

<b>Position Code</b>
1. 76-74-03-02-01-00-003

**State of Michigan**  
**Civil Service Commission**  
 Capitol Commons Center, P.O. Box 30002  
 Lansing, MI 48909  
**POSITION DESCRIPTION**

This position description serves as the official classification document of record for this position. Please complete this form as accurately as you can as the position description is used to determine the proper classification of the position.

<b>2.Employee's Name (Last, First, M.I.)</b>	<b>8.Department/Agency</b>
Vacant	Environment, Great Lakes, and Energy
<b>3.Employee Identification Number</b>	<b>9.Bureau (Institution, Board, or Commission)</b>
<b>4.Civil Service Position Code Description</b>	<b>10.Division</b>
Geology Specialist 13	Drinking Water and Environmental Health Division
<b>5.Working Title (What the agency calls the position)</b>	<b>11.Section</b>
Hydrogeology Specialist	Environmental Health Section
<b>6.Name and Position Code Description of Direct Supervisor</b>	<b>12.Unit</b>
Sara Pearson, Environmental Manager 14	Source Water Protection
<b>7.Name and Position Code Description of Second Level Supervisor</b>	<b>13.Work Location (City and Address)/Hours of Work</b>
Dana DeBruyn, State Administrative Manager 15	525 West Allegan Street Lansing, Michigan Mon-Fri, 8:00 a.m. - 5:00 p.m.

**14. General Summary of Function/Purpose of Position**

The primary function of this position is to provide hydrogeologic expertise to the Drinking Water and Environmental Health Division (DWEHD). In this capacity, the employee critiques aquifer characterizations, geologic interpretations, hydrogeologic assessments, and the application of ground water models to site specific geologic settings. The employee is responsible for coordinating activities with the water use and water withdrawal programs in the development of public water supply sources, including water withdrawal impact assessments and large quantity water registration.

DWEHD is routinely consulted by engineering firms, water supply contractors, local health departments and other agencies on aspects of rules and regulations, water withdrawals, construction of wells and ground water contaminant investigation in relation to development of the ground water resource. The employee provides consultation relative to quantitative and qualitative assessments of surface water and ground water resource impacts. Consultation is also provided on compliance with public water supply requirements in construction of wells and the applicability of rules to site specific problems.

**15. Please describe the assigned duties, percent of time spent performing each duty, and what is done to complete each duty.**

**List the duties from most important to least important. The total percentage of all duties performed must equal 100 percent.**

Duty 1

**General Summary of Duty 1**                      **% of Time: 40** \_\_\_\_\_

A primary responsibility of this employee is to provide technical expertise in the development, use and management of the ground water resource.

**Individual tasks related to the duty.**

- Administer/oversee the review and approval process in the submittal of hydrogeologic reports to ensure conformity with public water supply program requirements and DWEHD policy and procedure.
- Provide hydrogeologic and engineering expertise to DWEHD staff in matters pertaining to well construction and ground water resource development, with a major emphasis on the development of public water supply systems.
- Review aquifer test analyses, hydrogeologic reports and ground water flow models to determine consistency with regulatory requirements and the acceptable application of engineering criteria in construction of wells and development of the ground water resource.
- Assess the validity of conclusions in aquifer test analyses and hydrogeological reports as they pertain to acceptable groundwater extraction rates based upon geology, aquifer hydraulics and well construction.
- Prepare and distribute technical guidance, including assistance in the development of DWEHD policy and procedure documents related to development, use and management of the ground water resource.
- Provide construction recommendations and decision-making expertise where ground water resource development is difficult, or the resource has been adversely impacted.
- Serve on Department wide formal ad hoc workgroups on topics such as well construction, ground water resource management, and geographic information system (GIS) technology.

Duty 2

**General Summary of Duty 2**                      **% of Time: 20** \_\_\_\_\_

Provide administrative oversight, training, and short and long term planning on projects with an emphasis on the inventory, study and characterization of Michigan's ground water resources.

