

Section 5

Increased Demand for Long-Term Water Supplies

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect increased demand for long-term water supplies.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on long-term water supply is the *2015 Urban Water Master Plan* study area, which includes the City's contiguous service area and the outlying service areas (West Yost Associates 2016). This study area incorporates the entire UAGP planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. The California Water Plan and 2013 update, the 2015 UWMP (West Yost Associates 2016), and the UAGP will be used as the bases for analysis. The study area for cumulative impacts on water supplies is within the Modesto and Turlock groundwater subbasins (the City also provides groundwater to the community of Grayson, located within the Delta-Mendota groundwater subbasin – outside of the study area).

3. Existing Physical Conditions in the Study Area

All municipal and most industrial water service in the Modesto planning area is provided by the City's water supply system. In addition to the City's system, the City owns and operates a number of smaller water systems outside the study area; these serve Salida, Ceres (Walnut Manor), Grayson, Del Rio (Hillcrest), and North, South, and Central Turlock. (As of July 1, 2015, Waterford and Hickman are no longer being served by the City.) The City derives drinking water from a combination of groundwater and surface water sources. In 2015, there were more than 74,500 water service connections with demand for more than 47,000 acre-feet (AF) of water, approximately 900 miles of water transmission and distribution pipelines, 86 operational groundwater wells serving both the contiguous and outlying service areas (77 within the contiguous system), and eight operational water tanks within the study area with a combined storage capacity of 12.1 million gallons (West Yost Associates 2016).

In 1995, the City started receiving up to 30 mgd (33,600 af/yr) of surface water from the Modesto Regional Water Treatment Plant (MRWTP), which draws water from the Tuolumne River watershed area and Don Pedro Reservoir located on the Tuolumne River approximately 50 miles east of Modesto. Under an Amended and Restated Treatment and Delivery Agreement with the City put in place in 2005, the Modesto Irrigation District (MID) owns and operates the MRWTP. The City, in conjunction with MID, expanded its water supply when the MRWTP Phase 2 Expansion became operational (May 2016) with an additional 30 mgd of capacity (total 60 mgd / 67,200 af/yr) to help meet demand north of the Tuolumne River (West Yost Associates 2016). (An acre-foot is approximately 326,000 gallons.)

a. Groundwater

The City's planning area lies at the northern end of the San Joaquin Valley Groundwater Basin and overlies two designated groundwater subbasins that are delineated by geographic and hydrologic features. The Turlock groundwater subbasin encompasses the area south of the Tuolumne River to the Merced River and from the San Joaquin River to the base of the Sierra Foothills. The Modesto groundwater subbasin extends north from the Tuolumne River to the Stanislaus River and east from the San Joaquin River to the base of the Sierra foothills. The Delta-Mendota subbasin underlies the outlying area of Grayson. The groundwater basins are recharged from streamflow infiltration, deep percolation of irrigation water, and rain. Large areas of the county are considered principal groundwater recharge areas, as well.

Both of the groundwater subbasins underlying the City's contiguous service area consist of similar hydrogeologic properties. The groundwater subbasins are composed of three units: (1) a lower aquifer unit (Unit 1) that is confined in the west (beneath Unit 2) and unconfined in the east; (2) a shallow, unconfined aquifer (Unit 2); and, (3) an aquitard, known as the Corcoran Clay, an impervious barrier separating the two aquifers. The Corcoran Clay, which underlies the entire San Joaquin Valley, is generally thickest near the center of the valley and progressively thinner near the edges, with the eastern edge located about three miles east of Modesto. Within the areas where the Corcoran Clay layer is present, most wells are completed in the upper Unit 2 aquifer because water quality is generally better than in Unit 1.

Groundwater Levels

Prior to the original MRWTP becoming operational, extensive pumping of groundwater in and near the study area had resulted in the beginnings of a localized overdraft condition (defined as the extraction of groundwater in excess of its long-term average rate of natural recharge). Groundwater levels in the Modesto subbasin declined on average nearly 15 feet from 1970 through 2000 (Department of Water Resources (DWR) 2004), while average groundwater levels in the Turlock Subbasin declined nearly 7 feet from 1970 through 2000 (DWR 2006b). Groundwater levels in the Delta-Mendota Subbasin declined an average of 2.2 feet from 1970 through 2000 (DWR 2006a). Groundwater levels were locally depressed beneath and around the Modesto urban area, but completion of the Modesto Regional Water Treatment Plant in 1994 and subsequent importation of surface water supplies from the Modesto Irrigation District caused groundwater levels to rebound to some degree (STRGBA 2005). More recent data indicates that from 2007 to 2017 groundwater levels in the Modesto area decreased from 0 to 20 feet, with isolated areas of greater reductions (DWR 2017). Some

of this decrease may be attributable to the recent drought in California, which lasted in its most severe form from roughly 2013-2014, though moderate drought conditions continued for years afterwards in some areas of the state, including in the Modesto area through February 2017. In 2014 in the Central Valley, total groundwater pumping was increased by 5 million acre-feet to partially compensate for a reduction in surface water deliveries to farmers of 6.5 million acre-feet in that year (Stanislaus County 2014). An evaluation conducted by the City in 2007 determined that if the total, long-term average groundwater pumpage quantity is held at or below 53,500 af/yr (the preliminary operational yield), then stable groundwater levels would result at approximately 40 feet msl within and near the City's contiguous service area (West Yost Associates 2016). The City of Modesto and a number of other local, regional, and state agencies are involved in monitoring the groundwater levels in the region.

Groundwater Management Regulations

Stanislaus and Tuolumne Rivers Groundwater Basin Association

In the mid-1990s, in order to provide a forum for coordinating the planning and management activities within their respective subbasins, agencies in the Modesto groundwater subbasin formed the Stanislaus and Tuolumne Rivers Groundwater Basin Association (STRGBA). The STRGBA, an association of six agencies (City of Modesto, Modesto Irrigation District, City of Oakdale, Oakdale Irrigation District, City of Riverbank, and Stanislaus County) developed the *Integrated Regional Groundwater Management Plan for the Modesto Subbasin* (IRGMP) (STRGBA 2005). The IRGMP was developed in compliance with the Groundwater Management Planning Act of 2002 (SB 1938) and the Integrated Regional Water Management Planning Act of 2002 (SB 1672). The overarching goal of the IRGMP is “to provide for the integrated use of groundwater and surface water within the basin to ensure the reliability of a long-term water supply to meet current and future beneficial uses including agricultural, industrial, and municipal water requirements while protecting the environment” (STRGBA 2005). Consistent with SB 1938, the IRGMP contains basin management objectives (BMOs) to meet the purpose and goals of the groundwater management plan.

