

## 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.*

<b>Job title</b>	Associate Scientist/Scientist I
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### GENERAL PURPOSE

Under general supervision (Associate Scientist) or direction (Scientist I), performs a variety of tests and analyses on water, wastewater, and biosolids to determine the presence of bacteria, organic and inorganic substances in compliance with federal, state, and local requirements; performs non-routine investigations and analyses as directed; and performs related duties as assigned.

### DISTINGUISHING CHARACTERISTICS

Associate Scientist: This is the entry-level classification in the Scientist series. Initially under close supervision, incumbents learn and perform routine tests and analyses on water, wastewater, and biosolids, and are rotated into different testing areas to achieve the skills and experience needed to perform the full range of assigned testing duties. As experience is gained, assignments become more varied, complex, and difficult; close supervision and frequent review of work lessen as an incumbent demonstrates skill to perform the work independently. Positions at this level usually perform most of the duties required of the positions at the Scientist I level but are not expected to function at the same skill level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Work is closely reviewed and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise.

Scientist I: This is the fully qualified journey-level classification in the Scientist series. Positions at this level are distinguished from the Associate Scientist by the performance of the full range of testing and analysis duties in multiple testing areas, working independently, and exercising judgment and initiative. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. This class is distinguished from the Scientist II in that the latter (i) performs the more complex work assigned to the series, including performing diverse and complex trace metals testing, and (ii) has a higher level CWEA certification requirement.

## **SUPERVISION RECEIVED AND EXERCISED**

Receives general supervision (Associate Scientist) to direction (Scientist I) from assigned supervisory or management staff. Exercises no direct supervision over 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.*

*Positions at the Associate Scientist level may perform some of these duties and responsibilities in a learning capacity.*

- Receives and logs samples into Laboratory Information Management System (LIMS) from field staff; splits, preserves, and prepares samples as required for laboratory analyses to include work sent to contract laboratories; prepares materials for sampling events; schedules pickup of sample bottles; enters and retrieves operational field data and analytical information into LIMS.
- Prepares and mixes standard reagents, titrants, and solutions used in chemical testing and microbiological media for use in bacteriological testing/analysis; ensures that all reagents and media react according to specifications; maintains quality control over cultures.
- Performs a variety of standard laboratory tests, using basic to sophisticated equipment on water samples collected from various areas within the District's water distribution and wastewater treatment systems; tests include biological, chemical, microbiological, and other physical analyses of water, wastewater, and biosolids; calculates and interprets test results; conducts special tests and analyses as directed.
- Operates, calibrates, maintains and repairs complex laboratory equipment to include flow, discrete, organic carbon, and mercury analyzers, spectrophotometers.
- Summarizes data and checks for completeness of analysis; performs chemical balance and checks correctness of analysis; re-assigns testing as necessary; checks backlog to meet hold-time and turn-around time requirements; ensures quality control on all work performed.
- Maintains a diverse range of documentation including, but not limited to, written records of lab results and activities; quality assurance records; equipment maintenance logs; prepares technical reports; and updates reference materials.
- Collects raw, potable, and reclaimed water samples throughout the District, including bacteriological, organic, and radiological samples.

- Performs routine field analyses on potable and non-potable water samples using a wide range of laboratory equipment to test for chlorine residuals, turbidity, color, dissolved oxygen, pH, and other analyses as directed; prepares standards/reagents and calculates/compiles test data.
- May assist in investigating, developing, perfecting and recommending new water and wastewater test methods and procedures to improve the laboratory's versatility and efficiency.
- Participates in the Laboratory Quality Assurance Program to ensure the methods, techniques and equipment used to analyze samples produce accurate, reliable results; participates in Environmental Laboratory Accreditation Program (ELAP) audits.
- Ensures safe lab environment by performing lab safety checks; participates in the Safety Team; implements and closely adheres to rules, regulations, policies, and procedures governing laboratory safety.
- Utilizes standard protocols in cleaning glassware and laboratory appurtenances, and aseptic techniques to decrease risk of contamination and maintain a sterile work environment.
- Observes and complies with all District and mandated safety rules, regulations, and protocols.
- Performs related duties as assigned.

