



# MARIN MUNICIPAL WATER DISTRICT

## Senior Chemist

### **DEFINITION**

Under direction, performs the more technical analytical work to maintain water quality; conducts studies, analyzes data, prepares reports on a wide variety of technical water quality matters, directs the work of staff in the laboratory, and performs related work as required.

### **DISTINGUISHING CHARACTERISTICS**

The Senior Chemist is the advanced journey class in the Chemist classification series. It is distinguished from the Chemist II by the assignment more complex and difficult work and the level of responsibility, and directing the work of other laboratory personnel. The incumbent plans, monitors and participates in laboratory and field activities relating to water quality control, including the review, development and implementation of analytical methods and effectiveness of chemical analytical programs.

### **EXAMPLES OF DUTIES**

Typical duties may include but are not limited to the following:

- Performs microbiological, chemical, and physical analysis of water with emphasis on more sophisticated analysis and instrumentation such as gas chromatograph and inductively coupled plasma spectrophotometer.
- Leads, plans, oversees, and participates in the more complex and difficult work of staff responsible for water quality analysis.
- Interprets and evaluates test results, prepares analytical and statistical reports.
- Recommends operational changes to ensure data and reporting are technically sound and valid.
- Implements and reviews analytical methods and procedures for water quality and analysis.
- Maintains records and quality control checks in conjunction with analytical work.
- Monitors and evaluates new analytical equipment and techniques.
- Exercises functional and technical direction for staff and coordinates daily laboratory activities.
- Instructs and trains subordinates in performing analysis and maintenance of analytical equipment.
- Provides input to supervisor for inclusion in employee performance evaluations.
- Interprets and applies safety rules and regulations to work assignments and ensures adherence to safe work practices and procedures.
- Plans, conducts, and provides technical expertise for special projects and problems.
- Enters and retrieves data and prepares reports and correspondence.
- Receives consumer water quality complaints and inquiries and provide information regarding water quality.

## **QUALIFICATIONS FOR EMPLOYMENT**

Knowledge of:

- Principles, methods, calculations, and materials used in the chemical and microbiological testing of water
- Operation of complex laboratory equipment such as a uv-vis spectrophotometer, gas chromatograph, ion chromatograph, atomic absorption spectrophotometer, total organic carbon analyzer, nephelometer, specific ion analyzer, analytical balance, and an inductively coupled plasma spectrophotometer
- Quality control of analytical procedures
- Laboratory practices pertaining to safety, care and maintenance of equipment and materials
- Standard practices for water sampling and treatment techniques
- Water system operation, facilities, and applicable state and federal regulations
- Technical report writing, proper spelling, grammar, punctuation, and writing practices
- Computer spreadsheet and database software

Ability to:

- perform laboratory analyses in a precise and reliable manner;
- ensure safe and effective use of laboratory equipment and materials;
- make accurate observations and decisions;
- understand and comply with District operations, facilities, applicable regulations; State and Federal Health codes and standards;
- learn new methods of analysis;
- use mathematics involved in laboratory work;
- understand and carry out written or oral instructions;
- respond accurately and tactfully to inquiries from the general public;
- communicate and deal effectively with those contacted in the course of work;
- use computer spreadsheets and databases;
- prepare clear and concise records, reports, and correspondence;
- depending upon job assignment, drive a vehicle;
- travel to alternative work locations and offsite meetings.

Training and Experience: Any combination equivalent to experience and education that could likely provide the required knowledge and abilities would be qualifying. A typical way to obtain the knowledge and abilities would be:

- Education: Completion of four years of college, resulting in graduation or its equivalent, with major work in chemistry or closely related field. Education must have included course work in analytical chemistry or instrumental analysis,
- Experience: Three years of experience as a professional chemist (journey level) performing water or wastewater analysis.

## **OTHER REQUIREMENTS**

- Per California Government Code, Title 1, Division 4, Chapter 8, Section 3100 "all public employees are hereby declared to be disaster service workers subject to such disaster service activities as may be assigned to them by their superiors or by law."

- Must be willing to work overtime as needed.

### **LICENSES AND/OR CERTIFICATIONS**

- Possession of, or ability to obtain, an appropriate California driver's license may be required with determinations made on a case-by-case basis at the time of job posting.

### **PHYSICAL DEMANDS AND WORKING CONDITIONS**

During the course of performing job duties the employee will need the mobility to work in a standard office setting, operate equipment, which may include office and/or field equipment, or specialized instruments or tools requiring repetitive arm/hand movement and/or the coordinated movement of more than one limb simultaneously; enter and retrieve data from personal computers and terminals via keyboards which is often performed while sitting for extended periods of time. The employee frequently stands, walks, bends at neck and waists, twists at neck and waist, uses simple and power grasping with both hands, uses fine manipulation of both hands and fingers, and may require use of the arms above the shoulder, climb or balance; stoop, kneel or crouch. While working in the field the employee may walk on uneven or un-level ground surfaces such as hills, slopes, ditches or trenches, on or in tanks, and may work at heights up to ten to twelve feet climbing ladders or stairs. The employee is occasionally required to lift and carry short distances objects such as reams of copier paper, office supplies, files, books, printed materials and other packages or equipment weighing up to 25 to 50 pounds. This position requires that the employee demonstrate adequate hearing and speech to converse in person and over the telephone, and vision to read printed materials and use a computer screen.

The noise level in the work environment is quiet to moderate noise. The employee is exposed to outdoor temperature, humidity, wetness and dust. The position may require the ability to work overtime and weekends as needed.

Employees who drive on District business to carry out job-related duties must possess a California driver's license for the class of vehicle driven and meet automobile insurability requirements of the District including review of a recent DMV history. In order to drive and depending on job assignment, individuals must be physically capable of operating the vehicles and equipment safely.

### **ADDITIONAL PHYSICAL DEMANDS**

- Possess specific vision abilities required by this job include close vision, color vision, and ability to adjust focus.
- Exposure to potentially hazardous materials, laboratory chemicals, solvents, microbiological pathogens, odors and fumes.

*To be successful in this job, an individual must be able to satisfactorily perform each of the listed duties. These duties are representative of the knowledge, skill and/or ability required for the position. Reasonable accommodations may be made to enable individuals with disabilities to perform the duties and functions of the position. Requests for reasonable accommodation should be directed to the Human Resources Manager.*

Established: May 1991  
Revised: October 2008  
Approved by: Human Resources Manager