Chapter 17—Utilities and Service Systems

17.1 Introduction

This chapter describes existing conditions (environmental and regulatory) of utilities and service systems and assesses the potential of the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (proposed MTP/SCS) to affect utilities and service systems within the MTP/SCS plan area. This chapter evaluates potential impacts on utilities and service systems that may result from implementation of the proposed MTP/SCS. Where necessary and feasible, mitigation measures are identified to reduce these impacts.

The information presented in this EIR chapter is based on review of existing and available information and is regional in scope. Data, analysis and findings provided in this chapter are programmatic rather than project-specific. This document is appropriate for general policy planning and to use for tiering in preparation of subsequent environmental documents; however, site-specific, project-level evaluations may be necessary to determine future project-level environmental effects and appropriate mitigation measures. Once certified, this EIR may be used to streamline CEQA compliance for those projects listed in the Preferred Scenario Project List as well as the anticipated community development shown on the 2016 Draft MTP/SCS Preferred Scenario map to the extent those projects are consistent with requirements set forth in the Public Resources Code for streamlined environmental review.

This chapter focuses on the management, treatment, and distribution of available water, as well as treatment of wastewater and the active handling of stormwater. For a more detailed description of surface water and groundwater resources and the natural conditions that create them, refer to Chapter 11 – Hydrology and Water Quality.

No comments regarding utilities and service systems were received during circulation of the Notice of Preparation (NOP). Appendix PD-1 includes all NOP comments received.

17.2 Environmental Setting

17.2.1 Water Utilities

Small Water Purveyors by County

The MTP/SCS plan area has many community drinking water systems that are considered small (serving fewer than 3,000 connections) with most small water systems serving fewer than 500 people. Small water systems face unique financial and operational challenges. Their small customer base often cannot develop the financial resources needed to upgrade infrastructure or to comply with changing regulations. The area also has many small agricultural water purveyors that acquire and deliver water to specific farm lands. Though agricultural purveyors may have only a few connections, they often handle very large volumes of water relative to the volume used by an urban water connection (DWR, 2013b). Small water purveyors within the region include:
• **El Dorado County:** Grizzly Flats Community Services District and the Kyburz Mutual Water System.

• **Placer County:** Midway Heights Community Water District and, in the Lahontan Hydrologic Region of Placer County, Squaw Valley Public Service District, Squaw Valley Mutual Water Company, and Northstar Community Services District.

• **Sacramento County:** Clay Water District, Del Paso Manor, Florin County Water District, Fruitridge Vista Water Company, Galt Irrigation District, Natomas Central Mutual Water Company, Omochumne-Hartnell Water District, Rancho Murieta Community Service District, and Tokay Park Water Company.

• **Sutter County:** City of Live Oak, East Nicolaus Mutual Water Company, and Sutter Community Service District.

Several entities also supply agricultural irrigation water in Sutter County. The major sources of water are diversions from the Feather and Sacramento rivers. This is supplemented by groundwater and transfers from other water suppliers. The list of existing suppliers in Sutter County includes: Garden Highway Mutual Water Company; Meridian Farms Water Company; Pleasant Grove/Verona Mutual Water Company; Sutter Bypass Butte Slough Water User Association; Sutter Extension Water District; Sutter Mutual Water Company; Tisdale Irrigation and Drainage Company; Tudor Mutual Water Company; Butte Water District; Biggs-West Gridley Water District; Feather Water District; Oswald Water District; Pelger Water District; Tisdale Water District, and Swinford Tract Irrigation District (Sutter County, 2015).

• **Yolo County:** Cacheville Community Service District, City of Winters, Esparto Community Service District, Knights Landing Community Service District, Madison Community Service District, North Davis Meadows County Service Area, North Delta Water Agency, and Wild Wings County Service Area.

In addition, agricultural irrigation in Yolo County is provided by five major water districts: the Colusa County Water District, the Dunnigan Water District, the Yolo-Zamora Water District, the Yolo County Flood Control and Water Conservation District, and the Knights Landing Ridge Drainage District. (Yolo County, 2015).

• **Yuba County:** Beale Air Force Base, Camp Far West Irrigation District, Camptonville Community Service District, North Yuba Water District, Plumas Mutual Water Company, River Highlands Community Service District, and City of Wheatland.

The Yuba County Water Agency (YCWA) also provides wholesale water and flood control services to several member units in Yuba County: South Yuba Water District, Dry Creek Mutual Water Company, Brophy Water District, Cordua Irrigation District, Hallwood Irrigation Company, Ramirez Water District, Browns Valley Irrigation District, and Wheatland Water District.
WATER PURVEYOR COOPERATIVE ORGANIZATIONS

The scale and complexity of meeting water demand requires water purveyors to partner with other stakeholders in the region. These cooperative organizations enable their partners to pursue grant funding, budget a specific resource, and plan with greater vision. The following organizations have varying structures of self-governance, goals, and membership.

El Dorado County Water Agency

The El Dorado County Water Agency (EDCWA), established in 1959, is a long-term water planning organization that leads, assists, and participates in important projects such as securing water rights and promoting water conservation for El Dorado County purveyors. EDCWA also operates the El Dorado Water & Power Authority, a joint powers authority comprised of EDCWA, El Dorado County, and El Dorado Irrigation District. EDCWA does not provide or maintain water; however, EDCWA does work closely with the County’s water purveyors in its planning and coordination efforts (EDCWA, 2014).

Southeast Sacramento County Agricultural Water Authority

The Southeast Sacramento County Agricultural Water Authority is located in the southeast portion of Sacramento County, and is comprised of three public agencies: Omochumne-Hartnell Water District, Galt Irrigation District and Clay Water District. In 2002, these districts formed a Joint Powers Authority to develop, implement and manage the water resources available to them. The three districts cover approximately 70,980 acres, of which approximately 25,000 acres are devoted to irrigated agriculture. Most of the water demands within the Authority are met from private wells; although minor amounts of purchased surface water and riparian water are diverted from seasonal rivers and creeks that flow through the Authority’s boundaries (SSCAWA, 2015).

Sacramento Area Water Forum

The Water Forum successfully joined together water purveyors, environmentalists, agriculturalists, business leaders, along with city and county governments in Sacramento, El Dorado, and Placer counties in an agreement to secure the future of the Sacramento region water supply for those three counties to the year 2030. Signed by 40 stakeholder organizations in April 2000, the Water Forum has already successfully implemented programs that will maintain the long-term sustainable yield of the North Area Groundwater Basin, conserve municipal and industrial water use, and protect fish and other public trust assets in the lower American River.

The Agreement also provides important provisions assuring each signatory that, as it fulfills its responsibilities, other signatory organizations are also honoring their commitments. These understandings are included in the MOU for the Water Forum Agreement. The Water Forum Agreement contains seven elements – categories of complementary actions that are necessary for a solution to work. The seven elements are:

- Increased surface water diversions;
- Actions to meet customer needs while reducing diversion impacts in drier years;
- Support for improved pattern of fishery flow releases from Folsom Reservoir;
- Lower American River habitat management;
- Water conservation;
- Groundwater management; and
- Water Forum Successor Effort

Since the 2000 Agreement was signed, the Sacramento Water Forum Successor Effort has continued implementation of the seven elements (Water Forum, 2014).

**Regional Water Authority**

The Regional Water Authority (RWA) is a local public agency formed in 2001 under the Joint Exercise of Powers Act, California Government Code Sections 6500 through 6599.3. RWA formed after an extensive 18-month review process to determine the most appropriate type of agency to assist local water suppliers in implementing the April 2000 Water Forum Agreement (Agreement). RWA members are successfully implementing a regional conjunctive use program and a regional water efficiency program in support of the Agreement. RWA serves and represents the interests of over 20 water providers and associated agencies in the greater Sacramento area (RWA, 2014).

**Sacramento Valley Water Quality Coalition**

The Sacramento Valley Water Quality Coalition is made up of more than 8,600 farmers and wetlands managers, covers 1.1 million acres of irrigated land and is comprised on 13 sub-watershed groups. The main purpose of the coalition is to provide support for growers and help them maintain compliance with CV-RWCB Basin Plan water quality requirements. The coalition also provides surface and groundwater monitoring reports (SVWQC, 2015).

**North State Water Alliance**

The North State Water Alliance (NSWA) is a growing coalition of cities, counties, water providers, business, agriculture, and community groups in Northern California. Supporters include SACOG, Mountain Counties Water Resources Association, Northern California Water Association and many cities and counties throughout the region. NSWA focuses on working with the government to create sustainable statewide cooperative agreements and improve water infrastructure in addition to promoting water conservation as a way of life (NSWA, 2015).

**Association of California Water Agencies**

The Association of California Water Agencies (ACWA) is the largest statewide coalition of public water agencies in the country. Its 430 public agency members collectively are responsible for 90% of the water delivered to cities, farms and businesses in California. ACWA is actively working on these priority issues:

- Implementing comprehensive legislation enacted in 2009 to improve water supply reliability and restore the Sacramento-San Joaquin Delta. The historic package of bills includes an $11.14 billion water bond for the November 2012 ballot to help fund Delta restoration, local water resources development and new surface and groundwater storage.
• Advancing Delta solutions that improve the sustainability of our water system and help meet the co-equal goals of water supply reliability and ecosystem health.

• Promoting investments in local resource development programs such as water use efficiency, water recycling, groundwater storage and management, and technologies such as desalination.

• Protecting member agencies’ funding sources.

• Educating the public on the value of water and the need for investments in our water infrastructure system.

• Providing leadership on federal water issues and regulations (ACWA, 2013).

Mountain Counties Water Resources Association

The Mountain Counties Water Resources Association (MCWRA) includes water purveyors from Alpine, Amador, Calaveras, El Dorado, Madera, Mariposa, Nevada, Placer, Plumas, Sierra, Tuolumne, Yuba and portions of Butte, Fresno and Lassen Counties. In 1979, the MCWRA was reorganized to represent the Counties of Origin in gaining water rights protection and development. The MCWRA’s geographic and economic scope includes:

• More than 100 local governmental agencies and districts – mostly serving from 1,000 to more than 100,000 customers,

• 40 percent of the state’s developed water supply originates from Mountain Counties Areas,

• 15,758 square miles or 9.9 percent of the State,

• 383 miles of Wild and Scenic Rivers under Federal and State Law,

• Managed Wetlands in the lower Bear watershed and in the upper Feather watershed,

• Ten major watershed areas – 13,236 square miles, and

• 17 million acre-feet of natural runoff (MCWRA, 2015).

WATER DEMAND MANAGEMENT

The MTP/SCS plan area supports intensive urban, suburban, industrial and agricultural water users. This demand is met by conveying surface water through a complex infrastructure and widespread groundwater pumping. Purveyors operate according to the needs of their customers. Water suppliers that serve agriculture often have few connections, but may control delivery of large volumes of untreated water. Purveyors who provide to urban areas treat water according to drinking water standards. In order to accomplish large improvement projects, and cooperatively address regional issues, water purveyors frequently form entities to determine mutually beneficial solutions for the group.

Urban

Every urban water supplier that either provides over 3,000 acre-feet of water annually, or serves more than 3,000 urban connections is required to assess the reliability of its water sources over a 20-year planning horizon, and report its progress toward 20 percent reduction in per-capita urban water consumption by the year 2020. These plans, called Urban Water Management Plans (UWMP)
provide a snapshot of water consumption patterns and availability. Table 17.1 shows how reporting water purveyors have estimated their change in population and water needs.

**Agriculture**

The Sacramento Valley is an agricultural region of national significance. This success was predicated by abundant surface water supplies, and agriculture is the largest use in the Plan Area. More discussion on agriculture is presented in Chapter 5, Agricultural Resources. Often agricultural users are supplied with raw, or untreated, water.

**Other Water Uses**

*Fisheries Releases*

The federal Endangered Species Act requires the NMFS to develop and implement recovery plans for listed species. The recovery plan for Sacramento River and Central Valley salmon and steelhead species was published in 2009. The plan identifies site-specific actions necessary for species recovery and provides measurable criteria necessary for delisting the species. Priorities for the reintroduction of selected species are also identified. The recovery plan is not a regulatory document, but serves as guidance for recovery efforts.

The Delta Reform Act of 2009 requires the SWRCB and DFW to complete instream flow studies for high priority rivers and streams by 2018. The flow studies are based on fishery protection. The studies do not take other beneficial uses into account, such as municipal and agricultural water supplies and recreational uses. SWRCB recognizes that establishing flow objectives is a multidimensional balancing effort and that fishery protection represents only one of the factors (State Water Resources Control Board 2010a). The following SACOG region rivers are identified for instream flow assessments: Lower Feather River, American River, Yuba River, and Bear River. (DWR, 2013b)

*Delta Salinity Control*

Besides maintaining sufficient river flows to preserve native, anadromous fish runs, water needs to continuously flow through the Delta to prevent the intrusion of salt water into the Delta. During periods of low flows, lower Delta diverters are at risk of losing access to fresh water (CA State Water Plan, Delta, 2013).
<table>
<thead>
<tr>
<th>Urban Water Suppliers</th>
<th>Target Consumption (gallons per capita per day)</th>
<th>Projected Population</th>
<th>Target Consumption (acre-feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>California Water Service Company Marysville</td>
<td>225</td>
<td>200</td>
<td>12,553</td>
</tr>
<tr>
<td>California-American Water Company Sacramento District</td>
<td>195</td>
<td>173</td>
<td>212,669</td>
</tr>
<tr>
<td>Carmichael Water District</td>
<td>275</td>
<td>244</td>
<td>38,061</td>
</tr>
<tr>
<td>Citrus Heights Water District</td>
<td>258</td>
<td>230</td>
<td>68,400</td>
</tr>
<tr>
<td>Davis, City of</td>
<td>185</td>
<td>167</td>
<td>69,996</td>
</tr>
<tr>
<td>El Dorado Irrigation District</td>
<td>253</td>
<td>225</td>
<td>112,200</td>
</tr>
<tr>
<td>Elk Grove Water Service</td>
<td>227</td>
<td>202</td>
<td>38,445</td>
</tr>
<tr>
<td>Fair Oaks Water District</td>
<td>290</td>
<td>258</td>
<td>36,879</td>
</tr>
<tr>
<td>Folsom, City of</td>
<td>386</td>
<td>343</td>
<td>67,275</td>
</tr>
<tr>
<td>Galt, City of</td>
<td>194</td>
<td>172</td>
<td>32,779</td>
</tr>
<tr>
<td>Georgetown Divide Public Utilities District</td>
<td>182</td>
<td>167</td>
<td>10,436</td>
</tr>
<tr>
<td>Golden State Water Company Cordova</td>
<td>332</td>
<td>295</td>
<td>49,009</td>
</tr>
<tr>
<td>Lincoln, City of</td>
<td>222</td>
<td>197</td>
<td>46,059</td>
</tr>
<tr>
<td>Linda County Water District</td>
<td>181</td>
<td>167</td>
<td>20,237</td>
</tr>
<tr>
<td>Nevada Irrigation District</td>
<td>229</td>
<td>203</td>
<td>48,620</td>
</tr>
<tr>
<td>Olivehurst Public Utilities District</td>
<td>167</td>
<td>149</td>
<td>20,645</td>
</tr>
<tr>
<td>Orange Vale Water Company</td>
<td>312</td>
<td>278</td>
<td>15,400</td>
</tr>
<tr>
<td>Placer County Water Agency</td>
<td>270</td>
<td>238</td>
<td>114,434</td>
</tr>
<tr>
<td>Rio Linda/Elverta Community Water District</td>
<td>268</td>
<td>238</td>
<td>10,112</td>
</tr>
<tr>
<td>Roseville, City of</td>
<td>278</td>
<td>247</td>
<td>119,561</td>
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<td>Sacramento, City of</td>
<td>251</td>
<td>223</td>
<td>510,086</td>
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<td>Sacramento County Water Agency</td>
<td>250</td>
<td>223</td>
<td>175,698</td>
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<tr>
<td>Sacramento Suburban Water District</td>
<td>218</td>
<td>193</td>
<td>174,304</td>
</tr>
<tr>
<td>San Juan Water District</td>
<td>458</td>
<td>407</td>
<td>31,390</td>
</tr>
<tr>
<td>South Feather Water and Power Agency</td>
<td>248</td>
<td>221</td>
<td>17,265</td>
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<tr>
<td>West Sacramento, City of</td>
<td>275</td>
<td>244</td>
<td>53,325</td>
</tr>
<tr>
<td>Woodland, City of</td>
<td>260</td>
<td>231</td>
<td>56,300</td>
</tr>
<tr>
<td>Yuba City, City of</td>
<td>218</td>
<td>194</td>
<td>75,784</td>
</tr>
</tbody>
</table>

17.2.2 Water Supply and Conveyance

Water supply systems obtain water from several sources including groundwater, surface water (lakes and rivers), and treated and recycled wastewater. Potable water supply comes from surface water and groundwater sources.

**Surface Water Infrastructure**

The state and federal government and private interests have constructed numerous projects to collect, store, transfer, and deliver water. As shown in Table 17.2, there are 16 major lakes and reservoirs in the MTP/SCS plan area. The unpredictable swing between flood and drought constantly tests the capacity of these networks.

**Table 17.2**

**Major Lakes and Reservoirs**

<table>
<thead>
<tr>
<th>Major Lake or Reservoir</th>
<th>Location</th>
<th>Capacity (acre-feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American River Watershed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Folsom Lake</td>
<td>Convergence of the North and South Forks of the American River</td>
<td>977,000</td>
</tr>
<tr>
<td>Lake Clementine</td>
<td>Convergence of the North and Middle Forks of the American River</td>
<td>14,700</td>
</tr>
<tr>
<td>Lake Natoma</td>
<td>Main branch of the American River</td>
<td>9,000</td>
</tr>
<tr>
<td>Union Valley Reservoir</td>
<td>South Fork American River</td>
<td>277,300</td>
</tr>
<tr>
<td>Hell Hole Reservoir</td>
<td>Rubicon River Drainage</td>
<td>208,400</td>
</tr>
<tr>
<td>Loon Lake</td>
<td>Rubicon River Drainage&lt;sup&gt;1&lt;/sup&gt;</td>
<td>76,500</td>
</tr>
<tr>
<td>Slab Creek</td>
<td>South Fork American River</td>
<td>16,600</td>
</tr>
<tr>
<td>Stumpy Meadows</td>
<td>Pilot Creek</td>
<td>20,000</td>
</tr>
<tr>
<td>Ice House Reservoir</td>
<td>South Fork Silver Creek</td>
<td>45,960</td>
</tr>
<tr>
<td>Caples Lake</td>
<td>Caples Creek</td>
<td>22,338</td>
</tr>
<tr>
<td>Silver Lake</td>
<td>Silver Fork of the South Fork</td>
<td>8,590</td>
</tr>
<tr>
<td>Bear River Watershed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camp Far West Reservoir</td>
<td>Bear River</td>
<td>104,500</td>
</tr>
<tr>
<td>Rollins Reservoir</td>
<td>Bear River</td>
<td>66,000</td>
</tr>
<tr>
<td>Cosumnes River Watershed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sly Park Reservoir/Jenkinson Lake</td>
<td>Cosumnes River</td>
<td>41,000</td>
</tr>
<tr>
<td>Yuba River Watershed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Bullard’s Bar Reservoir</td>
<td>Yuba River</td>
<td>969,600</td>
</tr>
<tr>
<td>Englebright Reservoir</td>
<td>Yuba River</td>
<td>70,000</td>
</tr>
</tbody>
</table>

<sup>1</sup> Located within the Rubicon River drainage but is diverted into the South Fork American watershed.