**Individual tasks related to the duty.**

- Provide oversight and technical expertise including input on database content, necessary function, data management capabilities, and work with the DWEHD Data Applications Unit to plan and coordinate future enhancements and maintenance of the Drinking Water Geographic Information System (DWGIS) system.
- Train internal users on DWGIS capabilities and the associated applications, such as Survey 123 for source water assessment data collection.
- Keep current on IT applications to continue to modernize and improve DWEHD decision making and collaboration tools.
- Evaluate options for replacing outdated software and make recommendations based on changing program needs. Maintain and refine the work units process for delineating provisional wellhead and surface water intake protection areas.
- Assist the DWGIS development team in identification of enhancement deliverables in the DWGIS project, including annual and quarterly schedules for completion.
- If needed, administer the contracts for the DWGIS and/or other software applications.

Duty 3

**General Summary of Duty 3**                      **% of Time: 15** \_\_\_\_\_

Employee is responsible for coordinating administrative activities in development of ground and surface water sources by community public water supplies with the Water Withdrawal Program (WWP).

**Individual tasks related to the duty.**

- Coordinate the review and approval process with the Water Resources Division (WRD) for water withdrawals proposed by community public water supply systems to ensure conformity with WWP requirements.
- Screen proposed water withdrawals by community public water supplies using Michigan's Water Withdrawal Assessment Tool (WWAT) and coordinate the outcome of the screening process with the WRD.
- Complete the water withdrawal site specific review process where proposed water withdrawals have been rejected by the initial screening using the WWAT.
- Administer/oversee the WWP permit process on proposed withdrawals by Public Water Supply Systems meeting the permit thresholds of the water withdrawal legislation.
- Provide hydrogeology guidance relative to the WWP to DWEHD staff, local units of government, public water supply systems and consultants in development of large quantity water withdrawals.

Duty 4

**General Summary of Duty 4**                      **% of Time: 15** \_\_\_\_\_

The employee assists in administration and coordinating activities in source water protection, wellhead protection grants and source water assessment programs.

**Individual tasks related to the duty.**

- Provide hydrogeology expertise in the aforementioned programs on matters pertaining to the evaluation, use, and characterization of the ground water resource.
- Assist in review and approval of hydrogeologic reports and in the approval of methods for delineating wellhead protection areas to ensure conformity with program guidelines and requirements.
- Assist in the review, compiling and maintenance of files related to hydrogeologic investigations and ground water modeling in the source water protection, wellhead protection grants and source water assessment programs.
- Assist in the general administration of the programs.

Duty 5

**General Summary of Duty 5**                      % of Time: 10 \_\_\_\_\_

Assist in general office responsibilities.

**Individual tasks related to the duty.**

- Answer inquiries related to the ground water resource development, wellhead protection, source water protection, ground water assessments, ground water models, aquifer testing, contaminant migration in ground water, and well construction issues as they relate to the public water supply program.
- Letter and report writing and data management related to the above-mentioned areas.

**16. Describe the types of decisions made independently in this position and tell who or what is affected by those decisions.**

The employee independently schedules and performs most of the work to meet the requirements of the assigned work area. Few concrete guidelines or instructions are available relative to the work the employee performs. The employee makes numerous independent decisions related to well and aquifer hydraulics, hydrogeologic reviews, and ground water modeling. Many decisions are independently made based on theoretical considerations as they relate to the employee's area of expertise. Examples of specific decisions made independently include:

- The applicability of a ground water model to a specific hydrogeologic setting.
- The availability, applicability and acceptability of site-specific information relative to hydrogeologic investigations.
- The quantitative establishment of acceptable ground water withdrawal rates for public water supply wells.
- The susceptibility of the ground water resource to contamination based upon review of hydrogeologic information.
- Recommendations of a practical/technical/regulatory nature related to construction of wells, enhancement of well yields in areas of poor production, and controlling well construction problems.

