

## WATER QUALITY ANALYST

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.*

### **SUMMARY DESCRIPTION**

Under direction, oversees and supervises the overall operations of the water laboratory and performs the most complex chemical, bacteriological, and physical analyses of water using a variety of laboratory instruments, equipment and techniques to assure City's compliance with water quality standards; ensures that the Water Quality Laboratory (WQL) maintains WQL certification under the Environmental Laboratory Accreditation Program (ELAP); ensures work quality and adherence to established policies and procedures; provides training on proper laboratory test procedures and sample collection processes; and performs the more technical and complex tasks relative to assigned area of responsibility.

### **REPRESENTATIVE DUTIES**

*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 business needs and changing business practices.*

1. Oversee and supervise overall laboratory operations including staff responsible for collecting samples and performing routine chemical, bacteriological, and physical tests; perform the most complex bacteriological, chemical, physical, and microbiological examinations of water; analyze and interpret results of examinations of water samples; recognize and investigate problems and recommend solutions.
2. Establish schedules and methods for providing laboratory analysis and quality assurance program services; identify resource needs; review needs with appropriate management staff; allocate resources accordingly.
3. Participate in the development of goals and objectives as well as policies and procedures; make recommendations for changes and improvements to existing standards, policies, and procedures; participate in the implementation of approved policies and procedures; monitor work activities to ensure compliance with established policies and procedures.
4. Participate in the selection of assigned laboratory staff; provide or coordinate staff training; work with employees to correct deficiencies; implement discipline procedures.
5. Participate in the preparation and administration of assigned program budget; submit budget recommendations; monitor expenditures.
6. Perform the more technical and complex tasks of the work unit including ensuring compliance with state and federal regulations.
7. Maintain a fully accredited laboratory as certified through the Environmental Laboratory Accreditation Program (ELAP) by the California Department of Public Health.
8. Supervise, prioritize, schedule and/or perform the collection and analysis of source water, potable water, and wastewater; approve new water mains for connection with the City system.

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9. Establish and review monitoring programs relating to treatment plant processes and system compliance.
10. Compile and prepare a variety of reports and correspondence; submit required reports to state and EPA regulatory agencies; maintain all lab records and use computer to store, retrieve and analyze data.
11. Oversee work of outside labs contracted by the City to perform specialized testing; assure that reports are completed to standards.
12. Maintain ongoing quality assurance/quality control (QA/QC) program; review data generated in the lab and verify validity.
13. Collect, analyze, and summarize data produced by the laboratory and the operations SCADA system; recognize potential and actual problems which may occur in analytical procedures and take proper corrective action; recommend changes in treatment process to ensure highest quality water and regulatory compliance.
14. Wash, clean, sterilize, calibrate, and maintain equipment apparatus, and glassware used in all tests and analysis; keep laboratory facilities in a clean and orderly condition.
15. Operate and maintain a variety of lab equipment including but not limited to pH meter, analytical and top-loading balances, and field test kits.
16. Respond to and resolve difficult and sensitive citizen inquiries and complaints in an efficient and timely manner; respond to emergency situations as necessary.
17. Coordinate assigned laboratory activities with those of other divisions and outside agencies and organizations; represent the City in meetings with other water agencies, regulatory agencies and the public.
18. Attend and participates in professional group meetings; maintain awareness of new trends and developments in the field of water quality analysis; incorporate new developments as appropriate into programs.
19. Perform related duties as required.

**QUALIFICATIONS**

*The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.*

**Knowledge of:**

- Operations, services, and activities of water treatment plant laboratory.
- Methods and procedures of water quality assurance program administration.
- Principles of supervision, training, and performance evaluation.
- Modern and complex principles and practices of chemistry, biology, and microbiology.
- Techniques, principles and equipment used in sampling and analyzing water.
- Principles of water treatment, distribution and storage.
- Mathematics and statistics principles.

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- Sources of information related to water analysis, State and Federal regulations regarding water quality.
- Accreditation program requirements for laboratory certification.
- Safe and proper care of laboratory facilities and equipment.
- Pertinent federal, state, and local laws, codes, and regulations.

**Ability to:**

- Coordinate and direct the operations of a water treatment plant laboratory.
- Supervise, organize, and review the work of assigned staff involved in laboratory operations.
- Select, train, and evaluate staff.
- Recommend and implement goals, objectives, policies and procedures for providing laboratory operations.
- Understand the organization and operation of the organization and of outside agencies as necessary to assume assigned responsibilities.
- Understand, interpret, and apply general and specific administrative and departmental policies and procedures as well as applicable federal, state, and local policies, laws, and regulations.
- Prepare clear and concise reports.
- Participate in the preparation and administration of assigned budgets.
- Make accurate observations and decisions.
- Perform routine and complex laboratory analyses and procedures.
- Analyze and interpret regulations and technical requirements.
- Use complex laboratory equipment in the analyses of water samples.
- Repair and maintain laboratory equipment.
- Successfully operate various software programs as required using computers or other types of hand held devices.
- Take coaching, instruction, and feedback with a cooperative and positive attitude.
- Maintain accurate records and files on testing, analysis, quality assurance and control in conformance with regulatory requirements.
- Ensure adherence to safe work practices and procedures.
- Plan and organize work to meet changing priorities and deadlines.
- Effectively represent the City to outside individuals and agencies to accomplish the goals and objectives of the unit.
- Work cooperatively with other departments, City officials, and outside agencies.
- Respond tactfully, clearly, concisely, and appropriately to inquiries from the public, City staff, or other agencies on sensitive issues in area of responsibility.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain cooperative working relationships with those contacted in the course of work, including the ability to interact effectively and courteously with the public, coworkers and vendors.

**Education and Experience Guidelines**

**Education/Training:**

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

**Experience:**

Four years of water treatment laboratory experience including one year of lead supervisory responsibility.

**License or Certificate:**

Possession of a Class C driver's license.

Possession of a Water Quality Analyst 2 certification issued by the American Water Works Association, California - Nevada Section.

**PHYSICAL DEMANDS AND WORKING ENVIRONMENT**

*The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.*

**Environment:** Work is performed in a water treatment plant and outdoor environment; travel from site to site; exposure to noise, dust, grease, fumes, electrical energy, and all types of weather and temperature conditions; work and/or walk on various surfaces including slippery or uneven surfaces; work in or with water.

**Physical:** Primary functions require sufficient physical ability and mobility to work in a water treatment plant and field environment; to travel to various locations to take samples; to walk, stand, and sit for prolonged periods of time; to frequently stoop, bend, kneel, crouch, reach, and twist; to lift, carry, push, and/or pull light to moderate amounts of weight; to operate assigned equipment and vehicle; and to verbally communicate to exchange information.

FLSA: Non-Exempt

Created: September 1990  
Revised: September 2013

This class specification identifies the essential functions typically assigned to positions in this class. Other duties not described may be assigned to employees in order to meet changing business needs or staffing levels but will be reasonably related to an employee's position and qualifications. Other duties outside of an individual's skill level may also be assigned on a short term basis in order to provide job enrichment opportunities or to address emergency situations.