construction activities would occur. Therefore, the Program would not contribute to substantial incremental cumulative impacts related to construction noise or vibration.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.12 Population and Housing

The 2030 General Plan EIR found there would be no contribution to cumulative impact to population and housing from reasonable build-out within the SUDP/SOI. The 2030 General Plan sets forth policies that control and direct growth in a well-planned manner, which would improve jobs and housing opportunities and as a result would not have the potential to result in a significant cumulative impact. The Program would not involve construction or operation of any new residential or commercial uses that would increase population or necessitate the need for housing. The increase in capacity of the wastewater collection system was analyzed based on reasonable build-out identified in the

2030 General Plan and thus would not cumulatively contribute to any effect. Therefore, the Program would not contribute to any incremental cumulative effects related to population and housing.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.13 Public Services and Utilities

The 2030 General Plan EIR found the cumulative impact to public services from reasonable build-out within the SUDP/SOI less than significant, and the 2030 General Pan would not contribute to a significant cumulative impact. The Program would not involve construction or operation of any new residential or commercial uses that would require increased fire or police protection, new parks or schools, or increased demand for wastewater, water, or other public services or utilities. Consistent with the 2030 General Plan, the Program proposes conveyance and treatment wastewater facilities. Therefore, the Program would not contribute to any incremental cumulative effects related to these resources.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.14 Recreation

The 2030 General Plan EIR found there would be no contribution to cumulative impact to recreation from reasonable build-out within the SUDP/SOI. The Program would not involve the construction or operation of any new parks, or demolition or removal of any existing parks. Therefore, it would not contribute to any substantial cumulative effects related these resources. No impact would occur.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.15 Transportation

The 2030 General Plan EIR found there would be a cumulatively considerable impact to transportation and traffic from reasonable build-out within the SUDP/SOI. Senate Bill 375 was passed after the General Plan EIR was published however, as discussed in Section 3.15, Transportation and Traffic, construction would result in a temporary increase of vehicle trips that generate vehicle trips, however these trips are short in duration and temporary in nature. The projects identified in Table 5.4-2 likely have the potential to contribute to the cumulatively considerable impacts identified in the 2030 General Plan; however, the Program's contribution to this impact is not considerable because transportation impacts related to the Program are primarily limited to construction activities, which are temporary and apply project-based mitigation measures as well as comply with local regulations and the 2030 General Plan Circulation element.

Future development in the area would be subject to additional environmental review and determination by the City for potential cumulative impacts related to transportation. Therefore, when considered in addition to the anticipated

impacts of other projects in the cumulative scenario, the Program's incremental contribution to traffic and transportation would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.5 ACRONYMS

ac	acre
BMP	best management practices
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
City	City of Merced
EIR	Environmental Impact Report
GHG	Greenhouse Gases
MID	Merced Irrigation District
MM	mitigation measure
MRZ	Mineral Resource Zone
NOx	Nitrogen Oxides
$PM_{2.5}$	fine particulate matter
PM_{10}	respirable particulate matter
ROG	Reactive Organic Gases
ROW	Right-Of-Way
SJVAPCD	San Joaquin Valley Air Pollution Control District
SUDP/SOI	Specific Urban Development Plan/Sphere of Influence
SWPPP	Stormwater Pollution and Prevention Plan
WWTRF	Wastewater Treatment and Reclamation Facility
2030 General Plan	Merced Vision 2030 General Plan

5.6 REFERENCES

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