



December 2024  
EXEMPT-At Will

## LABORATORY MANAGER

### DEFINITION

Under general direction, plans, organizes, and provides management for all District laboratory functions; ensures that the laboratory operation meets all applicable laws, regulations, and District policies; is responsible for obtaining and maintaining laboratory accreditation under State Water Board Environmental Laboratory Accreditation Program (ELAP) requirements; works collaboratively with all District staff in areas of expertise; manages a staff of three lab analysts; manages the laboratory information management system (LIMS); fosters cooperative working relationships with outside entities, and regulatory agencies; and performs other duties as assigned.

### SUPERVISION RECEIVED AND EXERCISED

Receives general direction from the District Engineer. Exercises direct supervision over a staff of three lab analysts.

### CLASS CHARACTERISTICS

This is a management-level class that oversees and directs all laboratory activities including day-to-day operations. Responsibilities include coordinating the activities of the laboratory with those of other divisions and departments and managing and accomplishing the complex and varied functions of the laboratory. The Lab Manager is accountable for accomplishing the operational goals and objectives of the laboratory and for furthering District goals and objectives within general policy guidelines.

### EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)

*Management reserves the rights to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.*

- Develops, evaluates and implements laboratory policies, procedures and standards; provides oversight for laboratory staff in sample collection and laboratory testing procedures; performs and interprets both special and standard laboratory analyses and tests; analyzes wastewater

samples, biosolids, and industrial wastes for the presence of chemical, biological, bacteriological, and physical contaminants.

- Develops, carries-out, and maintains quality assurance programs for laboratory analysis and instrumentation; prepares periodic water quality reports, including those required by other government agencies.
- Acts as Technical Manager and Quality Manager for District laboratory; may delegate tasks to Lab Analyst staff based on staff abilities.
- Monitors changes in laws, regulations, and technology that may affect departmental operations; and implements policy and procedural changes as required.
- Obtains and maintains the Environmental Laboratory Accreditation Program certificate issued by the State of California Water Quality Control Board.
- Completes laboratory work to comply with the NPDES and Title 22 monitoring and reporting requirements.
- Plans, organizes, administers, reviews, and evaluates the work of assigned laboratory staff. Is active in encouraging career development of subordinate staff.
- Administers performance testing, demonstrations of capability, and minimum detection limit determinations in cooperation with lab analyst staff.
- Participates in the Central Coast Long-term Environmental Assessment Network (CCLEAN) regional monitoring program monthly meetings and manages implementation of District requirements under the District's NPDES permit.
- Provides for the selection, training, professional development, and work evaluation of laboratory staff; authorizes discipline as required; and provides policy guidance and interpretation to staff.
- Coordinates activities of staff and the department with those of other District departments and outside agencies.
- Manages outsourcing of analyses to contract laboratories to obtain results for highly specialized water quality parameters such as: Priority Pollutants, Ocean Plan Pollutants, Whole Effluent Toxicity, PFAS, epidemiological studies, etc.
- Directs, oversees, and develops work plans related to assigned functions; assigns work activities, projects, and programs; monitors workflow; reviews and evaluates work products, methods, and procedures; prepares various staff reports on laboratory operations and activities.
- Prioritizes and allocates available resources; and reviews and evaluates program and service delivery, makes recommendations for improvement, and ensures maximum effective service.
- Assists in the preparation and administration of the budget for lab functions; participates in the forecast of additional funds needed for staffing, equipment, materials, and supplies; administers the approved budget.
- Maintains and organizes official departmental files.
- Receives, investigates, and responds to problems and complaints in a professional manner; identifies and reports findings, and takes necessary corrective action.
- Builds and maintains positive working relationships with co-workers, other District employees, and the public.
- Performs other duties as assigned.

## **QUALIFICATIONS**

### **Knowledge of:**

- General chemical, biological, bacteriological, and physical laboratory testing methods and procedures, including qualitative and quantitative analyses of water quality parameters including: TSS, VSS, TDS, Anion/Cation, ammonia, nitrite, nitrate, orthophosphate, chloride, sodium, alkalinity, etc.
- Operation and maintenance of specialized water quality testing equipment.
- Management of contracts with outside laboratories to obtain results for highly specialized water quality parameters.
- Principles and practices of employee supervision, including work planning, assignment, review and evaluation, training of staff, and facilitating staff development.
- Sampling techniques and statistical analysis.
- Laboratory Information Management Software (LIMS) and other computer applications related to the work.
- Organization and supervisory practices as applied to the development, analysis, and evaluation of programs, policies, and operational needs of the laboratory.
- Applicable Federal and State laws; District, Department, and Division regulations, codes, policies, and procedures.
- Principles and practices of budget development, administration, and accountability.
- Principles and practices of safety management and application.
- Technical report writing practices and procedures.
- Record keeping principles and procedures.
- Computer applications related to the work.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for effectively representing the District in contacts with outside entities.