**Source:** California Department of Parks and Recreation, 2015; California Department of Water Resources, 2014; Collins Lake, 2015.

**Major Water Projects**

The Central Valley Project (CVP) and the State Water Project produce the majority of California’s surface water supplies, coordinate operations to provide flood control and meet water delivery commitments, cooperate to meet water quality objectives of the Sacramento-San Joaquin Delta, and manage water rights held by the State and federal government for the benefit of their wholesale...
contractors. Additional information is presented below regarding these major water projects and how they help serve SACOG area utilities.

**CENTRAL VALLEY PROJECT: U.S. BUREAU OF RECLAMATION**

The U.S. Bureau of Reclamation (Reclamation), part of the Department of the Interior, is responsible for developing and conserving most water resources in the western United States. Its functions include: municipal and industrial water supply (Central Valley Project); hydroelectric power generation; agricultural irrigation water supply; water quality improvement; flood control; river navigation; river regulation and control, including fish and wildlife enhancement; recreation management; and research. In the proposed MTP/SCS plan area, the Bureau purchases water from various water agencies for the Central Valley Project, oversees some levees, operates Folsom reservoir, and several canals, including Auburn-Folsom South Unit, Delta Division, Folsom Units, and Sacramento Canals Unit (Reclamation, 2014).

**STATE WATER PROJECT**

The SWP delivers water from Northern California to users in the lower Sacramento Valley, San Francisco Bay area, San Joaquin Valley, and Southern California. The DWR Oroville Field Division operates and maintains the facilities extending from Feather River lakes in Plumas County to the Oroville-Thermalito Complex on the Feather River. DWR operates the facility for water supply, power generation, recreation, fish and wildlife enhancement, and salinity control. In the MTP/SCS plan area, only Yuba City holds long-term contracts for SWP supply.

**OTHER WATER PROJECTS**

Water stored and released from Clear Lake and Indian Valley Reservoir into Cache Creek is diverted by the Yolo County FCWCD for irrigation in Yolo County. In Sutter County and in western Placer County, South Sutter Water District (SSWD) supplies irrigation water from Camp Far West Reservoir on the lower Bear River. SSWD also purchases surface water from Nevada Irrigation District to supplement irrigators’ groundwater supplies. NID’s supplies come from its reservoir on the Yuba-Bear River system. Yuba River supplies have also been developed by Yuba County Water Agency, which is New Bullards Bar Reservoir, the river’s largest reservoir at 966 taf. The Sacramento metropolitan area is served by more than 20 water purveyors and is also the largest urban surface water user. Within Sacramento County, the City of Sacramento relies primarily on surface water (approximately 80 to 90 percent); water purveyors in unincorporated areas use both surface water and groundwater. The City of Folsom takes surface water from Folsom Lake.

**GROUNDWATER**

In round numbers, groundwater contributes about a third of the total water supply in the Sacramento Hydrologic Region. Most groundwater extraction in the region occurs for agricultural water use. Groundwater extraction for urban water use is significantly less (twenty percent of agriculture use), which meets about half of the urban water needs (DWR, 2013a).
**Recycled Water**

Water demand for non-potable uses, such as landscape and agricultural irrigation, can take advantage of recycled water. The region does not have any plants that recycle waste water for use as drinking water. Irrigation runoff, especially from draining flooded rice fields, is often used on other crops rather than being discharged to native surface water channels (DWR, 2013a).

**Conservation**

Many water purveyors in the MTP/SCS plan area have instituted water conservation strategies and programs. These programs can include water survey programs for residential customers, residential plumbing retrofits, system water audits, leak detection and repair, high-efficiency washing machine rebate programs, public information campaigns, school education programs, ultra-low flow toilet replacement program, and conservation pricing.

**Water Transfers**

Surface water supplies are managed through complex infrastructure and water rights systems. Many water purveyors in this region do not directly hold a water right to divert from a stream, but receive water as a contractor from a water district or from the state or federal government through the SVP or CVP, respectively. Water transfers are exempt from CEQA for short-term (year-to-year) water sale agreements, are negotiated directly between willing sellers and willing buyers, and are approved by the DWR. They allow water to be sold by a water rights holder with temporary excess supply and purchased by a buyer in need of a short-term supply. Typically, the transferred water originates from a different location and with a different beneficial use than the destination and purpose of the purchased water right. Short-term water transfers have been common since the early 1990s, are especially important in dry years, include primarily water sellers from the MTP/SCS plan area, and will likely increase over time as water supplies become more constrained and demands increase due to population growth and climate change. Several agencies (SSWD, SJWD, PCWA, NID) are currently constructing interties between their systems to facilitate water transfers, increase water delivery reliability, and allow for operational flexibility in the systems, particularly between ground water and surface water supplies (DWR, 2014a).

**17.2.3 Wastewater and Wastewater Treatment Systems**

Once water is used, wastewater is typically discharged into a sewer system and treated in a wastewater treatment plant before being discharged into a body of water or reused for landscaping, irrigation, or industrial use.

Wastewater is generally classified as domestic, industrial, or storm, according to its origin. Wastewater may contain dissolved organic and inorganic materials, suspended solids, and microorganisms, including bacteria and viruses. Domestic wastewater is generated through normal activity in homes, businesses, and institutions such as the use of toilets, urinals, sinks, showers and bathtubs, dishwashers, and washing machines, to name a few. Wastewater from toilets and urinals is often referred to as black water, while the other types of domestic wastewater are often called grey water.
The character of industrial wastewater depends on the type of industry using the water. Some industrial wastewaters can be treated the same as domestic wastes without difficulty. Others may contain toxic substances or high concentrations of organic materials or solids, which complicate treatment. In such cases, the industrial plant may have to pretreat its wastewater to remove these pollutants or reduce them to treatable levels before they are accepted into a publicly-owned treatment facility.

Although stormwater has its own collection process, it often goes through wastewater treatment plants, despite its generally low pollutant level. Great amounts of stormwater can interfere with treatment efficiency by causing too much dilution of the wastewater and overloading the hydraulic systems of the plant.

The goal of wastewater treatment is to remove pollutants from water by getting them to either settle or float, and then removing them. Some pollutants are easily removable. Others must be converted to a settleable form before they can be removed. Important characteristics to consider include the amount or flow of wastewater produced, the type of treatment provided onsite, and the amount and type of pollutant loadings contained in wastewater.

Treatment facilities are designed in stages. Each stage either removes particles from the wastewater or changes dissolved and suspended material to a form that can be removed. Influent is the raw material that has been collected and conveyed to the plant for treatment. It includes all the water and debris that entered the collection system.

Pretreatment removes materials that can be collected easily from the raw wastewater before they damage or clog the pumps and skimmers of primary treatment clarifiers (trash, tree limbs, leaves, etc.). During primary treatment lighter organic solids remain suspended in the water and flow into large tanks. Here, the heavier organic solids settle by gravity. These settled solids, called primary sludge, are removed along with floating scum and grease and pumped to anaerobic digesters for further treatment. Secondary treatment involves continuing the process with biological decomposers to rid the effluent of living organisms. Tertiary treatment removes suspended and dissolved substances that remain after conventional secondary treatment. Tertiary treatment may be used to remove such things as color, metals, organic chemicals, and nutrients such as phosphorus and nitrogen. Before the final effluent is released into the receiving waters, it may be disinfected to reduce the disease-causing microorganisms that remain in it.

As shown in Table 17.3, there are 23 agencies responsible for wastewater collection and treatment in the region. There are three basic types of treatment systems employed in the plan area. First, there are municipal treatment systems, which serve incorporated areas. In some cases, municipal systems may service unincorporated areas that are within the jurisdiction’s sphere of influence or otherwise connected with the jurisdiction. The second type of system commonly found in the MTP/SCS plan area is the community service district (CSD) system. These systems usually service unincorporated areas that have concentrated population centers. Finally, the third type of system is the on-site wastewater treatment system, also known as a septic system. In unincorporated areas not served by a municipal system or a CSD, septic systems are used to treat wastewater from individual properties.
Table 17.3  
Wastewater Treatment by County

<table>
<thead>
<tr>
<th>County</th>
<th>Agencies Responsible for Wastewater Collection and Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Dorado County</td>
<td>El Dorado Irrigation District, Georgetown Divide Public Utility District, City of Placerville</td>
</tr>
<tr>
<td>Placer County</td>
<td>City of Roseville, City of Auburn, Tahoe-Truckee Sanitation Agency, Placer County</td>
</tr>
<tr>
<td>Sacramento County</td>
<td>Sacramento Area Sewer District, City of Sacramento, City of Folsom, City of Galt</td>
</tr>
<tr>
<td>Sutter County</td>
<td>City of Yuba City, City of Live Oak, Sutter County – Water Works District #1</td>
</tr>
<tr>
<td>Yolo County</td>
<td>City of Davis, City of Winters, City of Woodland, YohoYocho Dehe Wintun Nation, University of California, Davis</td>
</tr>
<tr>
<td>Yuba County</td>
<td>City of Marysville, City of Linda, City of Olivehurst, City of Wheatland</td>
</tr>
</tbody>
</table>

Source: City of Live Oak, 2010; City of Placerville, 2012; City of Yuba City, 2014; El Dorado County, 2015; Placer County, 2015; Sacramento County, 2015; Sutter County, 2015; Yolo County, 2015; Yuba County, 2008, Municipal Services Review.

EL DORADO COUNTY WASTEWATER TREATMENT

El Dorado Irrigation District

The El Dorado Irrigation District collects wastewater from over 21,000 customers. It operates and maintains four wastewater treatment facilities, approximately 560 miles of pipeline and forcemain, and 64 lift stations. The four treatment facilities treat an average of 5 million gallons of wastewater per day to tertiary levels. The El Dorado Hills and Deer Creek wastewater treatment plants produce recycled water used to irrigate front and back yards at nearly 4,000 homes, as well as commercial and public landscapes (EID, 2014).

Georgetown Divide Public Utility District

The Georgetown Divide Public Utility District operates one community disposal system in the Auburn Lake Trails Subdivision. The remainder of the homes in the service area use on-site wastewater treatment systems (GDPUD, 2014).

City of Placerville

The City of Placerville wastewater collection system serves slightly less than 10,000 people with approximately 2,700 residential and 530 commercial sewer connections. The Hangtown Creek Water Reclamation Facility discharges into Hangtown Creek just above the confluence with Weber Creek. The sewer collection system includes almost 50 miles of pipe and five lift stations (City of Placerville, 2012).

PLACER COUNTY WASTEWATER TREATMENT

Most incorporated areas of Placer County are served by waste water treatment plants. Rural, outlying, and low-density areas are served by individual septic systems. The City of Auburn, the City of Colfax, and the City of Lincoln provide municipal wastewater treatment in their communities (Placer County, 2004).
City of Roseville

The City of Roseville Environmental Utilities (EU) provides wastewater collection and treatment to the City of Roseville and surrounding areas. EU owns and operates the Dry Creek and Pleasant Grove wastewater treatment plants, both of which produce recycled water that meets all the California Department of Health Services (DHS) requirements for “full unrestricted reuse.” EU owns and operates the network of gravity sewers, pump stations, and force mains that serve customers within the City’s limits, and provides treatment service to the South Placer Municipal Utility District (SPMUD) and southern Placer County. SPMUD owns and operates gravity sewers, pump stations, and force mains in portions of southern Placer County, including Rocklin and Loomis.

City of Auburn

The City of Auburn owns and operates its own wastewater treatment and collection system that serves the municipal boundaries of the City. The City treatment facility is located in the Ophir area. The facility provides tertiary treatment and is permitted to discharge a maximum of 1.65 million gallons per day into the Auburn Ravine Creek. The City maintains over 85 miles of wastewater collection lines, over 1,500 manholes, and 11 lift stations throughout its service area.

Tahoe-Truckee Sanitation Agency

The Tahoe-Truckee Sanitation Agency (T-TSA) processes wastewater in the very northeast of the SACOG region. They collect sewage from the Squaw Valley Public Service District and the Northstar Community Services District. The 9.6 million gallon per day plant provides primary and secondary treatment, phosphorus removal, biological nitrogen removal, disinfection, and effluent filtration. The effluent is routed through a Soil Aquifer Treatment system (Tahoe-Truckee Sanitation Agency, 2014).

Placer County

Placer County operates and maintains five wastewater treatment facilities. Areas served include unincorporated portions of North Auburn, Granite Bay, Loomis, western Placer County (Dry Creek), Livoti, Sunset Industrial area, Sheridan, Applegate and Blue Canyon.

SACRAMENTO COUNTY WASTEWATER TREATMENT

Sacramento Area Sewer District and Sacramento Regional County Sanitation District

The Sacramento Area Sewer District (SASD) is a sewer utility providing service to more than one million residential, commercial, and industrial customers in the MTP/SCS plan area, including the unincorporated areas of Sacramento County, the cities of Citrus Heights, Rancho Cordova, and Elk Grove, as well as portions of the cities of Folsom and Sacramento.

The SASD owns and operates thousands of miles of pipes to collect sewage. Once collected, sewage flows into the Sacramento Regional County Sanitation District (SRCSD) interceptor system, where it is conveyed to the Sacramento Regional Wastewater Treatment Plant (SRWTP) near Elk Grove.
The SRCSD provides regional wastewater conveyance and treatment services to residential, industrial, and commercial customers throughout unincorporated Sacramento County, and the cities of Citrus Heights, Elk Grove, Folsom, Rancho Cordova, Sacramento, and West Sacramento. The wastewater travels through 145 miles of interceptor pipelines to the SRWTP, where approximately 150 million gallons of wastewater are treated each day and discharged into the Sacramento River. The plant is designed to operate as a secondary treatment plant at this time.

City of Folsom and the City of Sacramento

The City of Folsom and the City of Sacramento operate over 1,200 miles of pipeline to collect wastewater and convey it to the SRCSD interceptor system to be treated at the SRWTP. Parts of the City of Sacramento use a combined sewer system (CSS). The CSS provides sewage and drainage service to more than 24,000 parcels in Downtown, Midtown, Land Park, and East Sacramento. The system, originally established in the 1800's, collects sewage and stormwater in the same pipe. The combined wastewater is pumped to the SRWTP where it is treated and released back to local rivers. During heavy rain events, excess stormwater is also treated at several City facilities before being released back to the rivers.

City of Galt

The City of Galt Utilities Division is responsible for the operation and maintenance of the Wastewater Treatment Plant located on Twin Cities Road and 12 sewer lift stations. Necessary functions include operation and maintenance of pump stations, mechanical aerators, biological treatment of wastewater, solids handling, laboratory analysis of raw and treated wastewater, disinfection of treated wastewater, and disposal of treated wastewater and biosolids.

The sewer lift stations pump raw wastewater that is collected throughout the City and pump it to the wastewater treatment plant. The wastewater treatment plant is currently operating at approximately 2.2 million gallons per day (mgd) with a plant capacity of 3.0 mgd. The treated wastewater is reclaimed for irrigation of crops during the dry season of May through October and discharged to Laguna Creek during the wet season of November through April. Wastewater collection and treatment occurs 24 hours a day, 7 days a week.

Sutter County Wastewater Treatment

Privately owned septic systems provide for the treatment and disposal of wastewater throughout much of Sutter County. The cities of Yuba City, Live Oak, and the communities of Robbins and Rio Ramaza are the only areas with sanitary sewer collection systems and wastewater treatment facilities within the county. Throughout the remaining portion of the unincorporated county, wastewater from individual homes or businesses (or small groups of homes/businesses) is treated and disposed of through onsite wastewater treatment systems.

Sutter County – Water Works District No. 1

Sutter County operates Water Works District No. 1 (WWD #1), which is responsible for providing water and wastewater services for the communities of Robbins and Rio Ramaza. The wastewater system is comprised of a septic tank effluent pumping (STEP) system constructed in 1997 and funded by a small community grant, a state loan, and a county general fund loan. The wastewater
system treats on average 10 million gallons of wastewater per year using primary and secondary treatment technology (Sutter County, 2015).

City of Yuba City

The City of Yuba City Utilities Division operates and maintains a sewer system that accommodates over 100,000 people. Its wastewater treatment facility processes up to 6 million gallons per day (Yuba City, 2014).

City of Live Oak

The City of Live Oak, has a population 8,400 and a service area of 1.9 square miles. Within that are 25.1 miles of gravity sewer line, six pump stations and 4.9 miles of force mains (Live Oak, 2010).

YOLO COUNTY WASTEWATER TREATMENT

In Yolo County, established sewerage treatment exists in the concentrated urban centers of the City of Davis, City of Winters, and City of Woodland. These three jurisdictions have municipal wastewater treatment plants to treat domestic and industrial wastewater. The City of Davis and City of Winters facilities provide primary and secondary treatment, while the City of Woodland facility is able to provide tertiary treatment. These municipal facilities serve unincorporated areas of Yolo County only where the unincorporated area is within the sphere of influence of the cities and where annexation is anticipated. Esparto, Madison and Knights Landing have primary/secondary treatment. Country Fair Mobile Home Park in Dunnigan has primary treatment, as do several other businesses in Dunnigan. The Yocha Dehe Wintun Nation also has its own WWTP that provides tertiary treatment to the casino. The unincorporated community of Wild Wings also has a small tertiary treatment plant. This WWTP is not a public system. The University of California, Davis also operates a WWTP.

Although some unincorporated areas are served by municipal systems, the majority of the wastewater generated in the unincorporated areas of the County is treated through the use of onsite wastewater treatment systems, which generally rely upon septic tanks and on-site disposal using leach fields and other types of soil absorption systems. The waste is pumped into septic trucks and then taken to a disposal facility. Typically, waste is taken to Vallejo Regional WWTP in Solano County or to a private facility in the City of Lincoln in Placer County.

Finally, some unincorporated areas are served by Community Service Districts (CSDs). Unincorporated areas that have a higher concentration of development typically use this method. CSDs usually treat wastewater by collecting wastewater through a system of pipes that transfers wastewater to a WWTP that uses stabilization and evaporation ponds to dispose of treated wastewater (Yolo County, 2009).

