



Senior Chemist

DEFINITION

Under direction from the Laboratory Services Supervisor, maintains expert-level knowledge and skill in performing water quality analyses and sampling performed by District staff with emphasis on the more difficult and complex analyses and sampling procedures; participates in the development and implementation of the laboratory quality system, analytical methods, and programs for water quality monitoring; oversees purchase, calibration, and maintenance of general use laboratory equipment and supplies; and performs related work as required.

DISTINGUISHING CHARACTERISTICS

Senior Chemist is the advanced journey-level classification in the professional chemist series. This classification is distinguished from the Chemist I and II by responsibility for planning, assigning and scheduling the work of technicians and auditing compliance to quality system procedures.

The Senior Chemist is distinguished from the Laboratory Services Supervisor in that the latter supervises all water quality laboratory operations and personnel including this class.

TYPICAL DUTIES

TYPICAL EXAMPLES OF DUTIES MAY INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

- Analyzes environmental samples using sophisticated instruments such as ICPMS, GCMS, and ion chromatograph.
- Maintains knowledge of and capability to perform other analyses used in the laboratory and at District facilities.
- Participates in the evaluation of new instruments, equipment, or sampling techniques.
- Assists District staff with special testing and development of special analytical methods.
- Provides or assigns training on sampling techniques and/or analytical methods for laboratory staff and other District employees; ensures training activities are documented.
- Plans and monitors the work of laboratory technicians to ensure sampling and analyses are performed as scheduled and following documented procedures; provides information for laboratory technician performance evaluations.
- Supports District water quality monitoring programs by but not limited to ensuring adequate chemicals and supplies for required test methods, and availability of trained laboratory staff.

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- Maintains the laboratory inventory of supplies and equipment; orders needed items or submits purchase requests.
- Oversees the purchase, calibration, and maintenance of general laboratory equipment such as balances, thermometers, refrigerators, incubators, and autoclave.
- Assists in developing, review, and updating the laboratory's written Quality System Manual, Chemical Hygiene Plan, standard operating procedures, forms, and other controlled documents.
- Calculates, summarizes, and verifies acceptability of analytical limits of quantitation and control limits.
- Performs or directs internal audits of analytical methods and quality assurance practices to ensure compliance with environmental laboratory regulations on certification, identify biases, and areas for improvement.
- Represents the District with water industry laboratory groups; stays informed about current developments in the field by attending professional workshops and seminars.
- Performs other related work as required.

REQUIREMENTS

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

Education and Experience:

Possession of a Baccalaureate degree from an accredited college or university with a major in chemistry or a related field; and four (4) years of full-time experience as a professional chemist and at least two (2) years' experience in water or wastewater analysis.

Knowledge, Skills, and Abilities:

Knowledge of: Quantitative and qualitative analysis methods and techniques; standard laboratory equipment and its care and use; good analytical laboratory practices and aseptic techniques; basic physical, chemical, and microbial characteristics of raw and treated water and the fundamentals of water treatment; proper water sampling techniques; state and federal laws and regulations relating to water quality; laboratory quality assurance and quality control practices; basic statistical analysis calculations; the safe use of hazardous chemicals and electronic instruments; research methods; modern office practices, methods, and computer equipment and applications related to the work, including word processing, database, and spreadsheet software.

Skill and Ability to: set up, operate, and perform minor maintenance on a variety of laboratory equipment; perform and interpret the results of standard tests of water; perform accurate calculations; analyze complex technical water quality problems and arrive at reasonable conclusions; explain technical issues to non-technical persons; plan test procedures, set priorities, and organize work; prepare clear and concise written reports; operate modern office equipment including computer equipment and specialized software applications programs; communicate

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clearly and concisely, both orally and in writing; establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Additional Requirements:

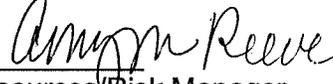
- Must possess a valid California driver's license and have a satisfactory driving record.

Working Conditions/Physical Requirements:

On a regular basis, sit at a work bench for long periods of time in front of laboratory equipment; intermittently twist to reach instruments or supplies surrounding equipment; perform simple grasping and fine manipulation; periodic exposure to hazardous chemicals and solvents; and intermittently lift or carry sample ice chests weighing up to 20 pounds without assistance; occasionally climb ladders; use color visual acuity.

The essential functions of this classification require frequent driving to perform essential job duties which may include attending meetings or doing business at various off-site locations. Alternative forms of transportation are not suitable due to security concerns, logistical challenges, and time constraints.

Revised: 03/2025

Approved: 

Human Resources/Risk Manager

