

DEPARTMENT OF NATURAL RESOURCES

POSITION DESCRIPTION

Working Title: Construction Management Engineer
Classification Title: Wastewater Engineer-Advanced
Work Location: Northern Region

Purpose of the Position: This position is responsible for implementing field oversight responsibilities of the Clean Water Fund Program (CWFP), the Safe Drinking Water Loan Program (SDWLP) and other loan programs of the Department of Natural Resources (DNR) in the Northern Region (WCR). The responsibilities include independent oversight in the construction of complex wastewater treatment plants and community drinking water systems (new and expanded treatment facilities that have multiple treatment technologies) to ensure these activities protect public health, welfare and the environment through compliance with state and federal statutes and regulations; and to assure compliance with applicable state and federal loan procedures to protect the investment of public money. The position serves as the first-line contact for the municipality, the consultant, and the contractor during the construction project and represents the Department during litigation regarding project and construction-related decisions. This position also provides technical advice and assistance to communities which may apply for funding under the CWFP or SDWLP and assists in the resolution of multifaceted issues involving conflicting requirements, competing priorities, and other challenges associated with complex projects that are highly visible, subject to overlapping federal, state, and local regulations, have significant financial implications, or receive interest from multiple stakeholders.

Geographic Scope and Travel Requirements: Routine travel within the region is expected along with occasional overnight travel for meetings and training.

Scope of Authority: This position reports to the Environmental Loans Section Manager and is a member of the Environmental Loans Section.

Responsibilities and Accountabilities:

35% A. Inspection of construction projects

- A.1. Review “as built” plans to ensure compliance with Natural Resources Administrative Codes, approved plans and specifications and conduct final review and adjustment based on quantitative performance.
- A.2. Evaluate construction and construction techniques independently to assure compliance with approved plans and specifications (P&S), best engineering practices, CWFP or SDWLP program requirements, and safety concerns.
- A.3. Evaluate on-site inspection records and documents independently to ensure proper construction management has been provided by the consulting engineer or by the municipality. Review municipal records to ensure compliance with construction requirements.
- A.4. Evaluate site management techniques to ensure the soil erosion and sediment loss meets best management practice standards.
- A.5. Independently monitor complex and simple facility operations to ensure compliance with required efficiency standards during construction.
- A.6. Reconcile the construction status with the pay request. Review inspection reports

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and results of material tests to ensure compliance with specifications.

- A.7. Serve as the Department's representative and subject matter expert on all matters concerning the construction project, related grants, and financial assistance. Meet with consulting engineer, the contractor, and the owner to review past work progress, the schedule of proposed upcoming work, procedures of construction, changes and clarifications, shop drawings, requests for time extensions, force account work and its impact on the project, and to resolve conflicts and misunderstandings. Provide expert witness testimony as needed in various procedures.
- A.8. Provide assistance and guidance to other CMEs and program staff in handling complex issues relating to conflicting requirements, differing opinions, and/or funding eligibility decisions.

20% B. Review and approve contract change orders.

- B.1. Review change orders independently for eligibility, reasonableness, and correctness, to ensure the scope is defined in facility planning documents, and to ensure compliance with the construction compliance schedule defined in the WPDES discharge permit and with all the appropriate administrative codes for simple and complex projects.
- B.2. Review change orders to ensure the costs can be covered by available contingency funds established by the grant or loan agreement.
- B.3. Coordinate with Environmental Loans Section project managers and disbursement specialist when approving change orders.
- B.4. Review time extension change orders for appropriateness. Negotiate change orders independently that may or may not be eligible depending on overall status of the particular project.
- B.5. Provide assistance and guidance to other CMEs and program staff in handling complex issues relating to change order eligibility determinations.

20% C. Participate in regional outreach activities, program implementation, policy decisions, and program guidance.

- C.1. Identify and work to resolve cross-programmatic implementation issues to ensure understanding of the relevant programs when providing outreach to municipalities and consultants in the Northern Region.
- C.2. Provide assistance to communities by working with their engineer to develop projects that will meet environmental goals and be cost-effective.
- C.3. Develop and maintain relationships and partnership efforts with internal and external customers to foster environmental awareness and assist local governments on water infrastructure projects.
- C.4. Initiate and assist municipalities in developing partnerships with other local units of government to develop regional solutions to the problems where cost effective. Respond to inquiries and address the needs and concerns of local governments.
- C.5. Recommend and participate in internal program meetings to assist in development of program policies and ensure consistent implementation of program policies.
- C.6. Participate in internal efforts to streamline processes and requirements.

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- C.7. Participate in community meetings and facilitate cooperative relationship between external partners, program and project management staff.

10% D. Represent the Department in Preconstruction Meetings, as conducted by the municipality and the consultant, for assigned projects.

- D.1. Explain DNR requirements regarding the materials testing procedures including concrete quality control, soil compaction, equipment performance testing, pipe leakage and deflection tests, and general conformance with P&S.
- D.2. Explain construction scheduling, inspection and job safety requirements, change order preparation, source and field methods of inspection of materials, delivery procedures and storage methods for materials, concrete curing requirements, the potential for vandalism, storm damage and destructive acts, and lagoon liner installation and leakage test requirements.
- D.3. Explain voucher/pay request record system to ensure compliance at final inspection and audit.
- D.4. Explain DNR requirements of construction including dewatering permits, proper offset requirements for private wells from sewers, interim treatment plan performance, and erosion control. Explain and provide written policy/description regarding the DNR role during the construction period and answer all questions that may have arisen from procedures so far in the funding process.
- D.5. Explain DNR expectations regarding record keeping, contracting procedures, and the focus of the inspections. Explain the DNR expectation of the final plan of operation.
- D.6. Assure the community that the state will meet its financial obligations when the municipality complies with its requirements.

