

DESERT WATER



SENIOR ENGINEER Operations Engineering Department

Range: 64
Salary:

JOB DEFINITION: Under general supervision, performs complex professional engineering work in the planning, designing, and construction of water, wastewater, and recycled water capital improvement projects; coordinates and directs the work of lower level professional technical staff and performs related duties as assigned.

SUPERVISOR: Operations Engineer/Supervisor

DISTINGUISHED FROM LOWER RANGE POSITION(S):

There are four Engineer levels within the Engineering Operations Department – the primary difference between the licensed Engineers is the scope of required knowledge and experience. Additionally, the Operations Engineer position is a supervisory position and the other Engineer level positions are non-supervisory.

EXAMPLE OF DUTIES:

Performs planning, design, construction engineering tasks for major capital improvement and maintenance programs; prepares, or directs the preparation, of drawings and specifications for the construction of a variety of water, wastewater, recycled water, and solar power facilities including pipelines, booster pump stations, wastewater lift stations, water and recycled water treatment facilities and storage reservoirs, drainage facilities, and roadways; performs computer modeling, drafting, and design of the various water, wastewater, and recycled water systems including analysis of hydraulic requirements, earthwork computations, and guidelines for existing and proposed projects; performs complex engineering calculations for hydraulics, surveying, electrical, mechanical and structural designs.

Serves as project engineer for a variety of Agency facility construction, expansion or rehabilitation; serves as Agency representative for contractors, consultants, utilities and/or agencies.

May be called upon to observe construction work in progress, including field investigations to determine compliance with contract documents, standards, and Agency materials.

Performs control surveys, Topo surveys, and construction staking for various Agency facility projects; determines necessary rights-of-way for Agency facilities, prepares land acquisition documents (easement and/or fee); coordinates capital improvement projects with other Agency departments, specifically Operating staff; provides engineering assistance to Operations staff.

Serves as project engineer in providing technical assistance to lower level professional and technical staff; assigns routine duties, design, and drawing preparation tasks; review submittals and shop drawings; prepares a variety of special engineering studies, cost estimates, correspondence, requests for proposal, board/staff reports, records, and files; assists the Operations Engineer with preparation of construction specifications, contract documents, and procedures for water, wastewater, recycled water, and solar power capital improvements, financing analysis for capital improvements and facility operating costs.

QUALIFICATIONS:

Schooling: Possession of a Bachelors of Science degree in Engineering from an accredited college.

Certification(s): Valid certificate of registration as a Professional Civil Engineer issued by the State of California.

Experience: Any combination of training and work experience which would likely provide the required knowledge and ability including a minimum of six years of responsible engineering experience, preferably in a water utility.

License(s): Possession of a valid Class C driver's license issued by the California Department of Motor Vehicles for use of operating Agency vehicles and equipment required in the fulfillment of the job duties for this position, with an acceptable driving record.

Knowledge: Basic design and operational principals and practices of civil engineering in relation to basic water production and distribution, wastewater collection and treatment, and recycled water distribution and treatment, and solar power operations.

Acquired knowledge and experience in computerized drafting and design for any applications of civil engineering practices as they are applied to water, wastewater, and recycled water facilities; theory, principals and practices of civil engineering and design and construction; principals of physics and mathematics applicable to Civil Engineering; principals and techniques of project management and supervision; principals of modern techniques and equipment used in design, construction, and maintenance of various public works projects, including land surveying, strength of materials, legal guidelines for public works engineering.

Ability: Able to review, prepare, or direct the preparation of complex engineering plans, specifications, and contracts; prepare and evaluate engineering studies for large projects; perform difficult technical research and analyze complex engineering mathematical problems; analyze and evaluate pipeline and facilities project alternatives, costs and recommendations; perform accurate engineering calculations and cost estimates; utilize personal computer for hydraulic modeling, spreadsheet analysis, and other applications; motivate and evaluate assigned project staff, and provide for their training in professional development; communicate effectively, both orally and in writing; prepare clear, concise and accurate reports, drawings, maps, notes, correspondence and other written materials; establish and maintain effective professional working relationships with those encountered in the course of employment.

PHYSICAL REQUIREMENTS:

Climbing: yes no **Frequency:** Continual Often Infrequently Never

Examples: Going up and down stairs, ladders, getting into large vehicles, during surveying, etc.

Bending: yes no **Frequency:** Continual Often Infrequently Never

Examples: Lifting boxes, surveying or engineering equipment, etc.

Sedentary/sitting: yes no **Frequency:** Continual Often Infrequently Never

Examples: Sitting at desk, driving or riding in vehicles

Standing: yes no **Frequency:** Continual Often Infrequently Never

Examples: Standing on carpet, pavement, dirt, concrete at work sites or in Agency facilities

Repetitive motion: yes no **Frequency:** Continual Often Infrequently Never

Examples: Use of computer, writing instruments, etc.

Respiratory (requiring use of respirator or face mask) yes no

Examples: When entering reservoirs, misc. agency facilities, as appropriate

WORK ENVIRONMENT:

Generally, work is performed indoors within the Agency Operations Center, which has a heating and air conditioning system. Within the Operations center, there is both overhead lighting and natural light from windows. There is a music/paging system which is on and operating throughout the work day. There are a number of pieces of office equipment that operate within the confines of the Engineering-Operations work areas, including, but not limited to: telephones, computers, computer printers, plotters, and calculators.

On occasion, work (such as surveying or job inspections) will take place outside the Agency Operations Center or at outlying Agency facilities and will take place in all weather conditions, including extreme heat in excess of 110°.

I have reviewed this Job Description with my Supervisor and received a copy.

Employee Signature Date

Supervisor Signature Date

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