### **Ability to:**

- Provide for the selection, training, development, motivation, and work evaluation of staff.
- Develop and implement goals, objectives, policies, procedures, work standards, and internal controls for the laboratory.
- Interpret, apply, and explain complex laws, codes, regulations, and ordinances.
- Prepare and administer budgets; allocate limited resources in a cost-effective manner.
- Draw sound conclusions from laboratory analytical tests and procedures; analyze the results of chemical, biochemical, biological, bacteriological, and physical analysis of potable wastewater, and make appropriate recommendations for plant operations.
- Make sound, independent decisions in day-to-day activities and in emergency situations.
- Conduct research projects, make sound recommendations, and prepare effective technical staff reports.

- Analyze, interpret, summarize, and present administrative and technical information and data in an effective manner.
- Make accurate arithmetic, financial, and statistical computations.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, maintain attention to detail and accuracy while meeting critical deadlines.
- Operate modern office equipment including computer equipment and specialized software applications programs.
- Identify and take appropriate action when operating problems occur.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy and legal guidelines.
- Establish and maintain effective working relationships with those contacted in the course of the work.

**EDUCATION AND EXPERIENCE:**

*Any combination of training and experience which would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:*

Equivalent to a bachelor's degree from an accredited college and four (4) years of responsible laboratory analysis experience, including one (1) year of supervisory or lead experience in a water quality laboratory.

**Required Qualifications:**

- Possession of a Class C driver's license required by the State of California, Department of Motor Vehicles, to perform the duties of the position. Continued maintenance of said driver's license in compliance with established District vehicle operation standards, and the ability to be insured for the operation of a vehicle/District vehicle in accordance with the terms and conditions of the District's insurance program are conditions of continuing employment. The California Sanitation Risk Management Authority (CSRMA) driving standards.
- Possession of, or ability to obtain within 12 months of date of hire, a California Water Environment Association (CWEA) – Laboratory Analyst Grade III/IV certificate. Possession of a Grade IV Lab Analyst certificate is desired.
- 40-hour HAZWOPER certificate within one (1) year of employment.

**Additional Requirements:**

Employee must pass a respiratory fit test within 2 months of employment and adhere to District respiratory policy which specifies facial hair restrictions.

All Carmel Area Wastewater District employees are, by State and Federal law, **Disaster Service Workers**. The roles and responsibilities for Disaster Service Workers are authorized by the

California Emergency Services Act and are defined in the California Labor Code. In the event of a declaration of emergency, any employee of the District may be assigned to perform activities which promote the protection of public health and safety or the preservation of lives and property. Such assignments may require service at locations, times, and under conditions that are significantly different than the normal work assignments and may continue into the recovery phase of the emergency.

If a "Local Emergency" is declared during the employee's shift, employees will be expected to remain at work to respond to the emergency needs of the community. If a "Local Emergency" is declared outside of the employee's shift, employees must make every effort to contact their direct supervisor or department head to obtain reporting instructions as Disaster Service Workers.

### **PHYSICAL DEMANDS**

*The physical demands and work environment 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:*

#### **Standing:**

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Surfaces: Office - carpet, tile; field – concrete, asphalt, dirt, gravel, mud, metal grating, grass, sloped and uneven terrain
- Description: Performs while performing in-depth inspections of industrial and commercial users, setting samplers and collecting wastewater samples, investigating and tracing sources of lethal and industrial waste, removing or replacing manhole covers, inspecting grease traps.

#### **Walking:**

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Long (2 to 8 hours)
- Surfaces: Office - carpet, tile; field – concrete, asphalt, dirt, gravel, mud, metal grating, grass, sloped and uneven terrain
- Description: Performs while walking within the office, building, walking to and from commercial or industrial sites, transporting tools, ice chests, samplers, etc.

**Sitting:**

- Average Frequency: 4 to 8 times per day
- Average Duration: Long (2 to 8 hours)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Long (2 to 8 hours)
- Surfaces: Cushioned vehicle seat, office chair
- Description: Performing various desk station activities including using a computer, reading and writing, driving a vehicle, during meetings and trainings, and performing other described job duties.