YUBA COUNTY WASTEWATER TREATMENT

In Yuba County, there are four small treatment plants that serve the communities of Marysville, Linda, Olivehurst, and Wheatland. These WWTPs provide secondary treatment. Most rural Yuba County residents are served by onsite wastewater treatment systems (OWTS).
City of Marysville and City of Linda

The City of Marysville has a population 12,500 and operates 63 miles of sewage collection line and 6 pumping stations. Its wastewater treatment plant was closed in 2012. A new wastewater treatment plant that has a 5 million gallon per day capacity was constructed for the Linda County Water District, which serves both the City of Marysville and the City of Linda (Yuba County, 2011).

City of Olivehurst

The Olivehurst Public Utility District (OPUD) operates a tertiary wastewater treatment facility. Serving approximately 16,000 people, the OPUD also maintains 40 miles of gravity and pressure line and 18 pump stations (OPUD, 2014).

City of Wheatland

The City of Wheatland’s wastewater treatment facility is classified as a Class II extended aeration process plant. Originally constructed in 1969, it was most recently upgraded in 1990 (City of Wheatland, 1998).

17.2.4 Stormwater

Stormwater is collected in municipal systems within urbanized areas of the MTP/SCS plan area and conveyed to rivers and streams, in accordance with state water quality regulations. Stormwater services are provided by municipal public works departments, community service districts, reclamation districts, or other special districts. In addition to stormwater collection services, many agencies in the MTP/SCS plan area coordinate comprehensive stormwater management systems. For example, the Sacramento Stormwater Quality Partnership, which Sacramento County, City of Sacramento, City of Citrus Heights, City of Rancho Cordova, City of Elk Grove, City of Galt, and City of Folsom formed, is a cooperative agency that aims to educate the public about stormwater runoff issues and encourage pollution prevention.

17.2.5 Solid Waste Management

Solid waste generally refers to garbage, refuse, or other solid discarded materials generated through residential, commercial, and industrial activities. The California Department of Resources Recycling and Recovery (CalRecycle) identifies 10 categories of solid waste: paper, glass, metal, electronics, plastic, other organic waste, construction and demolition waste, household hazardous waste, special waste, and mixed residue. Household hazardous waste generally consists of items used in a home that require special disposal because they contain chemicals that may be harmful, such as antifreeze, batteries, light bulbs, used motor oil and filters, and paint.

Solid waste generation is measured by disposal and diversion. Solid waste is collected and disposed of in landfills that fall into three classes based on the types of waste accepted (CalRecycle, 2014). Class I sites may accept hazardous and nonhazardous wastes (for a discussion of hazardous waste see Chapter 10 − Hazards and Hazardous Materials). Class II sites may accept “designated” and nonhazardous wastes. Class III sites may accept nonhazardous wastes. Solid waste diversion includes programs and practices such as waste prevention and source reduction, recycling, reuse, and composting that reduce the total amount of waste that requires disposal.
SOLID WASTE AND RECYCLING SERVICE PROVIDERS

County governments generally address solid waste management by both providing solid waste treatment facilities within their own jurisdictions and by exporting waste outside the MTP/SCS plan area. Sacramento and El Dorado counties, and to a more limited extent, Placer County, export a nontrivial amount of waste to landfills in Nevada. In the MTP/SCS plan area, there are 23 solid waste transfer facilities where municipal solid waste is unloaded from collection vehicles and briefly held before being reloaded onto larger long-distance transport vehicles for shipment to landfills or other treatment or disposal facilities (CalRecycle, 2014). Table 17.4 shows major landfill information for facilities that store and treat solid waste within the MTP/SCS plan area. Figure 17.1 shows the location of these major landfills, as well as transfer and recycling facilities in the region.

El Dorado County Solid Waste Management

El Dorado County and the City of Placerville have entered into franchise agreements with several solid waste companies, which provide solid waste collection, recycling, and disposal services. El Dorado Disposal, American River Disposal, Amador Disposal, and Sierra Disposal serve the MTP/SCS plan area. The Union Mine Disposal Site is the last remaining and active landfill property in the county; however, it has been closed to the public since 1996. The Class III landfill is located on a 33-acre site. There is also one material recovery facility in Diamond Springs (El Dorado County, 2014).

Placer County Solid Waste Management

In Placer County, the Western Placer Waste Management Authority (WPWMA), a regional agency comprised of the cities of Lincoln, Rocklin, and Roseville, and the County of Placer, provides recycling and waste disposal services to these communities as well as the City of Auburn and the Town of Loomis. County-owned facilities include the Eastern Regional Landfill and Material Recovery Facility in the Tahoe area and transfer stations in Meadow Vista and Foresthill, as well as a permanent household hazardous waste facility in Roseville. WPWMA operates the Class II and III Western Regional Sanitary Landfill. On the 291-acre landfill site, 231 acres are permitted for disposal activities (WPWMA, 2014).
### Table 17.4

**Major Landfills in the MTP/SCS Plan Area, Capacity, and Estimated Closure**

<table>
<thead>
<tr>
<th>Landfill Name</th>
<th>Location</th>
<th>Capacity</th>
<th>Used</th>
<th>% Used</th>
<th>Remaining</th>
<th>% Remaining</th>
<th>Estimated Closure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union Mine Disposal Site</td>
<td>5700 Union Mine Road El Dorado CA, 95623</td>
<td>195,000</td>
<td>60,000</td>
<td>31%</td>
<td>135,000</td>
<td>69%</td>
<td>2040</td>
</tr>
<tr>
<td>L&amp;D Landfill Co</td>
<td>8635 Fruitridge Road Sacramento CA, 95826</td>
<td>6,031,055</td>
<td>1,931,055</td>
<td>32%</td>
<td>4,100,000</td>
<td>68%</td>
<td>2016</td>
</tr>
<tr>
<td>Recology (Norcal) Ostrom Road LF Inc.</td>
<td>5900 Ostrom Road Wheatland CA, 95692</td>
<td>43,467,231</td>
<td>4,244,231</td>
<td>10%</td>
<td>39,223,000</td>
<td>90%</td>
<td>2066</td>
</tr>
<tr>
<td>Kiefer Landfill</td>
<td>12701 Kiefer Boulevard Sloughhouse CA, 95683</td>
<td>117,400,000</td>
<td>4,500,000</td>
<td>4%</td>
<td>112,900,000</td>
<td>96%</td>
<td>2064</td>
</tr>
<tr>
<td>Western Regional Landfill</td>
<td>3195 Athens Road, Ap #17-060-02 Lincoln CA, 95648</td>
<td>36,350,000</td>
<td>7,256,181</td>
<td>20%</td>
<td>29,093,819</td>
<td>80%</td>
<td>2036</td>
</tr>
<tr>
<td>Yolo County Central Landfill</td>
<td>County Road 28h/County Road 104 Davis CA, 95616</td>
<td>49,035,200</td>
<td>13,061,000</td>
<td>27%</td>
<td>35,974,200</td>
<td>73%</td>
<td>2081</td>
</tr>
<tr>
<td>University of California Davis Sanitary Landfill</td>
<td>West End Of UCD Campus, County Road 98 Davis CA, 95616</td>
<td>954,571</td>
<td>360,132</td>
<td>38%</td>
<td>594,439</td>
<td>62%</td>
<td>2040</td>
</tr>
</tbody>
</table>

**Note:** Table is reflective of major landfills in the MTP/SCS plan area. Smaller disposal sites, for which capacity information was unavailable, are described in the text but not included in the table. Landfills outside the MTP/SCS plan area that are used by MTP/SCS plan area jurisdictions are described in the text but not included in the table.

**Source:** Department of Resources Recycling and Recovery Solid Waste Information System (CalRecycle SWIS), 2000, accessed November 19, 2014; Yolo County, June 2014, personal communication 2015
Figure 17.1 Solid Waste Landfills, Transfer Facilities, and Recycling Facilities in the MTP/SCS Area
Sacramento County Solid Waste Management

The Sacramento County Department of Waste Management and Recycling provides solid waste services to the unincorporated portions of Sacramento County, while the City of Sacramento provides solid waste services to city residents and businesses. Both agencies provide solid waste, recycling, and greenwaste collection. Kiefer Landfill is the primary solid waste disposal facility in the County. The Class III landfill facility sits on 1,084 acres located near the intersection of Kiefer Boulevard and Grant Line Road. Currently using 250 acres, the landfill is permitted to use up to 660 acres. Sacramento County also owns and operates the North Area Recovery Station (NARS) located in North Highlands. The City of Sacramento operates a household hazardous waste collection center under contract with the Sacramento Recycling and Transfer Station and the City of Elk Grove operates a special waste collection center that accepts household hazardous waste, tires, sharps, and unused medications. There are various other transfer stations and small, privately-owned landfills throughout Sacramento County, located mainly within the boundaries of the City of Sacramento (Sacramento County, 2014).

Sutter and Yuba Counties Solid Waste Management

The Yuba-Sutter Regional Waste Management Authority (RWMA) was formed in 1990 to provide solid waste services to Sutter and Yuba counties. RWMA works in conjunction with Recology Yuba-Sutter (formerly Yuba-Sutter Disposal, Inc.) to provide for the collection, recycling, and disposal of municipal solid waste from each member jurisdiction. Recology Yuba-Sutter operates the largest landfill within Sutter and Yuba Counties, serving Beale Air Force Base, Live Oak, Marysville, Wheatland, Yuba City, and the counties of Yuba and Sutter. The Ostrom Landfill is a 261-acre site, 225 acres of which are permitted as a Class II Landfill. It is the primary disposal site for waste collected by Recology Yuba-Sutter. Recology Yuba-Sutter also operates two transfer stations in Marysville and Brownsville, a materials recovery facility in Marysville, and a household hazardous waste collection facility in Yuba City. RWMA and Recology Yuba-Sutter provide a number of recycling facilities and programs (Recology Yuba-Sutter, 2014).

Yolo County Solid Waste Management

Yolo County contracts with Waste Management and Davis Waste Removal for garbage and recycling collection. Most of the waste generated in the county is taken to either the Yolo County Central Landfill, located two miles northeast of the City of Davis, or the Esparto Convenience Center, which is also a recycling center and transfer station. The Yolo County Central Landfill is a 722-acre Class III solid waste facility. The UC Davis Landfill, Grover Landscape Services Composting Facility, and Davis Waste Removal’s Green Material Facility also provide solid waste disposal and greenwaste processing services (Yolo County, 2014).

Waste Generation and Disposal

In 2013, California disposed of over 29.9 million tons of waste – a per resident disposal rate of 4.4 pounds of waste per resident per day. In the same year, the state diverted 65 percent of waste from landfills, including 50 percent to recycling. Currently, California is behind on meeting the goal set by Assembly Bill 341 to recycle 75 percent of waste by 2020.
In 2013, the MTP/SCS plan area disposed of over 1.6 million tons of waste, or about 5.5 percent of waste in the state. Generally, overall disposal in the region has been decreasing since 2006, although total disposal rose slightly again in 2013. Within the region, Sacramento County disposes the most waste (CalRecycle, 2013). Figure 17.2 and Figure 17.3 show the historical waste generation total and the historical waste generation rate (tons per capita) for the MTP/SCS plan area, respectively. Figure 17.4 shows the historical waste generation total by county.

**Figure 17.2**

**MTP/SCS Plan Area Solid Waste Generation (in tons)**

Source: California Department of Resources Recycling and Recovery (CalRecycle) Disposal Reporting System (DRS), 2013

**Figure 17.3**

**MTP/SCS Plan Area Solid Waste Generation per Capita (in tons)**

Source: California Department of Resources Recycling and Recovery (CalRecycle) Disposal Reporting System (DRS, 2014) California Department of Finance, 2014
Waste Recycling and Diversion

Reducing the overall amount of waste generated at the source, as well as recycling waste that is disposed of, means less solid waste that ultimately ends up in landfills. Diversion can be achieved by reducing the amount of materials that may be disposed of (e.g., minimizing product packaging), by reusing materials that may generally be disposed of or by recycling. Most paper products and metals, glass, and plastics can be recycled. Special facilities are available to recycle construction, demolition, and inert debris, to chip and grind greenwaste, and/or compost certain greenwaste, food, and paper products. There are 40 facilities that receive and process recycled materials in the region, including several of the solid waste disposal transfer facilities previously identified. One such facility is located in each of El Dorado and Yolo counties, three are located in Yuba County, six are located in Placer County, and 12 are located in Sacramento County. Recycling facilities are included in Figure 17.1 at the beginning of Section 17.2.5 Waste Management (CalRecycle, 2014).

Composting, Chipping, and Grinding

Compostable materials include yard trimmings, wood chips, vegetable scraps, paper products, manures, and wastewater sludges. Chipping and grinding facilities reduce the size of compostable material. Composting facilities collect, mix, pile, and add moisture and air to organic materials to speed natural decay and transform organic waste products into a nutrient-rich soil amendment (CalRecycle, 2006). There are 17 composting facilities and six chipping and grinding facilities within the MTP/SCS plan area (CalRecycle, 2014).
Construction and Demolition and Inert Debris Facilities

The most recent waste characterization study conducted by CalRecycle in 2008 (with an update underway as of 2015) found that construction, demolition, and inert (CDI) materials made up 29 percent of California’s waste disposal. CDI materials include lumber, drywall, metals, masonry (e.g., brick, concrete), carpet, and pipe generated from building demolition or left over from land development. Metals are the most commonly recycled material while lumber makes up the majority of debris entering landfills. However, lumber can be and has been reclaimed and reused in new buildings seeking green building certification. There are three CDI recyclers and inert fill-disposal operations in the region (CalRecycle, 2014).

Disposal Rates

To establish goals for waste diversion, CalRecycle actually sets disposal targets that measure the amount of waste prevented from entering landfills. The Integrated Waste Management Act of 1989 (Assembly Bill 939) set forth aggressive solid waste regulations requiring California cities and counties to reduce the volume of waste sent to landfills by 50 percent through recycling, reuse, composting, and other means. Senate Bill 1016 (SB 1016) shifted from using calculated generation and estimated diversion for setting the per capita compliance targets to using actual annual disposal per capita. The per capita disposal rate uses only two factors: a jurisdiction’s population and/or employment and disposal as reported by its disposal facilities.

In 2011, CalRecycle determined that all jurisdictions in the MTP/SCS plan area had met the 50 percent equivalent per capita disposal targets for the period from 2007 to 2011. As currently reported for 2013, all jurisdictions in the MTP/SCS plan area are still meeting their population and employment per capita disposal targets (CalRecycle, 2013). Compliance for these areas is currently under review for the 2012-2015 period. Table 17.5 provides information on the number of diversion programs and annual and target disposal per capita by population and employment.

17.2.6 Energy Services

Energy can come from a variety of sources both non-renewable and renewable. Nonrenewable sources of energy primarily include coal, oil, natural gas, and nuclear. Fuels derived from nonrenewable sources generally produce more greenhouse gas emissions and pollutants than energy derived from renewable sources. Renewable sources of energy primarily include wind, water, solar, geothermal (earth’s crust), and biomass (biological material). These sources are not depleted after a single use and are more readily available. Alternative sources of renewable energy include ethanol produced from agricultural feedstock, hydrogen extracted from water or methane, biodiesel derived from corn, and methanol produced by gasification of organic materials like those disposed of in landfills.
Table 17.5
2013 MTP/SCS Plan Area Disposal Rates Per Capita by County

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Diversion Programs Implemented</th>
<th>Population Disposal (PPD)</th>
<th>Employment Disposal (PPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Target</td>
<td>Annual</td>
</tr>
<tr>
<td>Auburn</td>
<td>43</td>
<td>7.4</td>
<td>5.2</td>
</tr>
<tr>
<td>Citrus Heights</td>
<td>32</td>
<td>4.2</td>
<td>3</td>
</tr>
<tr>
<td>Colfax</td>
<td>29</td>
<td>8.4</td>
<td>3.3</td>
</tr>
<tr>
<td>Davis</td>
<td>42</td>
<td>3.8</td>
<td>2.7</td>
</tr>
<tr>
<td>El Dorado-Unincorporated</td>
<td>44</td>
<td>5.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Elk Grove</td>
<td>42</td>
<td>5.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Folsom</td>
<td>47</td>
<td>7</td>
<td>3.6</td>
</tr>
<tr>
<td>Galt</td>
<td>34</td>
<td>4.1</td>
<td>2.6</td>
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<td>Isleton</td>
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<td>5.8</td>
<td>4.6</td>
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<td>Lincoln</td>
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<td>Placer-Unincorporated</td>
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<td>Placerville</td>
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<td>6.9</td>
<td>4.8</td>
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<td>Rancho Cordova</td>
<td>36</td>
<td>7.5</td>
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<td>4.2</td>
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<td>35</td>
<td>6.9</td>
<td>4.2</td>
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</tbody>
</table>

Note: The per capita disposal rate is a jurisdiction-specific index and cannot be compared between jurisdictions. It is used as one of several factors in determining compliance with the intent of AB 939 and is not necessarily an indication of compliance. Some disposal rates are calculated as submitted by the jurisdiction and are subject to change during the formal Jurisdiction Review process. CalRecycle is awaiting data for the Yolo Unincorporated area.

Most power in California is derived from natural gas, followed by unspecified, hydro, wind, and coal sources. In 2013, California generated 67 percent of power in-state and imported the remaining 33 percent, mainly from the southwest area of the nation. The state’s electricity system included 593,242 total gigawatt hours (GWh) of power that year (California Energy Commission, 2014). Figure 17.5 provides details on the share of nonrenewable and renewable sources of energy used to produce California’s electricity in 2013.

ENERGY SERVICE PROVIDERS

Pacific Gas and Electric Company (PG&E), the Sacramento Municipal Utilities District (SMUD), and Roseville Electric provide natural gas and electricity services to the MTP/SCS plan area. Energy service providers usually complete improvements for an area to meet customer demand as the need arises. Additionally, under the California Renewables Portfolio Standard, investor-owned utilities are required to procure 33 percent of their electricity portfolio from renewable sources by 2020.

PG&E

PG&E is one of the largest combination natural gas and electric utilities in the United States. The company, a subsidiary of PG&E Corporation, serves approximately 16 million people in 70,000 square miles of northern and central California. Within the MTP/SCS plan area, PG&E provides electric service to El Dorado, Sutter, Yolo, and Yuba counties, and large portions of Placer County west of the Tahoe Basin. PG&E also provides gas service to the entire Sacramento metropolitan area.

PG&E obtains its electricity from natural gas, fossil fuels, nuclear, and hydroelectric and other renewable sources. In 2012, 51 percent of the electricity PG&E delivered to its customers came
from a combination of renewable and greenhouse gas-free resources. In 2013, 22.5 percent of power provided by PG&E came from eligible renewable resources (PG&E, 2014).

PG&E provides incentives for rooftop solar, solar water heating, fuel cells, wind, battery storage, advanced LED lighting, and other advanced technologies that help customers reduce their energy bills and their carbon footprint. PG&E also continues to encourage customers to invest in cost-effective energy efficiency measures and offers electric vehicle charging pricing plans (PG&E, 2014).