Since development of the IRGMP, the STRGBA has formed a groundwater sustainability agency (GSA) in compliance with the state's Sustainable Groundwater Management Act (SGMA), which is described below, expanded its STRGBA membership to include the City of Waterford, and become designated as the exclusive GSA for the Modesto Subbasin (STRGBA GSA 2018). In addition, since 2005, the STRGBA has conducted and/or coordinated with groundwater basin management and analysis efforts such as a surface recharge characterization study, USGS Hydrologic Characterization Study, USGS Susceptibility Contamination Study, USGS MERSTAN Groundwater Model development, and two of three planned efforts on Well Field Optimization. The STRGBA is in the process of complying with the SGMA timelines for approval of a groundwater sustainability plan (GSP) by DWR.

Turlock Groundwater Basin Association

Similar to the STRGBA's formation, in 1995, agencies in the Turlock subbasin formed the Turlock Groundwater Basin Association (TGBA), which is a formal group for coordinating groundwater management activities within the Turlock Subbasin. The TGBA is coordinating with two GSAs, which were formed by joint power authorities, to manage the preparation of

a single GSP that will manage groundwater quantity and quality for the entire Turlock Subbasin. The two GSAs in the Turlock Subbasin include the West Turlock Subbasin GSA and the East Turlock Subbasin GSA. Each of the two GSAs consists of multiple agricultural and municipal water agencies, and counties, and is the exclusive GSA for its service area. The West Turlock Subbasin GSA's member agencies include the cities of Turlock, Ceres, Hughson and Modesto, Stanislaus and Merced counties, Denair Community Services District, Delhi and Hilmar county water districts, and the Turlock Irrigation District. Associate members include the City of Waterford (which provides water supplies for the community of Hickman), Stevinson Water District and Keyes Community Services District. All or a portion of the member and associate member agencies' service areas are located within the Turlock Subbasin. The boundary separating the two GSAs is generally the Turlock Irrigation District's eastern irrigation service area boundary. The five members of the East Turlock Subbasin GSA include Eastside and Ballico-Cortez water districts, Merced Irrigation District; and Stanislaus and Merced counties. The existing Groundwater Management Plan (2008) for the Turlock Subbasin presents BMOs and recommended protection measures to meet the TGBA's overall goal to "ensure that groundwater remains a reliable, safe, efficient, and cost-effective water supply for the local area." As mentioned above, the two GSAs and the TGBA are in the process of developing a GSP for the entire Turlock Subbasin.

Sustainable Groundwater Management Act

On September 16, 2014, Governor Edmund G. Brown, Jr., signed the Sustainable Groundwater Management Act (SGMA) (California Water Code Section 10750 et seq.), comprised of three separate bills: AB 1739, SB 1319, and SB 1168. A central feature of SGMA is that it allows local agencies to customize groundwater sustainability plans to their regional economic and environmental conditions and needs (State of California 2015). Among other things, SGMA requires that a groundwater sustainability plan be adopted for high- and medium-priority groundwater basins (127 out of 515 basins and subbasins) in California. SGMA defines sustainable groundwater management as the "use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results," defined as the following (California Water Code Section 1072):

- Chronic lowering of groundwater levels (not including overdraft during a drought if a basin is otherwise managed);
- Significant and unreasonable reduction of groundwater storage;
- Significant and unreasonable seawater intrusion;
- Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies;
- Significant and unreasonable land subsidence that substantially interferes with surface land uses; or,
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

SGMA outlines the following timetable for adoption of groundwater sustainability plans (State of California 2015):

- By 2017, local groundwater sustainability agencies must be identified;

- By 2020, overdrafted basins must be covered by a groundwater sustainability plan, while other high- and medium-priority basins not in overdraft must have plans by 2022; and,
- By 2040, each high- and medium-priority basin must achieve sustainability, although this deadline can be extended ten (10) years for good cause.

CASGEM Basin Prioritization

In 2009, the California State Legislature amended the California Water Code with SBx7-6, which mandates a statewide groundwater elevation monitoring program to track seasonal and long-term trends in groundwater elevations in California (California Water Code Section 10920 et. seq.). Pursuant to this amendment, DWR established the California Statewide Groundwater Elevation Monitoring (CASGEM) Program. The CASGEM Program establishes the framework for regular, systematic, and locally managed monitoring in all of California’s groundwater basins. To facilitate implementation of the CASGEM Program and focus limited resources, as required by the California Water Code, DWR ranked all of California’s basins by priority (high, medium, low, and very low) based on the following factors (California Water Code Section 10933.b):

1. Population overlying the basin;
2. Rate of current and projected growth of the population overlying the basin;
3. Number of public supply wells that draw from the basin;
4. Total number of wells that draw from the basin;
5. Irrigated acreage overlying the basin;
6. Degree to which persons overlying the basin rely on groundwater as their primary source of water;
7. Any documented impacts on the groundwater within the basin, including overdraft, subsidence, saline intrusion, and other water quality degradation; and,
8. Any other information determined to be relevant by DWR.

As mentioned above, DWR’s Final CASGEM Basin Prioritization (DWR 2014) results indicated that 127 of California’s 515 groundwater basins and subbasins are high and medium priority. The Modesto Subbasin is classified as a high-priority basin, with noted impacts of “water quality degradation due to industrial and agricultural practices” (DWR 2014). The Modesto Subbasin is not specifically noted as being in overdraft. The Turlock and Delta-Mendota subbasins are also both classified as high-priority basins, with noted groundwater overdraft issues (DWR 2014).

Regional actions promoted by the IRGMP are expected to advance the following water management strategies:

- Increase local and regional water supply reliability and water use efficiency;
- Promote groundwater recharge and management;
- Support water conservation;
- Implement watershed management programs;
- Promote water recycling;
- Foster conjunctive use;

- Improve water quality; and,
- Improve storm water capture and management.

b. Water Supply and Demand

The City has an available total surface water treatment capacity of 60 MGD (67,200 af/yr) since the Phase 2 expansion at MRWTP has been completed; the MRWTP provides service north of the Tuolumne River.