**Kneeling/Crouching/Squatting:**

- Average Frequency: 1 to 3 times per week
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: 4 to 8 times per day
- Maximum Duration: Short (Less than 1 hour)
- Surfaces: Concrete, asphalt, gravel dirt
- Description: Performs while retrieving and pouring samples, inspecting grease traps, retrieving or setting items on and off lower shelves or ground.

**Crawling:**

Occasional crawling in tight locations.

**Laying on Back/Stomach:**

Not a job requirement.

**Climbing/Balancing:**

- Average Frequency: 1 to 3 times per month
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: 4 to 8 times per month
- Maximum Duration: Medium (1 to 2 hours)
- Surfaces: Stair or ladder steps, vehicle floorboard
- Description: Performs while ascending or descending 1 to 2 stair flights to access multiple floors, entering or exiting the vehicle cab, 1 step.

**Reaching:**

*Above Shoulder Level:*

- Average Frequency: 4 to 8 times per day

- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs while accessing or placing files, paperwork or binders and related items on and off upper shelves. Unilateral or bilateral upper extremities from less than full-to-full extensions at each occurrence. A variable to reaching above shoulder level includes employee's height.

*Between Waist and Shoulder Level:*

- Average Frequency: 4 to 8 times per day
- Average Duration: Medium (1 to 2 hours)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs while driving in conjunction with maneuvering a steering wheel, handling office supplies, paperwork, telephone, utilizing a hook to remove or replace a manhole cover or meter box lid, relocating tools, ice chests, samples, operating a computer keyboard/mouse to enter or retrieve data. Unilateral or bilateral upper extremities from a less than full-to-full extensions on each occurrence. Computer keyboarding duties include positioning his/her arms at the side and placing fingers on the computer keyboard.

*Below Waist Level:*

- Average Frequency: 1 to 3 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: 4 to 8 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs while retrieving and pouring samples, inspecting grease traps, retrieving or setting items on and off lower shelves or ground. Unilateral or bilateral upper extremities from a less than full-to-full extensions on each occurrence.

**Pushing/Pulling:**

- Average Frequency: 1 to 3 times per week
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: 4 to 8 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs while utilizing a metal hook to remove or replace manhole covers or meter box lids – a combination of pushing, pulling lifting, relocating sampler, opening or closing file cabinet drawers, utilizing wrenches to assemble or disassemble a sampler, utilizing a hook to remove or replace grease traps, swinging a truck bed crane while loading or unloading a sampler. Unilateral or bilateral arm use.

## **Twisting/Rotating:**

### *Waist:*

- Average Frequency: 1 to 3 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: 4 to 8 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performs while driving, possibly during inspections. The motion is from center to right back to center or center to left back to center up to 20-degrees.

### *Neck:*

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performs while driving, aiding visually, during normal body mechanics. The motion is from center to right back to center or center to left back to center up to 45-degrees.

### *Wrists:*

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performs while utilizing a metal hook to remove or replace a manhole cover or lids, retrieving samples, as needed utilizing basic hand tools such as screwdrivers, wrenches to assemble or disassemble a sampler. Unilateral or bilateral hand use.

## **Bending:**

### *Waist:*

- Average Frequency: 1 to 3 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: 4 to 8 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performs while retrieving and pouring samples, inspecting grease traps, retrieving or setting items on and off lower shelves or the ground, assembling or disassembling samplers. The motion is in a forward direction up to 5 to 65-degrees.

### *Head/Neck:*

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)



- Description: Performs while aiding visually, reading, writing, performing in-depth inspections, inspecting grease traps, during normal body mechanics.

*Wrists:*

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performs while driving in conjunction with maneuvering a steering wheel, retrieving and relocating samples, utilizing a metal hook to remove or replace manhole covers, lids or grease traps, utilizing basic hand tools including wrenches, screwdrivers, scissors to assemble or disassemble samples, utilizing a sledgehammer to strike manhole covers if the cover is stuck, during normal body mechanics. Unilateral or bilateral hand use.

