SUMMARY

Under general supervision of the Department Head, performs a variety of engineering work in connection with planning, design, construction, operation, and maintenance of Agency projects, as well as coordination of work performed by Agency consultants; reviews and interprets engineering data, studies, and investigations conducted by the Agency; provides input to Operations in regard to management and delivery of State Water Project water and stored/banked groundwater within the service area; contributes to project management and direction by consulting teams on projects and studies; and performs related duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Department Head. No direct supervision is exercised.

CLASS CHARACTERISTICS

This is the first working level classification in the professional engineering series. Incumbents perform the more routine tasks in the field of civil engineering. As experience and proficiency are gained, assignments become more technically diverse and difficult, while incumbents are expected to exercise increasing independence of judgment. This class is distinguished from Engineer in that the latter requires professional registration and performs more complex project management and design duties not expected of this class level.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS

The following statements are intended to describe the general nature and level of work being performed by an individual assigned to this job. Other duties may be assigned.

- Assists and participates in planning, design, construction, and operation of all Agency water supply and delivery infrastructure/facilities.
- Provides technical analysis and review for the Agency in the field of engineering used in making decisions during the planning, design, construction, operation, and maintenance of Agency water supply and delivery infrastructure/facilities.
Provides support to carry out engineering and procedures consistent with Agency policies; reviews design for compliance with engineering principles, Agency standards, contract requirements, and related specifications.

Performs civil engineering design work for a variety of Agency facilities, including pipelines, flow control facilities, pump stations, groundwater recharge basins, water storage tanks, wellhead improvements, and other miscellaneous facilities that may be required in the operation and maintenance of Agency facilities.

Provides engineering and technical assistance for work performed by Agency consultants.

Contributes to surveying, architectural, structural, electrical, mechanical, real estate/right-of-way (ROW) transactions, and environmental work that may be required in the planning, design, and construction of Agency projects; coordinates with outside consultants, as needed.

Prepares layouts, calculations, plans, specifications and cost estimates for Agency projects that are designed in-house; may utilize outside consultants for non-civil engineering work.

Responds to requests for information from contractors; participates in the evaluation of contractor submittals and makes recommendations as needed.

Assists in the administration of Agency construction projects, including monitoring of contractor progress and adherence to schedule requirements, review of contractor submittals, preparation of change orders, field inspections, preparation of non-conformance reports, and preparation of final project acceptance documents.

Participates in conducting and evaluating engineering investigations, economic appraisals, and other technical reports, analyses and studies.

Maintains accurate and up-to-date records and prepares periodic special reports relating to engineering, operations, and maintenance of Agency facilities.

Prepares status/progress and other special reports as needed and presents to superiors; may represent the Agency at meetings with concerned public and regulatory officials.

Provides assistance to legal counsel as needed.

Performs related duties and responsibilities, as assigned.

QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Knowledge of:

Principles and practices of civil engineering with emphasis on water supply and water facilities.

Basic project management principles and concepts.

Various federal, state and local regulatory agency requirements and guidelines pertaining to engineering.

Basic knowledge of State of California, Department of Water Resources design and field operations and standards.
Automated drafting programs, such as AutoCAD.

Various methods and techniques to reach mutually agreeable solutions and outcomes.

Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.

The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.

Modern equipment and communication tools used for business functions as well as program, project, and task coordination.

Computers and software programs (e.g., Microsoft software packages) to conduct research, assess information, and/or prepare documentation.

Ability to:

- Perform and evaluate complex, responsible, and difficult professional, analytical, and administrative work involving the use of independent judgment and personal initiative.
- Prepare comprehensive technical reports.
- Define problems, collect data, establish facts, and draw valid conclusions.
- Interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.
- Perform work in a highly variable environment where safety principles and procedures need to be tailored to deal with unforeseen hazards to minimize high potential for serious injury.
- Research, analyze, and evaluate new service delivery methods, procedures, and techniques.
- Gain cooperation through discussion and persuasion.
- Establish, maintain, and foster effective team spirit and collaboration between departments and employees.
- Actively listen and discern common interests to reach mutually agreeable solutions and outcomes.
- Work in a fast-paced, professional office environment and balance multiple projects and deadlines.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Prepare clear and concise administrative and management reports.
- Effectively present information and respond to questions from MWA’s employees, the general public, other water agencies, and regulatory agencies.
- Establish and maintain cooperative working relationships with those contacted in the course of business, including member agencies, city and other government officials, community groups, other state water contractors, and the public.
- Effectively use computer systems, applications, and modern business equipment to perform a variety of work tasks.
- Perform work in accordance with specific safety procedures to minimize potential for injury.
Education and Experience:

Bachelor’s degree in Civil Engineering, Environmental Engineering, or related field and two (2) years of experience in engineering, construction inspection, operations, and/or drafting related to water supply and delivery.

Licenses and Certifications:

- Valid California Class C Driver’s License and current automobile insurance.
- California Engineer-in-Training (EIT) certification or ability to obtain within one (1) year of employment.

PHYSICAL DEMANDS

The following physical demands described are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to see, talk, hear, use hands to finger, handle or feel, move around office and drive a standard passenger and 4-wheel drive vehicle. The employee is occasionally required to stoop or bend, lift items up to 60 pounds and work outside and in cramped spaces underground. Specific vision abilities required by this job include close vision, distance vision, color vision, depth perception, and ability to adjust focus.

WORK ENVIRONMENT

The following work environment characteristics described are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee’s work environment ranges from a typical office setting to working outside. The employee is occasionally exposed to outside weather conditions, dust, dirt, fumes, odors, vibrations, poor lighting, and hazardous or toxic chemicals. The noise level can range from moderate to loud.