



Job Description

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job.

| | |
|------------------|---------------------------------|
| Job title | Principal Engineering Geologist |
|------------------|---------------------------------|

GENERAL PURPOSE

Under general direction, assumes responsibility for planning, organizing, and executing complex engineering and geology/hydrogeology-related projects and programs; leads, organizes, and reviews the work of program or project professional and technical staff; administers the design and preparation of major production and monitoring well construction projects; updates and maintains the District's groundwater basin model; and performs related duties, as assigned.

DISTINGUISHING CHARACTERISTICS

This is a professional classification which exercises independent judgment in managing engineering and geology/hydrogeology staff and consultants on projects and programs, with accountability and ongoing decision-making responsibilities associated with the work. Department functional program areas include, but are not limited to, engineering, groundwater development, groundwater resources, and water resource planning. Incumbents are responsible for performing diverse, specialized and complex work involving significant accountability and decision-making by exercising primary responsibility for engineering/geological project activities. Incumbents are responsible for planning, organizing, supervising, reviewing, and evaluating the work of assigned project staff, administering consultant contracts, and providing professional-level support to the Director of Groundwater Management and Facilities Planning in a variety of areas. Performance of the work requires the use of independence, initiative, and discretion within policy guidelines.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from the Director of Groundwater Management and Facilities Planning. Exercises direct supervision over professional, technical, and lower-level staff.

TYPICAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this position.

- Plans, organizes, supervises, trains, and evaluates the performance of assigned staff; establishes performance requirements and personal development targets; regularly monitors performance and provides coaching for performance improvement and development; recommends compensation and provides other rewards to recognize performance; subject to management concurrence, takes disciplinary action, up to and including termination, to address performance deficiencies, in accordance with the District's rules, policies, and labor contract provisions; identifies best-of-class work practices among assigned staff and assures uniform adoption of those practices.
- Provides day-to-day leadership and works with staff to ensure high-performance, customer service oriented work environment which supports achieving the department's and the District's mission, strategic plan, objectives, and values.
- Performs and leads engineering geology assignments in support of the planning, design, construction, operation, and maintenance of the District's facilities and systems including, but not limited to, conducting engineering geologic studies, investigations, and analyses and preparing and reviewing reports; assists in providing review and oversight of special engineering and geological studies of critical facilities performed by consultants; manages engineering geologic projects; and performs a variety of tasks relative to assigned area of responsibility.
- Plans and manages complex geologic, hydrogeologic, and engineering programs and projects; directs and sets priorities for staff to successfully complete efforts in areas such as project strategic planning and the preparation, review, and acceptance of study documents.
- Directs staff and consultants on work methods and short-term goals; provides guidance and input on how computations can be made to obtain required data for analyses; reviews results.
- Develops and administers complex project budgets; directs the forecast of additional funds needed for staffing, consultants, contractors, equipment, materials, and supplies; directs updates to budget status; discusses project expenses with consultants; reviews and signs invoices.
- Initiates or attends meetings with management to understand their goals for current and future programs or projects; ensures management goals are being met on projects and determines best methods to meet or exceed project goals; leads stakeholder meetings to disseminate information and receive feedback on project operations.
- Reviews work status on projects and identifies potential risk to the District; resolves issues which are of minor impact; recommends actions to be taken where major risk is involved and implements management direction.

- Administers the design and preparation of major production- and monitoring-well construction projects; updates and maintains the District's groundwater basin model; completes model simulations and evaluates simulation results, conducts water resources planning and evaluations, and assists with development and implementation of groundwater production and recharge-operations plans.
- Revises and approves construction documents; prepares cost estimates; establishes the scope, schedule, and budget for assigned projects; negotiates and manages consultant contracts; reviews drawings and specifications for compliance with District standards; interprets specifications and District policies and initiates or reviews change orders; prepares periodic project-status reports and tracks, evaluates, and reports on design project progress to department management.
- Coordinates groundwater development planning and management activities with other departments and outside agencies; assesses and evaluates alternative water-supply options for the District and determines effective courses of action; performs complex engineering calculations and designs.
- Monitors, coordinates, evaluates, modifies, and provides quality assurance to the preparation of pressure-zone plans, groundwater-management plans, and District Master Plans; plans and manages water-supply enhancement projects including evaluation of groundwater extraction/recharge requirements, alternatives, costs, and potential impacts.
- Prepares specifications for construction and equipping of production, monitoring, and exploratory wells; completes final designs and monitors well construction and equipping; designs, conducts, and evaluates well performance and aquifer tests; conducts well interference and impact evaluations.
- Assists with the completion of inter-departmental assessments of basin water resources and groundwater supply and operations alternatives including configuration and evaluation of numerical model runs to assess historic and planned well and recharge operations.
- Revises design and construction standards to improve methods, procedures, and practices; prepares correspondence on technical geologic and hydrogeologic issues; makes authoritative interpretations of applicable laws, regulations, policies, and design standards.
- Oversees the geologic/hydrogeologic interpretations and uses of data by the District, and regional, state, and federal agencies; performs as gatekeeper and lead scientist for the District, interfacing with technical and management staff and a diverse range of external agencies and organizations; assists in the development and implementation of engineering geology and hydrogeology standards and priorities.
- Prepares grant-funding proposals and project management; providing project definition, directing work, scheduling, administering grants, reporting, invoicing, and performing inspections.

