



## Water Quality Laboratory Manager

### **DEFINITION**

Under general direction, directs, manages, supervises and coordinates the activities and operations of the District's state certified Water Quality Laboratory, including the performance of a variety of chemical, biological, microbiological, analytical and physical tests on raw and treated water, and related field testing operations; provides administrative and technical support for laboratory personnel; oversees the validation of analytical data reported to a variety of entities; conducts studies, special research, program development, analyzes data and prepares reports on a wide variety of water quality issues; and performs related work as required.

### **DISTINGUISHING CHARACTERISTICS**

This is a working manager class in the Chemist series. Incumbents in this class are responsible for direction and supervision of a work unit. The incumbent has responsibility for complex laboratory procedures, interpretation and application of federal and state water quality regulations, and writing of comprehensive reports and documentation for governmental agencies. This classification acts as a high level, internal technical consultant regarding laboratory services and water quality issues.

The incumbent provides effective leadership and maintains an environment that fosters positive employee engagement, high productivity, and effective communication.

### **EXAMPLES OF DUTIES**

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

- Manages the operations, services, and activities of the District's state certified Water Quality Laboratory, including the performance of a variety of chemical, microbiological, and physical tests on raw and treated water;
- Maintains the state certification for the laboratory;
- Develops, implements and evaluates laboratory programs to support regulatory compliance activities;
- Directs, assigns, evaluates and administers the scheduling of laboratory analysis and establishes analytical procedures;
- Establishes and reviews monitoring programs, recommends changes in methods or monitoring programs and policies including treatment plant process changes.
- Directs the use by laboratory personnel of a laboratory information management system;
- Manages the activities of water quality technicians, providing for monitoring and treatment of algal blooms in the reservoirs to minimize taste and odor.
- Evaluates and interprets water quality data related to water treatment and distribution systems and watershed water quality studies;
- Plans, assigns, supervises and reviews the work of water quality laboratory personnel; plans and implements sampling, data gathering, and special testing programs to evaluate and solve varied water quality issues and to meet drinking regulations and engineering needs; assigns and directs special water quality monitoring investigations;

- Provides technical support to water treatment, operations and engineering staff;
- Prepares and submits water quality reports, correspondence, and statistical data to the California Department of Public Health, other governmental agencies, and the public;
- Interprets complex federal and state water quality regulations and develops procedures to ensure regulatory compliance;
- Develops, implements, and maintains the laboratory's quality assurance and safety programs to meet federal, state, and local government regulations and to maintain laboratory accreditation;
- Performs the more complex microbiological, chemical, and physical analyses of water, including GC/MS and ICP-MS analysis and troubleshooting;
- Oversees and participates in the development, monitoring, tracking and administration of the Water Quality Laboratory's budget; participates in the forecasting of funds needed for staffing, equipment, materials, and supplies; monitors and approves expenditures;
- Responds to and resolves difficult and sensitive customer inquiries and complaints;
- Evaluates the need for acquisition of new or replacement laboratory equipment; orders laboratory materials and supplies; arranges for the maintenance or repair of laboratory equipment;
- Maintains records of analyses to meet drinking water standards;
- Trains and evaluates laboratory personnel; provides and coordinates staff training; and
- Serves as the liaison for the Water Quality Laboratory with other divisions, departments, and outside agencies.

#### **QUALIFICATIONS FOR EMPLOYMENT**

Knowledge of:

- Principles of chemistry, microbiology, and related sciences;
- Principles and practices of effective supervision and leadership, training and performance evaluation.
- Pertinent drinking water federal, state, and local laws, codes, and regulations.
- Principles and methods of chemical, biochemical and microbiological laboratory testing and analyses.
- Standard laboratory equipment and its uses including analytical instrumentation such as ICP-MS, SPME, GC-MS analysis and troubleshooting.
- Operations, services, policies and procedures of the District.
- Principles and practices of budget preparation and administration.
- Chemicals and equipment used in collection and preparation of analytical samples, water chemical and sample analyses.
- Chemical and microbiological characteristics of water, macro-organisms (e.g. algae) and micro-organisms common to water.
- Standard Methods, EPA methods and other operational methods for the analysis of water.
- General quantitative and qualitative analysis
- Drinking water treatment and distribution systems.

Ability to:

- Manage the Water Quality Laboratory;
- Organize, prioritize, schedule, monitor and adjust resources and staff to meet regulatory deadlines
- Select and train employees in the work
- Conduct a variety of chemical, biochemical, physical and microbiological tests.

- Effectively use, operate, and maintain various laboratory instruments, equipment and materials.
- Draw sound conclusions from laboratory analyses and, as necessary, make appropriate recommendations regarding treatment plant operations and distribution system water quality.
- Plan, direct, and evaluate the work of others.
- Interpret and apply complex governmental regulations.
- Deal effectively with those contacted in the course of work.
- Prepare clear and concise records, reports, and correspondence.
- Communicate clearly and concisely, both orally and in writing.
- Depending upon job assignment, drive a vehicle.
- Travel to alternative work locations and offsite meetings.
- Use Windows networked based PC running commonly used spreadsheet and word processing software and cloud based LIMS systems.
- Establish and maintain effective working relationships with those contacted in the course of work.

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:

- Bachelor's degree or higher from an accredited college or university with major course work in chemistry, microbiology, or other closely-related field; and
- Five years of increasingly-responsible journey level analytical work experience in chemistry or microbiology or other closely related discipline. A graduate level degree may in a directly related field may be substituted for one year of experience.
- Three years of demonstrated managerial or supervisory experience over a laboratory facility or major laboratory functional unit engaged in chemical and microbiological testing and 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."

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

- Depending upon job assignment; possession of or the ability to obtain an appropriate California driver's license issued by the State Department of Motor Vehicles and satisfactory driving record;
- Possession of a AWWA Water Quality Analyst Grade IV Certificate (may be obtained within first 12 months of employment).

#### **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 10 to 25 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, individuals must be physically capable of operating the vehicles and equipment safely.

#### **OTHER PHYSICAL DEMANDS**

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: April 1994  
Revised: September 2013, April 2021  
Approved by: Human Resources Manager