

**Department of Natural Resources****Division of Environmental Management****Classification:** Hydrogeologist - Senior**Working Title:** Waste and Materials Management Hydrogeologist**Work Location:** Milwaukee, Fitchburg or Waukesha DNR Service Centers

**Position Summary:** Under general supervision of the Regional Waste and Materials Management Supervisor, this position is responsible for planning, coordination and implementing the hydrogeologic aspects of the Waste Materials and Management Program.

The primary duties and responsibilities for this position are to provide professional geologic and hydrogeologic aspects of land application/waste disposal, analyze the fate of potential contaminants in soil and groundwater and interaction between soil and other geologic materials, groundwater, and surface water; and design monitoring systems, groundwater programs, and the interpretation of groundwater and surface water sampling results. This position has responsibility for plan review; project management of facility siting, construction, operation and closure; conducting inspections; evaluating facility performance and long-term care; conducting and/or overseeing the preparation of groundwater related studies, guidelines, policies, procedures, criteria, codes and standards related to hydrogeological work activities; and coaching and/or training new staff and developing groundwater information. The position functions as part of a regional team of program staff responsible for ensuring that assigned facilities are sited, operated, closed and maintained in a manner that protects human health and the environment. The position deals on a routine basis with hydrogeological issues which involve a high level of interpretation, creativity, and independent judgment.

This position involves project management responsibilities for project reviews. This position makes independent decisions while doing complex hydrogeologist work assignments. This position is part of the Regional WA Program Team and participates on other statewide teams as assigned by the supervisor.

**Geographic Scope & Travel Requirements:** This position is located in the Milwaukee, Fitchburg or Waukesha DNR Service Centers and has responsibility for waste and materials management facilities in the assigned counties and other areas of the state as assigned by the supervisor. Frequent travel is required within the assigned counties, with occasional travel to other locations in the state for inspections, training, meetings or conferences.

**Goals & Activities:**

- 50% A. Perform the hydrogeologic review and project management of Initial Site Inspection Requests, Initial Site Reports, Feasibility Reports, Plans of Operations, Site Construction Documents, Closure Plans, Remedial Action Plans and Plan Modifications for existing and/or proposed waste management and disposal facilities, hazardous waste treatment, storage & disposal (TSD) facility siting and exemptions for waste reuse.
  - A1. Coordinate the hydrogeologic review with program engineers, waste management specialists, and other WA program staff; with other Department programs (i.e., Drinking water and Groundwater, Wastewater, Water Quality, Air Management, Water Regulations and Zoning, Legal), and other agencies where other approval or permits may be required such as DHS, OSHA, EPA, DOT, PSC, FAA, DATCP.

- A2. Analyze relevant field conditions, collect site data and review published data relevant to the submitted plans and reports; review the submitted proposed design, construction, operation, long-term care maintenance and remedial action details in terms of State Statutes, Administrative Code requirements, hydrogeologic standards, hydrogeologic principles and practices, environmental siting factors, public health, safety and welfare, feasibility requirements, administrative orders, EPA criteria, accuracy and other applicable federal and state requirements; and determine the adequacy and inadequacies of the submitted plans and reports.
- A3. Prepare reports in a format that will provide for documentation of all decisions which are subject to judicial review. This includes project summaries, integrated environmental analyses and findings of facts, conclusions of law, and special conditions of approval not covered by law or administrative codes. The special conditions have the force of law.
- A4. Meet with applicants and consultants regarding conflicts over technical review and on the resolution of conflicts arising from the determination. Provide technical expertise to legal staff.
- A5. Conduct initial site inspections for proposed solid waste disposal facilities. Properly document these events.
- A6. Prepare testimony, interrogatories, depositions, general correspondence, Governor's letters, Secretary's letters, letters for federal and state elected officials and mass media information on Department determinations.
- A7. Represent the Department as an expert witness at public hearings, contested case hearings and in courts of law concerning the determination.

- 20% B. Conduct and/or coordinate with WA program engineers and other program staff to conduct Department audits, investigations, evaluations, inspections and documentation of newly developed, existing or closed sites for compliance with and enforcement of environmental regulations, plan approval conditions, and court and administrative orders.
- B1. Investigate and inspect waste management and disposal sites for compliance with environmental regulations, approval conditions, and administrative measurements and tests. Utilize available stepped enforcement tools to assure compliance.
  - B2. Perform inspections and investigations at assigned facilities in a timely manner and document for the case file and for enforcement purposes the findings of the inspection, investigation and/or evaluation.
  - B3. Collect samples for laboratory analysis, such as solid and liquid wastes, wastewaters, sludges, sediments, leachate, contaminated soils, and surface and groundwater.
  - B4. Evaluate data collected by the Department or by the regulated entity to determine compliance with program requirements and environmental adequacy of facility

performance.

- B5. Advise the permit holder of observations, test results, violations of regulations and/or orders, and suggest actions to achieve compliance.
- B6. Prepare necessary documentation for enforcement of waste violations including preparation of notice of non-compliance and secondary enforcement request packets. Assist Environmental Enforcement staff in the preparation of and participate in enforcement conferences, referrals, etc. Provide expert testimony, as needed.

