

TOMPKINS COUNTY CIVIL SERVICE EXAMINATION

Inclusion Through Diversity



OPEN TO THE PUBLIC

Tompkins County Department of Human Resources Office
125 E. Court Street
Ithaca, NY 14850
(607) 274-5526

Tompkins County is an Equal Opportunity/Affirmative Action employer. Minorities and women are encouraged to apply

TITLE: Water Resource Engineer

EXAM NO: 67314

SALARY: \$50.00/hr

EXAM DATE: 10/19/19

ISSUE DATE: 08/29/19

THE FINAL DATE TO FILE APPLICATIONS: 09/13/19

DATE THAT THIS ANNOUNCEMENT SHOULD BE REMOVED FROM POSTING: 10/20/19

RESIDENCY: Candidates must have been legal residents of Tompkins County or one of the six adjoining counties (Cayuga, Chemung, Cortland, Schuyler, Seneca, Tioga) for at least one month immediately preceding the date of application and maintain residency. For Examinations: The eligible list resulting from the examination will be established in accordance with the final earned numerical ratings of passing candidates regardless of residence. A municipality or district may exercise its right under section 23-4-a. of Civil Service Law to request a certification of eligible candidates who have been residents of that municipality or district for at least one month prior to appointment. After the names of residents have been exhausted, Tompkins County must then certify the names of non-residents on the list.

THE USE OF A QUIET HAND HELD CALCULATOR IS RECOMMENDED FOR THIS EXAMINATION

Location of Position:

There is currently one vacancy in the title of Water Resource Engineer located at the Tompkins County Soil and Water Conservation District. The eligible list resulting from this open competitive examination may be used to fill any full-time, part-time or temporary vacancies that may occur during the life of the eligible list.

MINIMUM QUALIFICATIONS:

The applicant must possess a license to practice as a Registered Professional Engineer – preferably in New York State.

NOTE: If not currently licensed in New York State, candidate would be required to obtain a New York State Professional Engineer license within six months of appointment.

SPECIAL REQUIREMENT:

The candidate must possess a valid New York state driver's license at the time of application and maintain such license for the duration of employment.

DISTINGUISHING FEATURES OF THE CLASS:

This is a professional position requiring knowledge of engineering theory and principals and the ability to apply this knowledge in evaluating and preparing plans, proposals, reports, designs, specifications and estimates for complex water related engineering projects. The incumbent in this position must direct geomorphic data collection, analysis and management efforts of the District; stream restoration project design, design approval and construction oversight; storm water project design, design approval and construction oversight; editing technical sections of watershed wide Stream Management Plans; public outreach and education; preparation of progress reports; and coordination and cooperation with involved agencies. This position is afforded a high level of autonomy and considerable latitude to exercise independent judgment and decision making in carrying out assignments. This position works under the general supervision of the Conservation District Manager and works directly with consultants, contractors, and other staff to complete assigned tasks. Supervision and oversight consultants, contractors and staff is required. The incumbent will perform all related duties as required.

TYPICAL WORK ACTIVITIES:

- Supervise geomorphic data collection, organization, and management; assist with data analysis and the compilation of results, conclusions and recommendations.
- Perform flood routing, storm water runoff, and hydraulic and hydrologic analyses on a watershed.
- Identify stream restoration project sites and estimate project costs.
- Develop, approve, and certify designs for stream repair/rehabilitation/restoration projects.
- Supervise construction of stream restoration projects.
- Prepare and assist staff with preparation of maps and GIS data layers.
- Cooperate with involved local, regional, state and federal government agencies on projects and permits.
- Edit technical sections of watershed wide Stream Management Plans evaluating data collection techniques, quality assurance and quality control methodologies.
- Inspects the work of consultants and contractors.
- Prepares or directs the preparation of complex project designs, proposals, specifications, estimates and contract proposals for water quality related projects.
- Oversees contractor construction activities to ensure conformity to contract requirements including the quality of construction in adherence to predetermined schedules.
- Attends, participates in and/or conducts public meetings.

KNOWLEDGE, SKILLS, ABILITY AND PERSONAL CHARACTERISTICS:

- Through knowledge of the principles, practices, theories, and procedures of environmental and/or civil engineering. applicable to a municipal or Soil and Water Conservation District setting.
- Thorough knowledge of geomorphic principles and practices.
- Thorough knowledge of hydrology modeling software (TR-55, TR-20, StreamStats, and related software).
- Thorough knowledge of HEC-RAS and related hydraulic modeling software.
- Thorough knowledge of Autocad Civil 3d Design Software and/or other computer aided design.
- Good knowledge of local geography and local, state, and federal governments.
- Good knowledge of grant application procedures and potential funding sources.
- Thorough knowledge of construction materials, methods, standards (NYSDOT, NRCS), and tests.
- Good knowledge of the principles of supervision.
- Good knowledge of project management.
- Good knowledge of applicable codes, laws, rules, regulations, and policies governing and impacting on design and Construction, applicable to a water resource setting.
- Ability to prepare, in final form, complex plans, designs, specifications, reports, contracts and narrative technical material.
- Ability to plan, schedule, coordinate, and evaluate design, construction and maintenance programs.
- Ability to establish cooperative relationships with subordinates, public officials, staff, and representatives of contractors, consultants, and the public.
- Ability to evaluate complicated proposals and designs and select the most practical plan of work accomplishment.
- Ability to establish project and work priorities.
- Ability to perform independently and carry out difficult assignments.
- Ability to use computer software for administrative and design applications.
- Ability to use computers and technical instruments, requiring considerable precision, for administrative and design applications.
- Ability to perform activities requiring physical effort (walking, climbing, lifting up to 40 lbs. or reaching).

- May be exposed to considerable risk of minimal injury and/or some risk of moderate injury visiting streams and construction sites.
- Ability to perform work requiring prolonged visual concentration and considerable visual effort.
- Ability to maintain a Professional Engineering license.
- Maintain a valid NYS driver's license.
- Initiative and resourcefulness in problem solving.
- Tact and mental alertness.
- The employee's physical condition shall be commensurate with the demands of the position, either with or without reasonable accommodations.

PHYSICAL, MENTAL AND ENVIRONMENTAL DEMANDS:

The incumbent must be able to accurately manage and manipulate information, using computer software and hardware systems, with or without reasonable accommodations.

The employee's ability to communicate (verbal or written) must be sufficiently adequate to enable them to understand and carry out detailed instructions.

The employee must possess the knowledge and ability needed to utilize office equipment, including computer systems, inclusive of necessary software and operating systems, with or without reasonable accommodations.

In respect to the physical demands of this position, there may considerable visual effort and repetitive hand/finger movements associated with the execution of the tasks delegated with this role.

The employee must have the physical ability to lift up to 40 lbs, walk long distances in rough terrain and be comfortable in and around flowing water to complete the work.

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Complete Scope of the examination and Expanded subtest descriptions:

Preparing written material

These questions test for the ability to present information clearly and accurately, and to organize paragraphs logically and comprehensibly. For some questions, you will be given information in two or three sentences followed by four restatements of the information. You must then choose the best version. For other questions, you will be given paragraphs with their sentences out of order. You must then choose, from four suggestions, the best order for the sentences.

Collection, analysis and interpretation of data

These questions test for knowledge of the methods and techniques used to gather, evaluate, organize, and interpret various types of technical data, and the fundamental concepts and computations involved in basic statistical analysis.

Principles and practices of stream maintenance and flood control, including procedures, structures and equipment used:

These questions test for knowledge of the principles and practices involved in stream maintenance and flood control activities; including such areas as the physical and environmental characteristics of streams and their drainage areas; proper stream maintenance and flood control procedures; and the structures, processes and equipment used to protect and maintain streams, streambanks, culverts, dams, and similar resources.

Interpretation of technical material, including maps, plans, charts, and graphs

These questions test for the ability to read and analyze various types of technical material, such as maps, charts, tables, and plans, and to perform related simple computations based on the material presented.

Surface water protection and management

These questions test for knowledge of the principles and practices involved in reservoir, lake, river, watershed, and similar surface water protection and management, including such areas as terminology associated with surface waters and water supply; conditions affecting surface water quality; impacts to surface waters; water sampling and investigations; water storage and use; and equipment, materials, and strategies involved in watershed and surface water monitoring, protection, and management

Supervision:

These questions test for knowledge of the principles and practices employed in planning, organizing, and controlling the activities of a work unit toward predetermined objectives. The concepts covered, usually in a situational question format, include such topics as assigning and reviewing work; evaluating performance; maintaining work standards; motivating and developing subordinates; implementing procedural change; increasing efficiency; and dealing with problems of absenteeism, morale, and discipline.

Test guide:

The New York State Department of Civil Service has not prepared a test guide for this examination. However, candidates may find information in the publication 'General Guide to Written Tests' helpful in preparing for this test. This publication is available on line at: <https://www.cs.ny.gov/testing/testguides.cfm>.

FURTHER INFORMATION AND INSTRUCTIONS

Falsification of any part of the "Application for Employment" will result in disqualification.

Accepted candidates will be notified when and where to appear for the examination. If you do not receive your notice to appear at least three days before the date of the written examination, call Tompkins County Department of Human Resources at 274-5526. If an application is disapproved, due notice will be sent. This department does not make formal acknowledgment of the receipt of an application or take responsibility for non-delivery or postal delay.

Applicants must answer every question on the application form and make sure that the application is complete in all respects. Incomplete applications will be disapproved.