The City has approximately 86 active groundwater wells to serve the contiguous and outlying service areas. Groundwater extraction and recharge in the three groundwater subbasins that underlie the City’s service areas are shown in Table V-5-1.

Table V-5-1. Groundwater Subbasin Recharge and Extraction Estimates*

Subbasin Name	Natural Recharge (af/yr)	Applied Water Recharge (af/yr)	Groundwater Extraction (af/yr)
Modesto	86,000	92,000	81,000 (urban) 145,000 (ag)
Turlock	33,000	313,000	65,000 (urban) 387,000 (ag)
Delta-Mendota	8,000	74,000	17,000 (urban) 491,000 (ag)
<p>*Estimates are based on information in DWR Bulletin 118 Groundwater Subbasin Descriptions:</p> <ul style="list-style-type: none"> • Modesto Subbasin (last updated February 27, 2004) • Turlock Subbasin (last updated January 20, 2006) • Delta-Mendota Subbasin (last updated January 20, 2006) <p>Source: West Yost Associates 2016 (Table 6-2)</p>			

Total water supply for the City in 2015 was 47,459 AF, with 15,401 AF of Tuolumne River surface water purchased from MID and 32,058 AF pumped from groundwater. Projected water supplies for 2020-2040 during normal water years are shown in Table V-5-2. Projected water supplies for 2020-2040 during single and multiple dry years are shown in Table V-5-3.

Table V-5-2. Projected Water Supplies – Normal Water Year

Source	Projected Water Supply (AF)				
	2020	2025	2030	2035	2040
Surface water (from MID)	44,800	48,533	52,267	56,000	59,733
Groundwater	24,664	26,369	28,073	29,778	31,483
Total	69,464	74,902	80,340	85,778	91,216
Notes: All groundwater volumes are reasonably available volumes. Total right or safe yield of groundwater is 53,500 AF for all years. Source: West Yost Associates 2016 (Table 6-20)					

Table V-5-3. Projected Water Supplies – Single and Multiple Dry Years

Water Year Condition	Projected Water Supply (AF)				
	2020	2025	2030	2035	2040
Normal	69,464	74,902	80,340	85,778	91,216
Single Dry*	69,464	71,991	73,414	74,836	76,258
Multiple Dry**					
First year	69,464	74,902	80,340	85,778	91,216
Second year	70,551	75,989	81,427	81,427	92,304
Third year	71,639	77,077	82,515	87,953	92,012
Fourth year	72,727	78,165	81,026	82,911	84,796
Fifth year	71,707	73,129	74,551	75,974	77,396
Notes: Total right or safe yield of groundwater is 53,500 AF for all years. *A conservative supply condition was used assuming a 61.9-percent reduction in MID treated water supply during a single dry year. **A conservative supply condition was used assuming a 12.4m 24.8, 37.1, 49.5, and 61.9-percent reduction in MID treated water supply during consecutive dry years. Source: West Yost Associates 2016 (Tables 7-8, 7-9)					

The City’s total water demand in 2015 was 47,459 AF, according to the 2015 UWMP (West Yost Associates 2016). The City uses secondary-treated recycled water only for agricultural irrigation of approximately 2,500 acres of fodder and feed crops on City-owned land. Currently, the City does not use recycled water to offset potable water use, nor does it anticipate doing so in the future. Projected water demand for 2020-2040 for normal water years is shown in Table V-5-4. Projected water demand by land use type is shown V-5-5. Projected water demand for 2020-2040 for single and multiple water years is shown in Table V-5-6. Water demand projections were developed based on remaining vacant land assumed to be developed by buildout (estimated at 2050) in the City’s service area.

Table V-5-4. Total Water Demand (AF) by Water Source – Normal Water Year

Source	Projected Water Demand (AF)				
	2020	2025	2030	2035	2040
Potable and raw water	69,464	74,902	80,340	85,778	91,216
Recycled water	0	0	0	0	0
Total	69,464	74,902	80,340	85,778	91,216
Source: West Yost Associates 2016 (Table 4-4)					

Table V-5-5. Total Water Demand (AF) by Land Use Type – Normal Water Year

Land Use Type	Projected Water Demand (AF)				
	2020	2025	2030	2035	2040
Single Family	35,872	38,680	41,488	44,296	47,105
Multi-Family	6,894	7,434	7,974	8,513	9,053
Commercial	11,031	11,895	12,758	13,622	14,486
Industrial	3,993	4,305	4,618	4,931	5,243
Institutional/Governmental	2,175	2,345	2,515	2,685	2,855
Landscape	2,553	2,753	2,953	3,153	3,352
Other (Unmetered water uses)	0	0	0	0	0
Losses	6,946	7,490	8,034	8,578	9,122
Total	69,464	74,902	80,340	85,778	91,216
Source: West Yost Associates 2016 (Table 4-3)					

Table V-5-6. Total Water Demand (AF) – Single and Multiple Dry Water Years

Water Year Condition	Projected Water Demand (AF)				
	2020	2025	2030	2035	2040
Normal	69,464	74,902	80,340	85,778	91,216
Single Dry*	69,464	71,991	73,414	74,836	76,258
Multiple Dry**					
First year	69,464	74,902	80,340	85,778	91,216
Second year	70,551	75,989	81,427	81,427	92,304
Third year	71,639	77,077	82,515	87,953	92,012
Fourth year	72,727	78,165	81,026	82,911	84,796
Fifth year	71,707	73,129	74,551	75,974	77,396
Notes: *Demand reductions required to match available supply during a single dry year: 2020 – 0%; 2025 – 4%; 2030 – 9%; 2035 – 13%; 2040 – 16%. **Demand reductions between 1% and 20% were required to match available supply during third, fourth, and fifth consecutive dry years. Source: West Yost Associates 2016 (Table 7-9)					