5% E. Conduct final project inspections.

- E.1. Evaluate the work status independently to ensure the project is complete and in conformance with approved P&S.
- E.2. Determine if the project will meet the effluent limits and/or the sampling and monitoring procedures established in the project permit and/or plan approval.
- E.3. Evaluate the status of the change orders and grant or loan amendments.
- E.4. Review various documents, including the Operation and Maintenance manual (when appropriate), operational records (to assess operational problems from infiltration/inflow or industrial loadings), the “as-built” plans (to ensure the project complies with the approved P&S and the distance separations between sewers and public and private water supplies are maintained), records needed for potential audits, final certificate of acceptance and the final plan of operation (to ensure all items are being completed).
- E.5. Provide assistance and guidance to other CMEs and program staff in handling the most complex issues pertaining to eligibility, compliance with program requirements, or other issues that arise during final inspections.

5% F. Evaluation of CWFP Priority Evaluation Review Forms (PERF) for accuracy and consistency.

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- F.1. Represent the Northern Region in CME meetings to discuss scoring-related issues and ensure data used to determine scores is accurate and appropriate.
- F.2. Coordinate with the CFWP program coordinator and other CMEs to reconcile observed inconsistencies.
- F.3. Participate in litigation regarding the Region's involvement in scoring and calculation of the project scores.
- F.4. Provide assistance and guidance to other CMEs and program staff in handling the most complex issues pertaining to priority scoring and project eligibility issues.

5% G. Participate in Teams and Other Duties as Assigned

Knowledge, Skills and Abilities:

- Skill in design and operation of complex wastewater treatment technologies and removal rates including physical, chemical, and biological processes, and associated technical writing skills.
- Extensive knowledge of construction practices and principles
- Extensive knowledge of contract management and law
- Skill in material design and contract management
- Skill in Microsoft Office Suite or comparable computer programs.
- Ability to design and operate industrial pretreatment technologies
- Skill in Environmental Loans Oracle System (ELOS)
- Skill in use of tools including Compliance Maintenance Annual Reports produced by the Bureau of Watershed Management and Intent to Apply Forms submitted by communities that intend to apply for CFWP loans
- Knowledge of CFWP and SDWLP regulations and requirements.
- Extensive skill in problem solving and conflict management.

Physical Requirements and Environmental Factors:

Strength Requirements

Sedentary work (exerting up to 10 pounds of force occasionally and/or a negligible amount of force frequently) about 75% of the time during the course of the year.

Light work (exerting up to 20 pounds of force occasionally and/or up to 10 pounds of force frequently) about 25% of the time during the course of the year.

Physically, the position requires bending at the waist, kneeling, crouching, climbing, balancing, lifting, carrying, reaching, handling, sitting, standing, talking, hearing, seeing (clarity of vision at 20 feet or more, clarity of vision at 20 inches or less), walking on foot.

Environmental Factors: Depending on the time of year, activities occur inside and outside work. The employee may be exposed to extreme cold (temperatures below 32 degrees for periods of an hour or more) or extreme heat (temperatures above 100 degrees for periods of more than one hour). There may be situations involving sufficient noise to cause the employee to shout in order to be heard. There may be exposure to hazards such as submersion in water, proximity to

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mechanical parts, airborne pathogens, electrical current, etc., and/or exposure to conditions that affect the respiratory system or the skin, such as fumes or odors that could result in bodily injury if not properly handled.

Equipment Used: GPS (Geographic Positioning System) units; wastewater samplers, dissolved oxygen and pH meters, safety equipment, and car. Office equipment including computer keyboarding, database software, scanners, and digital cameras, and footwear that is safe and appropriate to environmental conditions.

Telework Evaluation: Limited telework may be available.

ADDENDUM:

DEPARTMENT-WIDE PERFORMANCE OBJECTIVES: All employees are expected to be solid performers or to excel in the following areas as a representative of the Department of Natural Resources:

Decision Making: Able to analyze situations fully and accurately to reach productive decisions. Consults appropriate parties when necessary and identifies the key concerns and/or issues that need to be addressed to make the best decision possible, at the correct level of decision hierarchy. The desired outcomes for this competency include excellence and credibility in decision making.

Service Excellence: Makes customer service a top priority and constantly seeks to improve customer service. Is responsive to changes in what customers want and need. Delivers on promises made to customers and follows up appropriately. The desired outcome for this competency is a strong connection to our customers.

Effective Communications: Able to express ideas in a clear, concise and effective manner, whether speaking or in writing. Uses correct grammar and sentence structure in communications. Is a good listener, even when differing viewpoints are being expressed. Openly shares information and keeps all relevant parties updated. The desired outcome for this competency is strategic unity built on trust.

Interpersonal Relationships: Builds and maintains effective working relationships with others both internally and outside the organization; takes a positive and productive approach to resolving any conflicts which may arise. Exemplifies the commitment to the DNR's core value of respect; to work with people, to understand each other's views and to carry out the public will, maintain integrity, and treat everyone with fairness, compassion and dignity. The desired outcome of this competency is a shared mind set and pool of meaning.

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Leadership: Fosters and encourages support from his/her team to accomplish objectives, follow procedures, and accepts suggestions; inspires confidence and respect; motivates people to achieve agency goals and objectives; promotes respect, honesty, integrity, and fairness to all. Enforces standards/rules fairly and consistently and leads with courage. The desired outcomes for this competency are accountability through ownership of the work, staff alignment with agency direction, and full engagement of all employees.

Last revised: August 25, 2025