

# Program Management for City of Merced's Wastewater Treatment Plant Upgrades

## Merced, CA



EKI served as program manager for the upgrade of the City of Merced's Waste Water Treatment Plant (WWTP). As program manager, EKI provided technical management, planning, designing and construction oversight services for three projects at the WWTP. The first two were for adding facilities to improve the WWTP performance in removing ammonia, and the third was to upgrade the plant to tertiary treatment and upgrade the solids handling facilities. EKI performed the following tasks:

- Assisted the City with consultant selection and construction contractor pre-qualification and presentations to the City Council at study sessions and at Council meetings.
- Provided management of the State Revolving Fund loan process to obtain financing for the projects.
- Managed improvements including addition of an aeration basin, secondary clarifier, additional sodium hypochlorite feed system, improvements to the plant's electrical system, and addition of the supervisor control and data acquisition (SCADA) system, construction of a new headworks and influent pump station, the addition of disk filters and ultraviolet disinfection, a new outfall, and upgrades to the operations building.
- Managed the retrofitting of an existing digester gas-fired engine generator to meet San Joaquin Valley Air District's (Air District) regulation for full-time operation. A grant from the California Energy Commission (CEC) funded a portion of the program and EKI acted as a liaison between the Air District and CEC.
- Coordinated with the Regional Water Quality Control Board (RWQCB) regarding the potential impact, on the area's shallow groundwater, of the drying of digested sludge in unlined drying beds and the impact on the shallow groundwater of the land treatment of tomato cannery waste.
- Developed a groundwater monitoring management plan and performed groundwater quality assessments in several WWTPs, including the City's former sludge drying beds (SDBs), industrial wastewater treatment facility, and wildlife management area; and developed an initial conceptual model for soil and groundwater in the SDB area to guide discussions with RWQCB regarding improving groundwater quality, identifying data gaps, and planning for data collection activities.
- Worked with City and local tomato processing plant to address salts and organic carbon in the wastewater affecting the groundwater. Recommended improvements to wastewater management practices.