

# Carpinteria Sanitary District

## Job Description

Job Title: **Laboratory Supervisor**  
Department: Treatment Plant  
Report To: Operations Manager  
FLSA Status: Non-exempt

### **SUMMARY**

Position is primarily responsible for the daily operation and supervision of the District's State certified environmental laboratory. Acts as the laboratory director, quality manager and technical manager. Performs all functions of the District's wastewater laboratory, including sampling, analysis, testing, quality assurance/control, data management, statistical analysis, regulatory reporting and other complex technical tasks. Chemical, biological and physical analyses are conducted at prescribed intervals to document regulatory compliance and to optimize efficiency and performance of the wastewater treatment facility. The position is responsible for maintaining the District's Environmental Laboratory Accreditation Program (ELAP) accreditation and preparing various reports and studies required for continuous regulatory compliance. Other duties may be assigned as required.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address District needs.

- Performs tests and interprets results of chemical, biological and physical analyses of collected samples taken from wastewater treatment processes and records findings.
- Ensures compliance with SWRCB Environmental Laboratory Accreditation Program (ELAP) regulations and standard operating procedures.
- Maintains and updates the District's Laboratory Information Management System (LIMS) and standard laboratory procedures as needed to maintain compliance with ELAP requirements.
- Supervises the daily work and performance of personnel assigned to the laboratory. Provides training and oversight as necessary to ensure that support personnel (designated deputies) are fully qualified to perform assigned tasks in a safe manner.
- Collects wastewater samples uses automatic samplers, flow proportion composites, grab samples, and blend samples. Performs a wide variety of laboratory analyses that include but are not limited to biochemical oxygen demand, total suspended solids, volatile suspended solids, chemical oxygen demand, ammonia-nitrogen, nitrate-nitrogen, pH, alkalinity, and bacteriological coliform.
- Coordinates all contract laboratory services for analyses not performed in-house; responsible for ensuring proper chain of custody is maintained, sample collection and preservation requirements are met, and lab reports are received in a timely manner.

- Maintains laboratory equipment and facilities in a clean and sterile condition; prepares and standardizes all solutions used in analyses; maintains records of work performed; maintains inventories of supplies, materials and chemicals.
- Participates in quality assurance and quality control; analyzes samples; standardizes reagents; maintains and records instrument readings; performs positive and negative control samples on media; performs sterility check on samples containers.
- Maintains quality assurance on laboratory instruments, cleans and lubricates laboratory equipment and performs preventive maintenance and repairs in accordance with established procedures.
- Prepares, organizes, and completes monthly, quarterly, and annual wastewater discharge and biosolids reports; ensures compliance with established permits and regulations.
- Enters and maintains data in the State Water Resources Control Board CIWQS database required NPDES permit reporting compliance.
- Gathers data from the District's SCADA system and other sources to enter into the LIMS for accurate, long term retention.
- Represents the District in consultations or communications with regulatory agencies, consultants and other entities on water quality testing and compliance matters
- Contributes to critical regulatory compliance and permitting activities, including NPDES permit renewals, special studies.
- Participates in the preparation and administration of the laboratory budget, submits budget recommendations, and monitors expenditures during the fiscal year.
- Ensures the adherence to safe work practices and procedures.
- Performs other related duties as required.
- May be required to perform field duties involving use of District vehicle and collection of ocean samples.

## **QUALIFICATIONS**

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

1. Knowledge of the operations, services and activities of a wastewater treatment laboratory testing program.
2. Knowledge of modern and complex principles and practices of chemistry, bacteriology and biology.
3. Knowledge of chemical, biological, bacteriological and physical characteristics of wastewater, biosolids, soils, and industrial pretreatment.
4. Knowledge of pertinent Federal, State, and local laws, codes and regulations.
5. Knowledge of laboratory procedures, techniques, and equipment relating to wastewater and industrial waste analysis.
6. Knowledge of occupational hazards and standard safety practices.

7. Knowledge of modern laboratory procedures, methods, and computer equipment.
8. Ability to analyze, interpret, and apply the results of laboratory testing.
9. Ability to coordinate the activities of the laboratory.
10. Ability to communicate clearly and concisely, both orally and in writing.
11. Ability to establish and maintain effective working relationships with those contacted in the course of work.
13. Ability to produce clear, concise and technical reports.
14. Ability to work standby and overtime duties as assigned.

### **EDUCATION and/or EXPERIENCE**

A Bachelor's degree from an accredited four-year college or university with major course work in chemistry, biochemistry, biology, microbiology, environmental science or a closely related field. A minimum of three years of laboratory work experience, ideally in a water or wastewater laboratory, is highly desirable.

Individuals with an equivalent combination of education and experience may qualify for the position if they meet the specific qualification requirements of the SWRCB Environmental Laboratory Accreditation Program necessary to serve as Technical Manager for an accredited wastewater laboratory.

### **LANGUAGE SKILLS**

Ability to read and interpret complex documents including standard laboratory methods, complex regulations and written procedures, such as safety rules, operating and maintenance manuals, and testing procedures. Ability to write reports, accurately record data and to speak effectively and respond to questions from customers, other members of the District and management staff.

### **MATHEMATICAL SKILLS**

Ability to apply advance mathematical concepts such as exponents, logarithms and quadratic equations. Ability to apply mathematical operations to such tasks as frequency distribution, determination of test reliability and validity, analysis of variance, correlation techniques, sampling theory and factor analysis.

### **REASONING ABILITY**

Ability to define problems, collect data, establish facts and draw valid conclusions. Ability to interpret technical instructions and solve problems involving abstract and concrete variables.

### **CERTIFICATES, LICENSES, REGISTRATIONS**

Those qualifications listed as **required** must be attained within the specific time frame in order to be classified as a regular employee.

#### **Required:**

- Possession of a Laboratory Analyst, Grade 2 certificate as issued by the California Water Environment Association, Technical Certification Program within one (1) year of hire date.

- Possess and maintain throughout employment a Class C driver's license as issued by the State of California. While employed in such job requiring driving a District vehicle, the employee must be insurable with CSRMA or other current carrier at the "standard" rate."

Those qualifications listed as **desired** are deemed important in the performance of the position's job duties and are considered to be professional enhancements.

**Desired:**

- Possession of the following certificates as issued by the California Water Environment Association, Technical Certification Program:
  - Environmental Compliance Inspector, Grade 1

**PHYSICAL DEMANDS**

While performing the duties of this job, the employee is regularly required to stand, walk, and talk or hear. The employee frequently is required to use hands to finger, handle, or feel; reach with hands and arms; climb or balance; and smell. The employee is occasionally required to sit and stoop, kneel, crouch, or crawl. The employee must regularly lift and/or move up to 10 pounds, frequently lift and/or move up to 25 pounds, and occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

**WORK ENVIRONMENT**

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. While performing the duties of this job, the employee is frequently exposed to wet and/or humid conditions, moving mechanical parts, fumes or airborne particles, toxic or caustic chemicals, and outside weather conditions. The noise level in the work environment is usually moderate.

**ACKNOWLEDGMENT**

I acknowledge that I have received, read, and sought clarification of any questions I have about the content of the job description.

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Employee Signature Date