**Lifting/Carrying:**

*0 to 10 lbs.:*

- Objects: Lab containers (flasks, beakers, pipettes,) microscope, instruments, chemical containers, telephone handset, writing utensil, paperwork, manuals, computer tablet
- Average Frequency: Ongoing - tasks performed throughout shift
- Average Duration: Seconds to less than 15 minutes at a time
- Maximum Frequency: Ongoing - tasks performed throughout shift
- Maximum Duration: Seconds to less than 15 minutes at a time
- Height: Ground to shoulder or above
- Description: Performs while handling samples, containers, flasks, pipette; handling paperwork, utilizing a writing utensil, telephone; handling instruments, supplies and lab tools; storing and retrieving these objects.

*11 to 25 lbs.:*

- Objects: Single carboys and sample containers up to 2.5 gallons, sample caddy with multiple sample containers, portable sampler lid
- Average Frequency: 4 times daily
- Average Duration: Seconds to less than 15 minutes at a time
- Maximum Frequency: 4 times daily
- Maximum Duration: Seconds to less than 15 minutes at a time
- Distance: 0 to 50 feet including ascending and descending stairs
- Height: Ground to waist level
- Description: Performs while retrieving, transporting sample containers from sampler to cart. Includes shaking carboy containers to stir contents.

*26 to 50 lbs.:*

- Objects: Full sample bottle, buffer solvent, full solution container, Confined space equipment
- Average Frequency: 1 per day
- Average Duration: Seconds at a time
- Maximum Frequency: 4 times per day
- Maximum Duration: Seconds to less than 15 minutes at a time
- Distance: Less than 25 feet
- Height: Waist to ground and ground to waist
- Description: Performs while removing and replacing sampler lid and prying and lifting FOG hatches.

*50+ lbs.:*

Lifting objects over 50 lbs. is not a job requirement for this job classification.

### **Grasping:**

*Simple:*

- Average Frequency: Ongoing - tasks performed throughout shift
- Average Duration: Seconds to less than 15 minutes at a time
- Maximum Frequency: Ongoing - tasks performed throughout shift
- Maximum Duration: Seconds to less than 15 minutes at a time
- Description: Handling samples, containers, flasks, pipette; handling paperwork, utilizing a writing utensil, telephone; handling instruments, supplies and lab tools; any grasping necessary to complete required lifts and carries below 50 lbs.

*Power:*

- Average Frequency: 4 times per day
- Average Duration: Seconds at a time
- Maximum Frequency: 4 times per day
- Maximum Duration: Less than 15 minutes at a time
- Description: Handling single carboys and sample containers up to 2.5 gallons, sample caddy with multiple sample containers, portable sampler lid, lifting grease trap lids.

### **Fine Manipulation:**

- Average Frequency: 1 to 2 hours
- Average Duration: Seconds to less than 5 minutes at a time
- Maximum Frequency: 2 to 3 hours
- Maximum Duration: Seconds to less than 10 minutes at a time
- Description: Using pipettes, measuring small amounts of liquids, making equipment adjustments, using machine-user interfaces, utilizing a writing utensil; computer

keyboards/tablets and/or computer mouse, cursor or touch screens; using telephone.  
Unilateral or bilateral hand use.

**Machines/Tools:**

*The machines and tools listed 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:*

- Ion chromatography (IC), Gallery unit
- Titrator
- Centrifuge
- Drying oven
- Steam and water bath
- Composite sampler
- Distillation unit
- Digital readout
- pH meter
- Analytical and top loading balances
- Dissolved oxygen meter
- Incubator
- Autoclave
- District vehicle
- Computer keyboard, mouse, monitor
- Writing utensil
- Copier
- Fax machine
- Pipettes
- Scales

**Weights and Measures:**

*The items listed here to be weighed or measured 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:*

*Items Weighed:*

- Buffer solvent container – 40 pounds
- 8-gallon solution container partially full – 40 pounds
- Tool bag – 20 pounds

**PERSONAL PROTECTIVE EQUIPMENT**

Depending on the hazard, the employee is required to wear head, hearing, eye, foot, face, respiratory, body harness, and/or hand protection.

## **ENVIRONMENTAL ELEMENTS**

- Employee is occasionally exposed to wet and/or humid conditions.
- Employee is exposed to moving parts.
- Employee is regularly exposed to toxic or caustic chemicals.
- Employee is occasionally exposed to fumes or airborne particles.
- Employee is exposed to outside weather conditions.
- The noise level in the work environment is usually moderate.
- Indoors, laboratory setting, climate controlled.

NOTICE: The examples of functions, responsibilities, work environment, physical demands etc. listed in this Job Analysis are representative only, and not exhaustive of the tasks that an employee may be required to perform.