#### **REQUIRED QUALIFICATIONS**

*Positions at the Associate Scientist level may exercise some of these knowledge and abilities statements in a learning capacity.*

#### Knowledge of:

- Theory, principles, practices, methods, chemicals and agents used in chemical and physical and biological analyses of environmental samples.
- Water sampling methods and techniques.
- Laboratory procedures for water and wastewater testing and analysis.
- Analytical chemistry and environmental microbiology theory.
- Methods and processes used in water and wastewater treatment.
- The operation, maintenance and use of standard chemistry glassware and laboratory equipment.
- Methods and techniques of preparing and using media in microbiological/biological analysis.
- Methods and techniques of calibrating laboratory instruments.
- Safe laboratory practices and procedures.
- Principles and practices of quality assurance and control.
- Mathematical principles.

- Federal, state and local laws and regulations applicable to assigned areas of responsibility.
- Methods and techniques of conducting research and analysis.
- 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:

- Operate computer and automated laboratory equipment in the analysis of water and wastewater samples.
- Calibrate, maintain and perform minor repairs on laboratory equipment.
- Understand and carry out standard operating procedures.
- Troubleshoot and repair laboratory instrumentation and procedures.
- Prepare accurate reports and records of test results and special statistical analyses.
- Present scientific data clearly and concisely, both orally and in writing.
- Make mathematical calculations.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner.
- Prepare clear, concise and comprehensive correspondence, reports, studies, and other written materials.
- Use tact, initiative, prudence and independent judgment within general policy and procedural guidelines.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of 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:*

- Associate Scientist: Some prior experience performing duties within an environmental laboratory is desirable.

- Scientist I: One (1) year of professional experience in an environmental laboratory, or one (1) year as an Associate Scientist with the District.

Education:

- Equivalent to a bachelor's degree from an accredited college or university with major coursework in chemistry, biology, microbiology or a related field.

Licenses/Certifications:

- Associate Scientist/Scientist I
  - A valid California driver's license and the ability to maintain insurability under the District's Vehicle Insurance Policy.
- Scientist I
  - Possession of, or ability to obtain within eighteen (18) months of appointment, a CWEA Laboratory Analyst Grade I certificate.

**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.*

Must possess mobility to work in a laboratory and standard office setting and use standard office equipment, including a computer, as well as a diverse range of laboratory equipment; vision to read printed materials and a computer screen, and to operate a motor vehicle and visit various District sites; smell to perform odor tests on water samples and to detect chemicals, and hearing and speech to communicate in person and over the telephone. This is primarily laboratory focused classification with frequent standing, sitting and walking between work areas. Finger dexterity is needed to open and close sample bottles, pipette, and to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification bend, stoop, climb to access materials, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects with an average weight of up to 30 pounds, or heavier weights, in all cases with the use of proper equipment and/or assistance from 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.*

Eastern Municipal Water District  
Job Title: Associate Scientist/Scientist I  
Last Update: March 2020

Employees work primarily in a laboratory environment with moderate to excessive noise levels, controlled temperature conditions, and exposure to dust, fumes and/or allergens; biologic/infectious agents; and unpleasant odors.

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

### **FLEX REQUIREMENTS**

Positions in the Associate Scientist/Scientist I class series are flexibly staffed; positions at the Scientist I level are normally filled by advancement from the Associate Scientist level; progression to the Scientist I level is dependent on (i) management affirmation that the position is performing the full range of duties assigned to the classification; (ii) satisfactory work performance; (iii) the incumbent meeting the minimum qualifications for the classification including any licenses and certifications; and (iv) management approval for progression to the Scientist I level.

Eastern Municipal Water District  
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Last Update: March 2020

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

<b>Approved by:</b>	
<b>Date adopted:</b>	
<b>Date modified:</b>	
<b>FLSA determination:</b>	<i>Non-Exempt</i>

**Job Description Acknowledgment**

*I have received, reviewed and fully understand the job description for Associate Scientist/Scientist I. 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:* \_\_\_\_\_