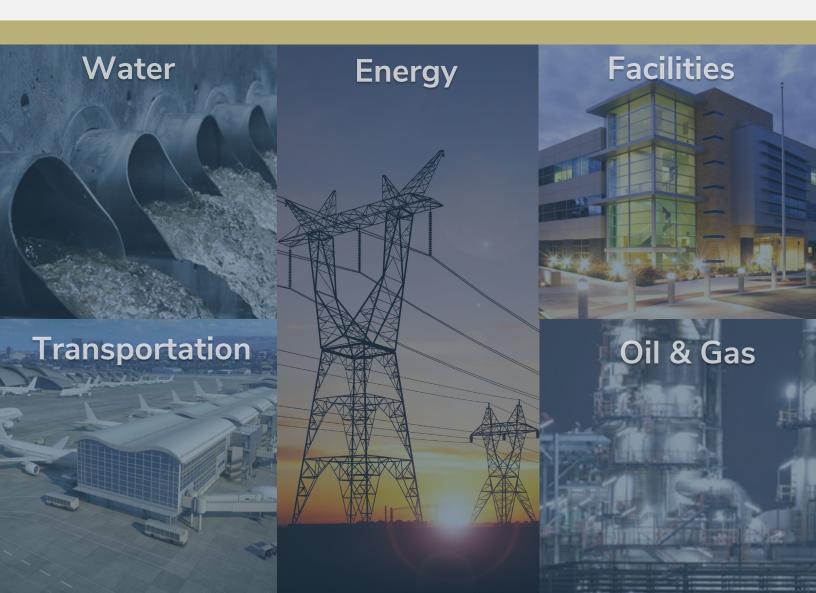
Summary of Qualifications

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Solutions for Project Success

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CM Solutions is the partner you can trust to add depth of expertise in project controls. Since 2001, we have been helping contractors, owners, and agencies in the private and public sectors save time and money with proven project controls for construction management. Tightly managed schedules and budgets are the keys to success when multi-million-dollar projects are on the line.

Our Qualifications

Experience With over 20 years experience supporting complex projects for clients such as the Los Angeles County

Sanitation District (LACSD), Tallahassee City, Florida, Eastern Municipal Water District (EMWD), Northrop Grumman, City of Everett, WA, California Dept of Water Resources, and including all major facilities in Southern California, we are experts with the unique challenges and nuances of water and wastewater

projects.

Expertise Experts with variety of backgrounds and certifications, including PE, PMP, PSP, PMI-SP and Six Sigma.

Diversity Federal, state and local certifications for SBE, DBE, WBE, WOSB, LBE and LBE.

Presence Headquarters in California, with locations in Washington, Arizona, Colorado, and Texas

Program & Project	Planning and	Cost	Risk Management &	Executive Reporting
Services	Scheduling	Controls	Claims Avoidance	& Dashboards
 Construction Management Scope Management Environmental Reviews, Permitting Contract Compliance 	CPM SchedulingProject PlanningTime Impact	 Program and Project Budgets Cost Forecasting Earned Value Management Estimating 	 Claims Preparation Management of Change Schedule Risk Analysis Time Impact Analysis 	 Dashboards for Complex Projects Integrating Systems and Data Power BI Training for Project Teams

Integrated Capabilities Across Sectors











Facilities

Oil & Gas



WATER & WASTEWATER

Managing Water Resources for Our Future



Water / Wastewater



Pipelines



Biosolids Recycling



Pump Stations

Regional Wastewater Facility (RWF) Capital Improvement Program

Owner: City of San Jose and City of Santa Clara Location: San Jose, CA Project Value: \$2 billion

The Regional Wastewater Facility (RWF) is the largest tertiary wastewater treatment plant in the western United States and serves 8 South Bay cities and 4 special districts. The capital program for this advanced treatment plant includes 20 active projects ranging in size from \$5M to \$200M. CMS is providing program and project level cost and scheduling services.

SLO Water Resource Recovery Facility Upgrade

Owner: City of San Luis Obispo Location: San Luis Obispo, CA Project Value: \$111 million

This WRRF upgrade improves the plant's efficiency while reducing dependency on reservoir and groundwater supplies. This project involves upgrading a membrane bioreactor (MBR) and ultraviolet (UV) disinfection system. CM Solutions provides the CM and owner with scheduling services that include reviewing baseline schedules, what-if schedules, and monthly updates for compliance, constructability and logic.

