

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

Position Code 1. EVILICAA30R
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POSITION DESCRIPTION

This position description serves as the official classification document of record for this position. Please complete the information as accurately as you can as the position description is used to determine the proper classification of the position.	
2. Employee's Name (Last, First, M.I.)	8. Department/Agency ENVIRON, GREAT LAKES & ENERGY
3. Employee Identification Number	9. Bureau (Institution, Board, or Commission)
4. Civil Service Position Code Description ENVIRONMENTAL ENGINEER LIC-A	10. Division DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION
5. Working Title (What the agency calls the position) DISTRICT ENGINEER	11. Section COMMUNITY WATER SUPPLY SECTION
6. Name and Position Code Description of Direct Supervisor BISHOP, HEATHER M; ENVIRONMENTAL MANAGER-3	12. Unit KALAMAZOO DISTRICT OFFICE
7. Name and Position Code Description of Second Level Supervisor ONAN, BRANDON M; STATE ADMINISTRATIVE MANAGER-1	13. Work Location (City and Address)/Hours of Work 7953 Adobe Road, Kalamazoo, MI 49009-5025 / MON –FRI 40 HOUR WEEK
14. General Summary of Function/Purpose of Position This position serves as the senior licensed district engineer for the Drinking Water and Environmental Health Division (DWEHD). The senior level district engineer is required to be a Licensed Professional Engineer and is responsible for the review, approval, and issuance of construction permits for water supply facilities. As a licensed professional engineer, this person is tasked with the regulatory oversight of community public water supplies as defined by the Michigan Safe Drinking Water, Act 1976 PA 399, as amended (SDWA) within the assigned geographic area. The senior level district engineer is the primary contact with community water supplies to fulfill these requirements. The senior level district engineer reviews non-licensed district engineer work products, provides licensed engineer approvals, and issues construction permits for these non-licensed district staff.	

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:

Percentage: 50

Senior level district engineer responsible to oversee the assigned geographic area community water supplies, performing review and approval of construction plans and issuance of construction permits.

Individual tasks related to the duty:

- As the licensed engineer, this position serves as the technical expert/recognized resource and has sole decision-making authority regarding construction plans in the covered area.
- As the technical expert, this position serves as the primary point of contact for the covered area responsible for providing guidance and expertise to facilities, the public, Department staff, and other agencies regarding plans and specifications for all water sources.
- Examines plans and specifications for approval for all water system improvements including new water sources, treatment facilities, distribution systems, and water treatment plant waste disposal systems serving the public as required by statute.
- Conduct final review of the Environmental Engineer-E's review along with plans and specifications to ensure all engineering requirements (industry standards) are met. When all requirements are met, the senior level licensed engineer will provide final review, approval, issuance, or denial of all engineering plans, construction permits, reports, engineering studies, etc.
- Conducts final verification of computations calculated by "E" level non-licensed engineers and reviews complex plans in conjunction with other district and program engineers, to confirm the adequacy of the design and necessary public health protections.
- As the licensed engineer, this position has sole responsibility of final review and issuance of all water supply construction permits, when all requirements are met.
- Communicates and discusses project requirements with the design engineers for the water supplies to achieve final construction documents that meet all requirements and provide the necessary public health protections.
- Meets with the design engineers and water suppliers to correct deficiencies in project construction plans.
- Determines if a water supply complies with water supply rules and identify when enforcement is required.
- Serves as a resource and provides professional engineer mentoring to experienced-level district engineers on construction permit package reviews of proposed water system improvements.
- As the technical expert, this position has sole responsibility of final engineering review for projects submitted for Drinking Water Revolving Funding.
- Examines plans and specifications for approval for all water system improvements including new water sources, treatment facilities, distribution systems, and water treatment plant waste disposal systems serving the public as required by statute.
- Conduct final review of the Environmental Engineer-E's review along with plans and specifications to ensure all engineering requirements (industry standards) are met. When all requirements are met, the senior level licensed engineer will provide final review, approval, issuance, or denial of all engineering plans, construction permits, reports, engineering studies, etc.
- Conducts final verification of computations calculated by "E" level non-licensed engineers and reviews complex plans in conjunction with other district and program engineers, to confirm the adequacy of the design and necessary public health protections.
- Communicates and discusses project requirements with the design engineers for the water supplies to achieve final construction documents that meet all requirements and provide the necessary public health protections.
- Meets with the design engineers and water suppliers to correct deficiencies in project construction plans.
- Determines if a water supply complies with water supply rules and identify when enforcement is required.
- Serves as a resource and provides professional engineer mentoring to experienced-level district engineers on construction permit package reviews of proposed water system improvements.
- As the technical expert, this position has sole responsibility of final engineering review for projects submitted for Drinking Water Revolving Funding.