Water consumption in the City of Modesto fluctuates seasonally with demand being lowest in the winter and highest in the summer. The City developed the *2015 Urban Water Management Plan (UWMP)* (West Yost Associates 2016). The 2015 UWMP identifies existing and long-term water supply sources and describes the supply and conservation management programs for a 20-year planning timeframe. Based on the projected city population and daily per capita water use, the 2015 UWMP shows water demands in five-year increments for the 20-year planning horizon. Also described in the UWMP is the City’s three stage Water Shortage Contingency Plan that ranges from a ten to 50 percent target reduction of a normal year (the City has been in Stage I restrictions continuously since 2003). Each stage of the drought contingency plan allows the City to implement more restrictive water rationing, ranging from relatively simple mechanisms (e.g., outdoor watering restrictions, requiring leaks to be fixed, reducing restaurant water use, requiring positive shutoff and low-flow water fixtures) to very restrictive measures (e.g., mandatory system retrofitting requirements and imposing moratoriums on new construction). The total estimated quantity of water supply available for future demands under the UAGP varies depending on the assumptions about the future availability of surface water and groundwater supplies and management actions undertaken for water conservation. According to the City’s 2011 SB X7-7 analysis, baseline daily per capita water use over the 10-year period from 1999 to 2008 was 285 gallons per capita per day (GPCD); the 5-year baseline daily use during 2003 to 2007 was 279 GPCD. These are essentially the same as the baselines identified in the 2010 UWMP (285 GPCD for the 10-year average and 278 GPCD for the 5-year average). As required by SB X7-7, the City identified a 2015 (interim) water use reduction of ten percent to 256 GPCD, and a 20 percent reduction to 228 GPCD by 2020.

The City has implemented a number of improvements and maintenance programs in recent years to increase the system's overall efficiency by reducing water system losses (the difference between the actual volume of water treated and delivered into the distribution system and the actual metered consumption). Such losses generally result from leaks in the distribution system, unauthorized connections or use, faulty meters, unmetered services, and system or street flushing. The estimated annual water loss for the 12-month period beginning in January 2015 was 4,746 AF. The City is implementing a citywide metering system that will enable more effective tracking of water losses; the retrofit program is expected to be completed in 2020. (This work is mandated by State law and must be complete by 2025.) Until that program is complete, system losses are assumed to be approximately 10% of the City's total water production.

The 2015 UWMP indicates that the City's normal year, single dry year, and multiple dry year supplies are adequate to meet projected demand through 2040 with water conservation (West Yost Associates 2016).

c. Water Distribution Facilities

The City currently owns and operates approximately 900 miles of water pipelines throughout the entire study area. The water system consists mostly of six- and eight-inch pipelines emanating from a grid of ten- and 12-inch pipes. The City also has eight operational at-grade storage tanks with a total storage capacity of 12.1 million gallons. Each storage tank has a booster pump station to pump water from the tank into the distribution system.

The City's maintenance program includes routine system flushing, pump maintenance, efficiency testing, water quality testing, and exercising valves. The City has made numerous connections between the former Del Este Water Company facilities and Modesto distribution system to improve water pressure and circulation.

4. Existing Policies Applying to the Study Area

Below is a comprehensive list of major federal, state and local (County and City) policies and summary of policies in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area would potentially need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also describes the circumstances under which the Master EIR analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Water Supply policies are designated as WS-*X*, where *X* is the discrete number).

a. Federal Policies

Section V-10, *Flooding and Water Quality*, provides a discussion of federal policies related to drinking and surface water quality. Policy FWQ-2 in that section addresses the federal Clean Water Act.

b. State Policies

Section V-10, *Flooding and Water Quality*, provides a discussion of state policies related to drinking and surface water quality. Policy FWQ-4 addresses permitting programs under the National Pollutant Discharge Elimination System and Waste Discharge Requirements established under the state Porter-Cologne Act to protect water quality in surface waters. Additional state policies related to water supplies are provided below.

WS-1: Chapter 3, Division 1, of the California Water Code contains provisions that allow public and private agencies that provide water for municipal uses to implement drought water conservation programs. Such measures include encouraging water conservation through higher unit charges for higher uses, installation of water meters, and requiring installation of reasonable water-saving and water-reclamation devices for new services. (The City is currently installing water meters to meet California law.)

WS-2: The Urban Water Management Planning Act (Water Code Sections 10610 et seq.) requires preparation of an UWMP by any public or private entity that provides municipal water service to more than 3,000 customers or delivers more than 3,000 af/y. The UWMP describes and evaluates reasonable, practical, and efficient uses of the entity's water supplies, including reclamation and conservation activities.

State law requires early consultation between cities and counties and affected water agencies when specific plans are adopted or when amendments or revisions to the Land Use Element of the UAGP are proposed that would result in a net increase in the stated population density or building intensity. The city or county must request from affected water agencies a determination of whether the projected water demand associated with the proposed project was included in their last UWMP and whether its total projected water supplies available during normal, single-dry, and multiple-dry years as included in the 20-year projection contained in their UWMP will meet the projected water demand associated with the proposed project, in addition to the water agency's existing and planned future uses. If the lead agency determines that water supplies will not be sufficient, the lead agency must include that determination in its project findings.

WS-3: The Sustainable Groundwater Management Act (SGMA) (California Water Code Section 10750 et seq.), comprised of AB 1739, SB 1319, and SB 1168, allows local agencies to customize groundwater sustainability plans to their regional economic and environmental conditions and needs (State of California 2015). Among other things, SGMA requires that a groundwater sustainability plan be adopted for high- and medium-priority groundwater basins (127 out of 515 basins and subbasins) in California. SGMA also requires, by June 30, 2017, the formation of locally-controlled groundwater sustainability agencies (GSAs) in the State's high- and medium-priority groundwater basins and subbasins (basins). A GSA is responsible for developing and implementing a groundwater sustainability plan (GSP) to meet the sustainability goal of the basin to ensure that it is operated within its sustainable yield, without causing undesirable results. The GSP Emergency Regulations for evaluating GSPs, the implementation of GSPs, and coordination agreements were adopted by DWR and approved by the California Water Commission on May 18, 2016.

- WS-4:** The State Water Resources Control Board's (SWRCB's) Division of Drinking Water Quality is responsible for ensuring that the municipal water distribution systems are designed and constructed in compliance with Title 22 of the California Code of Regulations (CCR), California Waterworks Standards.

c. Stanislaus Local Agency Formation Commission Policies

- WS-5:** Stanislaus Local Agency Formation Commission (LAFCo) oversees the annexation of unincorporated lands into city limits. Prior to annexation, the applicant is required to show that the areas will have adequate water services. LAFCo develops and determines the sphere of influence of each local government agency within the County, including the present capacity for public facilities such as water supply. LAFCo discourages urban sprawl, which can best be described as irregular and disorganized growth occurring without apparent design or plan. This pattern of development is characterized by the inefficient delivery of important urban services, such as water supply.

