



December, 2017

FINAL DRAFT

LABORATORY ANALYST I/II Salary Range 174/195

DEFINITION

Under general supervision (Laboratory Analyst I) to direction (Laboratory Analyst II), performs standard and moderately complex physical, chemical, and bacteriological analyses and data interpretation of surface and ground water, wastewater, and recycled water; conducts field sampling and field investigations; and performs other duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision (Laboratory Analyst I) to direction (Laboratory Analyst II) from the Regulatory Compliance Manager. Exercises no direct supervision of staff.

CLASS CHARACTERISTICS

Laboratory Analyst I is the entry-level class in the Laboratory Analyst series responsible for learning the knowledge and skills to perform testing and analysis of wastewater and recycled water samples, including using the appropriate instrumentation. Positions at this level are not expected to function with the same amount of knowledge or skill level as positions at the Laboratory Analyst II level, and do not exercise the same level of independent direction and judgment in matters related to work procedures and methods. As experience is gained, assignments become more varied and are performed with greater independence. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise.

Laboratory Analyst II is the full journey-level in the Laboratory Analyst series responsible for conducting a diverse range of testing and analysis of wastewater and recycled water samples, including using the appropriate instrumentation. Incumbents are expected to work independently and exercise 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. The class is distinguished from the Regulatory Compliance Manager in that the latter is responsible for planning, directing, and managing the water quality program and supervises laboratory staff.

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

EXAMPLES OF DUTIES (Illustrative Only)

Management reserves the right 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.

Positions at the Laboratory Technician I level may perform some of these duties in a learning capacity.

- Schedules, performs, and interprets a variety of moderately complex and standard physical, chemical, and bacteriological tests and analyses on wastewater collection system and recycled water samples, following approved procedures.
- Recognizes potential or actual problems that may occur in an analytical procedure; recommends corrective action or confers with supervisor to find solutions.
- Assists and confers with other District staff on matters pertaining to laboratory issues.
- Prepares and standardizes chemical reagents; prepares and sterilizes bacteriological media.
- Compiles, maintains, and enters water quality data into Laboratory Information Management System (LIMS).
- Sets up, calibrates, operates, and performs routine maintenance on a variety of complex laboratory equipment and instruments.
- Collects water samples from the treatment facility and in the field according to a predetermined schedule; operates and maintains automatic sampling equipment; operates a boat to collect field samples.
- Assures that federal, state, and local laws, rules, regulations, and guidelines on sampling, testing, and recordkeeping are adhered to.
- Observes standard safety precautions related to the work.
- Performs laboratory work, quality control, and quality assurance evaluation in accordance with the California Department of Health Services Environmental Laboratory Accreditation standards for laboratory accreditation and certification.
- Assists the supervisor in performing research and experiments to solve problems.
- Develops and implements improvements to work procedures, methods, and documentation.
- Reviews technical journals, articles, books, and attends seminars and training in order to remain current on developments in the water quality field.
- Maintains and updates periodic inventories of laboratory chemicals, equipment, and supplies.
- Maintains the laboratory facilities in a clean and orderly condition; washes glassware; cleans and maintains other laboratory instruments and equipment.
- Performs other duties as assigned.

QUALIFICATIONS

Positions at the Laboratory Technician I level may exercise some of these knowledge and abilities statements in a learning capacity.

Knowledge of:

- Principles of statistical, quantitative, and qualitative analysis.
- Principles of chemistry, microbiology, and closely related sciences.
- Methods and techniques used in physical, chemical, and bacteriological testing of water and wastewater samples including quality control/quality assurance practices.
- Principles and practices of laboratory, plant, and field safety methods and practices.
- Methods and techniques of calibrating and maintaining laboratory equipment.
- Principles and practices of conducting research.
- Applicable state, federal, and local regulations.
- Chemical laboratory methods, equipment, facilities, and materials.
- Sampling techniques and methods.
- Principles and practices of record keeping.
- Modern office practices, methods, and computer equipment and applications related to the work.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

Ability to:

- Work with the chemicals and equipment used in wastewater and recycled water analysis.
- Maintain accurate and up-to-date records using automated and manual systems.
- Perform a diverse range of standard physical, chemical, and microbiological testing and analysis on wastewater collection and recycled water samples.
- Evaluate the outcome of laboratory results in order to detect errors and recommend solutions.
- Set up, operate, calibrate, and perform routine maintenance on complex analytical instruments.
- Drive a truck with boat trailer; launch and operate a boat.
- Use sound independent judgment.
- Prepare clear, complete, and accurate records and reports.
- Operate modern office equipment including computer equipment and specialized software application programs.
- 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:

Education

Laboratory Analyst I/II: Equivalent to an associate degree with major coursework in chemistry, microbiology, or a closely related physical science.

Experience

Laboratory Analyst I: No experience is required.

Laboratory Analyst II: Three (3) years of progressively responsible experience performing testing analyses duties within a water or wastewater treatment plant laboratory.

License and Certifications:

Laboratory Analyst I/II:

- Must possess a valid California Class C Driver's License and maintain a satisfactory driving record.

Laboratory Analyst I:

- Must possess a California Water Environmental Association Grade I Laboratory Analyst Certificate or the ability to obtain within twelve (12) months of appointment to the classification.

Laboratory Analyst II:

- Must possess a California Water Environmental Association Grade II Laboratory Analyst Certificate.

PHYSICAL DEMANDS

Must possess mobility to work in a standard wastewater treatment plant and laboratory setting, use specialized test equipment and instrumentation and standard office equipment, including a computer, to inspect District sites, including traversing uneven terrain, climbing ladders, stairs, and other access points, to operate a motor vehicle, and to visit various District and meeting sites; vision to detect shades of color, and read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard laboratory and office equipment. Positions in this

classification occasionally bend, stoop, 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 weighing up to 50 pounds.

ENVIRONMENTAL CONDITIONS

Employees work in a laboratory setting and may be exposed potentially toxic chemicals and conditions. When working in the field environment, employees are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

OTHER REQUIREMENTS

When necessary, ability to work unusual shifts, weekends, and holidays.