TITLE: Information Officer I (Hudson River Estuary Program GIS)

EMPLOYER: New England Interstate Water Pollution Control Commission, 650 Suffolk Street – Suite 410, Lowell, Mass. 01854

LOCATION: NYS DEC, 625 Broadway, Albany, NY 12233.

SALARY: Grade & Step dependent upon level of experience and qualifications.

ADDITIONAL INFORMATION: Benefits provided but not included in salary range: vacation, personal and sick leave, health, dental, disability and life insurance, retirement plan. This position requires the incumbent to work 5 days a week, 7 ½ hours per day, except for approved compensatory time.

This will be a 12 month position, estimated start: May 2015 with an end date 12 months from start.

BACKGROUND INFORMATION: The New England Interstate Water Pollution Control Commission serves as a forum for interstate communication and coordination on water related pollution control efforts among all New England States and New York State.

The Hudson River Estuary Management Program was established pursuant to Section 11-0306 of New York State’s Environmental Conservation Law. The program was undertaken to protect and improve the natural and human resources of the Hudson River Basin. Partners in the program include the NYS DEC Division of Water, NEIWPCC, and other federal, state, and local agencies. Projects entail working with Division of Water and other state and local agencies to develop GIS database systems for Hudson River Estuary Program and DOW staff in advancing the goals of the Estuary Program.

SUPERVISORY CONTROLS: Daily supervision will be through the DEC Division of Water, GIS Section, with program direction and administration through the program managers at the Hudson River Estuary Program. Job performance will be evaluated by Koon Tang, NYS DEC, in consultation with Frances Dunwell, NYS DEC, and Michael Jennings, NEIWPCC.

JOB SUMMARY: Primary task is to refine the system that DOW/HREP developed to prioritize wastewater treatment infrastructure needs, incorporate new data sets and develop processes to automate data updates, where feasible. Integrate data – generated by Division of Water’s SPDES, Water Quality Assessment, Non-Point Source Programs, and NYS and County Health Departments – into infrastructure model. Will primarily use MS Access, Excel and ArcGIS. A secondary task will be to model the impact Green Infrastructure (GI) practices will have on combined sewer and stormwater collection systems during wet weather events. This will include using GIS to generate and format data that can be input in EPA’s Stormwater Management Model (SWMM).

Create and maintain GIS maps of all the sewer service areas, sewage spills reported under the Sewage Right to Know Act in the Hudson River Estuary Program geographic boundary; conduct spatial analysis to identify high priority water bodies and wastewater treatment facilities for water quality improvement projects and funding opportunities.
DUTIES AND RESPONSIBILITIES:

A. Create, organize, and manage database products including spatial and DBMS information contained as shapefiles, SDE-resident geodatabases, and Oracle-based tabular data. Database management duties to include:
   - Ensure all managed databases and metadata files are maintained, following established schedules and procedures.
   - Coordinate with NYS Information Technology Services to ensure adequate network space is available for developed database products, to ensure access by geographically diverse staff, and account for necessary security and backup.
   - Work with Information Technology Staff to develop web-based GIS applications for internal use.

B. Facilitate staff and organizational partner access to information in existing databases and work to maintain compatibility between new and historic datasets. Database access duties to include:
   - Automate flow from data sources to model while maintaining data integrity.
   - Handle maps, data query or summary requests from DEC staff, other State and Federal Agencies and interested parties (i.e. research institutions, FOIL requests).
   - Implement database quality assurance practices and security procedures, following DEC information management security policy.
   - Ensure that new datasets are compatible with current datasets or convertible to a compatible database format. Ensure all existing GIS data layers and other datasets have accurate metadata.
   - Coordinate with GIS and database managers and researchers in other DEC divisions and from partner organizations, including county planning departments, and other academic institutions.
   - Serve as a resource to all DEC staff creating and working with Hudson River databases.

C. To the extent that there is time available, assist in developing tools consistent with the long-term information management strategy of the Hudson River Estuary Program:
   - Develop information and database management systems to ensure that the databases and reports generated by Estuary Program projects are readily available to our partners and the public.
   - Manage project information from completed projects under new information management procedures that ensure all vital project information, data products, and reports are catalogued, archived, and sent to the state library for access by our partners and the public.
   - Develop and implement an online database system to allow project managers to regularly track status and report progress on projects funded through the Estuary Program.
   - Develop and maintain a functional fiscal management database for grants and contracts within the Hudson River Estuary Program.
RECOMMENDED QUALIFICATIONS:

**Education**
A bachelor’s degree in computer science, information technology, environmental engineering, geographic information systems, or a related field.

Preference would be given to candidates with training or course work on relational database design, SQL, geographic information systems, or an engineering background.

**Experience**
Applicants must have at least 6 months of full-time, or equivalent part time, technical or professional experience in developing relational databases and applications.

Applicants must have at least (A) three years of full-time, or equivalent part-time, technical or professional experience, of which (B) at least one year must have been in a professional capacity or, (C) any equivalent combination of the required experience and the following substitutes:

Substitutions:
1. An Associate’s degree with a major in any of the fields listed above may be substituted for a maximum of one year of the required (A) experience.
2. A Bachelor’s degree with a major in any of the fields listed above may be substituted for a maximum of two years of the required (A) experience.
3. A Graduate degree from a recognized school with a major in one of the fields listed above may be substituted for the required experience.

**Special Knowledge and Skills**
- Experience working with relational databases such as Access and Oracle, statistical software including Excel and SPSS, query languages such as SQL, training and experience in statistics and Java programming.
- Understanding of database design and data warehousing, including relational and object-oriented theory.
- Experience involving the use of ESRI’s ArcGIS 9.x to create, edit, analyze, and maintain spatial data in shapefile or geodatabase formats.
- Excellent, interpersonal, oral and written communication, and presentation skills including the ability to convey GIS/spatial information and other technical information to non-GIS/technical people preferred.
- Demonstrated ability to interact with non-technical people in project development preferred.
- Experience in applying GIS technique for management of environmental data and analysis is preferred.
- Experience with the EPA SWMM tool.

**Requirements**
- A valid driver’s license and access to own transportation required.
- Attendance in the Lowell office for a one day orientation during the first two weeks of employment and at the annual All Staff Meeting is mandatory.