Adopted LAFCo policies include the requirement that a plan for service be prepared and submitted by the local agency being affected by the proposed annexation. The plan of service must include information that the range and level of services currently available within the existing boundaries will be at least maintained in the proposed annexation area. Annexations which reduce the existing levels of service will not be approved by the LAFCo.

When determining spheres of influence for cities and special districts, LAFCo must conduct a service review of the municipal services provided in an area, as determined by the LAFCo. The municipal services review (MSR) is a comprehensive review of all the agencies that provide the service within the identified area. Typical municipal services include police, fire, sewer, water, and storm drainage services. When conducting the MSR, the LAFCo must prepare a written statement of its determinations with respect to the factors identified in Government Code Section 56430. The factors that must be considered include growth and population projections; present and planned capacity of public facilities and adequacy of public services, including infrastructure needs and deficiencies; financial ability of agencies to provide services; status of, and opportunities for, share facilities; and accountability for community service needs, including governmental structure and operational efficiencies.

d. Stanislaus County Policies

- WS-6:** Urban development shall be discouraged in areas with growth-limiting factors such as high water table or poor soil percolation, and prohibited in geological fault and hazard areas, flood plains, riparian areas, and airport and private airstrip hazard areas unless measures to mitigate the problems are included as part of the application. (Land Use Element, Goal One, Policy Four)
- WS-7:** Future growth shall not exceed the capabilities/capacity of the provider of services such as sewer, water, public safety, solid waste management, road systems, schools, health care facilities, etc. (Land Use Element, Goal Four, Policy Twenty-Four)
- WS-8:** Protect groundwater aquifers and recharge areas, particularly those critical for the replenishment of reservoirs and aquifers. (Conservation / Open Space Element, Goal Two, Policy Five)

- WS-9:** New development that does not derive domestic water from pre-existing domestic and public water supply systems shall be required to have a documented water supply that does not adversely impact Stanislaus County water resources. (Conservation / Open Space Element, Goal Two, Policy Seven)
- WS-10:** Promote the use of water reservoirs for multiple recreational purposes, where appropriate. (Conservation / Open Space Element, Goal Four, Policy Thirteen)

e. City of Modesto Policies

The UAGP provides the following policies related to water supplies.

- WS-11:** Each Specific Plan should be accompanied by a long-range financing strategy that provides reasonable estimates of the costs of on- and off-site infrastructure to support the proposed development pattern. The strategy should generally address public facility funding, including schools, for any development project that serves to implement the subject Specific Plan. If new public facilities are required that will also serve the broader community, the Specific Plan should include options for broad-based funding mechanisms. Each Specific Plan should address the need to provide water, wastewater and storm drainage infrastructure, in the context of the required Facilities Master Plan and Infrastructure Master Plan (prepared at developer's expense). (UAGP Policy III.I.4)
- WS-12:** Implement the demand management and conservation measures identified in the City's adopted Urban Water Management Plan (UWMP). During review of development proposals, require that all developments reduce their potable water demand. Refer to the UWMP for potential techniques to reduce potable water demand. (UAGP Policy VI.A.1)
- WS-13:** Require water infrastructure master plans for public infrastructure and/or when otherwise pertinent to provision of water service at adopted service levels for the specific plan areas or other projects depending on site issues and location. (UAGP Policy VI.A.2)
- WS-14:** All new connections to the public water system are to have meters installed. In addition, on or before January 1, 2025, all existing municipal and industrial service connections are to have water meters installed. (UAGP Policy VI.A.3)
- WS-15:** Any local public or private entity that produces recycled water, and determines that within ten (10) years it will provide recycled water within the boundaries of the City of Modesto, must notify the City of that fact. Within 180 days of receipt of the notice, the City of Modesto should adopt and enforce a specified recycled water ordinance, which is to comply with the City of Modesto's UWMP. (UAGP Policy VI.A.4)
- WS-16:** For properties outside the City limits and sewer district boundaries, and for properties outside the City limits, but inside of, contiguous to, and/or near the former service area of Del Este Water Company, the extension of water service may be approved by the City Manager per City Council Policy 5.001, as amended. (UAGP Policy VI.A.5)
- WS-17:** Prepare and adopt an Urban Water Management Plan every five (5) years in accordance with State law (Water Code). (UAGP Policy VI.B.1)

- WS-18:** Prepare and maintain a Water Master Plan. Update the Water master plan, as needed, to incorporate changes in growth projections, water supplies, and demands. (UAGP Policy VI.B.2)
- WS-19:** Encourage the optimum beneficial use of water resources within the City. The City shall strive to maintain an adequate supply of high-quality water for urban uses. At a minimum, potable water supplies delivered to water customers shall conform to the primary maximum contaminant levels as defined in State law. (UAGP Policy VI.B.3)
- WS-20:** Strive to stabilize groundwater levels and minimize groundwater overdraft, as part of a conjunctive groundwater / surface water management program. View regional water resources, such as groundwater, surface water, and recycled wastewater, as an integrated hydrologic system when developing water management programs. (UAGP Policy VI.B.4)
- WS-21:** Construct, operate, maintain, and replace water infrastructure facilities in a manner that will provide the best possible service to the public. Ensure that infrastructure is installed before or concurrently with development. Take a comprehensive approach to financing, using a blend of special taxes, benefit assessments, and other methods to ensure that infrastructure installation occurs in a timely manner. (UAGP Policy VI.B.5)
- WS-22:** Continue to establish guidelines, policies, and programs to implement water conservation to the maximum extent feasible. Funding for large conservation rebate or exchange programs should be maintained and enhanced. Strive to maximize the utilization of water resources when developing and implementing the City's Economic Development Strategy. (UAGP Policy VI.B.6)
- WS-23:** Implement Local Basin Management Objectives discussed in the Integrated Regional Groundwater Management Plan, or the management objectives in the most recent groundwater sustainability plan, which relate to the specific approaches to water management goals including groundwater supply, groundwater quality, and protection against inelastic land surface subsidence. (UAGP Policy VI.C.1)
- WS-24:** Develop and implement a water recycling program to reduce the demands for new water supplies in the City and subbasins. (UAGP Policy VI.C.2)

Based on the City's 2015 Water Shortage Contingency Plan, the UWMP identifies the following approaches related to water conservation and shortages (drought). Water shortage stages are defined as follows: Stage I is a 10-20 percent reduction, Stage II is a 20-35 percent reduction, Stage IIA is a 30-40 percent reduction, and Stage III is a 35-50 percent reduction.

