

CCWD Engineering Department:

The Engineering Department provides services and technical support to the wide variety of District projects and activities. Typical projects include design of capital improvement projects (pipelines, pump stations, energy recovery projects, canal improvements, etc.), evaluations of existing facilities and technical support for dam performance monitoring.



Assignment/Description:

Conduct assignments related to the Los

Vaqueros Energy Recovery Project: Provide assistance with design services during construction and submittal review for the construction of a 1 Mega-Watt hydroelectric generation project, which takes advantage of excess hydraulic head in one of the District's critical water supply pipelines.

Provide design support on the Bollman Water Treatment Plant Seismic

Improvements Project: Provide assistance with development of design drawings and specifications for the construction of seismic improvements to critical process facilities, including the Sedimentation Basins and 10-million gallon filtered water reservoir (Clearwell) at the Bollman Water Treatment Plant. Tasks also include assistance during bid period services, including response to contractor questions, site visits, and clarification of contract documents, and assistance with design support during construction.

Investigate and design safety-related improvements at District facilities: Provide assistance with identifying, prioritizing, and design of safety improvements at various District facilities, including water treatment plants, pump stations, storage reservoirs, and administrative facilities.

Perform hydraulic modeling assignments: Review the hydraulic model of one of the District's critical water supply pipelines, assess the historic performance compared to expected performance and identify potential causes and remedies for deficiencies. Using H2ONet, run hydraulic models to confirm fire flows and sufficient service pressures for new and existing customers. Completion of coursework in hydraulics and proficiency in using spreadsheets programs is required.

Project Management – Review Budget and Schedule Milestones: Provide project management assistance by tracking project budgets and progress for in-house projects and consultant efforts. Develop projections to determine whether projects are tracking on schedule and on budget.

Questions? Call Cheryl Martinez in CCWD Human Resources at (925) 688-8035 or send her an e-mail at cmartinez@ccwater.com.

Assist with monitoring dam performance: Assist with the assessment of dam performance based on field measurements and electronic tracking of foundation pressures and other dam instrumentation readings. Draft summary dam performance reports.

Investigate and develop recommendations in response to Engineering Support Requests from other departments: Assist with Engineering Support Requests received from the District's Operations and Maintenance Department for facility-specific and task-related field support and design modifications. Requires coordination with other departments to understand the problem, develop an approach, brainstorm ideas, and provide recommendations.

Assist with design of the Los Vaqueros Reservoir Expansion: Provide assistance with development of design drawings and specifications for the construction of the expansion of Los Vaqueros Reservoir, which includes raising the existing earthen dam, and modifications to pumping and conveyance facilities.

Assist with designs for the 2010 Treated Water Reservoir Rehabilitation Program: Provide assistance with planning and preliminary design of improvements to the District's treated water reservoirs to replace coatings, repair structural defects, improve mixing, and water quality monitoring.

Assist with design of Treated Water Pipeline Replacements: Provide assistance with development of design drawings and specifications for the construction of new pipelines to replace older pipelines with a history of leaks. Work also includes field investigations, coordination with other agencies, and planning for utility shutdowns.



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