In recent years, PG&E has been working to enhance pipeline safety and strengthen gas and electric infrastructure in Sacramento. PG&E pressure tested nearly 40 miles of gas transmission pipeline, replaced more than 30 miles of gas transmission pipelines, installed 15 automated valves, and conducted leak surveys of 13,000 miles of gas distribution pipelines and 1,600 miles of gas transmission pipelines. PG&E also invested almost $300 million in electrical improvements and installed smart grid technology benefiting more than 190,000 customers in the Sacramento area (PG&E, 2014).

SMUD

SMUD supplies electric service to Sacramento County and to a five-square-mile area in the Dry Creek/West Placer area west of the City of Roseville in Placer County. SMUD is the sixth-largest publicly-owned utility in the United States, in terms of the number of customers served. In 2013, SMUD completed SmartSacramento which encompassed more than 40 projects in seven areas to install more efficient smart grid infrastructure and improve distribution, pricing, and demand response (SMUD, 2014).

SMUD obtains its electricity from a variety of sources, including hydro-generation, natural gas fired generators, cogeneration plants, advanced and renewable technologies (such as wind, solar, and biomass and landfill gas power), and power purchased on the wholesale market.

A large portion of SMUD’s generated power is produced by the Upper American River Project (UARP), a hydroelectric facility on the western slope of the Sierra Nevada. This project, consisting of 11 reservoirs and eight powerhouses, generates enough electricity to meet about 20 percent of SMUD’s customer demand. In a normal water year, UARP provides roughly 1.8 billion kilowatt-hours of electricity, which is enough to power 180,000 homes.

SMUD acquired an updated Federal Energy Regulatory Commission (FERC) operating license for the UARP in 2014, which will be effective through 2064. The 2014 operating license authorized SMUD to build a 400-megawatt pumped-storage addition to the UARP at Iowa Hill, which could break ground as early as 2018 pending final approval from the SMUD Board of Directors. Under the conditions of the 2014 operating license, SMUD agreed to release more water from dams to support fish and whitewater boating, to carry out extensive ecological monitoring and reporting over the term of the operating license, and to improve public recreation facilities around reservoirs in the Crystal Basin Recreation Area (SMUD, 2014).

In 2012, SMUD added 75 turbines to the Solano County Wind Farm to bring the total generating capacity up to 230 megawatts. The expansion provided about 13 percent of SMUD’s renewable energy goal for 2013. In 2013, 25 percent of power provided by SMUD was procured from eligible renewable resources (SMUD, 2014).
SMUD offers a variety of programs to preserve natural resources and reduce pollution, including incentives for purchasing and installing photo-voltaic solar panels and charging pricing plans for electric vehicles. SMUD also offers rebates for energy-efficient appliances, energy-efficient heating and cooling systems, energy-efficient lighting, and for saving energy through the home performance program. Through SMUD’s Greenergy program, members can choose to buy energy from natural resources, such as the sun, wind, or methane gas, and can also choose to purchase carbon offsets on their monthly bill (SMUD, 2014).

City of Roseville

The City of Roseville supplies its own electrical service to its residents through Roseville Electric, a municipal-owned utility. The City serves more than 53,000 residential and business customers. Roseville Electric offers rebates to customers for energy-efficient air conditioners, freezers, refrigerators, pool pumps, sun window screens, whole house fans, and solar energy systems. Customers can also receive a credit on their bill for enrolling in the Power Partners program to cycle their central air conditioning compressor on and off during high energy demand times in the summer.

Roseville Electric generates power from the Roseville Energy Park, a 160-megawatt natural gas fire plant that generates enough energy to meet 40 percent of the City’s needs. The remainder of Roseville’s electricity is purchased. In 2012, 23 percent of Roseville Electric’s power was generated through eligible renewable resources (City of Roseville, 2014).

INFRASTRUCTURE

Power Plants

Energy resources are converted to power through processes performed in an industrial facility or power plant before being distributed by service providers for public use. There are 84 power plants located within and providing energy for the region. Most power plants in the MTP/SCS plan area are hydroelectric (38), followed by solar (22), oil and/or gas (15), waste-to-energy landfill gas or biomass (8), and wind (1). Power plants are most commonly located in Sacramento (29), Placer (20), and Yuba (15) counties. Most of these facilities provide power for the PG&E service area. Table 17.6 provides information on the capacity, type, and service area of power plants and Figure 17.6a shows the location of power plants in the MTP/SCS plan area.

Natural Gas Pipelines

Natural gas is primarily used for electric power generation and as a residential, commercial, and industrial energy resource. Natural gas-generated electricity accounted for 44 percent of all power generated in California in 2013, the largest source of power in the state. While California generated almost 92 percent of the natural gas used in-state, most of the remaining 8 percent was imported through interstate pipelines from the southwest, the Rocky Mountains, and Canada (California Energy Commission, 2014). As shown in Figure 17.6b below, there are many natural gas transmission pipelines within the MTP/SCS plan area.
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Note: “WTE” refers to waste-to-energy, the process of generating energy from the incineration of waste.
Source: California Energy Commission, 2014
Figure 17.7b
Transmission Lines

LEGEND
- Pacific Gas & Electric (PG&E)
- Sacramento Municipal Utility District (SMUD)
- Western Area Power Administration (WAPA)
Natural gas pipelines are located at the intersection of White Rock and Latrobe roads and along Green Valley Road from the County line to Salmon Falls Road in El Dorado County. In Placer County, natural gas pipelines are generally located near SR 65 through Sheridan to Lincoln and along I-80 from Roseville to Auburn. Pipelines are located generally near I-80 and along south I-5 in Sacramento, with additional east-west running pipelines in the northern, central, and southern city. In Sutter County, natural gas pipelines are located adjacent to north SR 99 and near SR 20 with an additional pipeline running east-west in the southern portion of the county. There are also natural gas pipelines near north I-5, I-80, and SR 113, and running east-west from the community of Yolo to West Sacramento in Yolo county. Finally, in Yuba County pipelines are located generally near SR 70, SR 65, South Beale Road, and Warren Shingle Road (U.S. Pipeline and Hazardous Materials Safety Administration, 2012).

**Liquid Energy Pipelines**

Liquid energy pipelines transport many other energy sources, including crude oil, Ethanol, liquid natural gas (regasified after transport), and liquid petroleum gas also known as propane (U.S. Pipeline and Hazardous Materials Safety Administration, 2012). Though they make up a much smaller proportion of California’s electricity system, liquid energy resources like propane can be used as an additional energy source in areas without access to natural gas distribution lines. From the refinery or processing plant, propane is shipped to an intermediate terminal; from there, it is shipped to the local propane supplier for delivery to commercial and residential end users. Propane is transported under pressure in its more compact liquid form. Typically, propane is transported by trucks or pipelines. Similarly liquid energy pipelines transport crude oil and ethanol, which are converted into fuel for machines, airplanes and rockets, and commercial, agricultural, and personal vehicles. For more information about the transport of crude oil and other hazardous liquids, see Chapter 10 – Hazards and Hazardous Materials.

As shown in Figure 17.6 above, there are many petroleum oil and other liquid energy transmission pipelines within the MTP/SCS plan area. There are transmission pipelines located adjacent to I-80 and SR 65 in Placer County. Transmission pipelines in Sacramento County are located adjacent to Bradshaw road from US 50 to SR 99 and following SR 99 to the county line. There is also a pipeline running from the Sacramento International Airport to I-80 in Yolo County. In Sutter County, transmission pipelines follow northern SR 99. There are transmission pipelines located adjacent to SR 84 and I-80 in Yolo County. In Yuba County, transmission pipelines are located adjacent to SR 65 and continue along South Beale Road to Beale Air Force Base (U.S. Pipeline and Hazardous Materials Safety Administration, 2012). There are no petroleum refineries located in the MTP/SCS plan area, as the majority of the state’s refineries are located in the San Francisco Bay Area, Los Angeles, and other parts of the Central Valley. However, there are three refined products terminals, which receive petroleum products by tanker, barge, pipeline, rail, or truck in Sacramento County (California Energy Commission, 2014).

**Energy Use**

California was ranked 49th in the nation for per capita energy consumption in 2012. This was largely due to a combination of a generally mild climate and a focus on energy efficiency programs. Residential electricity consumption in California homes is also among the lowest in the nation (U.S. Energy Information Administration, 2014). Figure 17.8 shows MTP/SCS plan area electricity usage from 2009 to 2012, and Figure 17.9 shows residential electricity use per capita for 2009 to 2012.
Similarly, Figure 17.10 shows MTP/SCS plan area natural gas usage from 2009 to 2012, and Figure 17.11 shows residential natural gas use per capita from 2009 to 2012. For more discussion on electricity and natural gas consumption and peak demand, as well as a discussion of oil and fuel consumption, see Chapter 8 – Energy and Global Climate Change.

**Figure 17.8**

*MTP/SCS Plan Area Electricity Usage (in MW)*

![MTP/SCS Plan Area Electricity Usage graph](image)


**Figure 17.9**

*MTP/SCS Plan Area Residential Electricity Usage per Capita (in MW)*

![MTP/SCS Plan Area Residential Electricity Usage graph](image)

*Source: The California Energy Commission Energy Consumption Data Management System, 2012; California Department of Finance, 2014*
17.2.7 Telecommunications Services

Telecommunications services in any given area can vary widely as they are mainly a privately-owned enterprise and are offered by a variety of companies with different service capacities. The number of providers offering the service, the type of service available, and the transmission speed of the service all impact the quality of telecommunications. This differs from other utilities that are generally publicly-owned or offered by a limited number of service providers.

**Telecommunications Service Providers**

Many telecommunications providers offer phone, internet, and/or television service in the MTP/SCS plan area as shown in Table 17.7. Residents often bundle their phone, internet, and television services with the same provider to take advantage of service discounts or other
promotional offers. Telecommunications providers will usually complete infrastructure and other service improvements for an area as the need arises to meet customer demand.

**TELEPHONE AND CELLULAR PHONE**

Local phone service is provided primarily by AT&T, Inc. (AT&T), although a number of independent telephone companies operate in the MTP/SCS plan area as well, including Frontier Communications Corporation, MetroPCS Wireless, and Consolidated Communications (National Telecommunications and Information Administration and Federal Communications Commission, 2014). Long distance telephone service is provided by several carriers, including AT&T and Sprint Nextel Corporation, among others.

AT&T, Sprint Nextel Corporation, T-Mobile, and Verizon Wireless are among the multiple cellular telephone providers that provide service in the region (National Telecommunications and Information Administration and Federal Communications Commission, 2014). Providers use a combination of underground lines and above ground cellular towers to provide telephone service to the MTP/SCS plan area. Cellular towers are often located in industrial areas or close to freeways, and are often designed to blend into the surroundings.

**CABLE TELEVISION AND INTERNET**

Internet services are provided by AT&T, Comcast, Consolidated Communications, and Integra Telecom, Inc., in addition to satellite and other providers. Internet service may be provided through mobile (i.e., cellular phone), wireless (Wi-Fi), hotspots (i.e., wireless local area network [WLAN]), phone line (i.e., integrated services digital network [ISDN], dial-up), or broadband (i.e., DSL, cable) connections. Cable television is primarily provided by Comcast Cable, AT&T, and Consolidated Communications through cable or satellite connections (National Telecommunications and Information Administration and Federal Communications Commission, 2014).

Cable fibers and copper wires are generally co-located and installed concurrently with other utility infrastructure. This infrastructure is usually installed underground within new development in order to reduce visual and aesthetic impacts and any potential safety hazards. Fiber cables, the fastest form of communications infrastructure, are also co-located and installed underground. However, fiber optic networks generally serve larger urban areas where demand offsets the high cost of installing the fiber optics. Additionally, television and internet services can be provided through satellite connections and Wi-Fi networks that allow electronic devices to communicate using radio waves rather than a wire.
Table 17.7
Telecommunications Service Providers in the MTP/SCS Plan Area

<table>
<thead>
<tr>
<th>Telecommunications Service Provider</th>
<th>Services Provided</th>
<th>Type of Broadband</th>
<th>MTP/SCS Plan Area Service Reach (not complete coverage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT&amp;T Inc.</td>
<td>Local phone, long distance, cellular phone, internet, and TV</td>
<td>Asymmetric xDSL, Optical Carrier - Fiber to the End User, Terrestrial Mobile Wireless - Licensed</td>
<td>El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties</td>
</tr>
<tr>
<td>Cal.net, Inc.</td>
<td>Local phone, long distance, and internet</td>
<td>Terrestrial Fixed Wireless - Licensed, Terrestrial Fixed Wireless - Unlicensed</td>
<td>El Dorado, Placer, and Sacramento counties</td>
</tr>
<tr>
<td>Central Valley Broadband</td>
<td>Internet</td>
<td>Terrestrial Fixed Wireless - Unlicensed</td>
<td>El Dorado, Placer, Sacramento, Sutter, and Yuba counties</td>
</tr>
<tr>
<td>Charter Communications</td>
<td>Local phone, long distance, internet, and TV</td>
<td>Cable Modem - DOCSIS 3.0</td>
<td>El Dorado and Placer counties</td>
</tr>
<tr>
<td>Comcast Corporation</td>
<td>TV</td>
<td>Cable Modem - DOCSIS 3.0</td>
<td>El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties</td>
</tr>
<tr>
<td>Consolidated Communications, Inc.</td>
<td>Local phone, long distance, internet, and TV</td>
<td>Asymmetric xDSL, Optical Carrier - Fiber to the End User</td>
<td>Sacramento and Yolo counties</td>
</tr>
<tr>
<td>DigitalPath, Inc.</td>
<td>Local phone, and internet</td>
<td>Terrestrial Fixed Wireless - Unlicensed</td>
<td>Placer, Sacramento, Sutter, Yolo, and Yuba counties</td>
</tr>
<tr>
<td>Earthlink</td>
<td>Internet</td>
<td>Asymmetric xDSL, Symmetric xDSL, Other Copper Wireline</td>
<td>El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties</td>
</tr>
<tr>
<td>Encore Business Systems, Inc.</td>
<td>Internet</td>
<td>Terrestrial Fixed Wireless - Licensed, Terrestrial Fixed Wireless - Unlicensed</td>
<td>Sacramento, Sutter, and Yolo counties</td>
</tr>
<tr>
<td>Frontier Communications Corporation</td>
<td>Local phone and internet</td>
<td>Asymmetric xDSL</td>
<td>Sacramento and Yolo counties</td>
</tr>
<tr>
<td>Integra Telecom Holdings, Inc.</td>
<td>Local phone and internet</td>
<td>Asymmetric xDSL, Other Copper Wireline</td>
<td>El Dorado, Placer, Sacramento, and Yolo counties</td>
</tr>
<tr>
<td>Internet Free Planet</td>
<td>Internet</td>
<td>Terrestrial Fixed Wireless - Licensed, Terrestrial Fixed Wireless - Unlicensed</td>
<td>Sacramento and Sutter counties</td>
</tr>
<tr>
<td>Level 3 Communications, LLC</td>
<td>Local phone and internet</td>
<td>Optical Carrier - Fiber to the End User</td>
<td>Sacramento and Yolo counties</td>
</tr>
<tr>
<td>MetroPCS Wireless</td>
<td>Cellular phone</td>
<td>Terrestrial Mobile Wireless - Licensed</td>
<td>El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties</td>
</tr>
<tr>
<td>PNC</td>
<td>Internet</td>
<td>Terrestrial Fixed Wireless -</td>
<td>Yolo County</td>
</tr>
<tr>
<td>Telecommunications Service Provider</td>
<td>Services Provided</td>
<td>Type of Broadband</td>
<td>MTP/SCS Plan Area Service Reach (not complete coverage)</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>Platinum Equity, LLC</td>
<td>Internet</td>
<td>Asymmetric xDSL, Symmetric xDSL, Other Copper Wireline</td>
<td>El Dorado, Placer, Sacramento, and Yolo counties</td>
</tr>
<tr>
<td>Rancho Murieta Association</td>
<td>Internet and TV</td>
<td>Cable Modem - DOCSIS 3.0</td>
<td>Sacramento County</td>
</tr>
<tr>
<td>Ruralnet Wireless LLC</td>
<td>Internet</td>
<td>Terrestrial Fixed Wireless - Unlicensed</td>
<td>El Dorado, Placer, Sacramento, Sutter, and Yolo counties</td>
</tr>
<tr>
<td>Sebastian Enterprises</td>
<td>Local phone, long distance, internet, and TV</td>
<td>Asymmetric xDSL</td>
<td>Placer County</td>
</tr>
<tr>
<td>Smarter Broadband</td>
<td>Internet</td>
<td>Terrestrial Fixed Wireless - Unlicensed</td>
<td>Placer County</td>
</tr>
<tr>
<td>Sonic Telecom, LLC</td>
<td>Local phone, long distance, internet, and TV</td>
<td>Asymmetric xDSL, Symmetric xDSL</td>
<td>Sacramento and Yolo counties</td>
</tr>
<tr>
<td>Sprint Nextel Corporation</td>
<td>Cellular phone</td>
<td>Terrestrial Mobile Wireless - Licensed</td>
<td>El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties</td>
</tr>
<tr>
<td>Succeed.Net</td>
<td>Internet</td>
<td>Terrestrial Fixed Wireless - Unlicensed</td>
<td>Placer, Sacramento, Sutter, Yolo, and Yuba counties</td>
</tr>
<tr>
<td>Suddenlink Communications</td>
<td>Local phone, long distance, internet, and TV</td>
<td>Cable Modem - Other, Cable Modem - DOCSIS 3.0</td>
<td>El Dorado, Placer, and Yolo counties</td>
</tr>
<tr>
<td>T-Mobile</td>
<td>Cellular phone</td>
<td>Terrestrial Mobile Wireless - Licensed</td>
<td>El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties</td>
</tr>
<tr>
<td>Telephone and Data Systems, Inc.</td>
<td>Local phone, long distance, cellular phone, internet, and TV</td>
<td>General broadband technologies</td>
<td>Yolo County</td>
</tr>
<tr>
<td>tw telecom inc.</td>
<td>Local phone, long distance, and internet</td>
<td>General broadband technologies</td>
<td>Placer, Sacramento, and Yolo counties</td>
</tr>
<tr>
<td>Verizon Communications Inc.</td>
<td>Cellular phone</td>
<td>Terrestrial Mobile Wireless - Licensed</td>
<td>El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties</td>
</tr>
<tr>
<td>Volcano Communications Company</td>
<td>Local phone, long distance, internet, and TV</td>
<td>Terrestrial Fixed Wireless - Unlicensed</td>
<td>El Dorado and Sacramento counties</td>
</tr>
<tr>
<td>WaveDivision Holdings</td>
<td>Local phone, long distance, internet, and TV</td>
<td>Cable Modem - DOCSIS 3.0</td>
<td>Placer, Sacramento, and Yolo counties</td>
</tr>
<tr>
<td>Windstream Corporation</td>
<td>Local phone, long distance, internet, and TV</td>
<td>General broadband technologies</td>
<td>Sacramento and Yolo counties</td>
</tr>
<tr>
<td>Winters Broadband, LLC</td>
<td>Internet</td>
<td>Terrestrial Fixed Wireless - Unlicensed</td>
<td>Yolo County</td>
</tr>
</tbody>
</table>

Source: National Telecommunications and Information Administration and Federal Communications Commission, National Broadband Map, 2014
**BROADBAND**

Broadband refers to a high-speed connection to the internet that is always on, as opposed to other connections (e.g., dial-up) that need to be turned on with every use. The region is fully served by mobile broadband except in the mountainous areas in the western tip of Yolo County, the middle of Placer County, and north and south El Dorado County. Fixed wireless broadband service is available at varying speeds throughout the MTP/SCS plan area, except for the northwest portion of Yolo County, the very tip of northern Yuba, and mid to east Yolo and El Dorado counties. Wireline broadband is the least available service as it is generally offered only near more developed areas. Wireline broadband is available along the Sutter/Yuba border, in cities in Yolo county, in a large cluster near the connection of highways in El Dorado county, along I-80 in Placer County, and in most of northern Sacramento county. Figure 17.12 shows wireline, wireless, and mobile broadband service to the MTP/SCS plan area.

