



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

MICROBIOLOGIST

Group-Section: Water System Operations Group	FLSA Status: Non-Exempt Bargaining Unit: AFSCME	Salary Grade: 48 Job #: YA77
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JOB SUMMARY

This is the journey level position performing Microbiologist job duties.

DISTINGUISHING CHARACTERISTICS

Positions at this level are fully competent and use judgment in interpreting and adapting guidelines such as policies, regulations, precedents, and work directions for application to specific cases or problems. The decision regarding what needs to be done depends upon the analysis of the subject, phase, or issues involved in each assignment, and the chosen course of action may have to be selected from many alternatives. The work involves treating a variety of conventional problems, questions, or situations in conformance with established criteria.

OVERSIGHT

Supervision Received: The supervisor makes assignments by defining objectives, priorities, and deadlines; and assists employee with unusual situations that do not have clear precedents. The employee plans and carries out the successive steps and handles problems and deviations in the work assignment in accordance with instructions, policies, previous training, or accepted practices in the occupation. Completed work is usually evaluated for technical soundness, appropriateness, and conformity to policy and requirements. The methods used in arriving at the end results are not usually reviewed in detail.

Supervision Given: May act as a lead. May coordinate and review work assignments of employees performing the same general work as the lead on a day-to-day basis. Responsibilities may involve solving problems and providing instructions on work procedures.

JOB DUTIES

1. Investigates and develops new or improved environmental microbiological and biological testing methods and laboratory procedures for use in determining water quality, and evaluates the impact of water treatment processes.
2. Performs microbiological, biological, or chemical tests; evaluates data, validates results, and may provide recommendations.
3. Identifies and evaluates the effects of microbiological and biological processes on water quality and treatment in water systems and makes recommendations.
4. Isolates and identifies aquatic organisms to aid in management and treatment strategies.
5. Performs and oversees experimental design, operational planning, budgeting, progress monitoring, and presenting data for applied research projects and monitoring programs.
6. May perform and oversee sample collection activities.

7. Collects, analyzes, and interprets data related to water quality issues.
8. Prepares technical reports and provides recommendations for management and external agencies.
9. Provides technical support and training on laboratory procedures, instrumentation, and quality control protocols.
10. May participate in professional meetings, committees, seminars, and workshops.
11. Develops quality assurance and quality control policies and ensures compliance.
12. Operates, maintains and troubleshoots laboratory and field equipment and instrumentation.
13. Writes technical specifications for procurement of laboratory equipment and supplies.
14. May participate on a project team.
15. Performs other related Microbiologist job duties as required.

EMPLOYMENT STANDARDS

MINIMUM QUALIFICATIONS

Education and Experience: Bachelor's degree from an accredited college or university in a related field and four years relevant experience; a Master's degree from an accredited college or university in a related field and two years relevant experience.

Required Knowledge of: Principles and practices of environmental microbiology and biology; general culture techniques; aseptic techniques; principles of statistics; laboratory techniques and instrumentation; drinking water regulations; emerging contaminants; standard laboratory quality assurance and control requirements; laboratory information management system; laboratory safety protocols; and current office technology and equipment.

Required Skills and Abilities to: Use culturing, staining, microscopy, and molecular techniques; data analysis and interpretation; apply laboratory techniques; operate and troubleshoot instrumentation; stay current on applicable drinking water issues; project management; use independent judgment and exercise discretion; problem solve; prioritize and multi-task; communicate clearly and concisely, both verbally and in writing; establish and maintain effective working relationships with those contacted in the course of work; work independently and in a team environment; and operate current office equipment including computers and supporting applications.

CERTIFICATES, LICENSES, AND REGISTRATIONS REQUIREMENTS

Employees in this position may be required to obtain and maintain the following certifications, licensing, and registrations:

Certificates

- None

Licenses

- Valid California Class C Driver License that allows you to drive in the course of your employment

Registrations

- None

PHYSICAL DEMANDS, WORK ENVIRONMENT, AND VISION REQUIREMENTS

The physical demands and work environment characteristics described here are representative of those that must be met or may be encountered by an employee to successfully perform the job duties of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the job duties.

Physical Demands: The work requires some physical exertion such as long periods of standing; walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, or similar activities; recurring lifting of moderately heavy items such as personal computers and record boxes. The work may require specific, but common, physical characteristics and abilities such as above-average agility and dexterity.

Work Environment: The work involves moderate risks or discomforts that require special safety precautions, e.g., working around moving parts, carts, or machines, or irritant chemicals; etc. Employees may be required to use protective clothing or gear such as masks, gowns, coats, boots, goggles, gloves, or shields.

Vision Requirements: No special vision requirements.