Advanced Water Treatment Facility

Owner: Orange County Water District

Location: Huntington Beach, CA

Project Value: \$300 million

The Orange County Water District's groundwater replenishment system is the world's largest water purification system for indirect potable reuse. CM Solutions worked with the construction managers to develop a fully cost-and resource-loaded baseline schedule, and to maintain the data throughout the project. CMS schedulers developed Time Impact Analyses to evaluate changes and mitigate problems.

Albert Robles Center for Water Recycling

Owner: Water Replenishment District of California Location: Pico Rivera, CA Project Value: \$110 million

The Albert Robles Center for Water Recycling & Environmental Learning purifies 3.25 billion gallons of recycled water annually. CM Solutions was engaged by both the CM firm and contractor to provide collaborative scheduling, reporting, and construction management. CMS provided a single master scheduler, creating greater efficiency and transparency while avoiding claims by resolving problems at the jobsite level.

Riverside Regional WQCP Plant Expansion Phase I

Owner: City of Riverside Location: Riverside, CA Project Value: \$198 million This expansion project included work in 29 different areas of an active 70-year-old wastewater treatment plant. CM Solutions reviewed the contractor's fully resource and cost-loaded baseline schedule and provided monthly schedule update reviews. Our schedulers worked closely with the project team to stay updated on dynamic field conditions, optimize remaining work, evaluate risks, and mitigate claims.

Project Name	Project Type	Project Description	Owner/Agency	Project Value	Project Dates
Advanced Water Treatment Facility (AWTF) - Claim	Wastewater, Claims	CMS evaluated multiple impacts and project delays to the \$300M water treatment plant, the result of which was to successfully negotiate a 162-day extension on the contract.	Orange County Water District (OCWD)	\$300M	2010- 2011
Advanced Water Treatment Facility (OCWD)	Wastewater	The Orange County Water District's groundwater replenishment system is the world's largest water purification system for indirect potable reuse. CMS worked closely with the construction managers to develop a completely cost and resource-loaded baseline schedule, and to maintain the schedule and resource data throughout the course of the project. Our schedulers also incorporated proposed changes and developed Time Impact Analysis to evaluate changes and mitigate problems.	Orange County Water District (OCWD)	\$300M	2004- 2008
Albert Robles Center for Water Recycling & Environmental Learning (formerly GRIP)	Water, Sustainable/ Green Project	This project involved the construction of an advanced water treatment facility, as well as a visitor and educational center, and a pipeline running parallel to the San Gabriel River Parkway. CM Solutions was engaged by both the CM firm and contractor to provide collaborative scheduling, reporting, and construction management. A single master scheduler created greater efficiency and transparency while avoiding claims by resolving problems at the jobsite level.	Water Replenishment District of Southern California (WRD)	\$110M	2016- 2020
Baldwin Park Pumping Plant & Wellhead Treatment System	Water, Claims	CMS provided time impact analyses for compensable delays for unforeseen buried obstructions and additional scope of work due to change orders.	San Gabriel Basin Water Quality Authority (WQA) / Covina Irrigating Company	\$5M	2016- 2020
Belmont Shore Pump Station	Water	Project involved mechanical and electrical rehabilitation for this pump station in the Long Beach area. CMS provided scheduling services.	Los Angeles County Dept of Public Works (LACDPW)	Multi- million	2019- 2020
Biosolids Process Demonstration Unit for LACSD	Biosolids Recycling, Sustainable/ Green Project	KORE's modular disposal solution transforms biosolids into a commercial-grade diesel fuel as an innovative recovery option to wastewater utilities worldwide. CMS provided senior project management services including design, cost estimates, schedule and construction of a full-scale commercialization plant.	KORE Infrastructure	Multi- million	2014- 2015
Carpentaria Sludge Tank Replacement	Wastewater	A new disinfection chemical feed facility with improved aerated sludge holding tanks, positive displacement aeration blowers, sludge feed pumps and a solids transfer pump; and new equipment controls (PLCs). CMS provided oversight and consulting on the baseline and update schedules.	Carpinteria Sanitary District	\$5.5M	2014- 2015
Chino II Concentrate Reduction Facility	Pump Station	Facility involves a potable water supply 2.75 mgd secondary RO system with softening, clarification, and filtration pretreatment. CMS provided scheduling services.	Chino Basin Desalter Authority	\$15M	2013- 2014
City of Paso Robles Wastewater Treatment Plant Upgrade	Wastewater	The project consisted of providing a complete upgrade to virtually all systems of the existing wastewater treatment plant facilities to bring the plant into compliance with State regulations, while increasing the capacity to 4.9 million gallon per day. CMS provided scheduling services.	City of Paso Robles, CA	\$37M	2013- 2015
Clay Van Buren Sewage Lift Station	Wastewater	Project was a rehabilitation of pump lift station, including new pumps, new piping tie-ins, new generator pad and installation of a new generator, new electrical vaults, duct banks, and instrumentation. CMS provided scheduling services.	Metropolitan Water District of Southern California (MWD)	\$3M	2015- 2016
Contractor Pre Qualification Selection	Wastewater	CMS reviewed and evaluated various general contractors pre-qualifying for contracts under \$2M.	Inland Empire Utilities Agency (IEUA)	Multi- million	2014- 2014
DCTWRP Influent and Effluent Flow Monitoring Infrastructure (Re-Bid)	Water	CMS is providing scheduling services.	Los Angeles Sanitation & Environment (LASAN)	\$0.2M	2022- Present