There are 13 telecommunications providers offering services in El Dorado and Sutter counties, 20 offering services in Placer county, 24 offering services in Sacramento county, 23 offering services in Yolo county, and 10 offering services in Yuba county. As shown in Table 17.8, Placer, Sacramento, Sutter, and Yolo counties have access to wireless and wireline download speeds greater than 10 megabites per second which are greater than the national average. El Dorado and Yuba counties have access greater than the national average for wireless services, but not wireline services. All counties in the MTP/SCS plan area have access to wireless technology that exceeds the national average. Sacramento, Sutter, and Yolo counties have access that is greater than the national average for DSL; Placer and Sacramento counties have access that is greater than the national average for Fiber; and Placer, Sacramento, and Sutter counties have access that is greater than the national average for Cable (National Telecommunications and Information Administration and Federal Communications Commission, 2014).

<table>
<thead>
<tr>
<th>Technology</th>
<th>Area</th>
<th>El Dorado</th>
<th>Placer</th>
<th>Sacramento</th>
<th>Sutter</th>
<th>Yolo</th>
<th>Yuba</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL</td>
<td></td>
<td>82.2%</td>
<td>88.2%</td>
<td>97.1%</td>
<td>92.2%</td>
<td>92.0%</td>
<td>77.1%</td>
<td>88.6%</td>
</tr>
<tr>
<td>Fiber</td>
<td></td>
<td>0.9%</td>
<td>31.3%</td>
<td>27.7%</td>
<td>1.8%</td>
<td>2.9%</td>
<td>1.6%</td>
<td>24.3%</td>
</tr>
<tr>
<td>Cable</td>
<td></td>
<td>78.5%</td>
<td>89.3%</td>
<td>96.9%</td>
<td>91.7%</td>
<td>87.7%</td>
<td>80.1%</td>
<td>88.1%</td>
</tr>
<tr>
<td>Wireless</td>
<td></td>
<td>99.2%</td>
<td>99.9%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>99.1%</td>
</tr>
</tbody>
</table>

Figure 17.12: Cable, Phone, and Internet Service in the MTP/SCS Area

This map illustrates the distribution of cable, phone, and internet service in the MTP/SCS Area, with different symbols representing various service coverage and types. The map includes counties such as Sutter County, Placer County, Yuba County, El Dorado County, and Sacramento County.

Legend:
- Red: Wireline
- Blue: Fixed Wireless Coverage
- Orange: Broadband Coverage
- Gray: City Boundaries
- Purple: Water Features
- Black: County Boundaries
- Pink: SCS Planning Area

Sources: Esri, USGS, NOAA
17.3 Regulatory Setting

17.3.1 Federal Regulations

**Federal Power Act of 1935**

The Federal Power Act of 1935 (16 U.S. Code, § 791 et seq.) created the Federal Energy Regulatory Commission (FERC), an independent regulatory agency with authority over both the interstate transmission of electricity and the sale of hydroelectric power at the wholesale level. The Act requires the commission to ensure that electricity rates are “reasonable, nondiscriminatory, and just to the consumer”. The Federal Power Act also amended the criteria that the commission must apply in deciding whether to license the construction and operation of new hydroelectric facilities. The FERC acts under the legal authority of the Federal Power Act, the Public Utility Regulatory Policies, and the Energy Policy Act (EPAct) (42 U.S. Code § 13201 note), as well as other federal acts.

**Natural Gas Act of 1938 (NGA)**

Together with the Federal Power Act, the NGA (15 U.S. Code, § 717 et seq.) was an essential piece of energy legislation in the first half of the twentieth century. These statutes regulated interstate activities of the electric and natural gas industries, respectively. The NGA enabled federal regulators to set prices for gas sold in interstate commerce in exchange for exclusive rights to transport the gas.

**United States Department of Transportation (USDOT) - Act of Congress 1966**

USDOT is a federal department of the U.S. government concerned with transportation that was established by an act of Congress in 1966. Propane transportation is regulated by USDOT. With authority stated in Title 49 of the Code of Federal Regulations, USDOT requires that all shipping papers contain a 24-hour-a-day telephone number where emergency assistance and information can be obtained. This service must provide information about any cargo that is classified by USDOT as a hazardous material. There are several sources in the United States that an emergency response crew leader can contact in the case of a transportation accident (NPGA 2002).

**Clean Water Act (CWA) of 1972**

Enacted in 1972, this federal legislation completely revised the pre-existing Water Pollution Control Act. Section 304 of the CWA (33 U.S. Code, § 1251 et seq.) established primary drinking water standards. States are required to ensure that potable water retailed to the public meets these standards.

Construction of wastewater and stormwater infrastructure and facilities may have impacts (erosion and sedimentation) regulated by CWA. The 1972 amendments to the federal CWA prohibit the discharge of pollutants to navigable waters from a point source unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. The CWA requires NPDES permits for stormwater discharges caused by general construction activity, industrial activity, and municipal drainage collection. The purpose of the NPDES program is to establish a comprehensive stormwater quality program to manage urban stormwater, reducing pollution of the environment as much as possible. The NPDES program involves characterizing the quality of receiving water, identifying harmful constituents, targeting potential sources of pollutants, and implementing a
comprehensive stormwater management program. In California, NPDES permits are issued by Regional Water Quality Control Boards (RWQCBs).

**SAFE DRINKING WATER ACT (SDWA) OF 1974 (AS AMENDED)**

SDWA (42 U.S. Code, § 300f et seq.) promulgated by Congress in 1974, amended in 1986 and 1996, establishes a Federal program to monitor and increase the safety of the nation’s drinking water supply. SDWA authorizes the U.S. Environmental Protection Agency (EPA) to set and implement health-based standards to protect against both naturally occurring and man-made contaminants in drinking water. EPA is also responsible for assessing and protecting drinking water sources; protecting wells and collection systems; making sure water is treated by qualified operators; ensuring the integrity of distribution systems; and making information available to the public on the quality of their drinking water. On July 1, 2014, the Drinking Water Program and the Environmental Laboratory Accreditation Program moved from California Department of Public Health (CDPH) to the SWRCB (SWRCB, 2015).

**RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) OF 1976**

Pursuant to RCRA (42 U.S. Code, § 6901 et seq.) Code of Federal Regulations Title 40, Part 258, Subtitle D establishes minimum location standards for siting municipal solid waste landfills. Because California laws and regulations governing the approval of solid waste landfills meet the requirements of Subtitle D, EPA has delegated the enforcement responsibility to the State of California. California laws and regulations governing these facilities are summarized in the section below.

**FEDERAL ENERGY REGULATORY COMMISSION (FERC), 1977**

FERC was created by the Department of Energy Organization Act of 1977 and established within the Department of Energy. FERC regulates the transmission and sale of electricity in interstate commerce, oversees licensing of hydroelectric projects, and provides oversight of related environmental matters.

**NATURAL GAS POLICY ACT OF 1978 (NGPA)**

NGPA (15 U.S. Code, § 3301 et seq.) granted the Federal Energy Regulatory Commission (FERC) authority over intrastate as well as interstate natural gas production. The NGPA established price ceilings for wellhead first sales of gas that vary with the applicable gas category and gradually increase over time.

**EPA ACT OF 1992**

TELECOMMUNICATIONS ACT OF 1996

The Telecommunications Act (47 U.S. Code) was the first major overhaul of United States telecommunications law in nearly 62 years, amending the Communications Act of 1934 (47 U.S. Code, § 151 et seq.). The Act deregulates local phone service, and allows long-distance carriers and cable television companies to provide local phone service, and allows local telephone companies to provide long distance service.

17.3.2 State Regulations

SENATE CONSTITUTIONAL AMENDMENT NO. 13, 1945- CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC)

Senate Constitutional Amendment No. 13 (Cal. Stats. 1945, Res. Ch. 145) established CPUC. CPUC regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. CPUC sets forth specific rules that relate to the design, installation, and management of California’s public utilities. CPUC Decisions #77187 and #78500 state that utilities must be underground if the developable lots are less than three acres in size. CPUC Decision #81620 states that lots over three acres (large lot subdivision) are not required to underground utilities. A formal waiver from the CPUC is required for an exemption from complying with these decisions. CPUC Decision 95-08-038 governs the planning and construction of new transmission facilities, distribution facilities, and substations.

PORTER-COLOGNE WATER QUALITY CONTROL ACT OF 1969 (PORTER COLOGNE ACT)

The Porter Cologne Act (Wat. Code, § 13000 et seq.) directs the State Water Resources Control Board (SWRCB) and RWQCBs to prepare Water Quality Control Plans (Basin Plans), establishing water quality objectives and beneficial uses for each body of water within the regional boundaries including groundwater basins. The RWQCB issues waste discharge requirements (WDRs) for discharges of privately- or publicly-treated domestic wastewater to locations other than surface water. These WDRs are usually designed to protect beneficial uses of groundwater basins but can be issued to protect surface waters in areas where groundwater is known to infiltrate into surface waters. Many municipal wastewater treatment facilities do not have NPDES permits, but rather are issued WDRs for discharges to surface impoundments and percolation ponds. The RWQCB also issues waste reclamation requirements (WRRs) for treated wastewater used exclusively for reclamation projects such as irrigation and groundwater recharge. The Porter Cologne Act empowers the SWRCB and RWQCBs to protect the beneficial use of California waters. Thereby, it provides broader authority than offered by the Federal CWA alone.

New or expanded landfills must submit Reports of Waste Discharge to RWQCBs prior to landfill operations. In conjunction with the California Integrated Waste Management Board (CIWMB, now California Department of Recycling and Recovery [CalRecycle]) approval of SWFPs, RWQCBs issue Waste Discharge Orders, which regulate the liner, leachate control and removal, and groundwater monitoring systems at Class III landfills. While Waste Discharge Orders only apply to landfills, RWQCBs also regulate surface water runoff for all solid waste facilities by issuing stormwater discharge permits under the NPDES program. Separate NPDES permits are issued for the construction and operation of these facilities.
**Subdivision Map Act of 1974**

One of the powers granted to local jurisdictions by the Subdivision Map Act (Gov. Code, § 66410 et seq.) is the authority to impose drainage improvements or drainage fees and assessments. Specifically, local jurisdictions may require the provision of drainage facilities, proper grading and erosion control, dedication of land for drainage easements, or payment of fees needed for construction of drainage improvements. The types and applicable standards of the improvements may be specified in the local ordinance.


The California Energy Commission (CEC) regulates energy resources by encouraging and coordinating research into energy supply and demand problems to reduce the rate of growth of energy consumption, through the Warren-Alquist Act (Gov. Code, § 25000 et seq.).

The CEC is the State’s primary energy policy and planning agency. Its responsibilities include forecasting future energy needs and keeping historical energy data; licensing thermal power plants 50 megawatts or larger; promoting energy efficiency through appliance and building standards; developing energy technologies and supporting renewable energy; and planning for and directing State response to energy emergencies.

The CEC develops energy efficiency standards for residential and nonresidential buildings approximately every three years. The CEC adopted the 2013 Building Energy Efficiency Standards in May 2012, which became effective on July 1, 2014.

**Urban Water Management Planning Act of 1983**

Urban water suppliers must prepare Urban Water Management Plans (UWMPs) to support their long-term resource planning and ensure adequate water supplies are available to meet existing and future water demands. Every urban water supplier that either provides over 3,000 acre-feet of water annually or serves more than 3,000 connections is required to assess the reliability of its water sources over a 20-year planning horizon considering normal, dry, and multiple dry years. This assessment is included in each UWMP, which is prepared every 5 years and submitted to DWR. DWR reviews UWMPs for consistency with the Urban Water Management Planning Act of 1983 (Wat. Code, §§ 10610-10656). The Water Conservation Act of 2009 (Wat. Code, § 10608 et seq.), also known as Sen7 (Stats. 2009, 7th Ex. Sess., ch. 4) (SB X7-7), and amendments to the Urban Water Management Planning Act of 1983 set a goal of reducing per capita daily water consumption by 20 percent by the year 2020. Updates to UWMPs for 2015 are due to DWR by July 1, 2016 (DWR, 2012).

**Safe Drinking Water and Toxic Enforcement Act of 1986**

Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986 (Health & Saf. Code, § 25249.5, et seq.) was enacted as a ballot initiative in November 1986. Proposition 65 requires the State to publish a list of chemicals known to cause cancer or birth defects or other reproductive harm. This list, which must be updated at least once a year, has grown to include approximately 800 chemicals since it was first published in 1987.
Proposition 65 requires businesses to notify Californians about significant amounts of chemicals in the products they purchase, in their homes or workplaces, or that are released into the environment. By providing this information, Proposition 65 enables Californians to make informed decisions about protecting themselves from exposure to these chemicals. Proposition 65 also prohibits California businesses from knowingly discharging significant amounts of listed chemicals into sources of drinking water.

The Office of Environmental Health Hazard Assessment (OEHHA) administers the Proposition 65 program. OEHHA, which is part of EPA, also evaluates all currently available scientific information on substances considered for placement on the Proposition 65 list.

**Integrated Waste Management Act of 1989 (IWMA)**

IWMA (Pub. Resources Code, § 40000 et seq.), also known as Assem. Bill No. 939 (Stats. 1989, ch. 1095) (AB 939), established the California Integrated Waste Management Board (CIWMB) and set forth aggressive solid waste diversion requirements. Under the Act, every city and county in California is required to reduce the volume of waste sent to landfills by 50 percent through recycling, reuse, composting, and other means. Counties are required to prepare a CIWMP. An adequate CIWMP contains a summary plan that includes goals and objectives, a summary of waste management issues and problems identified in the incorporated and unincorporated areas of the county, a summary of waste management programs and infrastructure, information about existing and proposed solid waste facilities, and an overview of specific steps that will be taken to achieve the goals outlined in the components of the CIWMP. On January 1, 2010, the CIWMB’s duties and responsibilities were transferred CalRecycle.

**California Solid Waste Re-use and Recycling Access Act of 1991**

Subsequent to the IWMA additional legislation was passed to assist local jurisdictions in accomplishing the goals of the IWMA. The California Solid Waste Re-use and Recycling Access Act (Pub. Resources Code, § 42900-42911) directed the CIWMB to draft a “model ordinance” relating to adequate areas for collecting and loading recyclable materials in development projects. The model ordinance requires that any new development project, for which an application is submitted on or after September 1, 1994, include “adequate, accessible, and convenient areas for collecting and loading recyclable materials.” For subdivisions of single-family detached homes, recycling areas are required to serve only the needs of the home within that subdivision.

**California Water Recycling Act of 1991**


**Groundwater Management Act of 1992**

The Groundwater Management Act (Wat. Code, § 10750 et seq.), also known as Assem. Bill No. 3030 (Stat. 1992, ch. 947) (AB 3030) provides guidance for applicable local agencies to develop
voluntary Groundwater Management Plans (GMP) in State-designated groundwater basins. GMPs can allow agencies to raise revenue to pay for measures influencing the management of the basin, including extraction, recharge, conveyance, facility maintenance, and water quality.

**The Water Utility Infrastructure Improvement Act of 1995**

The Water Utility Infrastructure Improvement Act (Pub. Utilities Code, § 789-790) requires water providing companies to invest proceeds from real, surplus property into water treatment and conveyance infrastructure.

**SB 610 and SB 221 of 2001**

Senate Bills 610 (Chapter 643, Statutes of 2001) and Senate Bill 221 (Chapter 642, Statutes of 2001) amended state law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 are companion measures, which seek to promote more collaborative planning between local water suppliers and cities and counties. Both statutes require detailed information regarding water availability to be provided to the city and county decision-makers prior to approval of specified large development projects. Both statutes also require that this detailed information be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects. Both measures recognize local control and decision making regarding the availability of water for projects and the approval of projects.

Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Wat. Code § 10912 [a]) subject to the California Environmental Quality Act. Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply (DWR, 2003).

**The Water Conservation Act of 2009**

The Water Conservation Act (Wat. Code, § 10608 et seq.), also known as Sen. Bill No. 7 (Stats. 2009, 7th Ex. Sess., ch. 4) (SB X7-7) which became effective January 1, 2010, requires the state to achieve a 20 percent reduction in urban-per-capita-water use by December 31, 2020. The state is required to make incremental progress towards this goal by reducing per capita water use by at least 10 percent on or before December 31, 2015. The Act requires each urban retail water supplier to develop both long-term urban water use targets and an interim urban water use target. The Act also creates a framework for future planning and actions for urban and agricultural users to reduce per capita water consumption 20 percent by 2020.

**Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems of 2012**

The State Water Board adopted Resolution No. 2012-0032, adopting the Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (OWTS; also known as septic tank system) and approving the supporting analysis. The OWTS Policy establishes a statewide, risk-based, tiered approach for regulation and management of OWTS.
installations and replacements, and recognizes the effectiveness of local permitting agencies. The Tiers include the following:

- Tier 0 – Existing OWTS,
- Tier 1 – Low Risk New or Replacement OWTS,
- Tier 2 – Local Agency Management Program (LAMP) for New or Replacement OWTS,
- Tier 3 – Advanced Protection Management Program, and
- Tier 4 – OWTS Requiring Corrective Action.

SUSTAINABLE GROUNDWATER MANAGEMENT ACT OF 2014

On September 16, 2014, Governor Brown signed into law three bills that together make up the Sustainable Groundwater Management Act (SB 1168, AB 1739 and SB 1319). The regulations became effective January 1, 2015.