- Prohibitions on end uses to limit specific uses of water (based on the City's 2015 Drought Contingency Plan):
 - Landscape
 - Limit landscape irrigation to specific times
 - Stage I, prohibit outdoor water use from 12:00 noon to 7 p.m. (however, may be extended to 9 a.m.-7 p.m. at Council discretion)
 - Stage II, prohibit water use from 9 a.m. to 7 p.m.
 - Limit landscape irrigation to specific days
 - Stage I, limit to no more than three days per week
 - Stage II, limit to no more than two days per week

- Stage IIA, limit to no more than one day per week
- Prohibit certain types of landscape irrigation
 - Stage III, no outdoor water use except for trees or shrubs by hand and vegetation maintained through drop irrigation
- Prohibit all landscape irrigation
 - Stage III, moratorium on all new landscaping
- Other landscape restriction or prohibition
 - Stage I, new landscaping must comply with existing and future landscape ordinances
 - Stage II, no irrigating turf or ornamental landscaping during or/and 48 hours following measurable rainfall
- Commercial, Industrial, and Institutional
 - Lodging establishments must offer opt-out of linen service (Stage II)
 - Restaurants may only serve water upon request
 - Stage I, encouraged only
 - Stage II, mandatory
 - Other restrictions or prohibition
 - Stage III, moratorium on all new connections
- Water Features
 - Restrict water use for decorative water features, such as fountains
 - Stage II, no use of outdoor fountains except for maintenance purposes
 - Other water feature or swimming pool restrictions
 - Stage III, moratorium on all new swimming pools
- Other
 - Stage I – customers must repair leaks, breaks, and malfunctions in a timely manner (water leaks, once identified by homeowner, must be repaired within 24 hours); require automatic shutoff of hoses; prohibit use of potable water for washing hard surfaces (hosing concrete areas, building exteriors, etc., is prohibited except for health and safety concerns)
 - Stage III – prohibit vehicle washing except at facilities using recycled or recirculating water
- Other
 - Stage I – Car washing limited to specific times and days (same as irrigation use); require water meter installation on all new single-family homes
 - Stage II – Mandatory retrofit of low flow showerheads in homes when building/remodeling occurs

- Stage III – Mandatory retrofit of low flow toilets in homes when building/remodeling occurs
- Enforced through penalties for excess water use (administrative fees, fines), as required by California Water Code Section 10632(a)(6)
- Consumption reduction methods to reduce water demand:
 - Expand public information campaign;
 - Improve customer billing;
 - Offer water use surveys;
 - Provide rebates on plumbing fixtures and devices;
 - Provide rebates for landscape irrigation efficiency;
 - Decrease line flushing;
 - Increase water waste patrols;
 - Reduce system water loss; and,
 - Moratorium or net zero demand increase on new connections.

As described above, the City has worked with other local stakeholder agencies to formulate groundwater management plans pursuant to SGMA. A draft GMP was prepared for the Turlock Groundwater Basin and a draft IRGMP was prepared for the Stanislaus and Tuolumne Rivers Groundwater Basin. Groundwater management plans are developed to address identification and management of wellhead protection and recharge zones, regulation of migration of contaminated groundwater, control of saline intrusion, administration of well abandonment, mitigation of overdraft, replenishment of groundwater, monitoring of groundwater levels and storage, facilitation of conjunctive use operations, administration of local groundwater cleanup projects, development of relationships with state and federal regulatory agencies, and review and coordination of land-use plans. Both the STRGBA and TGBA are initiating preparation of GSPs that will be completed by 2022.

5. Policies That Reduce or Avoid Impacts

The policy reference numbers are listed, and the full text of these policies is found in Section A-4 above, *Existing Policies Applying to the Study Area*.

a. State Policies

As stated above, Section V-10, *Flooding and Water Quality*, provides a discussion of state policies related to drinking and surface water quality. Additional state policies related to water supplies are described in WS-1 through WS-4 above.

The State implements permitting programs under the National Pollutant Discharge Elimination System and Waste Discharge Requirements established under the Porter-Cologne Act to protect water quality in surface waters. These programs are summarized in FWQ-4 in Chapter VII, *Flooding and Water Quality*.

Chapter 3, Division 1, of the California Water Code contains provisions that allow public and private agencies that provide water for municipal uses to implement drought water conservation programs. These policies are summarized in WS-1.

b. Stanislaus LAFCo Policies

LAFCo annexation policies require the provision of water supply to areas annexing into the City. These policies are summarized in WS-5.

c. Stanislaus County Policies

The Land Use and Conservation / Open Space Elements of the County General Plan contain policies to ensure that an effective level of service for water supplies is provided in unincorporated areas; protect groundwater aquifers and recharge areas; and promote use of water reservoirs for recreational uses. These policies are summarized in WS-6 through WS-10.

d. City of Modesto Policies

City Policies WS-11 through WS-24, above, have been determined to reduce, avoid, or mitigate environmental impacts within the UAGP boundary. In addition, the City has adopted the Turlock Groundwater Basin Management Plan and the Tuolumne and Stanislaus Rivers' Groundwater Basin Management Plan in cooperation with other stakeholder agencies. Also, the City requires all new development to minimize impervious surfaces and maximize infiltration of rainwater in soils, where appropriate (Policy VI.F.5).

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT IMPACTS

The following information is provided in accordance with State CEQA Guidelines 15126.2.

1. Thresholds of Significance

Appendix G of the state CEQA Guidelines is a sample checklist for assessing potential impacts. It offers the following broad suggestions for impact assessment related to water supplies. Would the project:

- a. substantially deplete groundwater supplies or interfere with groundwater recharge;
- b. require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- c. exceed existing water supply entitlements or require expansion of entitlements?

In addition, the City of Modesto has determined that the UAGP would have a significant impact on long-term water supplies if development were to result in water demand that exceeds the capacity for recharge, or that will contribute to overdraft of the groundwater basins.

2. Significant Direct Impacts

a. Baseline Developed Area, Planned Urbanizing Area, and Downtown Area

Substantially Deplete Groundwater Supply or Interfere with Recharge

Future development consistent with the UAGP would result in a population of approximately 390,000. This additional urban development would increase the amount of impervious surface areas, which could potentially restrict the amount of natural groundwater recharge from rainfall and thereby further exacerbate problems associated with declining groundwater levels.

