City of Bellingham
Classification Specification

CLASS TITLE	**Senior Laboratory Technician**
DEPARTMENT	**Public Works\Operations**
UNION:	**1937**
SG:	**113**
CS:	**Entry/Promotional**
FLSA:	**Y**
EE04CODE|SOC:	**TE|19-4031**

NATURE OF WORK:

The Senior Laboratory Technician assists Water Quality Specialists in preparing scientific and technical reports and performing laboratory work and fieldwork for regulatory and environmental monitoring programs in addition to performing the work of the Laboratory Technician classification.

Collects and tests surface water, drinking water and wastewater samples for regulatory compliance, plant process control, and the monitoring of environmental programs as they apply to water and wastewater compliance. Positions in this class are accountable for quality control procedures in the laboratory. Additional duties include assisting in information gathering and initial preparation of compliance reports, in implementation of new laboratory procedures, in the training of new employees in standard laboratory operating procedures, and special project assignments. Positions in this class are accountable for quality control procedures in the laboratory, including analyzing performance evaluation samples to ensure state certification of both laboratories. Additional duties include working with lab and process control instrumentation. Responsible for monitoring, calibrating, maintaining, troubleshooting, and repairing PROCESS instruments and lab-related instruments. Maintains an inventory of lab supplies and procures equipment and supplies as needed. Communicates and coordinates with coworkers to ensure proper sequence of events for sampling and analysis. Coordinates with reference laboratory personnel to ensure proper supplies are obtained, sample is properly prepared and delivered, and chain of custody is maintained.

Error or negligence in performance may have serious detrimental consequences for the City's water/wastewater and secondary treatment systems.

DISTINGUISHING CHARACTERISTICS:

This position requires the performance of technical level laboratory work, procedures and quality control practices as required by state and federal compliance regulations for both the water and wastewater laboratories. This includes the successful completion of required performance evaluation check standards. Knowledge and skills are usually acquired through college coursework and experience.

The Senior Laboratory Technician classification is distinguished from the Laboratory Technician classification by the greater experience necessary to independently perform all routine laboratory tasks as well higher level of skill necessary to assist in more complex analysis and report writing. Advancement to Senior Laboratory Technician occurs through a competitive promotional process.

SUPERVISORY RELATIONSHIP:

The Senior Laboratory Technician reports directly to the Technical Supervisor. Receives assignments, work direction, and training from Water Quality Specialists and other supervisory personnel. Daily tasks are expected to be carried out independent of supervisory oversight. May provide training and technical instruction to Laboratory Technicians, plant personnel, extra help employees and student interns, as assigned.

ESSENTIAL FUNCTIONS:

1. Assists in preparation of reports and technical reviews for regulatory programs to comply with state and federal monitoring requirements for drinking water, stormwater and wastewater.

2. Assists in conducting field monitoring and laboratory analysis for utility programs relating to drinking water, wastewater, storm and surface water. Records, evaluates and maintains datasets.

3. Collects samples from various sites for quality control purposes and compliance monitoring using a variety of technical methods and equipment.

4. Prepares reagents and standardized chemical solutions needed to test collected samples.

5. Performs a variety of chemical and microbiological tests for water and wastewater samples including, but not limited to bio-chemical oxygen demand; chemical oxygen demand; solids; pH; chlorine residual; hardness; alkalinity; coliforms; heterotrophic plate count; grease and oil; iron; turbidity.

6. Performs testing required for secondary wastewater treatment including, but not limited to nutrient analyses, microbiological screening and extended solids testing.

7. Performs laboratory quality control testing and procedures and maintains standard reports in compliance with state requirements.

8. Performs algebraic calculations on laboratory raw data, enters results into computer; compiles and maintains computerized records for quality control and compliance purposes.

9. Calibrates, maintains and performs minor repairs on laboratory equipment and laboratory-related plant instrumentation. Coordinate with Maintenance staff on troubleshooting and more involved repairs.

10. Performs sample collection and testing for special project assignments; assists in information gathering for research done by Technical Supervisor and Water Quality Specialist. Included here are such duties as evaluating new instruments and procedures under the advice of the Technical Supervisor or Water Quality Specialist, for the purpose of making lab procedural or purchase recommendations.

