

HYDROGEOLOGIST

DEFINITION

To plan, organize and direct hydrogeology and professional engineering activities in the development and maintenance of the City's groundwater system and evaluation of groundwater resources; to plan, develop, organize and maintain the City of Roseville Groundwater Strategic Plan; to assess groundwater quality and yield associated with the City's water supply facilities and general water supply issues; to coordinate hydrogeology evaluation activities with other divisions or departments; to represent the City before official bodies, regulatory agencies, contractors and the general public; and to provide highly responsible and technical professional support to higher level management as assigned.

DISTINGUISHING CHARACTERISTICS

The Hydrogeologist is a specialized management job classification that recognizes positions providing highly specialized and responsible function in the City's groundwater system. Positions do not require direct supervision of others; however, have greater administrative responsibility and technical expertise in the area of long and short range planning of the City's ground water supply facilities and over general water supply needs.

The Hydrogeologist is distinguished from the Principal Engineer in that it requires specialized technical expertise in the groundwater system which spans across multiple sections whereas the Principal Engineer acts as a full first-line supervisor planning, organizing and directing professional engineering staff activities of an assigned section.

SUPERVISION RECEIVED AND EXERCISED

Receives administrative direction from higher level management staff.

May exercise direct supervision and/or technical and functional supervision over assigned professional, technical and clerical personnel.

EXAMPLES OF ESSENTIAL DUTIES - Duties may include, but are not limited to, the following:

Plan, develop and implement assigned portions of the Groundwater Strategic Plan and make recommendations for the operation and maintenance of the City's groundwater system; develop short and long range plans; implement improvements and modifications; prepare various reports on operations and activities.

Oversee the groundwater siting portion of the City Groundwater Strategic Plan, including negotiation of well in-lieu payments with developers and coordinating with the Environmental

Utilities Technical Services staff in the development of related capital improvement projects.

Implement measures required for City adherence to the Sustainable Groundwater Management Act, including governance and planning documents in coordination with the California State Department of Water Resources, Western Placer Groundwater Sustainability Agency and Sacramento Groundwater Authority.

Serve as City of Roseville staff liaison to the elected representative of the Sites Reservoir Joint Powers Authority and as City liaison to the River Arc Project for groundwater sustainability/recharging.

Prepare and direct the implementation of hydrologic computer models to predict and evaluate ground water flow and advective transport of contaminants within hydrologic basins.

Perform highly complex and professional project management duties involved in the development, coordination and implementation of programs related to groundwater hydrology and water supply; plan, prioritize and schedule work related to the characterization of groundwater conditions related to water supply facilities or general water supply issues.

Develop, recommend and implement strategies to protect groundwater supply and develop water resources; prepare long range water resource plans including forecasting financial needs.

Prepares project plans and documents including project justification, budget analyses, preliminary cost estimates, project authorization documents and schedules.

Prepares and reviews geological reports containing drilling logs and descriptions of geological formations and groundwater occurrence, quality and gradient; reviews and evaluates laboratory analytical data for soil and water samples.

Performs and evaluates field measurements to determine groundwater quality and behavior including but not limited to aquifer tests, soil and groundwater sampling, placement of monitoring wells, reviewing well logs and subsurface survey techniques useful in evaluating groundwater and contaminant transport process.

Prepares, reviews and approves reports submitted by geologists, hydrogeologists and civil engineers relative to groundwater characterization and contaminant transport.

Coordinate the administration of outside consultant contracts including writing and issuing requests for quotations/requests for proposals/qualifications, interviewing consultants, reviewing and evaluating proposals and contracts, recommending engagement.

Oversee assigned project contracts from inception to completion to meet needs of Environmental Utilities; review bids and active contracts, compile analytical data to ensure accuracy and track project completion; prepare, write and present project updates for City Council consideration.

Provide staff support to a variety of City boards, commissions, committees and industry specific boards, including making presentations and ascertaining direction, when appropriate, for implementation of approved recommendations.

