4.11 PUBLIC SERVICES AND UTILITIES

4.11.1 EXISTING CONDITIONS

WATER SUPPLY

Demand for water in the 2030 Study Area of Zone 40 is anticipated to increase to an average of approximately 114,000 acre-feet per year (afy). The 2002 Zone 40 WSMP would construct facilities that would allow the County to provide a safe and reliable water supply to meet future water demands in the 2030 Study Area. This demand would be met by groundwater supplies withdrawn from the study area, surface water diverted from the Sacramento River, and recycled water. The mix of groundwater and surface water supplies would vary from year-to-year depending on hydrologic conditions. Surface water would be the predominant water source in wet years, with greater reliance on groundwater in dry years, when less surface water is available. Impacts of the 2002 Zone 40 WSMP on water quality and hydrology of surface and groundwater supplies are analyzed separately in Section 4.7 of this EIR.

Currently, three water purveyors provide water service to the urbanized areas of the Zone 40 2030 Study Area: the SCWA Zone 41 (formerly the Sacramento County Water Maintenance District), Florin Resource Conservation District/Elk Grove Water Service (Florin Resource/EGWS), and the California-American Water Company (Cal-American). It is anticipated that these water providers would purchase wholesale water supplies from Zone 40 to serve new growth areas. In rural areas (properties greater than 2 acres in size) water is provided by private domestic water wells. Total water demands (urban and private wells) within Zone 40 (including areas outside the 2030 Study Area) are approximately 66,234 afy.

WASTEWATER SERVICES

The Sacramento Regional County Sanitation District (SRCSD) collection system conveys wastewater from all areas of Zone 40 to the Sacramento Regional Wastewater Treatment Plant (SRWWTP) located off Franklin and Sims Road (approximately 1/4-mile north of the westernmost corner of the 2030 Study Area). All wastewater collected from the 2030 Study Area is conveyed through the 54-inch Elk Grove trunk interceptor line (capacity of 34 mgd) to the SRWWTP.

The SRWWTP is located in the center of a 3,500-acre site and consists of a main process area, emergency storage basins, solids storage basins, and dedicated land disposal areas (900 acres in total). The remaining 2,600 acres are designated as Bufferlands. The Bufferlands protect the plant from urban encroachment, provide a process (odor) buffer zone, and sustain a diverse ecological community. The rated capacity of the plant is 181-mgd average dry weather flow and 392-mgd peak wet weather flow.

SRCSD is in the process of preparing the SRWWTP 2020 Master Plan. As part of that planning process, SRCSD will develop a plan for phased construction of treatment facilities that would accommodate future wastewater treatment demand within its service area. Demand

for wastewater services was based on 2020 population projections for SRCSD's service area using the County's General Plan. The proposed project's estimate of population growth within the 2030 Study Area is consistent with population projections developed for the SRWWTP 2020 Master Plan and the County General Plan.

ELECTRICITY AND NATURAL GAS

Electricity

The 2030 Study Area receives electric service from Sacramento Municipal Utility District (SMUD). Underground feeder mains transport electricity along several roadways within the 2030 Study Area, including Elk Grove Boulevard, Franklin Boulevard, Calvine Road, and Sheldon Road. Aboveground feeder mains are located along roadways within the more rural areas of the 2030 Study Area (Tisney, pers. comm., 2000)

Natural Gas

The 2030 Study Area receives natural gas service from Pacific Gas and Electric Company (PG&E), an investor-owned company that is regulated by the California Public Utilities Commission. Natural gas is transported to the project vicinity via transmission gas mains. Transmission gas mains operate at levels above 60 pounds of pressure per square inch (psi), and are typically 6 inches in diameter or greater. North-south transmission mains are located within the Union Pacific Railroad right-of-way near the Sacramento River, the Southern Pacific Railroad right-of-way that traverses the southern portion of Zone 40, and within the Sunrise Boulevard right-of-way. East-west transmission lines are located within Kiefer Boulevard, Gerber Road, Big Horn Boulevard, Laguna Boulevard, and Elk Grove Boulevard. Smaller distribution lines are located within most local roadways. Distribution lines connect the transmission gas mains to individual residences and businesses and are typically 6 inches in size or smaller and operate at levels below 60 psi (Hackney, pers. comm., 2000).

4.11.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Based on the State CEQA Guidelines, a project would have a significant impact on public services and utilities if it would:

- result in water demand that exceeds available capacity;
- result in water demand that exceeds available distribution, storage capacity or pressure requirements;
- result in a demand for wastewater treatment service that is substantial in relation to wastewater treatment capacity or if demand exceeds capacity;
- require or result in the construction or expansion of new wastewater treatment facilities, the construction of which could cause significant environmental effects;

- contribute to substantial groundwater contamination, as indicated by deterioration of water quality in the groundwater basin;
- not meet wastewater treatment requirements of the Central Valley Regional Water Quality Control Board; or
- exceed the capacity of existing energy supplies and/or require the construction for additional energy generating facilities.

