4.10 PUBLIC HEALTH AND SAFETY

4.10.1 EXISTING CONDITIONS

This section focuses on public health and safety impacts associated with the use of recycled water in the Zone 40 2030 Study Area, and temporary and long-term use of hazardous materials associated with water treatment operations. Impacts related to hazards from construction, emergency services, and wastewater treatment are discussed in other sections of this EIR.

WATER RECYCLING

Implementing the 2002 Zone 40 WSMP would result in construction of groundwater and surface water facilities that would deliver potable water to the 2030 Study Area. A portion of this water would be returned via the sewer system to the Sacramento Regional County Sanitation District's (SRCSD) Sacramento Regional Wastewater Treatment Plant (SRWWTP) as wastewater where it would be treated, discharged to land or the Sacramento River, or recycled and used for nonpotable landscape irrigation. As requirements regarding the discharge of wastewater effluent to the Sacramento River become more stringent, SRCSD has researched more economical and environmentally friendly ways to use or dispose of the treated effluent (e.g., land disposal or recycling).

Demands for water (potable and nonpotable) are increasing throughout the region. Consequently, the cost to supply water is increasing. Distribution of recycled water from the SRWWTP represents one way of increasing the local water supply to meet nonpotable water demands as well as providing a long-term, economically feasible use of treated effluent. Recycled water can be used for many types of applications, including agriculture, landscape irrigation, groundwater recharge, industrial uses, and wetlands enhancement/management.

Under a memorandum of understanding (MOU) dated December 1999, SRCSD and SCWA partnered to establish a first-phase water recycling program that would supply treated wastewater (recycled water) to a portion of the 2030 Study Area. Under the first phase, SCWA would be responsible for constructing the necessary conveyance and pumping facilities required to distribute recycled water to portions of the 2030 Study Area, and SRCSD would construct a 5-mgd water recycling plant (WRP) that would treat secondary effluent to meet Title 22 unrestricted requirements for recycled water quality. The first-phase facilities came online in May 2003. Future expansion of the WRP would increase the plant's capacity to 10 million gallons per day (mgd) (an increase of 5 mgd) and is expected to be complete by 2006. The recycled water would be distributed to the East Franklin and Laguna Ridge portions of the 2030 Study Area. Because the recycled water would serve as a substitute for potable irrigation water, a larger volume of potable water would be available for domestic consumption. SRCSD is also proceeding to investigate the large-scale expansion of recycling operations (i.e., 40-50 mgd) to serve areas within the region (Robles, pers. comm., 2003).

HAZARDOUS MATERIALS

Water treatment plants typically require hazardous materials such as chlorine, sodium hydroxide (caustic soda), calcium hydroxide (lime), sodium bicarbonate (soda ash), zinc orthophosphate, alum, and polymer during the treatment process. These chemicals are used to remove harmful constituents (e.g., bacteria, arsenic) from the water supply. Water treatment plants typically also operate a fueling station and would use and store gasoline, diesel, oils, and lubricants. Further, minor amounts of other substances (e.g., cleaning solvents, laboratory chemicals, paints, and solvents) are used during operations on a regular basis to maintain site facilities.

REGULATORY REQUIREMENTS

Water Recycling

Wastewater recycling 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 recycled water. The regulations establish acceptable levels of constituents in recycled water for a range of uses and assurance of reliability in the production of recycled water. Use of recycled water for nonpotable uses is common throughout the state and is an effective means of maximizing use of water resources in water-short communities. The California Department of Health Services (DHS) has jurisdiction over the distribution of recycled wastewater and the enforcement of Title 22 regulations. The Regional Water Quality Control Board (RWQCB) is responsible for issuing waste discharge requirements (including discharge prohibitions, monitoring, and reporting programs). They also are responsible for user reuse requirements associated with implementation of wastewater reclamation projects.

Hazardous Materials

Hazardous materials handling is subject to numerous laws and regulations at all levels of government. Table 4.10-1 lists the authority of federal, state, and local regulatory agencies that oversee hazardous materials handling and management. A summary of the most pertinent regulations is provided below.