With respect to groundwater usage, the UAGP predicts increased groundwater usage over time. The UAGP was developed in consideration of the operating yield of the Modesto and Turlock groundwater sub-basins. This operating yield was calculated to better manage the groundwater basin in consideration of estimates of annual recharge and pumping activities, and to prevent lowering of the groundwater table. Therefore, by design, development under the UAGP should not substantially lower the overall basin-wide level of water or the capacity of the groundwater basins. For these reasons, this impact is considered less than significant.

The City is a participant in the GSAs that have been formed for the Modesto and Turlock subbasins. Both GSAs are currently developing GSPs per the requirements of SGMA. The City, along with other agencies or private entities, will implement the recommendations of the GSP, when available, in accordance with SGMA.

Require or Result in the Construction of New Water Treatment Facilities or Expansion of Existing Facilities, the Construction of Which Could Cause Significant Environmental Effects

The projected future population of 390,000 and associated water demand would be mostly served through surface water supplies, which would require treatment prior to use. The MRWTP has already been expanded from 30 mgd to 60 mgd to accommodate this. In addition, the City has a Water Shortage Contingency Plan that is discussed in detail in the UWMP, which identifies the necessary steps to take in the event of a water shortage. Conservation measures identified in the Water Shortage Contingency Plan are tied to the level of severity of any water shortage and are enforceable. In addition, completion of the City's metering program will ultimately decrease the amount of per capita water use and water system losses through improved monitoring, which could substantially reduce the need to develop additional water sources. All of these factors limit the extent to which new or expanded water treatment facilities would be needed. This, in combination with UAGP policies, would ensure that the City would not require or result in the construction of new water treatment facilities or expansion of existing facilities that could cause significant environmental effects.

In conclusion, as described in the 2015 UWMP, the City has sufficient water supply to meet demand in normal, single dry, and multiple dry water years through 2040 with water conservation. Therefore, potential impacts related to the need for new water treatment facilities or expansion of existing facilities are considered less than significant.

Exceed or Require Expansion of Existing Water Supply Entitlements

As described in the 2015 UWMP, the City uses a conjunctive water use strategy involving treated surface water supplies from MID and local groundwater supplies from the City's wells to provide the City with flexibility in its water supply system. The City has a number of groundwater supply management programs and infrastructure projects to ensure long-term function of its wells and availability of its groundwater supplies, as described in the City's Water Master Plan. Specifically, the City implements groundwater management activities, a groundwater aquifer storage and recovery program, proposed wellhead treatment activities, and well replacement or development projects that would allow for use of the existing groundwater supply entitlements. In conclusion, as described in the 2015 UWMP, the City has sufficient water supply to meet demand in normal, single dry, and multiple dry water years through 2040 with water conservation. As a result, no new or expanded water supply entitlements would be needed. There would be no impact.

b. Impacts Related to Water Distribution Facilities

The projected City population would require development of additional groundwater wells, and construction of additional water distribution and treatment facilities including water storage tanks, pipelines, wells, and pump stations. An EIR is currently being developed for planned capital improvement projects for the City's Water Master Plan (referred to as the "Water Master Plan EIR"). Regardless of the Water Master Plan EIR that is currently underway, the UAGP amendment includes policies that would reduce impacts from construction of new water distribution facilities. Impacts associated with the potential construction of these facilities are considered as part of the programmatic development and construction impact discussions in various resource sections of this EIR (e.g., Aesthetics; Air Quality; Biological Resources, Hydrology and Water Quality; and Noise.). Specifically, certain policies listed in Chapter VII, Section H of the proposed UAGP amendment (VII-H.2.h and VII-H.2.m) would reduce air quality impacts. Implementation of policies SWPH-12, SWPH-13, and policies in Table V-7-1 in Section V-7 of this Master EIR, would reduce biological resources impacts. Implementation of UAGP policies VII.F-2.f, VII.F-2.h, VII.F-2.j, VII.F-2.k, VII.F-2.l, and VII.F-2.m would reduce cultural resources impacts associated with construction of new or expanded water storage and distribution facilities. General Plan policies VII.L.g, VII.L.h, and VII.L.i would address potential flooding hazards. General Plan policies VII.G-2.a, VII.G-2.b, VII.G-2.f and VII.G-2.g would minimize construction and operational noise impacts, and VII.G-2.o would minimize construction vibration effect. Therefore, impacts of these facilities are generally addressed in this EIR and the facilities would be subject to the applicable policies, any mitigation measures and impact conclusions in the respective resource chapter. To the extent that a particular future improvement presents potential additional impacts than analyzed in this EIR, then project-specific environmental documentation would be prepared in compliance with any CEQA requirements.

3. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects, whether the project will make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less than significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether there exists a cumulatively significant effect in the given resource area. If so, it determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair-share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines.)

The population of Stanislaus County is projected to increase at a rate similar to Modesto. The California Department of Finance (DOF) estimates that the county population, approximately 540,200 persons in 2016 (California Department of Finance 2016a), will reach approximately 681,703 persons by 2035 (California Department of Finance 2016b). This will result in substantial additional demands on the available water supplies.

a. Cumulative Depletion of Groundwater Supplies or Interference with Groundwater Recharge

As described above, impacts to water supplies could occur from increased groundwater extraction in Stanislaus County due to projected population growth described above. Although SGMA requires groundwater basin management and planning efforts, which are underway in the region, the resulting plans are not required to be in effect until 2022. In the meantime, development and groundwater extraction may continue at a level that results in overdraft. This would be a significant cumulative impact.

Pumping by other entities is outside of the City's control. However, the UAGP was developed in consideration of the operating yield of the Modesto and Turlock groundwater sub-basins. The operating yield was calculated to better manage the groundwater basin in consideration of estimates of annual recharge and pumping activities, and to prevent lowering of the groundwater table. As noted above, the City is a participant in the GSAs that have been formed for the Modesto and Turlock subbasins. The GSAs are being developed per the requirements of SGMA. The City will implement recommendations of the GSP to ensure that its contribution to significant cumulative groundwater impacts would not be considerable.

b. Cumulative Impacts from the Construction of New Water Treatment Facilities or Expansion of Existing Facilities, the Construction of Which Could Cause Significant Environmental Effects

Cumulative impacts related to construction of new water treatment facilities or expansion of existing facilities at the MRWTP could occur in the event that MID's water demands are higher than what was projected in the UWMP and trigger the need for additional water treatment facilities. This would be a significant cumulative impact.

