

EL DORADO IRRIGATION DISTRICT
Class Specification

CLASS TITLE: Chemist

DEFINITION

Under supervision performs a variety of specialized chemical, biochemical, bacteriological, microbiological, and toxicity analyses of water, receiving waters, wastewater, and related solids and by-products relevant to wastewater collection, treatment, and disposal; collects samples; performs complex research projects. Maintains appropriate laboratory inventories as required for optimum functionality. Administers the laboratory computer system (LIMS). Conducts and prepares special studies and analyses as required for NPDES/WDR permit renewals.

DISTINGUISHING CHARACTERISTICS

This is a single level class where employees within this class possess a specialized technical or functional expertise and are assigned significant responsibilities above the journey level; possess specialized knowledge, abilities, skills, and experience; and often exercise independent judgment in the performance of their duties. Employees at this level receive only occasional instruction or assistance as new, unusual or unique situations arise and are fully aware of the operating procedures and policies within the work unit.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from a higher level supervisor or manager. May exercise direct or indirect supervision over assigned professional, technical, and administrative support personnel.

EXAMPLES OF ESSENTIAL DUTIES: *the duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list.*

Prepares and conducts special studies and research projects as assigned.

Maintains and oversees the Environmental Laboratory Accreditation Program (ELAP) certification with the State of California for the District's water and wastewater laboratory.

Assists in the preparation of laboratory budget.

Assists in monitoring and evaluating problems in plant operations and laboratory analyses, including making recommendations for alleviating and improving problem situations.

Sets up, calibrates, and operates a variety of laboratory equipment and instruments; performs minor maintenance of laboratory equipment and instruments.

Prepares daily reports relevant to regulatory monitoring and process control requirements; prepares electronic reports for regulatory agencies; organizes, prepares and maintains a variety of laboratory records, including but not limited to the Quality and Assurance Control Program and Chemical Hygiene Program.

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Oversees laboratory facility maintenance, employee training, safety, and quality assurance, as it pertains to the laboratory hygiene plan.

Recognizes problems that may occur in an analytical procedure and troubleshoots known procedures or confers with others to identify possible problems affecting results.

Develops and updates standard operating procedures for laboratory analysis and quality assurance/quality control manual; prepares for and assists with ELAP audit.

Ensures laboratory quality assurance/quality control is properly maintained and within acceptance criteria.

Prepares standard chemical solutions, reagents, stains and bacteriological media; keeps laboratory facilities in an orderly condition.

Enters laboratory data into a computer system for further analysis and reporting purposes; maintains laboratory records and prepares required reports and reviews all reports for accuracy.

Monitors test results and investigates and resolves inconsistent data; researches, evaluates and develops new laboratory techniques and instruments.

Maintains, reviews and updates detailed records, post analytical results; implements and maintains a comprehensive quality control program.

Assists operations staff with developing and revising strategies to optimize plant performance.

Builds and maintains positive working relationships with co-workers, other District employees and the public using principles of good customer service.

Performs related duties as assigned.

QUALIFICATIONS

Knowledge of:

Modern laboratory procedures and equipment, including computer uses and applications as applied to laboratory operations and analyses. Pertinent local, State and Federal laws, ordinances and rules. Principles and practices of conducting applied research projects within the wastewater industry. Principles and practices of chemistry, bacteriology and the chemical sciences, including methods and techniques of laboratory testing and analysis. Testing methods and techniques pertaining to water and wastewater treatment. The interpretation and analysis of water and wastewater test results. Sample preservation methods related to wastewater discharge and sewage treatment processes. Sample collection and monitoring procedures. Principles of mathematics and statistics used for laboratory and field calculations. Appropriate use, care, and maintenance of various equipment used in the laboratory setting. The use of personal computers and standard business software.

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Skill/Ability to:

Independently test and analyze water and wastewater samples. Observe and problem solve operational and technical policy and procedure issues. Calibrate laboratory equipment. Analyze testing data and draw sound conclusions. Maintain the laboratory environment in an organized and otherwise appropriate level. Maintain accurate records and prepare complete and concise reports. Establish and maintain effective working relationships with those contacted in the course of work. Communicate clearly and concisely, both orally and in writing. On a continuous basis, know and understand all aspects of the job; intermittently analyze work papers, reports and special projects; identify and interpret technical and numerical information; observe and problem solve operational and technical policy and procedures. On a continuous basis, sit at desk for long periods of time; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; use telephone, and write or use a keyboard to communicate through written means; and lift or carry weight of 10 pounds or less.

Experience and Education:

Any combination of experience and training that would provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities would be:

Experience:

Four years of experience in a laboratory or related setting, two years of which must be involved in wastewater testing.

Education:

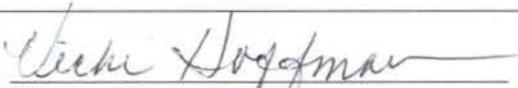
Bachelor's degree from an accredited college or university with major course work in chemistry, bacteriology, biology or a related field.

SPECIAL QUALIFICATIONS

License and Certificate:

Possession of, or ability to obtain, a valid California driver's license at the time of appointment. Individuals who do not meet this requirement due to physical disability will be reviewed on a case-by-case basis.

Possession of a valid Grade II Laboratory Analyst Certificate issued by the California Water Environmental Association. Grade III or IV Laboratory Analyst Certificate issued by the California Water Environment Association is desirable.

 Director of Human Resources Established: 02/06/2014 Revised: FLSA: Exempt Unit: Safety	<u>2/6/14</u> Date
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