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Northern Water
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Berthoud, CO 80513 careers@northernwater.org Preferred

Posted: May 22, 2018
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Job Specifications

Project Engineer

Date: May 2018
Division/Department: Operations, Capital Improvements
Reports To: Capital Improvements Department Manager
Type of Position: Full-time Part-time
Hours: 40+/week
Status: Exempt Nonexempt

General Statement

This position is a mid-level civil/structural engineering position supervised by the Manager of the Capital Improvements Department. Job duties for this position are widely varied and include responsibilities for planning, permitting, design oversight, and construction management for existing water storage and delivery facility projects, including Colorado-Big Thompson Project (C-BT) transferred works and joint works facilities, Windy Gap Project facilities, Southern Water Supply Pipeline Project, Pleasant Valley Pipeline Project, hydropower facilities, and certain aspects of future projects.

Duties and Responsibilities

- Provide civil/structural engineering design and project management for capital improvement and maintenance projects on existing water storage and delivery facilities including canals, pipelines, pump stations, dams and diversion structures.
- Develop civil/structural engineering solutions to repair, rehabilitate, or replace existing system infrastructure.
- Provide civil/structural engineering analysis and review of existing and proposed Northern Water and Subdistrict infrastructure including but not limited to hydraulic structures, pipelines, canals, pump stations, and hydroelectric stations.
- Provide contract administration, structural design calculations, analysis, and development of details, construction document preparation, project scheduling, opinion of probable construction costs, permit compliance, construction management, and/or other engineering support as assigned related to projects including water conveyance structures such as concrete lined and earthen canals, diversions, drop structures, culverts, spillways, and inverted siphons and other ancillary structures (footers, bridges, retaining walls, etc.).
- Provide engineering analysis, review, and design for civil and structural components of system infrastructure and produce engineering drawings (in AutoCAD) and technical specifications for construction.
- Perform field investigations to evaluate existing structures including visual observations, measurement and data documentation, and surveying.
- Perform hydraulic calculations and HEC-RAS modeling.
- Coordinate work with other Departments and disciplines during design and implementation of projects.
- Represent Northern Water in meetings, activities, negotiations, outreach, and other efforts related to duties above as assigned.
- Other duties as assigned.

Training Experience and Education Requirements

Training Experience Required

- Minimum of 5 years of experience related to civil and structural engineering design and construction management of water diversion, storage, pumping, and conveyance infrastructure. Experience in geotechnical design application also beneficial.
- Demonstrated experience in the planning and implementation of civil and structural projects including engineering design and construction management, contract administration, and/or project management.
- Northern Water desires candidates that also have experience with water conveyance structures, including mechanical design of pipelines, pumping stations, and related appurtenances.
- Applicant should have knowledge and experience and be proficient with computer operating systems, database/spreadsheet applications, Microsoft Project, ESRI ArcMap, Autodesk AutoCAD, HEC-RAS, and word processing programs.

Education Required

- Bachelor's degree in Civil Engineering, Agricultural Engineering, or related field. A master's degree in engineering or other water-related field is desired.

Knowledge, Skills, and Abilities Requirements

- Must have working knowledge of standards, practices, and codes regarding civil/structural engineering designs and drawings.
- Must have ability to understand complex engineering documents including reports, engineering drawings, and technical specifications.
- Must demonstrate ability to work independently to meet project objectives and deadlines.
- Must demonstrate good interpersonal skills and the ability to work on teams.
- Must have ability to work across functional areas within the organization.
- Must have ability to communicate effectively with constituents and regulatory agencies.
- Must have strong organizational skills and the ability to manage multiple projects and activities.
- Must have excellent written and verbal communications skills.

Physical Requirements

- Must be capable of working both in an office setting and in the field.
- Must be able to work in and around construction site settings.
- Balancing, using legs to stabilize self on uneven surfaces, ditch sides, concrete abutments, etc.
- Requires sustained operation of keyboard devices.
- Requires prolonged sitting, standing, and walking in performance of daily duties. Ability to lift, drag, or push boxes, paper, and documents weighing up to 25 pounds.
- 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.

Other Requirements

- Colorado Professional Engineering License (PE). Obtain within 6 months by reciprocity, if out of state.
- Maintains a personal appearance appropriate for job position and image of Northern Water.
- Must have a valid driver's license.

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 employment opportunity employer.