

<b>Submit resume and cover letter by – Open until filled to:</b> <b>Northern Water</b> <b>220 Water Avenue</b> <b>Berthoud, CO 80513 <a href="mailto:careers@northernwater.org">careers@northernwater.org</a> Preferred</b>	<b>Posted: January 20, 2020</b> <b>By: LB</b> <b>Removed:</b> <b>By:</b>
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## Job Description

### Senior Water Quality Engineer

**Division/Department:** Environmental Services Division / Water Quality Department

**Reports To:** Water Quality Manager

**Type of Position:** Full-time

**Status:** Exempt

### General Statement

This position identifies, assesses and resolves complex water quality issues associated with Northern Water's projects. Work assignments will primarily include leading advanced water quality modeling and analysis of lentic and lotic environments.

### Duties and Responsibilities

- Acts as the subject matter expert on water quality issues;
- Designs and performs special studies, analyzes complex datasets and reports findings of water quality investigations;
- Reviews and designs monitoring programs;
- Develops scopes of work and proposals;
- Prepares detailed technical reports and analyses;
- Reviews work from others (staff, consultants and partner agencies);
- Performs applied watershed and mechanistic water quality modeling including setting up models for scenario simulations, input preparation, processing of model outputs, model validation, documentation of results and performing model upgrades as needed;
- Performs statistical and other data analyses;
- Prepares graphical and tabular data summaries;
- Develops new tools and methods to enhance reporting and assessment capabilities of the Water Quality Department;
- Represents Northern Water at water quality meetings;
- Presents findings and water quality information to a variety of audiences (staff, Board, consultants, constituents and partner agencies);
- Project and/or Task Lead: provides oversight, direction and review for the work of others;
- Provide a leadership role for the water quality department through technical expertise in the area of water quality;

- Mentors other team members;
- Performs other duties as assigned.

## **Experience and Education Requirements**

### *Education*

- Master's degree in Engineering (Civil, Environmental or Biosystems) with an emphasis on water resources, or Master's degree in Watershed Science or a related field; course work in the watershed and environmental sciences (e.g. hydrology, aquatic ecology, limnology, wetlands, soils, biogeochemistry, water quality modeling, water and wastewater treatment, etc.). PhD preferred.

### *Experience*

- Minimum of ten years' experience in watershed and water quality management, statistical analysis, preparing technical reports, work experience in a lab or field environment, experience with water quality modeling, etc., or consultant work in a water or environment-related field.

## **Knowledge, Skills, and Abilities**

### *Knowledge*

- Detailed knowledge of water quality issues in Colorado, watershed-based planning and watershed management principles;
- Clean Water Act and regulatory framework;
- Database management;
- Knowledge of water quality modeling platforms such as CEQUAL-W2 and RMSi/ADYN-RQUAL highly desirable;
- Proficient with data mining techniques and tools: knowledge of Tableau and R desirable;
- Knowledge of water and wastewater treatment processes and technologies highly desirable;
- Knowledge of limnology highly desirable.

### *Skills*

- Proficient in MS Excel;
- Proficient in advanced water resource statistics and data mining techniques;
- Works collaboratively with team members and partners;
- Excellent quantitative, problem-solving skills;
- Excellent oral communication skills;
- Excellent organizational skills;
- Excellent technical writing skills required, as well as good analytical, and data management skills;
- Self-motivated;
- Attention to detail.

*Abilities*

- Manages complex technical problems or issues requiring advanced modeling and analysis;
- Manage projects in the context of politically sensitive issues and partnerships;
- Work well with others as a member of the team and with stakeholders.
- Work well autonomously;
- Apply engineering principles and rigorous scientific approaches;
- Work on multiple projects concurrently;
- Meet tight deadlines;
- Come up with creative technical solutions;
- Communicate highly technical content to non-technical audiences;
- Eagerness to learn.

**Physical Requirements**

- Requires sustained operation of keyboard devices.
- Requires prolonged sitting, standing, and walking in performance of daily activities.
- Lift, drag, or push boxes, paper, and documents weighing up to 25 pounds.
- Must be able to meet the physical requirements of a post job offer physical examination.

Reasonable accommodations will be made to enable qualified individuals with disabilities to perform the essential functions of the job.

**License, Certificate, or Credential Requirements**

- Valid driver's license.
- PE highly desirable or ability to obtain

**Other Requirements**

- Maintains a personal appearance appropriate for job position and image of Northern Water.

**This job description in no way states or implies that these are the only duties to be performed by this employee.**

**Northern Water is an equal opportunity employer.**