**Environmental Analyst III - TMDL Scientist**

The Massachusetts Department of Environmental Protection (MassDEP) is the state agency responsible for ensuring clean air and water, the safe management of toxics, the recycling of solid and hazardous wastes, the timely cleanup of hazardous waste sites and spills, and the restoration and preservation of wetlands, surface waters and coastal resources.

MassDEP seeks applicants for the position of Environmental Analyst III TMDL Scientist to work in the Watershed Planning Program (WPP), 8 New Bond Street, Worcester. Under supervision of the WPP TMDL Section Chief or designee, the successful applicant will assist in supporting water quality modeling and interpretation of results for the Department for draft and final TMDL projects. TMDLs or alternative plans will be used to guide both water quality protection measures as well as restoration efforts to ensure management interventions will achieve water quality standards. The successful applicant will assist with managing consultants, review of models, and the development and review of TMDL reports. Data analysis and other functions will be carried out as needed to estimate load reductions in accordance with the Massachusetts Consolidated Assessment and Listing Methodology, Surface Water Quality Standards (314 CMR 4) and Sections 305(b), 314, and 303(d) of the Federal Clean Water Act (CWA).

**Typical Duties include:**
- Background research and literature review
- Statistical and other data analyses using biological, physical, and chemical water quality data to determine environmental impacts to freshwater bodies or estuaries
- Gathering and formatting of data and other information for use in models
- Assistance with watershed and water quality modeling
- Review and interpretation of water quality modeling results produced from a variety of water quality modeling tools, including evaluating for conformance with data quality requirements for modeling
- Preparation of graphical and tabular data summaries for inclusion in reports and presentations
- Assistance with the preparation and writing of technical reports
- Assistance with meeting logistics and preparation of meeting summaries for technical projects
- Assist with the preparation of technical work plans and review of proposals for environmental consulting services through contractors
- Assist in review of preliminary and final technical reports in order to summarize and make recommendations for revision or acceptance
- Assist in development of water quality monitoring plans to support TMDL development, model calibration and validation, and evaluation of post-TMDL effectiveness
- Assist in preparation and review of plans, specifications, and cost estimates for complex TMDL development and planning projects

**Minimum Required Qualifications:**
- Considerable knowledge of watershed assessment and planning principles
- Knowledge of and experience with surface water quality modeling (including hydrology/flow models) and simulation techniques, including pollutant fate and transport (including nutrients)
- Experience applying statistical and other quantitative techniques to watershed assessment projects
- Experience reviewing large datasets and resolving formatting and data type issues prior to use
- Experience interpreting complex biological, chemical, and physical datasets
- Experience with the preparation and writing of technical reports, as well as reports for a lay audience
- Ability to work independently, efficiently, and in an organized manner with very strong attention to detail
- Ability to work on multiple projects concurrently and meet tight deadlines
- Strong problem-solving abilities
- Effective communication skills, in writing, in person, and on the telephone
- Experience working with Microsoft Office Suite software and Web browsers

**Additional Qualifications:**
- Experience with hydraulic simulation of streams and rivers (e.g., stages and discharges), and pollutant fate and transport simulation using receiving water quality models for range of pollutants (e.g., nutrients,
sediments, pathogens, metals, toxics, etc.)
• Demonstrated experience and ability in developing, calibrating, validating, and implementing a range of watershed models and surface water quality models, especially those typically used for the development of TMDLs (e.g., QUAL2E/QUALK, HSPF, SWAT, HSPF, WASP, LSPC, BATHTUB, CE-QUAL-W2, HEC 1, etc.)
• Applied knowledge of the Clean Water Act, including TMDLs and water quality standards
• Experience developing TMDLs or performing watershed loading studies
• Experience using R, or another programming language with the ability to quickly learn advanced R skills
• Proficiency in the ESRI suite of ArcGIS software and geoprocessing tools, including experience developing geoprocessing scripts and performing complex queries within ArcGIS using Python

Qualifications

First consideration will be given to those applicants that apply within the first 14 days.

MINIMUM ENTRANCE REQUIREMENTS: Applicants must have at least (A) four years of full-time, or equivalent part-time, technical or professional experience in the field of environmental science, biology, chemistry, earth science, environmental health, meteorology, natural science, toxicology or public health, of which (B) at least two years must have been in a professional capacity, or (C) any equivalent combination of the required experience and the substitutions below.

Substitutions:
I. An Associate's degree with a major in the field of environmental science, biology, chemistry, earth science, environmental health, meteorology, natural science, toxicology or public health may be substituted for a maximum of one year of the required (A) experience.*
II. A Bachelor's degree with a major in the field of environmental science, biology, chemistry, earth science, environmental health, meteorology, natural science, toxicology or public health may be substituted for a maximum of two years of the required (A) experience.*
III. A Graduate degree with a major in the field of environmental science, biology, chemistry, earth science, environmental health, meteorology, natural science, toxicology or public health may be substituted for a maximum of three years of the required (A) experience and one year of the required (B) experience.*

*Education toward such a degree will be prorated on the basis of the proportion of the requirements actually completed.

NOTE: Educational substitutions will only be permitted for a maximum of one year of the required
ex/jobdetail.ftl?job=2000031T

https://massanf.taleo.net/careersection/ex/jobdetail.ftl?job=2000031T