However, as described above, the recently expanded MRWTP, which has capacity to treat 60 mgd, would be able to accommodate the City's projected water supply demands through 2040. The City also has a Water Shortage Contingency Plan that identifies necessary steps and conservation measures to take in the event of a water shortage. As such, the UAGP's contribution to cumulative impacts regarding construction of new water treatment facilities would not be considerable.

c. Cumulative Exceedance of Existing Water Supply Entitlements or Expansion of Entitlements

Cumulative impacts to water supplies could occur from potential exceedance of water supply entitlements or expansion of entitlements in Stanislaus County, given the extent of projected population growth described above. Each water provider would be required to obtain sufficient water supply entitlements to accommodate the demand within its service area, a process that would involve negotiation with the SWRCB and other water right holders. This would be a significant cumulative impact.

As described in the 2015 UWMP, the City has sufficient water supply to meet demand in normal, single dry, and multiple dry water years through 2040 with water conservation. In addition, the City has a long-term water agreement with MID, which has sufficient entitlements to serve the estimated growth considered in the UAGP. As a result, the UAGP would not make a considerable contribution to this cumulative impact, and this impact is less than significant.

d. Cumulative Impacts Related to Water Distribution Facilities

As described above, construction of various capital improvement projects necessary to address projected growth in the City's UAGP planning area and the cumulative study are currently being addressed in the Water Master Plan EIR. The majority of water distribution improvements are needed to accommodate projected water supply demands of the City of Modesto.

Although the Water Master Plan EIR is currently underway, policies described throughout the UAGP would minimize construction and operational impacts associated with WWMP improvements. Specifically, policies VII-H.2.h and VII-H.2.m listed in Chapter VII, Section H of the proposed UAGP amendment would reduce air quality impacts. Implementation of

policies SWPH-12, SWPH-13, and policies in Table V-7-1 in Section V-7 of this Master EIR, would reduce biological resources impacts. Implementation of UAGP policies VII.F-2.f, VII.F-2.h, VII.F-2.j, VII.F-2.k, VII.F-2.l, and VII.F-2.m would reduce cultural resources impact associated with construction of new or expanded water distribution facilities. General Plan policies VII.G-2.a, VII.G-2.b, VII.G-2.f and VII.G-2.g would minimize construction and operational noise impacts, and VII.G-2.o would minimize construction vibration effect. As such, impacts of these facilities are generally addressed in this EIR and the facilities would be subject to the applicable policies, any mitigation measures and impact conclusions in the respective resource chapter. To the extent that a particular future improvement presents potential additional impacts than analyzed in this EIR, then project-specific environmental documentation would be prepared in compliance with any CEQA requirements. By complying with the policies contained in the UAGP and this Master EIR, the project's contribution to significant cumulative impacts related to expansion of existing facilities would not be considerable.

C. POLICIES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with State CEQA Guidelines Section 15126.4.

1. Policies That Reduce Direct Impacts

Policy VI.A.1 of the UAGP requires implementation of the Demand Measurement and Conservation Measures identified in the UWMP. The 2015 UWMP identifies measures from the Water Shortage Contingency Plan that would reduce water usage during identified water shortages. State, County, LAFCO, and UAGP Policies (WS-11 through WS-24) would contribute to avoidance or reduction of water supply impacts. These policies would reduce impacts to a less-than-significant level. No policies or mitigation measures are available to fully avoid the potential for significant impacts related to groundwater overdraft, so this remains a significant and unavoidable impact.

As described above, an EIR is currently being prepared for the City's WMP. Complying with the following policies contained in the UAGP and Master EIR would reduce environmental impacts associated with constructing new or expanded water distribution facilities:

- Policies VII-H.2.h and VII-H.2.m listed in Chapter VII, Section H of the proposed UAGP amendment would reduce air quality impacts.
- Policies SWPH-12, SWPH-13, and policies in Table V-7-1 in Section V-7 of this Master EIR would reduce biological resources impacts.
- UAGP policies VII.F-2.f, VII.F-2.h, VII.F-2.j, VII.F-2.k, VII.F-2.l, and VII.F-2.m would reduce cultural resources impact associated with construction of new or expanded wastewater treatment facilities.
- UAGP policies VII.G-2.a, VII.G-2.b, VII.G-2.f and VII.G-2.g would minimize construction and operational noise impacts, and VII.G-2.o would reduce vibration impacts.

2. Policies That Reduce Cumulative Impacts

The adopted policies of the State, Stanislaus LAFCo, the Stanislaus County General Plan, and the UAGP listed in Section VI.A would contribute to reducing cumulative impacts on water supply entitlements to a less-than-significant level during normal, single dry, and multiple dry years. In addition, compliance with the following policies would ensure that environmental impacts associated with constructing new or expanded wastewater treatment facilities are reduced:

- Policies VII-H.2.h and VII-H.2.m listed in Chapter VII, Section H of the proposed UAGP amendment would reduce air quality impacts.
- Policies SWPH-12, SWPH-13, and policies in Table V-7-1 in Section V-7 of this Master EIR would reduce biological resources impacts.
- UAGP policies VII.F-2.f, VII.F-2.h, VII.F-2.j, VII.F-2.k, VII.F-2.l, and VII.F-2.m would reduce cultural resources impact associated with construction of new or expanded wastewater treatment facilities.
- UAGP policies VII.G-2.a, VII.G-2.b, VII.G-2.f and VII.G-2.g would minimize construction and operational noise impacts, and VII.G-2.o would reduce vibration impacts.

Implementing the above-referenced policies would minimize the environmental impacts associated with constructing new water distribution facilities necessary as new growth and development envisioned by the UAGP occurs. To the extent that a particular future improvement presents potentially greater environmental impacts than analyzed in this EIR, then project-specific environmental documentation would be prepared in compliance with any CEQA requirements. Complying with the above-referenced policies during construction of future water distribution infrastructure projects would ensure that cumulative impacts associated with the UAGP amendment are not considerable.

D. MONITORING POLICIES THAT REDUCE IMPACTS

The following information is provided in accordance with PRC Section 211081.6. The policies identified in this Master EIR have been drawn from the proposed UAGP amendment, and they are implemented by that plan. City staff provides the City Council with an annual report on UAGP implementation; therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

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