Project Name	Project Type	Project Description	Owner/Agency	Project	Project
Deuel Vocational Institution WWTP for CDCR	Wastewater	CMS provided scheduling services.	California Dept of Corrections & Rehabilitation (CDCR)	\$26M	Dates 2009- 2009
East Branch Extension Phase II Mentone	Pipelines	Project was an extension of the California Aqueduct. Project involved a 2-mile 72-inch pipeline section and 4 miles of a 66-inch pipeline section to Crafton Hills Pump Station. CMS provided scheduling services.	California Dept of Water Resources (DWR)	\$38.5M	2012- 2015
Environmental and Engineering Studies	Water	Woodard & Curran provides environmental and planning studies for water and wastewater facilities. Providing scheduling support on an ongoing basis. CMS prepared quality schedules and reporting to support cash flow and project planning strategies.		Multi- million	2019- 2022
Equipping of Well #43	Water	CMS is providing monthly schedule updates.	Ontario Municipal Utilities Company (OMUC)	\$4.3M	2022- Present
Everett Water Treatment Plant Clearwell No. 2	Wastewater, Claims	CMS provided claims analysis support.	City of Everett, WA	\$3.8M	2008- 2008
Goldsworthy Desalter Plant	Water	Project added new equipment and upgrades to Goldsworthy Desalter plant. CMS provided scheduling services.	Water Replenishment District of Southern California (WRD)	\$12M	2016- 2018
Headworks & Primary Clarifier Upgrade	Wastewater, Delay Analysis, Claims	CMS performed baseline and monthly update schedule analysis that included a written review narrative and supporting analysis documents. In addition, CMS performed evaluation and presentations of multiple delay events that occurred throughout the water treatment plant upgrade project.	City of Palm Springs, CA	\$21M	2017- 2019
Hyperion Ferric Chloride Facility Replacement	Water	Project replaces the Ferric Chloride facility at the Hyperion Water Reclamation Plant (HWRP), which is the sixth largest wastewater treatment in the world and fourth in the United States. CMS is providing a baseline schedule and monthly updates.	Los Angeles County Dept of Public Works (LACDPW)	\$2.5M	2022- Present
Hyperion WWRP FeCl2 Facility Project	Wastewater	The Hyperion Water Reclamation Plant (HWRP) is the sixth largest wastewater treatment in the world and fourth in the United States. CMS provided scheduling services.	Los Angeles County Dept of Public Works (LACDPW)	Multi- million	2018- 2020
Hyperion WWRP Storm Drain Reroute	Wastewater	Project involved rerouting of the central storm drain. CMS provided scheduling services.	Los Angeles County Dept of Public Works (LACDPW)	Multi- million	2019- 2020
Ion Exchange Treatment Plant	Water	This new facility included civil site work and construction of a new building. CMS provided scheduling services, including preparing the baseline schedule and monthly updates, as well as CPM analysis.	City of Corona, CA	\$7M	2015- 2017
Jefferson/Holdrege Condensate Vault Rehabilitation	Water, Wastewater	CMS is preparing the baseline schedule and providing monthly schedule updates for owner review.	Los Angeles County Dept of Public Works (LACDPW)	\$3.2M	2022- Present
Jensen Valve Replacement	Water	Replacement of automatic valves at the Jensen Water Treatment Plant. CMS provided scheduling services.	Metropolitan Water District of Southern California (MWD)	\$3.5M	2015- 2016
LA Glendale Reclamation Plant	Wastewater	Removal of tertiary filters and associated systems and structural work from one plant and reinstall at the LA Glendale plant. CMS provided scheduling services.	Los Angeles County Dept of Public Works (LACDPW)	\$3.1M	2013- 2015
LA Glendale WRP HPE and Air Piping Improvement	Wastewater	Project involved HPE and air piping improvements. CMS provided scheduling services.	Los Angeles County Dept of Public Works (LACDPW)	\$2.5M	2015- 2017

