

STREAM PROGRAM PROFESSIONAL ENGINEER

DISTINGUISHING FEATURES OF THE CLASS: This is an important technical position under the general administrative supervision of the Ulster County Soil and Water Conservation District's (UCSWCD) Executive Director. The work involves responsibility for the design, development, implementation and construction oversight of stream restoration projects. The incumbent will also be tasked with the oversight of hydrologic and hydraulic computations and modeling for project design. Work is performed under the direct supervision of the Stream Management Program Manager with wide leeway allowed for the use of professional judgement in carrying out the details of the work. General supervision is exercised over project assistants, interns and volunteers. 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.

Identifies stream restoration project sites and estimates project costs;

Develops, approves, and certifies designs for stream restoration projects;

Supervises and participates in the collection of field measurements and analysis to support hydrologic and hydraulic computations and modeling for project design;

Coordinates and supervises construction activities during implementation of stream restoration and BMP (Best Management Practices) designs, including construction staging, regulatory compliance, survey control, project layout and record drawings;

Measures, analyzes, interprets and reports on data utilizing a variety of engineering survey techniques and standards, modeling, professional judgment and experience;

Provides technical support for landowners, local municipalities and highway managers in planning, designing and maintaining BMP's on public and private lands;

Develops monitoring plans for stream restoration projects to evaluate performance of designs and methods;

Monitors progress of projects and reports on same to program partners;

Ensures permit requirements are fulfilled and maintained;

Attends, participates in and/or conducts public meetings;

Provides oversight and training of staff in assisting with project management, project design, construction supervision, and data collection and analysis methods.

FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS: Thorough knowledge of the principles, practices and theories of

environmental and water resources engineering, particularly in stream management applications; thorough knowledge of hydraulic and hydrologic modeling software; working knowledge of GIS, GPS and CAD equipment and software and field assessment techniques for collecting, analyzing and interpreting statistical data; working knowledge of culvert/bridge hydraulic modeling, fluvial geomorphology, sediment transport, stream restoration and streambank stabilization including bioengineering techniques and natural channel design principles and applications; ability to become familiar with local geography and physical resources; ability to supervise the work of others; ability to establish cooperative relationships with public officials, staff, contractors, landowners, and partner agencies; ability to communicate effectively both orally and in writing; tact; courtesy; resourcefulness; physical condition commensurate with the demands of the position.

MINIMUM QUALIFICATIONS: Either:

- A. Graduation from an accredited college or university with a Master's Degree in Hydrology, Geology, Biology, Environmental Science, Natural Resources Management, Environmental Engineering, or a closely related field specifically related to watershed management or natural resource planning, and one (1) year of work experience in water resource engineering, stream restoration, watershed management or environmental management/engineering; **OR**
- B. Graduation from an accredited college or university with a Bachelor's Degree in Hydrology, Geology, Biology, Environmental Science, Natural Resources Management, Environmental Engineering, or a closely related field specifically related to watershed management or natural resource planning, and two (2) years of work experience in water resource engineering, stream restoration, watershed management or environmental management/engineering; **OR**
- C. An equivalent combination of training and experience as designated in A and B above.

Special Requirement: At time of appointment, and throughout employment in this title, candidate must possess a current license and registration to practice professional engineering in New York State.

ULSTER COUNTY
6978 STR PRG PE
Classification: Competitive
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Adopted: April 6, 2022