Make presentations to the City Council, department management staff, state and local agencies, boards, commissions, committees, community groups and other organizations regarding groundwater supply and conditions, water resource needs, problems, regulations and requirements.

Participate in the selection of staff; coordinate staff training; conduct performance evaluations; recommend discipline; implement discipline procedures as directed.

Answer questions and provide information to the public; investigate complaints and recommend corrective action as necessary to resolve complaints.

Build and maintain positive working relationships with co-workers, other City Employees, and the public using principles of good customer service.

Perform related duties as

assigned.

MINIMUM

QUALIFICATIONS

Knowledge of:

Contemporary hydrogeological theory, principles, practices and applications employed in hydrogeology, including aquifer characteristics and geology, the interaction between surface and subsurface flows, water supply, drainage, flood control, surface water, ground water, conservation and other related aspects of hydrogeology.

Principles, methods and procedures involved in gathering and analyzing data related to surface and groundwater supply, contamination, pollutant movement and other data, including the use, installation and maintenance of instruments and hydrologic equipment to gather such information.

Legal requirements governing public hydrogeological programs, including pertinent local, State and Federal rules, regulations, laws and MOUs, including the Subdivision Map Act, Sustainable Groundwater Management Act and Senate Bill 555 (Urban Retail Water Suppliers: Water Loss Management).

Principles, methods and procedures related to the operation of hydrologic equipment used in measuring rainfall, water level, stream flow velocity and other related data.

Water resource management and planning to implement the Groundwater Strategic Plan.

Principles and practices of municipal utility strategic planning, project planning and rate-setting.

Principles and practices of project assessment, management, planning and implementation.

Principles and practices of safety management in high risk working conditions.

Statistical analysis methods and proper application of hydrogeology to engineering methods.

Computer operations, modeling and simulation as it pertains to practical hydrology and engineering problems.

Modern office procedures and computer equipment and software such as AutoCAD, GPS, GIS, ArcView, ArcInfo and software related to specific department operations.

Principles and practices of research analysis and management.

Business correspondence and written report writing.

Budgeting procedures and techniques.

Principles and practices of supervision, training and performance evaluation.

Ability to:

Plan, prioritize, organize, manage, supervise and review the work of assigned staff or consultants, advising on the principles of hydrogeology and its impact upon engineering-dependent projects.

Effectively manage contract administration activities; manage multiple projects and staff simultaneously.

Conduct field investigations to determine if there is surface and/or groundwater contamination.

Compile and analyze hydrogeologic data; plan and implement hydrogeologic research studies and prepare comprehensive hydrogeologic reports and recommendations.

Interpret State, Federal and local laws, rules and regulations related to groundwater supply and water resources.

Train staff in the proper application of hydrogeologic data, and observe and problem

solve operational and technical policy and procedures.

Develop and recommend policies and procedures related to assigned activities; develop and monitor associated operational budgets and recommend capital budget expenditures, as necessary.

Communicate clearly and concisely both orally and in written form, including presentations and reports to City Council and other public agencies and forums.

Independently plan, coordinate and monitor projects, interpret and explain complex rules, regulations and Environmental Utilities policies and procedures.

Establish and maintain effective working relationships with those contacted in the course of work.

On a continuous basis, sit at desk for long periods of time; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation, use telephone and write or use keyboard to communicate through written means; lift or carry weight of 10 pounds or less; visit work sites to assess physical conditions and assess compliance and adherence to work processes.

Experience and Training

Experience:

Four years of increasingly responsible experience in hydrogeology, geology, or civil engineering with an emphasis in ground water resources or environmental engineering, including two years of supervisory, lead, or project management responsibility.

Training:

A Bachelor's degree from an accredited college or university preferably with major course work in hydrogeology, geology, civil engineering or environmental engineering with an emphasis in groundwater resources or a closely related field.

License or Certificate

Possession of a California driver's license by date of appointment.

Possession of a current certificate of registration as a Certified Hydrogeologist or Professional Civil Engineer in California by date of application.

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