Potentially impacted parties include water well drilling contractors, water supply contractors, consultants, public water supply systems, land developers and the public.

**17. Describe the types of decisions that require the supervisor's review.**

The employee's supervisor is consulted for guidance when preparing written correspondence pertaining to or deviating from EGLE or DWEHD administrative policies and procedures. Guidance is obtained to ensure an accurate representation of unwritten policy, concurrence with the elected course of action, and consistency with program direction and intent.

**18. What kind of physical effort is used to perform this job? What environmental conditions is this position physically exposed to on the job? Indicate the amount of time and intensity of each activity and condition. Refer to instructions.**

Typical office setting with majority of work conducted with a computer monitor, keyboard and mouse. Occasional field trips to observe well drilling activities, problem drinking water wells or aquifer testing. Field activities may involve periodic exposure to cold or inclement weather, heat, noise, dust, insects, vegetation, or heavy equipment traffic and operation hazards. Personal protective equipment such as a hard hat, safety shoes, safety glasses and ear protection may be required.

**19. List the names and position code descriptions of each classified employee whom this position immediately supervises or oversees on a full-time, on-going basis. (If more than 10, list only classification titles and the number of employees in each classification.)**

<u>NAME</u>	<u>CLASS TITLE</u>	<u>NAME</u>	<u>CLASS TITLE</u>

20. This position's responsibilities for the above-listed employees includes the following (check as many as apply):

Complete and sign service ratings.

Assign work.

Provide formal written counseling.

Approve work.

Approve leave requests.

Review work.

Approve time and attendance.

Provide guidance on work methods.

Orally reprimand.

Train employees in the work.

21. Do you agree with the responses for Items 1 through 20? If not, which items do you disagree with and why?

Yes.

22. What are the essential functions of this position?

The employee is responsible for providing direct technical assistance to DWEHD staff in any and all matters pertaining to hydrogeologic reviews, aquifer testing, well construction and ground water resource development. In this capacity, the employee makes direct recommendations on procedures, policies, and guidelines in the development of the ground water resource and the wellhead protection, source water protection and public water supply programs. The employee sets priorities for work related to the position, makes decisions that impact the direction of DWEHD programs involved in development and use of the ground water resource and represents the DWEHD on ground water, wellhead protection, source water protection and water withdrawal issues.

23. Indicate specifically how the position's duties and responsibilities have changed since the position was last reviewed.

The position has not changed substantively since it was last posted. The position is currently not overseeing any software development or maintenance contracts but may in the future.

24. What is the function of the work area and how does this position fit into that function?

The function of the DWEHD is to provide engineering, hydrogeologic, and technical assistance in the regulatory oversight of public water supply systems. Specific facets for individuals in DWEHD with a work emphasis on ground water arise from the state's responsibility for development and implementation of a state wellhead protection program, source water assessment program and source water protection program as mandated by 1986 and 1996 amendments to the federal Safe Drinking Water Act. With expertise in the area of ground water resource development this subset of the Environmental Health Section also has responsibilities relative to the regulation of water withdrawals relative to the 2003, 2006 and 2008 amendments to the Great Lakes Preservation Act, Part 327 of Act 451.

The function of the Hydrogeology Specialist is to provide direct administrative and technical assistance to DWEHD in the development and implementation of the above-mentioned programs. In this capacity the employee recommends procedures, policies and guidelines as they relate to the ground water resource for the various programs. The employee is also responsible for numerous recommendations related to ground water modeling, aquifer analysis, and ground water resource evaluation that have an impact in the development of the ground water resource throughout the state. This individual sets priorities for work, makes decisions on ground water related program direction and represents DWEHD on many issues related to the development and use of ground water.

25. What are the minimum education and experience qualifications needed to perform the essential functions of this position?

**EDUCATION:**

Possession of a bachelor's degree in geology, or in geological, petroleum, mining engineering, or earth science.