IMPACT ANALYSIS

Impact 4.11-1: Adequacy of Water Supply. The proposed project would not, in and of itself, increase demand for water in the Zone 40 study area. Instead, the project would implement the necessary facilities to meet existing and projected water demand in the 2030 Study Area. Because SCWA has secured or is in the process of securing adequate surface water and groundwater supplies, and because the proposed project would not substantially deplete existing water supplies, no significant water supply impacts would be anticipated.

The proposed project would construct facilities that would allow the County to meet projected water demand in the 2030 Study Area over the approximate 30-year planning horizon through conjunctive use of surface and groundwater. Groundwater would be pumped from the Central Basin at amounts below the Water Forum sustainable yield for the basin.

Surface water would be supplied through temporary surface water contracts with BVID, and permanent surface water supply contracts with the U.S. Bureau of Reclamation. SCWA is also proceeding to secure other surface water supplies by obtaining assignments of water from SMUD, appropriative water rights for the use of unallocated water in the Sacramento and American rivers during the wet months ("winter water"), and other water transfers. Acquisition of the water assignments is anticipated to occur prior to implementation of the proposed project. Because SCWA has secured or is in the process of securing adequate surface water and groundwater supplies, and because the proposed project would not substantially deplete existing water supplies, no significant water supply impacts would be anticipated.

Impact 4.11-2: Relationship of 2002 Zone 40 Master Plan to the Sacramento Regional Wastewater Treatment Plant. The 2002 Zone 40 WSMP would implement the necessary facilities to supply water to the 2030 Study Area of Zone 40. A portion of the additional water supplied to the 2030 Study Area would be returned to the SRWWTP via the municipal sewer system. As growth occurs in the 2030 Study Area, the volume of water needed, and consequently the volume of wastewater generated, would increase incrementally over the planning period. SRCSD has accounted for future growth within the 2030 Study Area in its Water Quality Impacts Beyond 2020 discussion of the SRWTP 2020 Master Plan.

By 2020, population growth in the SRWWTP is expected to increase wastewater flows at the SRWTP to 218 mgd, which is the quantity of wastewater treatment and discharge analyzed in

this EIR. There is no expectation that population will stop growing by 2020; accordingly SRWWTPs Interceptor Master Plan 2000 has a buildout flow of 517 mgd (assuming certain buildout conditions). It is presently unknown what date flows to the SRWTP could reach 517 mgd, but that date will not occur for decades after 2020, given that flows from the plant are estimated to increase by just 64 mgd in the next 20 years or so, and Interceptor Master Plan buildout flows are 300 mgd greater than the 2020 Master Plan flow of 218 mgd. The current Interceptor Master Plan assumes that this flow would be conveyed to the SRWWTP site. The SRWWTP site has an ultimate base flow capacity, assuming buildout of the entire developed area of the site with facilities similar to current equipment, of 350 mgd. The SRWWTP site also includes extensive buffers that surround the area where plant facilities are or normally would be located (Draft Environmental Impact Report, Sacramento Regional Wastewater Treatment Plant 2020 Master Plan, August 2003).

Beyond 2020, a new Master Plan would be developed by the County Sanitation District. The current site was analyzed in enough detail to determine that the SRWWTP has capacity to accommodate wastewater treatment demands beyond the year 2020. Therefore, capacity at the SRWWTP would not result in a significant impact.

Impact 4.11-3: Impacts on Existing Utility Corridors. A portion of the water supplied to the 2030 Study Area would be returned to the SRWWTP via the municipal sewer system. As growth occurs and water demand increase, demand for wastewater treatment capacity also increases. The SRWWTP has capacity to accommodate wastewater treatment demands beyond the 2020 planning horizon of its master plan. This would be a less-than-significant impact.

Implementation of the 2002 Zone 40 WSMP could potentially disrupt existing aboveground and underground utility facilities in the 2030 Study Area. During the design phase, the County would consult with the local utility companies that operate utility facilities in the project area to avoid potential disturbances, where possible. Because the County would consult with the local utility companies prior to construction of the proposed project, less-than-significant impacts would occur.

Existing utilities are installed within several roadways throughout the 2030 Study Area. Construction and installation of the water conveyance pipelines could potentially disrupt existing utility facilities within these roadways. In association with Underground Service Alert (USA) and in accordance with County policies the County would consult during the design phase with utility companies that operate underground or aboveground utilities in the project area to determine the exact location of these facilities. Typically, the County would avoid existing utilities where possible. In the event that avoidance of these utilities can not be accomplished, the County usually coordinates with the utility companies to determine the best possible course of action to minimize potential disturbances. Because the County would consult with the local utility companies prior to construction of the proposed project, less-than-significant impacts would occur.

4.11.3 ENVIRONMENTAL MITIGATION GUIDELINES

No mitigation is necessary for the following less-than-significant impacts:

4.11-1: Adequacy of Water Supply

4.11-2: Relationship of 2002 Zone 40 Master Plan to the Sacramento Regional Wastewater Treatment Plant

4.11-3: Impacts on Existing Utility Corridors

Mitigation is recommended for the following significant impact:

4.11.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the above mitigation would reduce the project's public services and utilities impacts to a less-than-significant level.