ASSOCIATE ENGINEER I

DEFINITION

Under general direction of the District Engineer; the exempt Associate Engineer I classification performs professional field and office engineering work related for the planning, design, modification, construction, and maintenance of the District's facilities; researches and analyzes water resources data and activities; guides technical engineering staff; provides engineering supervision on construction projects; and performs related work as required.

EXAMPLES OF DUTIES

The duties listed below are illustrative only and are not meant to be a complete exhaustive listing of all the duties and responsibilities of the Associate Engineer I classification:

Engineering Duties:

- Assists the District Engineer with the collection, analysis and refinement of field data.
- Provides support to the District Engineer in making presentations regarding engineering issues to the Board of Directors.
- Develops designs, drawings, and specifications for the construction and modification of District structures and facilities.
- Prepares environmental assessment reviews in compliance with California Environmental Quality Act (CEQA) and/or other regulatory permits and compliance documentation as required by state and federal regulatory agencies.
- Researches grant opportunities, prepares grant proposals, administers, tracks, monitors, and reports on grants awarded to the District.
- Reviews, interprets, and reports on local, State, and Federal laws, regulations, policies, and procedures.
- Monitors ongoing planning efforts by other agencies and changes in the law as they affect the District.
- Direct, review and report on work performed by District consultants.
- Develop, modify, and as-built drawings.

Water Treatment Plant and Water Supply System Duties:

- Develops and documents engineering standards for process, mechanical, electrical, control, and instrumentation systems, including equipment specifications, drawings, and configurations.
- Evaluates process strategies, controls, and efficiencies.
- Documents as-built drawings and other information for construction and modifications performed by District staff to District facilities.
- Represents the District in coordination with other utilities, regulatory agencies, governmental bodies, planning agencies, trade and professional associations, technical groups, and developers as delegated.
- Prepares correspondence and reports related to engineering functions.
- Represents the District at meetings and conferences as delegated.
- Other duties as assigned.

Water Resources Duties:

- Assists the District Engineer with developing and preparing water quality reports, water demand projections, major planning programs, master plans and budgets for water supply, infrastructure rehabilitation, water use policies, rates and charges.
- Supports professional level duties associated with the planning, studies and reports relating to current and long-range infrastructure, water resources, environmental planning, water demand/supply forecasting, and environmental compliance and mitigation.
- Performs and/or reviews initial studies, draft environmental impact reports, local and state watershed protection efforts, water quality investigations, and other related documents.
- Supports development of long range reliability plan, water management plans, and future planning efforts and conducts complex research in these areas.
- Analyzes technical data pertaining to the planning and implementation of water banking projects, water transfers, and water exchanges.
- Provides information used to establish scope, schedule, and budget for infrastructure, process efficiency, and water resources planning studies, projects, and programs.
- Other duties as assigned.

Typical Physical Activities:

- Communicates orally with District management, co-workers, and the public in face-to-face, one-on-one and group settings.
- Inspects/observes construction sites.
- Entering confined spaces.
- Regularly uses a telephone for communication.
- Uses office equipment such as computer terminals, copiers, printers, scanners and facsimile machines.
- Sits for extended time periods.
- Hearing and vision within normal ranges.

EMPLOYMENT STANDARDS

Knowledge of:

- Principles and practices of civil engineering with emphasis on the design and construction of water supply, water treatment, and other hydraulic projects and facilities.
- Basic understanding of principles and practices of process, mechanical, electrical, control, and instrumentation design and construction in water supply, water treatment, and other hydraulic facilities.
- Principles of engineering economics and their practical application to construction, water supply and water treatment projects.
- Laws, rules, ordinances, and legislative processes governing water rights, environmental quality (CEQA), and water development projects.
- Public finance, budget development and fiscal controls, and capital improvement fiscal planning.
- Project and contract development and administration.
- Principles and practices of water supply development, chemical and mechanical aspects of drinking water treatment, and local water issues, including their relationships to State and regional plans.

Ability to:

- Plan, carry out, and coordinate District engineering projects, particularly as they affect irrigation, water supply development, water conservation, and water treatment.
- Lead field engineering tasks (staking and other surveyor functions) with and without licensed surveyor.
- Coordinate assigned engineering projects with District activities and services.
- Assist with development long-range capital improvement plans.
- Prepare and monitor project budgets.
- Prepare and develop plans, specifications, and District engineering standards.
- Insure proper completion and inspection of major construction projects.
- Prepare and review a variety of engineering studies and reports.
- Use computer systems and software packages related to engineering analysis and functions, including Microsoft Office and AutoCAD.
- Work in a standard office environment with frequent exposure to the outdoors, and in areas of unstable footing.
- Travel to different construction/job sites and locations.
- Effectively represent the District's engineering functions with the public, other government agencies, contractors, developers, and professional engineering consultants.
- Establish and maintain cooperative working relationships.

QUALIFICATIONS

Any combination of education and experience that would likely provide the necessary knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Required Certification/Education/Experience/License:

- Certification:
  - No certification is required.

- Education:
  - Completion of a Bachelor's of Science Degree in Civil Engineering, Environmental Engineering or other closely related Engineering Program or equivalent experience.

- Experience:
  - Two (2) years professional engineering experience at Level I preferred.

- License:
  - Possession of a valid California (Class "C") Driver's License may be required at the time of appointment. Failure to obtain or maintain such required license(s) may be cause for disciplinary action. Individuals who do not meet this requirement due to a physical disability will be considered for accommodation on a case-by-case basis.
  - Possession and proof of a driving record free of multiple or serious traffic violations or accidents for two (2) consecutive years.

The specific statements in each section of this job description are not intended to be all-inclusive. They represent typical elements and are necessary to successfully perform the job.