The legislation provides local agencies with the tools to manage groundwater basins in a sustainable manner over a long-term horizon and allows for limited state intervention when necessary to protect groundwater resources. The Act establishes a definition of sustainable groundwater management, provides local agencies the ability to develop plans and implement strategies to sustainably manage groundwater resources, prioritizes basins with the greatest need (ranked as high and medium priority), and sets a timeline for implementation as follows:

- June 30, 2017: Local groundwater sustainability agencies (GSA) must be formed.
- January 31, 2020: Groundwater sustainability plans (GSP) must be completed for basins in a critical condition of overdraft.
- January 31, 2022: GSPs must be completed in all other high- and medium-priority basins not currently in overdraft.
- Twenty years after adoption of the GSP (2040 and 2042): All high- and medium-priority groundwater basins must achieve sustainability.

The groundwater basin (and subbasin) boundaries set forth in DWR Bulletin 118 are the initial management area boundaries under the Act. However, the Act also includes provisions allowing local agencies to ask DWR to modify the boundaries to suit their local needs. The Act requires DWR to adopt regulations by January 1, 2016 specifying the information that must be provided by local agencies to request a revision in the boundaries of a basin, or establishment of a new subbasin. The Act also requires the California Water Commission to hold a public hearing for each proposed modification. The legislation requires DWR to categorize each basin as (1) high priority, (2) medium priority, (3) low priority, or (4) very low priority based on criteria set forth in the California Statewide Groundwater Elevation Monitoring Program, as amended (DWR, 2014b).

GOVERNOR’S APRIL 2014 PROCLAMATION

On April 25, 2014, Governor Brown issued a proclamation to identify the drought as a Continued State of Emergency. This proclamation follows Governor’s Proclamation No. 1-17-2014, issued on January 17, 2014, which declared a drought State of Emergency to exist in California due to severe drought conditions.
drought conditions and called on all Californians to reduce water usage by 20 percent. The proclamation also ordered that

1. The orders and provisions contained in Proclamation No. 1-17-2014 remain in full force and effect.

2. DWR and the SWRCB immediately and expeditiously process requests to move water to areas of need, including requests involving voluntary water transfers, forbearance agreements, water exchanges, or other means.

3. California adopt water conservation measures, including:
   a. Avoid using water to clean sidewalks, driveways, parking lots and other hardscapes.
   b. Turn off fountains and other decorative water features unless recycled or grey water is available.
   c. Limit vehicle washing at home by patronizing local carwashes that use recycled water.
   d. Limit outdoor watering of lawns and landscaping to no more than two times a week.
   e. Implement water reduction plans to reduce the use of potable water for outdoor irrigation (recreational facilities).
   f. Offer drinking water only upon request and provide customers with options to avoid daily washing of towels or sheets (commercial establishments).
   g. Reduce the use of potable water for outdoor irrigation and encourage conservation by spectators (professional sports facilities).
   h. Direct urban water suppliers that are not already implementing drought response plans to limit outdoor irrigation and other wasteful water practices (SWRCB).

4. Any provision of the Homeowners Association governing document be void and unenforceable to the extent it has the effect of prohibiting compliance with the water-saving measures contained in this directive, or any conservation measure adopted by a public agency or private water company.

5. All state agencies that distribute funding for projects that impact water resources will require recipients of future financial assistance to have appropriate conservation and efficiency programs in place.

6. DFW immediately implement monitoring of several runs of salmon and species of smelt in the Delta as described in the April 8, 2014 Drought Operations Plan.

7. DFW implement projects that respond to drought conditions through habitat restoration and through water infrastructure projects on property owned or managed by DFW or DWR.

8. DFW work with other state and federal agencies and with landowners in priority watersheds to employ voluntary agreements to secure instream flows, relocate species, or other measures protecting threatened and endangered species and species of special concern and maximizing the beneficial uses of scarce water supplies.

9. DWR expedite the implementation of pump-back delivery of water through the State Water Project on behalf of water districts.
10. SWRCB adopt statewide general waste discharge requirements to facilitate the use of treated wastewater.

11. DWR conduct intensive outreach and provide technical assistance to local agencies in order to increase groundwater monitoring, and develop updated contour maps in order to more accurately capture changing groundwater levels.

12. The California Department of Public Health (DPH), the Office of Emergency Services (OES), and the Office of Planning and Research assist local agencies that DPH has identified as vulnerable to acute drinking water shortages in implementing solutions to those water shortages.

13. DWR and SWRCB, in coordination with other state agencies, provide appropriate assistance to public agencies or private water companies in establishing temporary water supply connections to mitigate effects of the drought.

14. CAL FIRE, OES, DWR, and DPH enter into contracts and arrangements for the procurement of materials, goods, and services necessary to quickly mitigate the effects of the drought.

15. The California Department of Food and Agriculture, in consultation with DWR and SWRCB, establish and implement a program to provide financial incentives to agricultural operations to invest in water irrigation treatment and distribution systems that reduce water and energy use, augment supply, and increase water and energy efficiency in agricultural applications.

16. The requirement that any person who conducts timber operations pursuant to the exemptions in Title 14, California Code of Regulations sections 1038 (b) and (c) submit notices to CAL FIRE under the provisions of Title 14, California Code of Regulations, Section 1038.2 be suspended.

17. SWRCB adopt and implement emergency regulations pursuant to Water Code Section 1058.5 to prevent the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water, to promote water recycling or water conservation, and to require curtailment of diversions when water is not available under the diverter's priority of right.

18. Provisions of the Government Code and the Public Contract Code applicable to state contracts, including, but not limited to, advertising and competitive bidding requirements, be suspended for directives 7 and 14.

19. Environmental review required by CEQA be suspended to allow the actions (i.e., directives 2, 3, 6, 7, 10, 13, 15, and 17 for actions by state agencies; all actions for directive 12; all necessary permits needed to implement these respective actions).

20. Certain regulatory requirements of the Water Code be suspended to allow these actions to take place as quickly as possible (i.e., Section 13247 of the Water Code and 30-day comment period [revised to 15-day] in Section 1726(f) of the Water Code for directive 2; Chapter 3 of Part 3 (commencing with section 85225) of the Water Code for directives 6 and 7).
EXECUTIVE ORDER B-28-14

On December 22, 2014, Governor Brown issued Executive Order B-28-14. The order extends the CEQA suspension enacted by the April 2014 Proclamation through May 31, 2016 for Section 13247 of the Water Code, as well as items one through nine of the proclamation.

EXECUTIVE ORDER B-29-15

On April 1, 2015, for the first time in state history, the Governor has directed SWRCB to implement mandatory water reductions in cities and towns across California to reduce water usage by 25 percent. Additionally, the order will:

- Replace 50 million square feet of lawns throughout the state with drought tolerant landscaping in partnership with local governments;
- Direct the creation of a temporary, statewide consumer rebate program to replace old appliances with more water and energy efficient models;
- Require campuses, golf courses, cemeteries and other large landscapes to make significant cuts in water use; and
- Prohibit new homes and developments from irrigating with potable water unless water-efficient drip irrigation systems are used, and ban watering of ornamental grass on public street medians.
- Call on local water agencies to adjust their rate structures to implement conservation pricing.
- Require agricultural water users to report more water use information to state regulators, Additionally, the Governor’s action strengthens standards for Agricultural Water Management Plans submitted by large agriculture water districts and requires small agriculture water districts to develop similar plans.
- Take action against water agencies in depleted groundwater basins that have not shared data on their groundwater supplies with the state;
- Update standards for toilets and faucets and outdoor landscaping in residential communities and taking action against communities that ignore these standards; and
- Make permanent monthly reporting of water usage, conservation and enforcement actions by local water suppliers.
- Prioritize state review and decision-making of water infrastructure projects and requires state agencies to report to the Governor’s Office on any application pending for more than 90 days.
- Streamline permitting and review of emergency drought salinity barriers – necessary to keep freshwater supplies in upstream reservoirs for human use and habitat protection for endangered and threatened species;
- Simplify the review and approval process for voluntary water transfers and emergency drinking water projects; and
- Directs state departments to provide temporary relocation assistance to families who need to move from homes where domestic wells have run dry to housing with running water.
**Assembly Bill 341 (AB 341)**

AB 341 requires that California reduce, recycle, or compost at least 75 percent of solid waste generated in the state. This changes the diversion goals previously set by Assembly Bill 939 (AB 939), which required that 50 percent of waste be diverted away from landfills. AB 341 also requires CalRecycle to provide a report to the Legislature including strategies for achieving the policy goal by January 1, 2014. CalRecycle recommended that certain disposal-related activities previously accepted as diversion be excluded from the definition of recycling, including alternative daily cover, alternative intermediate cover, beneficial reuse, material transformed, and used-tire derived fuel.

**Senate Bill 1016 (SB 1016)**

SB 1016 changed the compliance requirements set by AB 939 to a disposal-based indicator to meet the 50 percent diversion requirement. SB 1016 moves away from an emphasis on using calculated generation and estimated diversion to using the annual per capita disposal rate to evaluate diversion program implementation by a jurisdiction. The per capita disposal rate is calculated by dividing a jurisdiction’s population and/or employment by the total disposal reported by its disposal facilities.

**California Renewables Portfolio Standard (RPS) – Senate Bill 1078 and Senate Bill 107 (SB 1078 or SB 107)**

The RPS was established by SB 1078 in 2002 and then accelerated by SB 107 in 2006 and expanded by Senate Bill 2 (SB 2) in 2011. It requires investor-owned utilities such as Pacific Gas and Electric and SMUD and other electric service providers to procure 33 percent of their electricity portfolio from renewable sources by 2020.

**CALGreen**

CALGreen was formally known as the California Green Building Standards Code, Title 24, Part 11, of the California Code of Regulations. CALGreen was first adopted in 2008, made mandatory in 2010, and most recently updated in 2013 (effective January 1, 2014). It is California’s first green building standards code and the first State-mandated green building code in the nation. CALGreen establishes mandatory minimum green building standards and optional Tier 1 and Tier 2 more stringent provisions. Cities and counties have the discretion to adopt either tier as mandatory or to adopt their own more strict standards.

The green building standards included in CALGreen enhance the design and construction of buildings using planning and design concepts that reduce negative impacts to the environment through energy efficiency, water efficiency and conservation, and material conservation and resource efficiency. For residential buildings, CalGreen includes requirements for stormwater drainage and retention during construction, site planning for surface drainage, indoor and outdoor water conservation, sealed or insulated joints and openings, recycling of nonhazardous construction or demolition debris, fireplaces, low-pollutant materials and finishes, moisture-reducing features, and the provision of operation and maintenance manuals to ensure proper maintenance of the building over its lifetime. Tier 1 voluntary provisions include more stringent regulations for outdoor water conservation and energy efficiency, as well as new regulations for topsoil protection, permeable paving, cool roofs, reduced flow kitchen sink faucets, cement reduction, recycled content, construction waste reduction, resilient flooring systems, and low VOC thermal insulation. In
addition to even more stringent regulations for the items covered by Tier 1, Tier 2 voluntary provisions include dishwasher requirements. Tier 1 compliance requires adopting 10 additional elective green building measures and Tier 2 compliance requires adopting 17 additional elective green building measures beyond the above list of prerequisite measures.

Under CALGreen, nonresidential buildings have similar standards for indoor and outdoor water use, drainage, moisture management, construction materials recycling, fireplaces, pollutant control, and operations and maintenance manuals. Additionally, nonresidential buildings must have a storm water pollution prevention plan, a construction waste management plan, grading shown on construction plans, bicycle parking, parking for clean air vehicles, and reduced light pollution, as well as meeting additional requirements for air quality and environmental comfort. Tier 1 and 2 voluntary prerequisite provisions include more stringent regulations for energy efficiency, cool roofs, indoor and outdoor water use, construction waste diversion, recycled content, resilient flooring, and thermal insulation. Five additional measures are required to achieve Tier 1 compliance and 15 additional measures are required to achieve Tier 2 compliance.

**Title 14 California Code of Regulations Division 3**

California Code of Regulations, Title 14, Chapter 3 establishes minimum standards for solid waste handling and disposal. Article 6.0 of Chapter 3 establishes minimum standards for solid waste transfer stations. Composting facility operating requirements are found in Chapter 3.1. Both of these chapters establish different standards for different size facilities. Standards found in these chapters relate to the cleaning of these facilities, drainage control, dust control, the detection of household hazardous waste, litter control, noise control, vectors, odors, and other potential impacts resulting from the operation of these facilities.

**Title 20 California Code of Regulations and 24 California Code of Regulations**

New buildings constructed in California must comply with the standards contained in Title 20, Energy Building Regulations, and Title 24, Energy Conservation Standards, of the California Code of Regulations. Assem. Bill No. 970 (Stats. 2000, ch. 329) (AB 970), also known as Title 24 of the California Code of Regulations, contains energy efficiency standards for residential and nonresidential buildings based on a State mandate to reduce California's energy demand.

**Title 22 California Code of Regulations Division 4**

Wastewater reclamation in California is regulated under Title 22, Division 4, of the California Code of Regulations. The intent of these regulations is to ensure protection of public health associated with the use of reclaimed water. The regulations establish acceptable levels of constituents in reclaimed water for a range of uses and prescribe means for assurance of reliability in the production of reclaimed water. The California Department of Health Services (DHS) has jurisdiction over the distribution of reclaimed wastewater and the enforcement of Title 22 regulations. The RWQCB is responsible for issuing waste discharge requirements (including discharge prohibitions, monitoring, and reporting programs).
**Title 23 California Code of Regulations Division 3, Section 2-3**

Title 23, Division 3, Article 2 (Waste Classification and Management), Article 3 (Waste Unit Classification and Siting), and Class III (municipal solid waste) establish criteria for the siting of landfills. These regulations address design, construction, operation, and groundwater monitoring requirements of solid waste landfills.

**Title 27 California Code of Regulations**

CalRecycle and SWRCB completed a parallel rulemaking pursuant to Assem. Bill No. 1220 (Stats. 1993, ch. 656) (AB 1220). AB 1220 required clarification of the roles and responsibilities of the two boards in regulating solid waste disposal sites. The approved Title 27 regulations combine prior disposal site/landfill regulations of the CIWMB and SWRCB that were maintained in Title 14 and Title 23, Chapter 15 of the California Code of Regulations (which contains requirements for disposal of hazardous waste). Title 27 regulations require a significant proportion of the waste stream must be diverted from landfill disposal. Objectives of waste diversion programs address individual diversion techniques, including source reduction, curbside recycling, green waste collection, and load-checking to prevent illegal disposal at dump sites.

**California Water Plan**

The 2013 California Water Plan provides a collaborative planning framework for elected officials, agencies, tribes, water and resource managers, businesses, academia, stakeholders, and the public to develop findings and recommendations and make informed decisions for California’s water future. The Water Plan, updated every five years and most recently released on October 30, 2014, presents the status and trends of California’s water-dependent natural resources; water supplies; and agricultural, urban, and environmental water demands for a range of plausible future scenarios. The California Water Plan also evaluates different combinations of regional and statewide resource management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. The evaluations and assessments performed for the California Water Plan help identify effective actions and policies for meeting California’s resource management objectives in the near term and to the year 2050. The current Water Plan meets California Water Code requirements, guides State investments in innovation and infrastructure, and advances integrated water management and sustainable outcomes (DWR, 2013a).

**California Water Bond (Proposition 1)**

Proposition 1 is a $7.5 billion general obligation bond measure approved by California voters on November 4, 2014. Proposition 1 will fund investments in water projects and programs as part of a statewide, comprehensive water plan for California. In addition to funding programs from water conservation to recycling to groundwater cleanup to water storage, Proposition 1 is expected to leverage additional local and regional funds to provide a total investment of $25 billion to $30 billion to address California’s water needs. The bond funds will be distributed through a competitive grant process overseen by various state agencies, including DWR, the SWRCB, and the California Water Commission. The agencies will conduct processes to solicit proposals for grants, review applications, and award the funding. The Bond funds invest in everything from local resources development to water storage to groundwater sustainability to safe drinking water. The California Water Bond was
designed to help fund many elements of the 2013 California Water Plan, described above (ACWA, 2014).

**SAFE DRINKING WATER PLAN FOR CALIFORNIA**

On July 1, 2014, SWRCB assumed the primary enforcement authority (primacy) to enforce federal and state safe drinking-water acts from CDPH. SWRCB is now responsible for the regulatory oversight of about 8,000 public water systems throughout the state.

The Safe Drinking Water Plan for California includes SWRCB’s assessment of the overall quality of the state's drinking water, the identification of specific water quality problems, an analysis of the known and potential health risks that may be associated with drinking water contamination in California, and specific recommendations to improve drinking water quality. Recent updates to the drinking water quality regulations include revised standards for several constituents. This has forced many water purveyors to shut down wells that do not meet the new water quality standards (SWRCB, 2015).

**17.3.3 Local Regulations**

**GENERAL PLANS**

Local policies related to utilities and service systems are established in each jurisdiction’s general plan. In general, jurisdictions have policies in place that state that utility and service systems must be provided at the same time (or in advance of) need. In addition to these general policies, jurisdictions may have more specific policies tailored to performance objectives, such as those outlined below.

Policies and strategies for water supply might include relying on public water systems rather than individual wells where feasible, limiting additional contamination of groundwater and ensuring safe groundwater supply, and requiring new development to demonstrate availability of long-term reliable water supply.

Wastewater treatment services policies and strategies might include provisions for equal access to utilities, promote innovative and efficient solutions for wastewater treatment, encourage extension of sewer services to currently unserved areas, develop level of service standards, and encourage design and operation standards that minimize impacts to environmentally-sensitive areas and habitats.

Stormwater management policies and strategies might include provisions to ensure equal access to services, encourage sustainable practices for stormwater management, ensure that new developments are consistent with target levels of service for stormwater management services, adopt design standards to reduce impervious surfaces, and encourage coordination with regional stormwater management agencies. Additionally, Chapter 11 - Hydrology and Water Quality includes more information on stormwater management policies and strategies.

Solid waste management policies and strategies may address issues such as ensuring adequate facilities for waste removal, establishing collection procedures, ensuring adequate buffers between waste facilities and other land use types, establishing collection fees, and encouraging alternative uses of waste such as energy production.
For electricity and natural gas service, some relevant policies include working closely with utility companies on long-range planning for newly developing areas, supporting and encouraging the utility companies to place utilities underground in new development areas, minimizing visual intrusion through siting guidelines, mitigating biological impacts, and providing guidance for land use decisions regarding cogeneration and solar facilities, as well as conventional electric facilities.

Local general plans contain policies and implementation measures relevant to the provision of telecommunications service. Some of the goals and policies related to telecommunications include working closely with utility companies on long-range planning for newly developing areas and supporting and encouraging the utility companies to place utilities underground in new development areas.

**STORMWATER MANAGEMENT PLANS AND PROGRAMS**

Many jurisdictions have stormwater management plans and programs. These plans and programs usually identify best management practices to reduce pollutants in stormwater runoff to the greatest extend feasible. For more information on stormwater management plans and programs, see Chapter 11 Hydrology and Water Quality.

