

## **ENVIRONMENTAL ENGINEER**

**DISTINGUISHING FEATURES OF THE CLASS:** This is a professional engineering title involving technical/administrative work for all engineering responsibilities of the Ulster County Environmental Management Council/Water Quality Management Agency (EMC/WQMA). The incumbent is responsible for the design and/or review of storm water and waste management protocols submitted by towns and villages in their Storm Water Management Plans (SWMP). As a Licensed Professional Engineer, the employee provides technical administration of Ulster County's Water Quality Strategy (Plan), including the Ulster County Collaborative Storm Water Program. An employee in this title is also responsible for reviewing construction site plans, performing site inspections, and enforcing regulations for erosion, sedimentation and run-off controls, waste management, and illegal discharges. In conjunction with department staff and municipal authorities, the employee provides technical support in carrying out a coordinated effort for a regional watershed strategy. The work is performed under the general supervision of the EMC/WQMA Chairperson/Director, with wide leeway allowed for the use of professional judgement in carrying out the details of the work. Supervision over non-professional staff, interns and volunteers may be a function of this class if projects require such staffing. Does related work as required.

**TYPICAL WORK ACTIVITIES:** The typical work activities listed below, while providing representative examples of the variety of work assignments in the title, do not describe any individual position. Incumbents in this title may perform some or all of the following, as well as other related activities not described.

Provides technical engineering support services for Ulster County in compliance with the New York State Small Municipal Separate Storm Sewer Systems (MS4), the Federal Phase II Stormwater Program, the Clean Water Act and any other storm water control related law or regulation;

Develops implements and enforces Storm Water Management Plans (SWMP) for Ulster County and its towns, villages and special districts in compliance with the County's State Pollution Discharge Elimination System (SPDES) permit;

Designs and oversees implementation of geomorphic stream management practices to both control and remediate stream bank erosion and to help alleviate flooding;

Provides technical assistance to communities and individual applicants in preparing permit applications for site development and storm water control, and acts as a facilitator between regulatory agencies and the applicant for such proposals;

Enforces the storm water management program requiring erosion and sediment controls and eliminating illegal discharges, to assure the County is in MS4 compliance under the County's SPDES permit;

Obtains public comment on construction plans, reviews construction site plans, conducts site inspections and enforcements of construction site operators in compliance with SPDES permit, section MCM4;

Assesses existing conditions to identify appropriate management practices in enforcing regulatory mechanisms on post-construction runoff controls and development and operation of a management practices inspection and maintenance program to reduce pollutant discharges under the County's SPDES permit, section MCM5;

Reviews SWMP plans for compliance with County and municipal regulatory programs and the NYS Department of Environmental Conservation (DEC) Management Practices Catalogs;

Assists in preparing periodic reports for the EMC/WQMA, and regional planning agencies evaluating the impact of MS4 activities on the operation and efficiency of water quality management programs;

Assists in the preparation of an annual report to the Ulster County Legislature, giving an assessment of the MS4 program;

Investigates complaints, conducts site inspections, issues violations and elicits public comment on water quality management issues;

Participates in technical studies using Geographic Information Systems (GIS) and Ground Positioning Systems (GPS), which aid in the collection, tabulation and analysis of technical watershed planning data to produce maps, charts, graphs and reports for the various constituencies and the public;

Develops and implements a variety of watershed best-management practices for open space projects, forest management, parks and trails projects, bio-engineered or engineered erosion control/stabilization projects, and hydrologic habitat modification to prevent or reduce the discharge of pollutants and aid in stream and wetland protection and/or restoration.

**FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:** Thorough knowledge of the principles,

practices and procedures of municipal and regional watershed engineering and planning; thorough knowledge of the laws, rules, regulations and procedures governing regional water quality/water protection planning programs; good knowledge of ESRI or similar GIS mapping products; working knowledge of GIS/GPS equipment and technologies; working knowledge of fluvial geomorphology and stream management practices; working knowledge of the physical and geographic make-up of Ulster County; ability to design and implement erosion control and fluvial attenuation practices; ability to design engineered stormwater systems; ability to secure the cooperation of others and to deal effectively with a wide variety of governmental agencies, municipalities or individuals; ability to prepare and present complex written and oral reports; initiative; tact; courtesy; resourcefulness; physical condition commensurate with the demands of the position.

**MINIMUM QUALIFICATIONS:** Either:

A. Graduation from a regionally accredited or New York State registered college or university with a Master's Degree in Civil Engineering, Hydraulic Engineering, Environmental Engineering, Natural Resources Management, Regional Planning, Stormwater Management or a field specifically related to watershed/water quality or natural resource planning, and two (2) years of experience in the review and preparation of stormwater management plans

and/or civil engineering for the design and installation of stormwater systems and urban or regional natural water resource planning including practical field experience and program development; **OR**

B. Graduation from a regionally accredited or New York State registered college or university with a Bachelor's Degree in Civil Engineering, Hydraulic Engineering, Environmental Engineering, Natural Resources Management, Regional Planning, Stormwater Management or a field specifically related to watershed/water quality or natural resource planning, and four (4) years of experience in the review and preparation of stormwater management plans and/or civil engineering for the design and installation of stormwater systems and urban or regional natural water resource planning including practical field experience and program development; **OR**

C. An equivalent combination of training and experience as designated in A and B above.

**Special Requirement:** At time of appointment, candidate must be a New York State Licensed Professional Engineer and must possess ERSI (or similar) software certification.

Special Requirement: Candidate must either possess at the time of appointment, or obtain within one year of appointment, certification as a Certified Professional in Erosion and Sediment Control (CPESC) and Certified Professional in Storm Water Quality (CPSWQ).

Note: At time of appointment, and throughout employment in this title, candidate must possess and maintain a valid New York State Driver's License appropriate to the vehicles operated.

ULSTER COUNTY  
3009 ENV ENG  
Classification:  
Grade: 22

Adopted: August 31, 2006