ACTIVE MILITARY PERSONNEL, VETERANS OR DISABLED VETERANS desiring to claim additional credit will request the Veterans Credits application form, at any time between the date of application for examination(s) and the date of the establishment of the resulting eligible list. You must meet the requirements set by NYS for these credits and they may be used only once. **YOU MAY NOT CLAIM ADDITIONAL CREDITS AFTER THE ELIGIBLE LIST HAS BEEN ESTABLISHED. IT IS THE CANDIDATE'S RESPONSIBILITY TO REQUEST THE VETERANS CREDIT APPLICATION FORMS AND TO SUBMIT THESE FORMS AND ANY SUPPORTING PAPERWORK BEFORE THE ELIGIBLE LIST IS ESTABLISHED.**

Tompkins County's written examinations are prepared and rated by the New York State Department of Civil Service in accordance with Section 23-2 of Civil Service Law. The provisions of the New York State Civil Service Rules and Regulations, which deal with the rating and review of the examinations apply.

The duration of the eligible lists may be fixed for a minimum of one and a maximum of four years and may be extended beyond four years if there has been a restriction against the filling of vacancies in that title.

The candidates must complete a separate "Application for Employment" for each open-competitive and/or promotional examination that the candidate is eligible to take.

All experience required meeting the acceptable training and experience is full-time experience. (Part-time experience will be credited on a prorated basis).

Appointment from an eligible list must be made from the top three candidates willing to accept the appointment.

Tompkins County is an Equal Opportunity Employer. As part of its efforts to provide employment opportunities to the physically handicapped, Tompkins County Civil Service has adopted a rule permitting the employment of qualified physically handicapped persons without competitive examination (pursuant to Section 55 of Civil Service Law). If you meet the minimum qualifications for this position and wish to know more about this rule, please contact the Tompkins County Department of Human Resources Office.

Unless otherwise notified, candidates are permitted to use quiet, hand-held, and solar or battery powered calculators. Devices with Typewriter Keyboards, Spell Checkers, Personal Digital Assistants, Address Books, Language Translators, Dictionaries or any similar devices are prohibited. You may not bring books or other reference materials.

CROSS-FILING - APPLYING FOR CIVIL SERVICE EXAMINATIONS IN MULTIPLE JURISDICTIONS WHEN EXAMINATIONS ARE SCHEDULED ON THE SAME DATE: When applying for examinations across multiple jurisdictions - all of which are scheduled on the same day - you must submit a Tompkins County Cross-Filing Form. This form must be submitted no later than 4:30 PM on the final filing date of the examination. On this form, list each examination that you are taking and then tell us where you would like to sit. The purpose is to ensure that all of the test materials for the various examinations that you are taking will be available in one location. If you do not provide the cross-filing form to us by the final filing date, we cannot ensure that we can accommodate your desire to cross-file. If any of the examinations are State level examinations, you must sit at the State test center. You will still need to complete the Tompkins County cross-filing form. If sitting at the State site, the State will notify you of when and where to report for your examination(s) and you should bring all admittance letters to the State site. If you are not taking a State examination, bring all admittance letters to your chosen testing site. If you have any question please call Tompkins County Department of Human Resources Department (607) 274-5526. The Cross File form is located at <http://www.tompkins-co.org/personnel/CivilSrvForms/index.html>

FOR RELIGIOUS ACCOMMODATION AND HANDICAPPED PERSONS: If special arrangements for testing are required, please indicate this on your application.

ALL CANDIDATES FOR EMPLOYMENT FOR POSITIONS IN SCHOOL DISTRICTS AND BOCES GOVERNED BY TOMPKINS COUNTY CIVIL SERVICE MAY HAVE THE FOLLOWING SPECIAL REQUIREMENT. PER CHAPTER 180 OF THE LAWS OF 2000, AND BY REGULATIONS OF THE COMMISSIONER OF EDUCATION, TO BE EMPLOYED IN A POSITION DESIGNATED BY A SCHOOL DISTRICT OR BOCES AS INVOLVING DIRECT CONTACT WITH STUDENTS, A CLEARANCE FOR EMPLOYMENT FROM THE STATE EDUCATION DEPARTMENT IS REQUIRED.

In conformance with Section 85-a of the Civil Service Law, children of firefighters and police officers killed in the line of duties shall be entitled to receive an additional ten points in a competitive examination for original appointment in the same municipality in which his or her parent has served. If you are qualified to participate in this examination and are a child of firefighter or police officer killed in the line of duties in this municipality, please inform this office of this matter when you submit your application for examination. A candidate claiming such credit has a minimum of two months from the application deadline to provide the necessary documentation to verify additional credit eligibility. However, no credit may be added after the eligible list has been established.â-

BACKGROUND INVESTIGATION: Applicants may be required to undergo a State and national criminal history background investigation, which will include a fingerprint check, to determine suitability for appointment. Failure to meet the standards for the background investigation may result in disqualification.

TOMPKINS COUNTY PERSONNEL DEPARTMENT, 125 EAST COURT STREET, ITHACA, NY 14850