Cucamonga Valley® Water District

Service Beyond Expectation

Assistant Engineer

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

DEFINITION

Under supervision, performs professional engineering work and administrative tasks associated with the planning, design, and construction of engineering projects; and performs a variety of tasks relative to the assigned area of responsibility.

DISTINGUISHING CHARACTERISTICS

Assistant Engineer is identified as the first level professional position in the engineering class series. It is distinguished from positions in the Engineering Technician series in that the latter are primarily engaged in engineering plan checking and other technical support tasks. It is distinguished from Associate Engineer in that the latter is the fully-experienced staff engineer overseeing the day-to-day aspects of engineering project management.

SUPERVISION RECEIVED AND EXERCISED

Direct supervision is received from the Engineering Manager (Capital & Development), and/or the Engineering Manager (Planning and Water Resources), and the Director of Engineering Services.

Technical/functional work direction may be provided to Engineering Technicians.

ESSENTIAL AND MARGINAL FUNCTION STATEMENTS

Essential and other important responsibilities and duties may include, but are not limited to, the following:

Essential Functions:

1. Prepare cost estimates, manages consultant contract, draft scope of work statement and content for Requests for Proposals and evaluation criteria for use in selecting consultants.
2. Assist senior staff with reviewing and evaluating proposals for consultant work.
3. Assist in reviewing the reports and coordinating with other agencies.
4. Uses project scheduling software to track project milestones and monitor project budgets.
5. Assembles information for inclusion in engineering project status and staff reports as needed.
6. Regular attendance at work site.

Water Resources and Planning

- Knowledge about water systems and preliminary knowledge about hydraulic modeling software. Conducts analyses and use data with engineering judgement to better plan and optimize water and wastewater systems.

- Participates and assists with development of water/wastewater master plans, urban water management plan, water supply assessments; Under general supervision or direction performs activities to ensure the District's compliance with federal, state and local regulations and prepares and submits major water resources regulatory reports; apply and administer grants to fund water/wastewater or recycled water activities; makes preliminary analyses of hydraulic capacity and/or suitable locations for pipelines and facilities; makes site visits and surveys of field locations as appropriate.

- Uses GIS software for projects and exhibits and to perform data analysis; map editing; perform hydraulic modeling on pressurized and gravity pipeline networks for engineering analyses; maintains system model from system drawings/record drawings; runs planning level scenarios to develop and support capital projects.

- Coordinates fire flow testing program and assembles and reviews data and statistics relative to these tests.

Capital and Development Projects

- Assists in planning and developing engineering design projects; prepares engineering plans, follow specifications, design and project cost estimates for CIP projects; troubleshoots design problems; may assist with environmental reviews for projects.

- Assists in reviewing engineering reports, plans, or specifications prepared by engineering consultants or developers; makes engineering calculations to include quantity take-offs and initial cost estimates for construction; participates in the review of submittals and vendor drawings for conformance with design requirements.

- Helps with engineering project management work including administration of construction contracts; attends project review meetings; assists in coordinating construction inspection activities; does preliminary review of invoices requesting progress payments.

Marginal Functions:

1. Performs related duties and responsibilities as required.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of:

Basic civil engineering principles, practices, methods, materials and hydraulics.
Fundamentals of engineering economics including cost/benefit analysis.
Engineering project management methods and techniques.
Construction management principles and techniques.

Federal, state, and local laws and regulations affecting water and wastewater utilities.
OSHA regulations and safe work practices.

Skill in:
Using a personal computer and related software for business and engineering applications, proficiency in Microsoft Office, including Word, Excel, and PowerPoint.

Ability to:
Learn and apply general engineering principles to the solution of specific engineering problems.
Gather, analyze, and evaluate technical information and make reasoned recommendations thereon.
Assist in the conduct of various engineering project management activities.
Review and evaluate engineering specifications, requests for proposals, contract documents, and design drawings.
Present technical information to non-technical persons.
Make accurate engineering calculations.
Maintain detailed and accurate records.
Understand and carry out oral and written instructions.
Communicate clearly and concisely, both orally and in writing.
Establish and maintain cooperative working relationships with those contacted in the course of work.
Maintain physical condition appropriate to the performance of assigned duties and responsibilities.
Maintain mental capacity which allows the capability of making sound decisions and demonstrating intellectual capabilities.
Maintain effective audio-visual discrimination and perception needed for making observations, communicating with others, reading, writing and operating assigned equipment.

REQUIRED QUALIFICATIONS

Experience and Training Guidelines
Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Training/Education:
Possession of a Bachelor's degree from an accredited college or university with a major in Civil Engineering, Mechanical Engineering, or a related field; and possession of an Engineer-in-Training certificate is highly desirable.

Experience:
One (1) year of professional engineering or related field/planning experience (including internship experience), preferably with a water or wastewater utility; experience with and proficiency in ArcGIS, Innovyze InfoWater/InfoSewer, and AutoCAD Civil 3D, are highly desirable.

License:
Possession of a valid Class C California driver's license and a satisfactory driving record.

PHYSICAL DEMANDS AND WORKING CONDITIONS
The physical and mental demands described here are representative of those that must be met by employees to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

Environmental Conditions:
Standard office setting; frequent interaction with District staff and general public.

Physical Conditions:
Incumbents require sufficient mobility to work in an office setting; stand and sit for prolonged periods of time; operate office equipment including use of a computer keyboard; ability to verbally communicate to exchange information; use of hands repetitively to operate finger, handle or feel office equipment and reach with hands and arms. Employees are frequently required to stand and walk.

Mental Demands:
The incumbent is regularly required to use written and oral communication skills; read and interpret data, information and documents; analyze and solve complex problems; use math and mathematical reasoning; perform highly detailed work under changing, intensive deadlines, on multiple tasks; work with constant interruptions.

Vision:
See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents and to operate assigned equipment.

Hearing:
Hear in normal audio range with or without correction.

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Safety Sensitive Position