Project Name	Project Type	Project Description	Owner/Agency	Project Value	Project Dates
LA River Low Flow Diversion Project	Water	This project involves construction of 3 storm water pump stations. CMS is providing monthly updates for an existing baseline schedule and will develop an as-built schedule.	City of Los Angeles, CA	Multi- million	2022- Present
LACSD JAO Upgrade	Wastewater	Project involved air handling system modifications. CMS provided scheduling services.	Los Angeles County Sanitation District (LACSD)	\$7.3M	2014- 2016
LACSD Projects	Wastewater, Water	Program involves over 10 projects, including the JWPCP Effluent Outfall Tunneling (value of \$600M). CMS is reviewing contractor schedules on behalf of LACSD, in addition to updating the master schedule	Los Angeles County Sanitation District (LACSD)	\$800M	2021- Present
Lancaster Water Reclamation Plant, Stage 5 Expansion	Wastewater, Claims	This multi-stage project upgraded the Lancaster Water Reclamation Plant from oxidation ponds to conventional activated sludge treatment with tertiary filtration and disinfection. CMS developed the fully resource and cost-loaded baseline schedule and performed ongoing schedule updates to reflect dynamic field conditions and changes in expenditures and resources. In addition, extensive time impact analysis scenarios were performed to effectively demonstrate complex engineering and construction compensable delay issues of over 200 days.	Los Angeles County Sanitation District (LACSD)	\$145M	2008- 2016
Marina Pumping Plant #3 - Site Improvements	Water	Project involved demolition of the existing building, construction of a new building, supply and installation of new VFDs and new control panels, and all appurtenant work. CMS provided scheduling updates along with time impact analyses throughout the project.	Los Angeles County Sanitation District (LACSD)	Multi- million	2017- 2020
Mentone Pump Station	Water	Upgrade/new pump stations, new switchyard with new transformers, office buildings. CMS performed numerous time impact analyses for GC to resolve many unforeseen events. All time related matters were settled after higher level schedule analysis with management.	California Dept of Water Resources (DWR)	\$24M	2015- 2017
Merrill & Sultana Ave Sewer/Water/Storm Drain Improvements	Wastewater, Water	CMS is providing the baseline and schedule updates for this fast-paced project with short lead times.	City of Ontario, CA	\$25M	2022- Present
Moreno Valley Regional Water Reclamation Facility SCATT and APAD Expansion Projects	Wastewater	This project was a water reclamation plant expansion with secondary clarifiers and tertiary treatment (SCATT) and acid phase anaerobic digestion (APAD) facilities. CMS worked for the construction management firm and was responsible for review and approval of the baseline schedule, review of all contractor monthly schedule updates and requests for time extensions. CMS created a 4D schedule, coordinating both the SCATT and adjacent APAD projects. CMS participated in weekly coordination meetings and provided weekly schedule progress reports to the owner.	Eastern Municipal Water District (EMWD)	\$55M	2009-2013
Morro Bay - WRF Lift Station and Pipeline	Wastewater	The Water Reclamation Facility Project includes offsite potable reuse facilities, a new main lift station and pipelines. CMS is providing scheduling services to support the full program management.	City of Morro Bay, CA	Multi- million	2021- Present
Morro Bay Water Reclamation Facility - Onsite Improvements	Wastewater	Project involves replacing the aging Morro Bay-Cayucos Sanitary District Wastewater Treatment Plant (WWTP) with a new advanced water purification facility. It will contribute to a reliable water source and be a critical drought buffer for the surrounding community. CMS is providing schedule reviews for baseline and monthly schedules. Our staff work closely with the project team to review plans & specifications, and to investigate and incorporate any delays to the schedule so that it accurately reflects worksite conditions.	City of Morro Bay, CA	\$68M	2020- Present