**UTILITY MASTER PLANS & UTILITY CAPITAL IMPROVEMENT PROGRAMS**

Jurisdictions usually have utility master plans or other planning documents that identify and prioritize projects needed to maintain adequate levels of utility service in the jurisdiction.

### 17.4 Impacts and Mitigation Measures

#### 17.4.1 Methods and Assumptions

Impacts to utilities were identified based on available data regarding existing service provisions and acceptable service levels. Over time, population growth and implementation of the proposed MTP/SCS may require additional utility infrastructure to maintain acceptable levels of service. This analysis discusses and assesses potential impacts to utilities that may be generated from implementation of the proposed MTP/SCS.

This analysis looks at each significance criterion individually, assessing how changes to the land use pattern and transportation network may impact the utilities environment. For each impact, implementation of the proposed MTP/SCS is assessed on three levels. First, impacts are assessed at the regional level. Second, the analysis breaks the region down into five Community Types: Center and Corridor Communities, Established Communities, Developing Communities, Rural Residential Communities, and Lands Not Identified for Development in the MTP/SCS Planning Period. Finally, implementation of the proposed MTP/SCS is assessed in terms of its impacts to the region’s Transit Priority Areas (TPAs). TPAs are areas of the region that are within one-half mile of a major transit stop or high-quality transit corridor. For a full description of Community Types and TPAs in the region, refer to Chapter 2 – Project Description.

For each of the three levels of analysis (regional, Community Type, and Transit Priority Areas), impacts are assessed in terms of both the proposed land use pattern and transportation network. By 2036, implementation of the proposed MTP/SCS will result in a land use pattern and transportation
network that is different from existing conditions. Unless otherwise stated, “existing conditions” in the proposed MTP/SCS refers to conditions in the baseline year of 2012. The proposed MTP/SCS uses 2012 because it is the most recent year for which comprehensive land use, demographic, traffic count and VMT data are available for the SACOG region. Chapter 1 – Introduction includes a more detailed discussion of the baseline for the proposed MTP/SCS.

The land use analysis assesses the amount of growth (population, housing, and employment) projected for the region, in each Community Type, and in the TPAs by 2036 and how that growth might impact the utilities environment compared to existing conditions. Although the proposed project sites within the MTP/SCS plan area were not physically surveyed, a brief description of the existing utility infrastructure is given above in the settings section.

17.4.2 Criteria for Determining Significance

For the purposes of this EIR, SACOG has determined that adoption and/or implementation of the MTP (including adoption of the proposed MTP policies, adoption of the proposed SCS, adoption of the proposed transportation project list and proposed financing plan) would result in significant impacts under CEQA, if any of the following would occur:

1. Result in an increased demand for surface or groundwater in excess of available supply.
2. Exceed the capacity of existing or planned water storage, conveyance, distribution, and treatment facilities.
3. Exceed the capacity of utility infrastructure, including sewage, storm drainage, fire flows, solid waste, power, and telecommunications.
4. Result in the need for the expansion of existing utilities and service system infrastructure required to maintain adequate sewer, wastewater treatment, fire flows, solid waste, power, and telecommunications systems.
5. Be out of compliance with federal, state, and local statutes and regulations related to solid waste.

17.4.3 Impacts and Mitigation Measures

**IMPACT USS-1: RESULT IN AN INCREASED DEMAND FOR SURFACE OR GROUNDWATER IN EXCESS OF AVAILABLE SUPPLY.**

**Regional Impacts**

Regional development could include a variety of land uses, ranging from residential to commercial or industrial uses, to provide increased goods and services to the region. Implementation of the proposed MTP/SCS will result in more compact development than existing conditions, but the increase in population and employment will, assuming similar consumption rates, result in an approximate proportional increase in demand for water supply. However, because of the planned infill and more compact development projected with future growth, accompanied by current policy and regulatory emphasis on water conservation, the per capita usage rate is expected to decrease over the term of the proposed MTP/SCS.
New population, employment, and housing growth would increase the demand for surface or groundwater for municipal uses. As development occurs outside urbanized areas, some farmland could be converted to urban uses. In these instances, the reduced demand for agricultural water supply would relieve some demand pressure, as the corresponding municipal development will use far less water for the same area. However, some agriculture water purveyors provide untreated water to their customers, which will not be suitable for municipal uses without the development of additional treatment plants (DWR, 2013a). Demand will likely increase for both potable and reclaimed (recycled) water.

Currently, many efforts are underway to reduce per capita rates of water consumption. Water agencies may offer free water audits or rebate programs for consumers who purchase more efficient appliances and bathroom fixtures. These programs have the potential to reduce future demand for certain types of water uses. However, because many of these programs and initiatives are voluntary, it is unclear what effect they will ultimately have on overall water demand. These programs will likely continue to decrease per capita rates, but the overall demand for water, from population, housing, and employment growth, may still increase in such a way as to exceed available supply.

To accommodate increases in demand created by new projects, jurisdictions must coordinate with water purveyors to ensure that sufficient supply is available. Additionally, water purveyors that are subject to Urban Water Management Planning are required to provide projected demand updates to the State. Development projects are required to receive a “Will Serve Letter” from the water purveyor that will serve the project. The purveyor must have demonstrable water rights to meet the increased demand. This is regulated by SB 610 and SB 221, which are discussed above in Section 17.3 Regulatory Setting. However, during prolonged drought, junior water rights holders may have their rights curtailed. In this circumstance, a water purveyor may need to purchase water from other sources.

Local jurisdictions must work with water purveyors and project developers to ensure that existing demand is met and that future demand has been taken into account. While supply may be reduced during drought conditions, conservation measures, such as those implemented by executive orders in 2014, can ensure that the water available is used more efficiently to meet demand. However, local jurisdictions have different goals, standards, and policies related to water supply. Additionally, specific water purveyors have different capacities and resources for expansion of their systems.

Because available supply is dictated by water purveyor sources and purveyors adjacent to each other may have different demands, water supplies, water rights, and water quality challenges, the impacts on water supply related to the land use changes from implementation of the proposed MTP/SCS at the regional level are considered potentially significant (PS) for Impact USS-1. Mitigation Measure USS-1 is described below.

The ongoing operation of new transit facilities, bicycle and pedestrian facilities, and roadway facilities could result in marginal increases in water demand for things like sinks, toilets, water fountains, and landscaping associated with the implementation of such projects. Although these increases in demand for water are anticipated to be small on a per project basis, the collective demand from all of the projects taken together could increase demand in such a way as to impact the availability of water supply.
Therefore, the impacts on services related to transportation improvements from implementation of the proposed MTP/SCS at the regional level are considered potentially significant (PS) for Impact USS-1. Mitigation Measure USS-1 is described below.

**Localized Impacts**

*Center and Corridor Communities, Established Communities, Developing Communities, and Rural and Residential Communities*

Except as provided below, the localized impacts associated with implementation of the proposed MTP/SCS will be the same in each of the Community Types as described in the regional impacts discussion above. Land use and transportation projects in Center and Corridor Communities, Established Communities, Developing Communities, and Rural Residential Communities have the potential to increase the demand for surface and groundwater in excess of available supply. Available supply is dictated by water purveyor sources, not by Community Type. Purveyors adjacent to each other that serve the same Community Type may have different demands, water supplies, water rights, and water quality challenges. Transportation projects in these Community Types have the potential to increase demand for surface and groundwater in excess of available supply.

Therefore, consistent with the analysis of regional impacts above, the impacts on water supply related to land use and transportation improvements from implementation of the proposed MTP/SCS for these Community Types are considered potentially significant (PS) for Impact USS-1. Mitigation Measure USS-1 is described below.

*Lands Not Identified for Development in the MTP/SCS*

Although some housing and employment growth consistent with historical trends may occur in this Community Type within the MTP/SCS planning period, the proposed MTP/SCS does not forecast any development in these areas by 2036. Therefore, the impact on water supply related to land use changes in Lands Not Identified for Development, are considered less than significant (LS) for impact USS-1. No mitigation is required.

With respect to transportation changes in Lands Not Identified for Development in the MTP/SCS, the proposed MTP/SCS will make a limited number of transportation investments in this Community Type by 2036, including road maintenance, safety enhancements, other roadway operational improvements, and targeted capacity improvements to existing facilities that accommodate increased travel between urban areas. The localized impacts associated with the transportation improvements included in the proposed MTP/SCS are the same in Lands Not Identified for Development as described in the regional impacts discussion above. Implementation of the proposed MTP/SCS within this Community Type has the potential to increase the demand for surface and groundwater in excess of available supply. Available supply is dictated by water purveyor sources, not by Community Type. Purveyors adjacent to each other that serve the same Community Type may have different demands, water supplies, water rights, and water quality challenges. Land use and transportation projects in Lands Not Identified for Development have the potential to increase demand for surface and groundwater in excess of available supply.

Therefore, consistent with the analysis of regional impacts above, the impacts on water supply related to transportation improvements from implementation of the proposed MTP/SCS in Lands Not Identified for Development are considered potentially significant (PS) for Impact USS-1. Mitigation Measure USS-1 is described below.
Transit Priority Area Impacts

**Placer County, Sacramento County, and Yolo County TPAs:**

As with the localized impacts discussed above, the Transit Priority Area impacts associated with implementation of the proposed MTP/SCS are the same in each of the TPAs as described in the regional impacts discussion above. Land use and transportation projects in all of the TPAs have the potential to increase demand for surface and groundwater in excess of available supply.

Therefore, consistent with the analysis of regional impacts above, the impacts on water supply related to land use and transportation improvements from implementation of the proposed MTP/SCS for all Transit Priority Areas are considered potentially significant (PS) for Impact USS-1. Mitigation Measure USS-1 is described below.

**MITIGATION MEASURES**

**Mitigation Measure USS-1: Implement Mitigation Measure PS-1.**

**SIGNIFICANCE AFTER MITIGATION**

If the implementing agency adopts this mitigation measure, Impact USS-1 may be reduced to a less than significant (LS) level. However, local jurisdictions must work with water purveyors and project developers to ensure that existing demand is met and that future demand has been taken into account. Local jurisdictions have different goals, standards, and policies related to water supply. Additionally, specific water purveyors have different capacities and resources for expansion of their systems. Therefore, due to uncertainty in individual project conditions, the extent to which this measure would reduce impacts to water supply is unknown at this time, as such details are not available at the plan level.

For projects proposing to streamline environmental review, lead agencies must conduct project-level analysis for each project to analyze whether, based on substantial evidence in the record, the proposed mitigation will reduce the impact to less than significant. However, SACOG cannot require the implementing agency to adopt this mitigation measure, and it is ultimately the responsibility of a lead agency to determine and adopt project-specific mitigation. Therefore, Impact USS-1 remains significant and unavoidable (SU) for purposes of this program-level review.

**IMPACT USS-2: EXCEED THE CAPACITY OF EXISTING OR PLANNED WATER STORAGE, CONVEYANCE, DISTRIBUTION, AND TREATMENT FACILITIES.**

Regional Impacts

Regional development could include a variety of land uses, ranging from residential to commercial or industrial uses, to provide increased goods and services to the region. Implementation of the proposed MTP/SCS will result in more compact development than existing conditions. However, an increase in population and employment will result in an increase in demand for water supply and likewise increase the demand for additional capacity of water storage, conveyance, distribution, and treatment facilities.
In more urbanized portions of the region, where water supply systems are already in place, population, housing, and employment growth could place an increased demand on these existing systems. Some of this increased demand will likely be met with existing infrastructure. However, it is likely that by the end of the MTP/SCS planning period increases in water usage will cause existing or planned water storage, conveyance, distribution, and treatment facilities to exceed capacity, requiring additional facilities to be constructed. Additionally, aging water infrastructure requires upgrades to improve efficiency, increase reliability and reduce waste. EPA has reported that a substantial gap exists between planned and needed water infrastructure improvements (EPA, 2002). Besides increased demand of existing supplies, new treatment facilities may be necessary because of contaminated groundwater sources or more restrictive drinking water standards. In developing portions of the region, where water systems might not be as developed as more urbanized parts of the region, population, housing, and employment growth will likely require additional investment in water systems infrastructure to ensure that increases in water demand will not exceed the capacity of existing or planned water storage, conveyance, distribution, or treatment facilities.

Currently, many efforts are underway to reduce per capita rates of water consumption. Water agencies may offer free water audits or rebate programs for consumers who purchase more efficient appliances and bathroom fixtures. These programs have the potential to reduce future demand for certain types of water uses and therefore reduce demand for water storage, conveyance, distribution, and treatment facilities. However, because many of these programs and initiatives are voluntary, it is unclear what effect they will ultimately have on overall water demand. These programs will likely continue to decrease per capita rates, but the overall demand for water, from population, housing, and employment growth, will likely exceed capacity of existing or planned water storage, conveyance, distribution, and treatment facilities.

Historically, water system providers have increased the capacity of water storage, conveyance, distribution, and treatment facilities when demand warranted such investments. As shown in Table 17.3 above, water purveyors are showing growth that is consistent with the growth in the proposed MTP/SCS. All of the purveyors listed have over 3,000 connections in urban and suburban areas, the same communities where the proposed MTP/SCS targets development. As part of long-term water facility and system planning, the water purveyors are incorporating this planned growth into their projected capital improvement needs. Local jurisdictions must work with water purveyors and project developers to ensure that existing demand is met and that future demand has been taken into account. However, local jurisdictions have different goals, standards, and policies related to water supply. Additionally, specific water purveyors have different capacities and resources for expansion of their systems. Since not all water purveyors in all areas have the capacity to expand, some development could result in over-allocation of existing infrastructure.

Therefore, the impacts on services related to the land use changes from implementation of the proposed MTP/SCS at the regional level are considered potentially significant (PS) for Impact USS-2. Mitigation Measure USS-2 is described below.

The ongoing operation of new transit facilities, bicycle and pedestrian facilities, and roadway facilities could result in marginal increases in water conveyance, storage, distribution, and treatment for things like sinks, toilets, water fountains, and landscaping associated with the implementation of such projects. Although these increases in demand are anticipated to be small on a per project basis, the collective demand from all of the projects taken together could increase demand in such a way as to impact water conveyance, storage, distribution, and treatment systems.
Therefore, the impacts on services related to transportation improvements from implementation of the proposed MTP/SCS at the regional level are considered potentially significant (PS) for Impact USS-2. Mitigation Measure USS-2 is described below.

Localized Impacts

Center and Corridor Communities, Established Communities, Developing Communities, and Rural Residential Communities

Except as provided below, the localized impacts associated with implementation of the proposed MTP/SCS is the same in each of the Community Types as described in the regional impacts discussion above. Land use and transportation projects in Center and Corridor Communities, Established Communities, Developing Communities, and Rural Residential Communities have the potential to exceed the capacity of existing or planned water storage, conveyance, distribution, and treatment facilities. The capacities of existing facilities are different for each water purveyor, independent of Community Type served. Purveyors adjacent to each other that serve the same Community Type may have different treatment systems, demand needs, conveyance and storage capacity, and water quality challenges.

Therefore, the impacts on services related to land use and transportation improvements from implementation of the proposed MTP/SCS for these Community Types are considered potentially significant (PS) for Impact USS-2. Mitigation Measure USS-2 is described below.

Lands Not Identified for Development in the MTP/SCS

Although some housing and employment growth consistent with historical trends may occur in this Community Type within the MTP/SCS planning period, the proposed MTP/SCS does not forecast any development in these areas by 2036. Therefore, the impact on service related to land use changes in Lands Not Identified for Development, are considered less than significant (LS) for impact USS-1. No mitigation is required.

With respect to transportation changes in Lands Not Identified for Development in the MTP/SCS, the proposed MTP/SCS will make a limited number of transportation investments in this Community Type by 2036, including road maintenance, safety enhancements, other roadway operational improvements, and targeted capacity improvements to existing facilities that accommodate increased travel between urban areas. While increases in demand are anticipated to be small on a per project basis, the capacities of existing facilities are different for each water purveyor, independent of Community Type served. Purveyors adjacent to each other that serve the same Community Type may have different treatment systems, demand needs, conveyance and storage capacity, and water quality challenges. Therefore, implementation of the proposed MTP/SCS within this Community Type has the potential to exceed the capacity of existing or planned water storage, conveyance, distribution, and treatment facilities.

Consistent with the analysis of regional impacts above, the impacts on service related to transportation improvements from implementation of the proposed MTP/SCS in Lands Not Identified for Development are considered potentially significant (PS) for Impact USS-2. Mitigation Measure USS-2 is described below.
Transit Priority Area Impacts

Placer County, Sacramento County, and Yolo County TPAs

As with the localized impacts discussed above, the Transit Priority Area impacts associated with implementation of the MTP/SCS is the same in each of the TPAs as described in the regional impacts discussion above. Land use and transportation projects in all of the TPAs have the potential to exceed the capacity of existing or planned water storage, conveyance, distribution, and treatment facilities.

Therefore, the impacts on services related to land use and transportation improvements from implementation of the proposed MTP/SCS for all Transit Priority Areas are considered potentially significant (PS) for Impact USS-2. Mitigation Measure USS-2 is described below.

Mitigation Measures

Mitigation Measure USS-2: Implement Mitigation Measure PS-1.

Significance After Mitigation

If an implementing agency adopts this mitigation measure, Impact USS-2 would be reduced to less than significant (LS). Projects taking advantage of CEQA Streamlining provisions of SB 375 (Pub. Resources Code, § 21155.1, 21155.2, and 21159.28) must apply the mitigation measure described above to address site-specific conditions, resulting in impacts that are less than significant (LS). However, because SACOG cannot require the implementing agency to adopt this mitigation measure, and it is ultimately the responsibility of a lead agency to determine and adopt project-specific mitigation, this impact remains significant and unavoidable (SU).

Impact USS-3: Exceed the capacity of utility infrastructure, including sewer, wastewater treatment, fire flows, solid waste, power, and telecommunications systems.

Regional Impacts

Regional development could include a variety of land uses, ranging from residential to commercial or industrial uses, to provide increased goods and services to the region. Implementation of the proposed MTP/SCS will result in increased demand for utility and service systems, including sewer, wastewater treatment, fire flows, solid waste, power, and telecommunication systems (see Chapter 2 – Project Description for more information on land use and transportation changes in the proposed MTP/SCS). A more dense and more compact growth pattern in existing areas should allow jurisdictions to leverage existing utility and service system facilities and infrastructure by absorbing some of the increased demand with facilities that are currently underutilized. However, because implementation of the proposed MTP/SCS will result in a higher concentration of residents within existing service areas, it may result in the construction of additional facilities or infrastructure to maintain adequate utility and service systems. The proposed MTP/SCS also allocates growth to the developing areas of the region, just outside existing developed areas. While these areas may have some existing utility and service system infrastructure serving existing developments, the amount of growth allocated to these areas would likely result in the construction of additional facilities in order to provide utility service to newly developed areas.
The land use growth footprint of the proposed MTP/SCS includes the land supply needed to accommodate necessary increases in utilities and services, including water supply, conveyance, storage, and distribution systems; energy and power systems; telecommunication systems; or sewer systems. This land supply is included in one of two ways: in cases where local plans identify specific locations and acreages for these services and utilities, they are included in the ‘public’ development categories of the land use forecast; in cases where local plans did not identify specific locations and acreages, they are accounted for in the gross acreages of the “residential” development category of the land use forecast. SACOG does not attribute un-sited public service to specific parcels, as timing and siting decisions related to public services are the purview of local government and public service districts. For larger regional facilities, such as those for wastewater treatment and solid waste disposal, the proposed MTP/SCS does not forecast specific sites for expansion of existing or creation of new facilities. It is likely that increases in population in the region will increase demand for wastewater treatment and solid waste disposal.

