

City of Bellingham  
**Classification Specification**

CLASS TITLE	Water Quality Specialist
DEPARTMENT	Public Works\Operations
UNION:	231
SG:	9
CS:	N
FLSA:	N
EE04CODE:	PR

**NATURE OF WORK:**

The Water Quality Specialist evaluates water quality and plant process data; develops and implements laboratory and field projects; evaluates laboratory methodology and recommends changes; and prepares scientific and technical reports, including reports for local, State and federal compliance. The Water Quality Specialist utilizes computer software to perform research and data management; performs technical laboratory work; performs fieldwork for environmental monitoring programs; and responds to citizen inquiries and complaints regarding water and wastewater issues. Work requires a high degree of accuracy since error or negligence may compromise the City's water and wastewater treatment systems, as well as have an impact on its water, wastewater and storm water capital improvement programs.

**DISTINGUISHING CHARACTERISTICS:**

The Water Quality Specialist classification is distinguished from the Laboratory Technician by its responsibilities: researching and writing scientific and technical reports; designing and implementing field and laboratory studies; analyzing data; validating data; performing quality control checks on data; and training and monitoring the work of Laboratory Technicians, temporary workers and interns. The Water Quality Specialist works independently to evaluate and interpret process control data, compliance data, and data from environmental monitoring programs. The Water Quality Specialist also performs research and recommends areas for improvement for both the laboratory and monitoring programs. The Water Quality Specialist classification requires a higher level of experience and training than the Laboratory Technician.

The Laboratory Technician provides technical level laboratory work under specific procedures and receives direction from the Analyst.

**SUPERVISORY RELATIONSHIPS:**

Reports to the Water Quality Supervisor. Works independently under the standards and requirements of applicable federal and State regulations and City regulations, policies and procedures. Provides direction to and trains Laboratory Technicians, temporary extra help and student interns.

### **ESSENTIAL FUNCTIONS:**

1. Researches, develops, implements, monitors and evaluates laboratory testing methods, quality assurance/quality control programs and procedures.
2. Researches, develops, implements, monitors and evaluates laboratory and field testing methods for storm and surface water environmental monitoring programs.
3. Writes scientific and technical reports resulting from special project work. May also write technical reports explaining laboratory processes and procedures for State and federal compliance purposes.
4. Evaluates and interprets process control and compliance data for plant operations, identifies problem areas and recommends solutions.
5. Uses various computer programs, databases and spreadsheets to validate, analyze and manage data and to generate technical reports for environmental monitoring programs.
6. Conducts field monitoring for environmental programs relating to drinking water, wastewater and surface water.
7. Performs duties in specialized technical areas, such as special monitoring programs for secondary wastewater treatment, storm water and drinking water as assigned. Collects wastewater, drinking water and surface water samples for laboratory testing from identified sites.
8. Operates and maintains a variety of laboratory equipment and instrumentation; performs a variety of physical, chemical and biological analyses on wastewater, drinking water and surface water samples.
9. Responds to citizen inquiries regarding general health concerns and drinking water. Handles complaints on specific water quality problems such as taste, odors, etc., and contacts customers regarding test results. Participates in public information programs to educate customers.

### **ADDITIONAL WORK PERFORMED:**

1. Assists Technical Supervisor in training laboratory employees and has delegated oversight of their assignments and work product.
2. Performs related duties within the scope of the classification.

### **KNOWLEDGE AND SKILLS:**

- Knowledge of the principles of chemistry and microbiology and the application of scientific methods including research methods and statistical analysis.
- Knowledge of appropriate laboratory techniques, testing methods and equipment and ability to develop and implement new or advanced laboratory methods and procedures.
- Knowledge and skill with computer applications and data analysis.
- Knowledge of research methods, problem-solving, and decision-making models.

- Working knowledge of quality assurance and quality control principles and techniques in the laboratory environment.
- Working knowledge of applicable State and federal regulations and standards.
- Ability to independently plan and organize work assignments in order to meet critical deadlines.
- Knowledge of laboratory hazards and necessary safety precautions applicable to work environment.
- Good oral communication skills to work effectively with co-workers and the public.
- Good technical writing skills to produce a variety of reports.
- Physical ability necessary to perform job duties: visual acuity to differentiate color and to work with microscopic materials and computer screens; 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 move over and through rough terrain on a regular basis; frequent lifting up to 25 lbs.

**WORKING ENVIRONMENT:**

The position works a majority of time in a laboratory environment that is designed to optimize safe and efficient working conditions. However, a number of hazards are present when working with chemical agents, biological samples and laboratory testing equipment. Employees must be constantly aware of safety requirements. Some work is conducted out-of-doors in all types of weather and on irregular terrain.

**EXPERIENCE AND TRAINING REQUIREMENTS:**

- Bachelor's degree in an environmental support science such as chemistry, biology, hydrology, or environmental science required. A Master's degree is preferred.
- Minimum of two years related laboratory or field experience required.
- Group I operators certification in water and wastewater required within two years of employment.
- A combination of experience and training that provides the applicant with the knowledge and skills to perform the job will be considered.

**NECESSARY SPECIAL REQUIREMENT:**

- Valid Washington State driver's license and good driving record. Candidates must submit a three-year driving abstract prior to hire.

**PREPARED BY:** L. McGowan  
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1/01

**REVIEWED BY:**  
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P. Wendling/Rowlson  
04/02

**REVIEWED BY:**  
Richard E. McKinley, Director  
Public Works

P. Wendling/L. Klemanski (Change of titles/wage only)  
10/07

**JOINT CLASSIFICATION COMMITTEE ADOPTION:** January 18, 2005

REF: Lab Analyst