Project Name	Project Type	Project Description	Owner/Agency	Project Value	Project Dates
Palmdale Water Reclamation Plant Stage 5	Wastewater, Claims	This project upgraded and expanded the Palmdale Water Reclamation Plant to tertiary treatment of all inflows to produce recycled water as part of an initiative to improve water supply reliability. CMS developed the fully resource and cost-loaded baseline schedule and performed ongoing schedule updates. In addition, extensive time impact analysis scenarios were performed to effectively demonstrate complex engineering and construction compensable delay issues that garnered an 80-day non-compensable time extension for the contractor.	Los Angeles County Sanitation District (LACSD)	\$115M	2008- 2012
Palos Verdes Reservoir Cover and Liner Replacement	Water, Claims	CMS performed schedule analysis, evaluation and presentations of multiple delay events caused by the general contractor & Owner that occurred throughout this water reservoir upgrade project. This review included extensive extended overhead cost analysis.	Metropolitan Water District of Southern California (MWD)	\$90M	2018- 2019
Perris Valley Regional Water Reclamation Facility, Plant 3 Expansion	Wastewater	The Perris Valley Regional Water Reclamation Facility was expanded to keep up with population growth and increasing flows. CMS worked closely with the construction management firm representing the owner to review the contractor's baseline schedule, monthly updates, and requests for time extensions.	Eastern Municipal Water District (EMWD)	\$180M	2006- 2011
Perris Valley RWRF Plant 3 Expansion (Claim)	Wastewater, Claims	CMS evaluated multiple impacts and project delays and helped the Owner successfully defend \$1.5M in extended overhead claim by the contractor.	Eastern Municipal Water District (EMWD)	\$180M	2008- 2009
Plant Safety Improvement Program	Water	Safety improvement program involved modifications for stairs, hatches and walkway hazard at plants 1 and 2, as well as ladder and fall hazard modifications. CMS provided baseline and monthly updates.	Orange County Sanitation District (OCSD)	\$4M	2019- 2019
Puente Valley Operable Unit, Intermediate Zone Interim Remediation	Water	Project is a groundwater quality management and remediation plan. CMS was engaged to provide scheduling services to the general contractor. Services included development of a schedule for the RFP, followed with a baseline schedule. Work includes monthly updates and 3-week look ahead schedules.	Northrop Grumman	\$35M	2018- Present
Puente Valley Operable Unit, Shallow Zone-South Interim Remediation	Water	Project consists of constructing the designed groundwater treatment system at the treatment plant in City of Industry. CMS is providing scheduling services, including preparation of the baseline schedule.	Northrop Grumman	Multi- million	2020- Present
Pumping Plant Upgrade	Wastewater	Upgrades to an existing sewer pumping plant. CMS provided scheduling services.	City of Long Beach, CA	\$37M	2013- 2015
Recycled Water Pipeline Projects	Wastewater, Claims, Sustainable Project	CMS performed multiple schedule analyses, presentation and evaluation of compensable delays that occurred within the recycled water pipeline projects at IEUA and CWD.	Inland Empire Utilities Agency (IEUA)	\$5M	2009- 2010
Regional Plant No. 4 Expansion to 14MG	Wastewater, Claims	CMS performed schedule analysis, evaluation and presentations of multiple delay events caused by the owner that occurred throughout the water treatment plant upgrade project. The window method of Time Impact Analysis was used to claim for over 400 days of a compensable time extension.	Inland Empire Utilities Agency (IEUA)	\$45M	2008- 2012
Rehab College Ave Pump Station	Wastewater	CMS provided scheduling services for this rehabilitation of an existing pump station.	Orange County Sanitation District (OCSD)	\$4M	2008- 2010
Rehab Westside Pump Station	Wastewater	CMS provided scheduling services for this rehabilitation of an existing pump station.	Orange County Sanitation District (OCSD)	\$4M	2008- 2010
Riverside WQCP Plant Expansion Phase 1	Wastewater	The Riverside Regional Water Quality Control Plant (RWQCP) is the largest public works project the city has ever completed. The modernization project retrofitted aging facilities and expanded capacity. CMS reviewed the contractor's fully resource and cost-loaded baseline schedule and provided monthly schedule update reviews. Our schedulers worked closely with the project team to stay up-to-date on dynamic field conditions, optimize remaining work, evaluate the risks, and mitigate various claims to the Owner.	City of Riverside, CA	\$198M	2012- 2017