Therefore, due to the projected population increase that will increase service areas and the number of customers requiring service, the impacts of the need for construction of new facilities for utilities and service systems to serve the land use changes from implementation of the proposed MTP/SCS at the regional level are considered potentially significant (PS) for Impact USS-3. Mitigation Measure USS-1 is described below.

The region will see diverse transportation projects, such as new HOV lanes, auxiliary lanes, roadway widening, bicycle and pedestrian infrastructure improvements, transit facilities, increased transit service, and roadway maintenance and rehabilitation projects, over the planning period which extends through 2036 (see Chapter 2 – Project Description for more information on land use and transportation changes in the proposed MTP/SCS). Depending on the timing and location of these projects, it is possible that implementation of the proposed MTP/SCS would increase demand for utility and service systems in such a way as to require the construction of additional facilities. However, most of the potential increased demand resulting from roadway improvements will occur in areas that are already covered by existing services. Although these increases in demand for utility and service systems are anticipated to be small on a per project basis, the collective demand from all of the projects taken together could increase demand in such a way as to require the construction of new infrastructure in order to maintain adequate service capacity.

The ongoing operation of new transit facilities, bicycle and pedestrian facilities, and roadway facilities could result in increases in electricity to power streetlights, traffic control devices, signage, and intelligent transportation systems (ITS) infrastructure. Similarly, ITS infrastructure often relies on communication systems to relay real-time information to travelers. New transportation infrastructure could require toilets, sinks, drinking fountains, and drains that would generate a small amount of additional wastewater. These projects could result in the conversion of undeveloped land to transportation uses, thereby increasing the amount of impervious surfaces in the region and possibly increasing the amount of runoff. These projects could also potentially increase the amount of waste collected from rubbish bins.

An expanded transportation system may contribute to the demand on these facilities, resulting in the need to expand existing or construct new facilities to accommodate the increased demand. Therefore, the impacts from the need for construction of new facilities for utilities and service systems related to transportation improvements from implementation of the proposed MTP/SCS at
the regional level are considered potentially significant (PS) for Impact USS-3. Mitigation Measure USS-3 is described below.

Localized Impacts

Center and Corridor Communities, Established Communities, Developing Communities, Rural Residential Communities, and Lands Not Identified for Development in the MTP/SCS

The localized impacts associated with implementation of the MTP/SCS are the same in each of the Community Types as described in the regional impacts discussion above. Land use and transportation projects in Center and Corridor Communities, Established Communities, Developing Communities, Rural Residential Communities, and Lands Not Identified for Development have the potential to result in the need for construction of additional utilities and service system infrastructure to maintain adequate sewer, wastewater treatment, fire flows, solid waste, power, and telecommunications systems. Individual wastewater treatment service providers must meet discharge requirements established for their receiving waters. Service providers in any of the Community Types may find that treatment system upgrades become necessary with a larger service population or because of stricter discharge requirements.

Therefore, the impacts from the need for construction of new facilities for new utilities and service systems related to land use and transportation improvements from implementation of the proposed MTP/SCS for these Community Types are considered potentially significant (PS) for Impact USS-3. Mitigation Measure USS-3 is described below.

Transit Priority Area Impacts

Placer County, Sacramento County, and Yolo County TPAs

As with the localized impacts discussed above, the Transit Priority Area impacts associated with implementation of the proposed MTP/SCS are the same in each of the TPAs as described in the regional impacts discussion above. Land use and transportation projects in all of the TPAs have the potential to result in the construction of additional utilities and service system infrastructure to maintain adequate sewer, wastewater treatment, fire flows, solid waste, power, and telecommunications systems.

Therefore, the impacts from the need for construction of new facilities for utilities and service systems related to land use and transportation improvements from implementation of the proposed MTP/SCS for all Transit Priority Areas are considered potentially significant (PS) for Impact USS-3. Mitigation Measure USS-3 is described below.

MITIGATION MEASURES

As part of planning, design, and engineering for projects that result from the proposed MTP/SCS, the implementing agency shall ensure that utilities and service system infrastructure are consistent with applicable federal, state, and local laws and regulations. SACOG does not have authority to require the implementing agencies to adopt the identified mitigation measures; the mitigation measures are within the responsibility and jurisdiction of another public agency. However, implementation of the following measures at a project-level would reduce the impacts to utilities and service systems, and agencies with jurisdiction to adopt these measures should do so (Pub. Resources Code, § 21081).
Mitigation Measure USS-3: Perform Project-Level CEQA Environmental Review for New Wastewater Treatment Plants, Landfills, and Similar Large Utility Facilities.

The implementing agency should undertake project-level review, where feasible and as necessary to address site-specific impacts, in order to provide CEQA clearance for new wastewater treatment plants, landfills, and similar large utility facilities.

SIGNIFICANCE AFTER MITIGATION

If an implementing agency adopts this mitigation measure, Impact USS-3 may be reduced to a less than significant (LS) level. For projects proposing to streamline environmental review, lead agencies must conduct project-level analysis for each project to analyze whether, based on substantial evidence in the record, the proposed mitigation will reduce the impact to less than significant. However, the land use forecast does not include specific sites for the expansion of wastewater treatment or solid waste disposal facilities that may be required to accommodate increased demand from population growth. For these reasons, Impact USS-3 remains significant and unavoidable (SU) for purposes of this program-level review.

IMPACT USS-4: RESULT IN THE NEED FOR THE EXPANSION OF EXISTING UTILITIES AND SERVICE SYSTEM INFRASTRUCTURE REQUIRED TO MAINTAIN ADEQUATE SEWER, WASTEWATER TREATMENT, FIRE FLOWS, SOLID WASTE, POWER, AND TELECOMMUNICATIONS SYSTEMS.

Implementation of the proposed MTP/SCS will result in increased demand on utilities and service system infrastructure, including sewer, wastewater treatment, fire flows, solid waste, power, and telecommunications systems (see Chapter 2 – Project Description for more information on land use and transportation changes in the proposed MTP/SCS). Regional development could include a variety of land uses, ranging from residential to commercial or industrial uses, to provide increased goods and services to the region. On the transportation side, a variety of improvements are included in the proposed MTP/SCS, such as new HOV lanes, auxiliary lanes, roadway widening, bicycle and pedestrian infrastructure improvements, transit facilities, increased transit service, and roadway maintenance and rehabilitation projects (see Chapter 2 – Project Description for more information on land use and transportation changes in the proposed MTP/SCS). The amount of growth allocated to these areas would result in the construction of additional facilities in order to maintain adequate utilities and service system infrastructure. However, a more dense and compact growth pattern in existing areas within the proposed MTP/SCS would allow jurisdictions to leverage existing facilities and absorb some of the increased demand with facilities that are currently underutilized. This approach could limit the number of new facilities needed to maintain adequate utilities and service system infrastructure, and at the same time reduce per capita costs to construct and maintain those new facilities that are built.

Construction of new facilities or infrastructure facilities to support the land use changes and transportation improvements in the proposed MTP/SCS could result in impacts during both the construction process and the conversion of undeveloped land to accommodate expanded facilities. These impacts could adversely affect aesthetics, air quality, cultural resources, geology, land use, noise, transportation, utilities, and other related resources and infrastructure. For example, urban infill can increase impervious surfaces by converting permeable vacant or underutilized parcels into land with more paving or structures. Redevelopment can also increase the amount and rate of runoff.
by discharging greater amounts of water on a site than existing prior to development, typically due to excessive landscape irrigation. Construction activities for land use changes or transportation improvements may increase the amount of wastewater generated at construction sites and increase demand on local wastewater collection, storage, conveyance, and treatment facilities. Additionally, construction activities like demolition, grading, and excavation could generate solid waste, which may be disposed of in municipal waste systems. Construction activities related to the implementation of the proposed MTP/SCS may also result in an increased demand for energy to power construction lighting, equipment, and vehicles. Construction of new roadway capacity, bicycle and pedestrian facilities, transit facilities, and rehabilitation of existing roadway infrastructure may increase the demand for water for construction-related activities such as concrete mixing, dust settling, and landscaping. Because utility infrastructure often shares the right-of-way with transportation infrastructure, there is also the possibility that construction activity related to implementation of the proposed MTP/SCS could disrupt the provision of utility services.

Construction-related impacts are typically short-term and can be mitigated below a level of significance through actions of the implementing agency. This EIR discusses and addresses construction impacts by impact type in the following chapters:

- Chapter 3 – Aesthetics: impacts AES-4a, AES 4b, and AES 4c and mitigation measures AES-7, AES-8, AES-11, AES-12, and AES-13;
- Chapter 4 – Agriculture and Forestry Resources: impact AG-6 and mitigation measure AG-8;
- Chapter 5 – Air Quality: impacts AIR-2, AIR-3, and AIR-4d and mitigation measures AIR-1, AIR-2, AIR-3 and AIR-4;
- Chapter 6 – Biological Resources: impacts BIO-1, BIO-2, BIO-3, BIO-4 and mitigation measures BIO-1a, BIO-1b, BIO-1c, BIO-1d, BIO-1e, BIO-2, and BIO-3;
- Chapter 8 – Energy and Global Climate Change: impacts ENE-4 and ENE-9;
- Chapter 9 – Geology, Soils, and Seismicity: impacts GEO-6 and GEO-9 and mitigation measure GEO-1;
- Chapter 10 – Hazards and Hazardous Materials: impact HAZ-9;
- Chapter 11 – Hydrology and Water Quality: impact HYD-8 and mitigation measures HYD-1, HYD-2, and HYD-3;
- Chapter 13 – Noise and Vibration: impact NOI-3 and mitigation measure NOI-3;
- Chapter 15 – Public Services: impact PS-2; and
- Chapter 16 – Transportation and Traffic: impact TRN-9 and mitigation measure TRN-3.

Construction impacts to the public and the environment are regulated by various federal, state, and local regulations and are discussed in the chapters identified above, and include mitigation measures to reduce risk where necessary. Additionally, because service providers may leverage existing facilities to absorb some of the increased demand for utilities and service system infrastructure, less new construction may be required. However, the impacts from the construction of new facilities for
utilities and service systems could result in adverse environmental impacts during both the construction process and the conversion of undeveloped land to accommodate expanded facilities. Therefore, the land use changes and transportation improvements from implementation of the proposed MTP/SCS at the regional level are considered potentially significant (PS) for Impact USS-4. Mitigation measure USS-4 is described below.

**Localized Impacts**

*Center and Corridor Communities, Established Communities, Developing Communities, Rural Residential Communities, and Lands Not Identified for Development in the MTP/SCS*

The localized impacts associated with implementation of the proposed MTP/SCS are the same in each of the Community Types as described in the regional impacts discussion above. Land use changes and transportation improvements in Center and Corridor Communities, Established Communities, Developing Communities, Rural Residential Communities, and Lands Not Identified for Development have the potential to result in significant impacts associated with the construction of new or the expansion of existing utilities and service system infrastructure.

Therefore, impacts on utilities and service system infrastructure related to land use and transportation improvements from implementation of the proposed MTP/SCS for these Community Types are considered potentially significant (PS) for Impact PS-2. Mitigation measure USS-4 is described below.

**Transit Priority Area Impacts**

*Placer County, Sacramento County, and Yolo County TPAs*

As with the localized impacts discussed above, the Transit Priority Area impacts associated with implementation of the MTP/SCS are the same in each of the TPAs as described in the regional impacts discussion above. Land use changes and transportation improvements in Transit Priority Areas have the potential to result in significant impacts associated with the construction of new or the expansion of existing utilities and service system infrastructure.

Therefore, impacts on utilities and service system infrastructure related to land use and transportation improvements from implementation of the proposed MTP/SCS for all TPAs are considered potentially significant (PS) for Impact PS-2. Mitigation measure USS-4 is described below.

**Mitigation Measures**

As part of planning, design, and engineering for projects that result from the proposed MTP/SCS, the implementing agency shall ensure that construction of utilities and service system infrastructure is consistent with applicable federal, state, and local laws and regulations. SACOG does not have authority to require the implementing agencies to adopt the identified mitigation measures; the mitigation measures are within the responsibility and jurisdiction of another public agency. However, implementation of the following measure(s) at a project-level would reduce the impacts from construction of utilities and service systems, and agencies with jurisdiction to adopt these measures should do so (Pub. Resources Code, § 21081).
Mitigation Measure USS-4: Implement the construction-related mitigation measures identified in other chapters of this EIR.

SIGNIFICANCE AFTER MITIGATION

If an implementing agency adopts this mitigation measure, Impact USS-4 would be reduced to less than significant (LS). Projects taking advantage of CEQA Streamlining provisions of SB 375 (Pub. Resources Code, § 21155.1, 21155.2, and 21159.28) must apply the mitigation measure described above to address site-specific conditions, resulting in impacts that are less than significant (LS). However, because SACOG cannot require the implementing agency to adopt this mitigation measure, and it is ultimately the responsibility of a lead agency to determine and adopt project-specific mitigation, this impact remains significant and unavoidable (SU).

IMPACT USS-5: BE OUT OF COMPLIANCE WITH FEDERAL, STATE, AND LOCAL STATUTES AND REGULATIONS RELATED TO SOLID WASTE.

Regional Impacts

There are a number of federal, state, and local statutes and regulations related to solid waste that are described in detail above in Section 17.2 Environmental Setting (regulations related to the disposal of hazardous waste is discussed in Chapter 10 − Hazards and Hazardous Materials). Generally, statutes and regulations establish requirements for the siting, design, operation, or closure of landfills that are issued and enforced by a number of agencies by issuing and renewing permits and conducting inspections. The IWMA also ensures an effective and coordinated approach to the management of all solid waste generated within the state. The IWMA establishes a goal to reduce dependence on landfills as the primary means of solid waste disposal and introduces a hierarchy of preferred waste management practices that prioritize source reduction or waste prevention first; recycling, reuse, and composting second; waste transformation third; and finally disposal by landfill at last resort. The IWMA also required local jurisdictions to reduce the volume of waste sent to landfills by 50 percent. Table 17.6 shows disposal targets and rates for each jurisdiction.

The IWMA requires the preparation of a CIWMP, including a Countywide Siting Element that must demonstrate a remaining landfill disposal capacity of at least 15 years to serve all the jurisdictions in the county. The Element includes a combination of strategies to demonstrate adequate capacity, including existing, proposed, and tentative landfills or expansions; increased diversion efforts; and the export of solid waste for disposal. The Countywide Siting Element must be reviewed and updated every 5 years. The IWMA also requires local jurisdictions to prepare and adopt three additional elements that contribute to the CIWMP. The elements include a Source Reduction and Recycling Element (SRRE), a Household Hazardous Waste Element (HHWE), and a Non-Disposal Facilities Element (NFDENDFE). Local jurisdictions also have programs and policies to reduce waste generation and that regulate the disposal, collection, and processing of solid waste.

Regional development could include a variety of land uses, ranging from residential to commercial or industrial uses, to provide increased goods and services to the region. Implementation of the proposed MTP/SCS would lead to a corresponding increase in the amount of solid waste generated and requiring disposal and, therefore, additional landfills would likely be needed to ensure sufficient permitted capacity. As required by the IWMA, the need for new landfills and possible sites related to implementation of the proposed MTP/SCS would be identified through the preparation of the
CIWMP, and regular updates to the Countywide Siting Element every 5 years. New landfills would be required to comply with all federal, state, and local statutes and regulations related to solid waste prior to beginning construction and operation. Local jurisdictions will also continue to prepare and update SRREs, HHWEs, and NFDEs and continue all programs and policies necessary to meet the required diversion rate.

Therefore, the land use changes from implementation of the proposed MTP/SCS are not expected to result in projects that are out of compliance with federal, state, and local regulations related to solid waste, and the impacts are considered less than significant (LS) for Impact USS-5 No mitigation is required.

On the transportation side, a variety of improvements are included in the proposed MTP/SCS, such as new HOV lanes, auxiliary lanes, roadway widening, bicycle and pedestrian infrastructure improvements, transit facilities, increased transit service, and roadway maintenance and rehabilitation projects. Implementation of the proposed MTP/SCS would lead to a corresponding increase in the amount of solid waste generated and requiring disposal and, therefore, additional landfills would likely be needed to ensure sufficient permitted capacity. Waste generated from demolition, grading, and construction for these transportation network improvements would be disposed of at CDI, as required by local jurisdictions with CDI ordinances and the IWMA. Regulations related to the disposal of construction-related hazardous waste is discussed in Chapter 10 − Hazards and Hazardous Materials.

Therefore, the transportation improvements from implementation of the proposed MTP/SCS are not expected to result in projects that are out of compliance with federal, state, and local regulations related to solid waste, and the impacts are considered less than significant (LS) for Impact USS-5. No mitigation is required.

Localized Impacts

Center and Corridor Communities, Established Communities, Developing Communities, Rural Residential Communities, and Lands Not Identified for Development in the MTP/SCS

The localized impacts associated with implementation of the MTP/SCS are the same in each of the Community Types as described in the regional impacts discussion above. Land use and transportation projects in Center and Corridor Communities, Established Communities, Developing Communities, Rural Residential Communities, and Lands Not Identified for Development are regulated by the various federal, state, and local regulations discussed in the regional analysis.

Therefore, the land use and transportation improvements from implementation of the proposed MTP/SCS are not expected to be out of compliance with federal, state, and local statutes and regulations related to solid waste for these Community Types, and the impacts are considered less than significant (LS) for Impact USS-5. No mitigation is required.

Transit Priority Area Impacts

Placer County, Sacramento County, and Yolo County TPAs

As with the localized impacts discussed above, the Transit Priority Area impacts associated with implementation of the MTP/SCS are the same in each of the TPAs as described in the regional
impacts discussion above. Land use and transportation projects in all of the TPAs are regulated by the various federal, state, and local regulations discussed in the regional analysis.

Therefore, the land use and transportation improvements from implementation of the proposed MTP/SCS are not expected to be out of compliance with federal, state, and local statutes and regulations related to solid waste for all Transit Priority Areas, and the impacts are considered less than significant (LS) for Impact USS-5. No mitigation is required.

*Mitigation Measures*

None required.