- Ensures staff observe and comply with all District and mandated safety rules, regulations, and protocols.
- Performs related duties as assigned.

REQUIRED QUALIFICATIONS

Knowledge of:

- Principles and practices of employee supervision, including work planning, assignment review and evaluation, discipline, and the training of staff in work procedures.
- Principles of providing functional direction and training.
- Principles and practices of leadership.
- Organization and management practices as applied to the development, analysis, and evaluation of programs, policies, and operational needs of the assigned area of responsibility.
- Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.
- Administrative principles and methods including goal setting, program development and implementation.
- Principles and practices of project management.
- Principles and practices of water resources management and data modeling, including computer simulation modeling of complex groundwater systems.
- Modern methods and techniques used in the design and construction of production, monitoring, and exploratory wells.
- Principles and practices of project budget preparation and administration.
- Theory, principles, and practices of geology, hydrogeology, and hydraulic, civil, structural, and geotechnical engineering.
- Land use concepts and practices including surveying and right of way principles.
- Principles and practices of advanced mathematics as it relates to planning, design, and construction of facilities.
- Public utility governance including the roles and responsibilities of an elected Board of Directors.
- Federal, state, and local laws, codes, and regulations in assigned areas of responsibility.
- District and mandated safety rules, regulations, and protocols.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- 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 and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Conduct geological and geophysical exploration investigations.
- Conduct independent technical research.
- Delegate work to others, direct the work of others, and motivate others to work effectively.
- Select and supervise staff, provide training and development opportunities, ensure work is performed effectively, and evaluate performance in an objective and positive manner.
- Plan, assign, and coordinate the work of project staff.
- Oversee and manage the work of project consultants.
- Prepare, administer, and monitor complex project budgets.
- Perform project management tasks for complex hydrogeologic and engineering projects, evaluate alternatives, make sound recommendations, and prepare effective technical reports.
- Plan and direct the design, construction, maintenance, and operation of water, wastewater, and recycled systems.
- Negotiate various scopes of work and contracts including planning studies, and project design, construction, and maintenance contracts.
- Prepare and deliver presentations to management, stakeholders, governing boards, and the general public.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies, and procedures, and standards relevant to work performed.
- Effectively represent the department and the District in meetings with governmental agencies; community groups; various business, professional, and regulatory organizations; and in meetings with individuals.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Experience:

Any combination of experience and education that provides the required knowledge and abilities is qualifying, along with the specific licenses/certifications as outlined below:

Ten (10) years of progressively responsible professional experience supporting hydrogeologic and water resources planning, development, and construction programs or projects, three (3) should be in a program-management capacity, or three (3) years of experience, two years of which shall have been in a supervising capacity.

Education:

- Bachelor's degree from an accredited college or university with major coursework in geology, hydrology, hydrogeology, civil engineering, or a related field; Master's degree desired.

Licenses/Certifications:

- A valid certificate of registration as a Professional Geologist, Certified Engineering Geologist, or Certified Hydrogeologist.
- A valid California driver's license and the ability to maintain insurability under the District's Vehicle Insurance Policy.

PHYSICAL DEMANDS

The physical 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 functions.

When assigned to an office environment, must possess mobility to work in a standard office setting and use standard office equipment, including a computer; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone; ability to stand and walk between work areas may be required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information.

When assigned to field work, must possess mobility to work in changing site conditions; possess the strength, stamina, and mobility to perform light to medium physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; to reach, twist, turn, kneel, and bend; and to operate a motor vehicle and visit various District sites; vision to inspect site conditions and work in progress. The job involves fieldwork requiring

frequent walking in operational areas to identify problems or hazards, with exposure to hazardous materials in some site locations. Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight of 40 pounds, or heavier weights, in all cases with the use of proper equipment and/or assistance from other staff.

WORK ENVIRONMENT

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

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees also work in the field and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

Eastern Municipal Water District
Job Title: Principal Engineering Geologist
Last Update: October 2019

This job description has been reviewed and approved by all levels of management in cooperation with the union (if applicable):

| | |
|----------------------------|---------------------------|
| Approved by: | <i>Board of Directors</i> |
| Date adopted: | <i>October 2, 2019</i> |
| Date modified: | |
| FLSA determination: | <i>Exempt</i> |

Job Description Acknowledgment

I have received, reviewed, and fully understand the job description for Principal Engineering Geologist. I further understand that I am responsible for the satisfactory execution of the essential functions described therein, under any and all conditions as described.

Employee Name (print): _____ *Date:* _____

Employee Number: _____

Employee Signature: _____