11. Responds to citizen inquiries regarding general health concerns and drinking water. Handles complaints on specific water quality problems such as tastes, odors, etc.; contacts customers regarding test results.

12. Maintains an inventory of routine lab supplies and procures equipment and supplies as needed. Prepares requisitions for warehouse purchase of equipment and supplies.

ADDITIONAL WORK PERFORMED:

1. Assists in the instruction and training of personnel in laboratory related tasks.

2. Performs Plant Operator equipment checks during weekend/holiday duty.

3. Performs related duties as assigned.

KNOWLEDGE AND SKILLS:

Knowledge of:
- Research methods, problem-solving, and decision-making models.
- Laboratory techniques and testing methods used in the analyses of water and wastewater.
- Laboratory hazards and ability to apply safety precautions applicable to work environment, such as safe storage and handling of equipment, supplies and use of safety clothing.
- Analytical instruments and an understanding of how to properly maintain, monitor, calibrate and troubleshoot process control instruments.
- Quality assurance and quality control principals and techniques in a laboratory setting.
- Technical standards, procedures and regulations of water and wastewater testing in compliance with laboratory certification requirements.

Skill in:
- Computer applications and data analysis
- Good oral communication skills to courteously and tactfully interact with coworkers and citizens.
- Good technical writing skills, sufficient to write detailed procedural instructions to be understood by lab staff; legible handwriting.

Ability to:
- Read and interpret equipment specifications, technical manuals, and instructions.
- Compile, evaluate and analyze complex data and information and recommend actions.
- Inventory and procure laboratory and instrumentation equipment and supplies.
- Read and follow technical written and oral instructions.
- Perform data entry and to utilize associated computer software in a computerized recordkeeping system.
- Perform algebraic calculations of test results.
- Independently problem solve using good judgement in performing assigned duties.
- Calibrate, use and troubleshoot a variety of laboratory and process control equipment.

- Maintain consistent and punctual attendance.

- Ability and willingness to demonstrate the Public Service Competencies of Service Orientation, Results Orientation, and Teamwork and Cooperation.
- Physically perform the essential functions of the position, including:
  - Visual acuity to differentiate color;
  - Fine finger dexterity to manipulate laboratory equipment and computer keyboard;
  - Adequate hearing for telephone and radio communications;
  - Ability to stand for long periods of time;
  - Ability to traverse rough terrain on a regular basis;
  - Frequent lifting up to 25 lbs.

WORKING ENVIRONMENT:

Work is performed both indoors and outdoors in all weather conditions in an industrial plant environment at the water and wastewater plants, and other facilities of water distribution and sewage collection system. Most of the work time is spent in a laboratory environment which is designed to optimize safe and efficient working conditions. However, several hazards are present when working with chemical agents, biological samples, and laboratory testing equipment. Employees are required to use appropriate safety equipment, wear protective clothing and follow standard safety practices.

EXPERIENCE AND TRAINING REQUIREMENTS:

- BA/BS degree in chemistry, biology, microbiology, environmental science or related field. AND
- Two years of experience as a Laboratory Technician at the City of Bellingham or equivalent laboratory experience at another municipality.
- Department of Ecology Wastewater Operator Group I certification.
- Department of Health Waterworks Operator Level I certification.

Note: Related laboratory work experience required excludes laboratory work performed for academic credit. Internships, assistantships and volunteer experience may be used as work experience.

NECESSARY SPECIAL REQUIREMENT:

- Employment contingent upon passing a criminal background check.
- Valid Washington State driver's license and good driving record. Candidate considered for hire must submit an abstract of his/her driving records for the past three years.
- Willingness and ability to work a flexible schedule involving days, nights, weekends, holidays, call-backs, overtime and emergency situations which may include evenings, weekends or holidays.

PREPARED BY: A. Sullivan
6/23

REVIEWED BY:
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Public Works

REVIEWED BY:
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Public Works/Operations

COMMISSION ADOPTION: July 12, 2023