- 15% C. Consult with and provide technical assistance to the public, consultants, other program staff or other governmental agencies on waste and materials management issues.
- C1. Provide information and technical assistance on program policies and procedures, Wisconsin Administrative Codes, State Statutes and related regulations including relevant federal EPA requirements.
  - C2. Discuss and evaluate hydrogeologic concepts, monitoring plans, sample collection and analysis plans, and solid waste facility long-term care needs.
  - C3. Prepare instructional or training materials relating to waste and materials management.
  - C4. Provide guidance and criteria in the areas of groundwater and environmental monitoring plans, waste exemptions, facility design, site operation, long-term care, and remedial action for correcting environmental problems.
  - C5. Provide hydrogeologic assistance, recommendations and advise the engineer in the co-review of Initial Site Reports, Feasibility Reports, Plan of Operations, and Site Investigations Reports.
  - C6. Provide field inspection support to program engineers conducting landfill compliance and construction inspections and soil borrow source evaluations.
  - C7. Keep up-to-date on the latest technical developments by review of technical publications, inspection of new technologies and procedures, meeting with industry and attendance at formal training sessions.
  - C8. Coordinate, cooperate and provide technical assistance, as necessary, with the following Department programs and outside agencies, including Remediation and Redevelopment Program, Environmental Analysis and Sustainability, Drinking Water and Groundwater, Storm Water, Wastewater, Watershed Management and Water Quality Management Programs, Department of Health Services, Wisconsin Geological and Natural History Survey and other state and federal agencies, such as the U.S. EPA.

- 10% D. Serve as a co-lead and assist in 1-2 technical expertise areas; and 1 focused work area to lead for the waste and materials management hydrogeologist program and serve as a statewide expert.
- D1. As a statewide expert in the specified area of expertise, provide technical assistance to Department staff, engineering consultants and the public. Serve on statewide teams as necessary to provide expertise.
- D2. Provide technical assistance and recommend policy and guidance related to the specified area of expertise.
- 5% E. Initiate enforcement actions when outreach, technical assistance, and training do not bring facilities into compliance with State Statutes and Administrative Codes, or for situations where threats to human health or the environment are serious.
- E1. Explain appropriate regulations to facilities when violations have or appear to be occurring.
- E2. Provide technical assistance and training to systems operators to try to bring facilities back into compliance.
- E3. Document alleged violations and follow-up actions in appropriate files and data bases.
- E4. Prepare enforcement requests and route to supervisor for review when situations warrant such action.

**Knowledge, Skills and Abilities:**

1. Knowledge of geology, environmental, or soil science with an emphasis on hydrogeology, water quality, environmental chemistry and contaminant fate & transport, and ability to apply to complex situations.
2. Knowledge of principles and practices applicable to landfill siting, design, construction, and operation.
3. Knowledge of federal and Wisconsin solid waste laws and regulations; including policies, guidance, practices and techniques related to waste and materials management.
4. Knowledge of water quality, environmental chemistry, soil or geotechnical engineering concepts.
5. Knowledge of environmental monitoring, sampling techniques, and groundwater quality standards.
6. Knowledge of Wisconsin groundwater law.
7. Knowledge of environmental sampling per enforcement protocol as necessary, using proper QA/QC techniques.
8. Knowledge of cross-program, multi-agency, and other regulatory requirements.
9. Knowledge of the environmental enforcement process, techniques, and procedures from Notice of Noncompliance to referral to Department of Justice.
10. Ability to do data analysis.
11. Ability to use Microsoft Office applications, including Word, Excel, Outlook and Power Point.

12. Skill in using department data systems such as FIST, GEMS, Sites Viewer, etc.
13. Skill in effectively communicating in both oral and written formats.
14. Skill in public presentation, sufficient to present technical information to meetings of peers, local government, and the business community.
15. Ability to work well independently and is self-motivated to take action to meet critical organizational/program/team goals.
16. Ability to present a good professional image through dress, speech, and actions with a demeanor that inspires confidence in the individual and organization.
17. Ability to conduct independent inspections of regulated facilities.
18. Ability to cooperatively and collaboratively work with others toward accomplishment of a shared goal.

### **Physical Requirements and Environmental Factors:**

#### **Strength Requirements**

Sedentary work (exerting up to 10 pounds of force occasionally and/or a negligible amount of force frequently) about 90% over a year's time.

Light work (exerting up to 40 pounds of force occasionally and/or up to 10 pounds of force frequently) less than 10% over a year's time.

Physically, this position will spend 75 percent or more time indoors, doing work on computers, attending meetings and working with other DNR staff. This position will also spend time outdoors performing compliance and construction inspections, and solid waste complaint investigations. A person in this position must be able to perform field work safely in remote locations with extreme cold/heat and may require kneeling, crouching, climbing, carrying, lifting and reaching. A person in this position must have the ability to navigate rough terrain.

Environmental Factors: Very occasionally, the position may need to respond to complaints or environmental emergencies during times of extreme weather conditions.

Equipment Used: Computer equipment, including word processing, spreadsheet, database, and multimedia presentation software. Fax machine, telephone, photocopier and calculator. Environmental sampling equipment, including devices for sampling soil, groundwater, and liquid/solid waste.