Table 4.10-1
Summary of Hazardous Materials Regulatory Authority

Regulatory Agency	Jurisdiction	Authority
Federal		
Environmental Protection Agency (EPA)	Federal	Federal Water Pollution Control Act Clean Air Act Resource Conservation & Recovery Act Comprehensive Environmental Response, Compensation & Liability Act Superfund Amendments & Reauthorization Act Federal Insecticide, Fungicide & Rodenticide Act

Table 4.10-1
Summary of Hazardous Materials Regulatory Authority

Regulatory Agency	Jurisdiction	Authority
Department of Transportation (DOT)	Federal	Hazardous Materials Transportation Act
Occupational Safety and Health Administration (OSHA)	Federal	Occupational Safety & Health Act
State		
Department of Toxic Substances Control (DTSC)	Statewide	Health and Safety Code CCR Titles 17, 19, & 22
Department of Industrial Relations (Cal-OSHA)	Statewide	California Occupational Safety & Health Act
Department of Transportation (Caltrans)	Statewide	Hazardous materials transportation
Public Utilities Commission (PUC)	Statewide	Natural gas pipelines; General Order No. 112-D
Office of Emergency Services (OES)	Statewide	Hazardous Materials Release/ Response Plans Acutely Hazardous Materials Law
State Fire Marshall	Statewide	Uniform Fire Code, CCR Title 19 Hazardous liquid pipelines
Health & Welfare Agency	Statewide	Safe Drinking Water & Toxic Enforcement Act
Integrated Waste Management Board	Statewide	AB 939
State Water Resources Control Board (SWRCB)	Statewide	Porter-Cologne Water Quality Control Act CCR Title 23
Central Valley Regional Water Quality Control Board (RWQCB)	Regional	Underground Storage Tanks NPDES permit requirements
Bay Area Air Quality Management District	Regional	California Clean Air Act, SCAPCD Regulations
Local		
Sacramento County Department of Environmental Health	County	Hazardous materials disclosure Underground storage tanks Contaminated sites cleanup CCR Title 22 CEQA implementation
County Agricultural Commissioner	County	Agricultural chemicals regulation
Sacramento Regional County Sanitation District	Regional	Wastewater treatment
Sacramento County Metropolitan Fire Department	Local	Hazardous materials disclosure Underground storage tanks Emergency response

Source: EDAW 2002

4.10.2 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

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

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a health or potential health hazard; or
- substantially degrade water quality or contaminate a public water supply.

PROJECT IMPACTS

Impact 4.10-1: Public Health Impacts Associated with Recycled Water. Use of recycled water for nonresidential landscape irrigation is proposed for portions of the 2030 Study Area. The recycled water would comply with Title 22 requirements for unrestricted use. Because recycled water would comply with Title 22 health requirements and irrigation of residential landscaping is not proposed, significant adverse health effects are not anticipated. This would be a less-than-significant impact.

Implementing the 2002 Zone 40 WSMP would continue to use and expand the use of recycled water from the SRWWTP WRP to irrigate parks, schoolyards, roadway medians, and landscaped areas in portions of the 2030 Study Area. Use of recycled water for irrigation of residential landscaping is not proposed. Recycled water treated at the SRWWTP WRP would comply with Title 22 requirements for unrestricted use (i.e., disinfected tertiary treatment). Because recycled water would comply with Title 22 health requirements and irrigation of residential landscaping is not proposed, significant adverse health effects are not anticipated. This would be a less-than-significant impact.

Impact 4.10-2: Use of Hazardous Materials during Operations. The water treatment plant would use, store, and transport hazardous materials (e.g., chlorine, caustic soda, lime) in accordance with applicable federal, state, and local regulations for hazardous materials. This would be a less-than-significant impact.

Operation of the water treatment plant would involve the use of large quantities of hazardous materials (e.g., chlorine, caustic soda, lime) during the treatment process to remove constituents of concern from the water supply. It is likely that the water treatment plant would also operate a fueling station and would use and store gasoline, diesel, oils and lubricants. Federal, state, and local laws require planning to ensure that hazardous materials are properly used, stored, transported and disposed property to prevent or minimize insure to workers, the public, and the environment. If the water treatment would use and store quantities of hazardous materials that exceed certain regulatory thresholds, a hazardous material business plan would be required. The plan would include a hazardous material inventory, emergency response plan, and employee training requirements. For chlorine specifically, a risk

management plan would be required. As required by law, the water treatment plant would use, store, and transport hazardous materials in accordance with applicable regulations. This would be a less-than-significant impact.

4.10.3 ENVIRONMENTAL MITIGATION GUIDELINES

No environmental mitigation guidelines are necessary for the following less-than-significant impacts.

4.10-1: Public Health Impacts Associated with Recycled Water

4.10-2: Use of Hazardous Materials during Operations

4.10.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The proposed project's public health and safety impacts are less than significant.