Project Name	Project Type	Project Description	Owner/Agency	Project Value	Project Dates
Robert W Hite Treatment Facility	Wastewater	The RWHTF is the largest wastewater plant between the Mississippi River and the west coast. This project involved improvements to the North and South Secondary facility. CMS provided scheduling and scheduling review for a feasibility study.	Denver Metro Wastewater Reclamation District	\$134M	2010- 2012
San Jacinto Schedule for Proposal	Water	CMS provided the schedule for proposal.	San Jacinto	Multi- million	2010- 2010
San Jose-Santa Clara Regional Wastewater Facility (RWF) Capital Improvement Program	Wastewater	The Regional Wastewater Facility (RWF) is the largest tertiary wastewater treatment plant in the western US and serves 8 South Bay cities and 4 special districts. The capital program for expansion and upgrades includes 20 active projects ranging in size from \$5M to \$200M. CMS is providing program and project level cost and scheduling services. The program level schedule covers all projects at all phases: feasibility, design, construction, post-construction; program reporting includes 2-year look-aheads and 12-week look-aheads. Construction scheduling services include reviewing and evaluating contractor baseline and monthly update schedule submittals. With some projects having "hundreds of days of delays," the team is also providing delay analysis and claims support.	City of San Jose, CA	\$2B	2021- Present
San Lorenzo Lift Station	Wastewater	Project involved construction of a sewage lift station and the abandonment of the existing Segerstrom Lift Station. CMS provided the baseline schedule and monthly updates.	City of Santa Ana, CA	\$15M	2019- 2021
San Luis Obispo Water Resource Recovery Facility Upgrade	Wastewater	Project involves facility upgrades to improve the plant's efficiency while helping reduce dependency on reservoir and groundwater supplies long into the future. CMS represents the construction manager and the owner with scheduling services that include reviewing the contractor's baseline schedules, what-if schedules, and monthly updates for compliance to specifications, constructability and logic.	City of San Luis Obispo, CA	\$111M	2019- Present
Sanderson Lift Station	Water, Claims	CMS provided claims analysis support	Eastern Municipal Water District (EMWD)	Multi- million	2006- 2006
Silver Lake Headworks Reservoir Complex Storage Replacement	Water, Claims	This project replaced existing open reservoirs with underground concrete reservoirs to comply with the State Department of Dams (DSOD) standards. CMS developed the fully resource and cost-loaded baseline schedule and maintained the schedule updates. We also performed multiple Time Impact Analyses for a variety of unforeseen events that ultimately revealed a total of 386 compensatory days. All time-related matters were settled in negotiations with the Owner.	Los Angeles Dept of Water and Power (LADWP)	\$249M	2011- 2016
Southwest Water Reclamation Facility	Wastewater	CMS provided scheduling services for Phase 1 of this project.	City of Henderson, NV	\$114.5M	2006- 2007
TITP Centrifuge Improvements	Wastewater	CMS provided scheduling services for the centrifuge improvements.	City of Los Angeles, CA	\$4M	2008- 2010
TPS Water Reclamation Facility	Wastewater	CMS provided scheduling services for the LBR Plant.	Tallahassee City, FL	\$230M	2008- 2008
Valencia Plant	Wastewater	Project involved replacing boilers and the steam piping at Valencia plant and added 2 new digesters. CMS provided scheduling services.	Los Angeles County Sanitation District (LACSD)	\$3M	2012- 2014
Ventura Well No. 2 Iron & Manganese Filters	Water	CMS is providing scheduling services, including baseline, monthly updates, etc. for construction phase.	Ventura County Public Works	\$3M	2021- Present
Water Conservation Plant Upgrade, City of Visalia	Wastewater, Sustainable/ Green Project	Project improved wastewater treatment facilities at the City's existing water conservation plant and included developing the initial recycled water conveyance system for disposal and reuse of treated effluent generated by the plant. CMS provided scheduling services.	City of Visalia, CA	\$92M	2014- 2015