Duty 2

General Summary:

Percentage: 30

Type I (Community Water Supply) Surveillance and Evaluation and Review of Water Quality Data.

Individual tasks related to the duty:

- Creates and follows a surveillance and evaluation schedule that meets departmental targets. Works with complex water treatment and complex hydraulic distribution networks to provide engineering oversight for all assigned public water supplies.
- The district engineer conducts/performs surveillance visits of community water systems; reviews monthly operation reports; writes sanitary survey reports; review and assist with Drinking Water Revolving Loan Fund projects, assists in teaching operator training courses as needed, and assists water supply operators in solving operational problems. The district engineer routinely communicates any issues identified to the water supplier in letters/emails, via telephone conversations, and during visits and meetings.
- Reviews experienced-level engineer's documentation and summary including check sheets, industry standards, and other guidance documents to determine if the project meets these standards, has evaluated all the necessary alternatives, public health impacts, provided acceptable mitigation to ensure public health protections, evaluated all reasonable engineering alternatives when it is impossible to meet industry standards. The advanced level Environmental Engineer determines if the reports, studies, and plans have evaluated the necessary alternatives/mitigations and if they will be accepted or what additional documentation is needed prior to approving.
- As part of the sanitary survey review process, conducts engineering reviews of capital improvement plans, asset management plans, general plans, reliability studies of public water supplies to ensure compliance with engineering principles, industry standards, and SDWA requirements for all public water supplies assigned.
- Determines if a water supply complies with Michigan Safe Drinking Water Act and Administrative rules and issue deficiency ratings during sanitary surveys, if necessary.
- Serve as a mentor to experienced level Environmental Engineers in the evaluation, design, and operation of the waterworks system.
- Provides oversight to the experienced level Environmental Engineer with reviews of the design and operation of the waterworks system; the reliability of the waterworks system; and evaluation/approval of the following: engineering reports, asset management plans, general plans, reliability studies, and engineering design reports.
- The district engineer reviews water quality data submitted on monthly operation reports or other forms to ensure public health standards are met. If a problem is detected, the district engineer may request additional data and/or makes recommendations regarding operational changes or treatment modifications.
- Evaluates and completes source water assessments of community water supplies.
- Evaluates new and existing water supply systems to ensure the system has adequate Technical, Managerial, and Financial Capacity.

Duty 3

General Summary:

Percentage: 10

Public Information Response.

Individual tasks related to the duty:

- The district engineer, as a representative of the Department, disseminates information to the following individuals or groups: water supply operators; the general public; consulting engineers, and local, state and federal government officials. Topics may include water quality concerns, design considerations, and regulatory functions. Responses to these issues may be through meetings, telephone conversations or written correspondence.
- The district engineer may appear and represent the Department and the Safe Drinking Water program at public

Duty 4

General Summary:

Percentage: 10

Professional Development and Miscellaneous Activities

Individual tasks related to the duty:

- Attends conferences and training sessions aimed at upgrading effectiveness and technical expertise in the area of drinking water, engineering and water quality.
- Studies technical papers and manuals to keep abreast of new developments in water treatment.
- The district engineer performs other activities as assigned by the supervisor or activities such as assisting water supplies when emergencies occur, cross connection control programs and other regulatory functions defined by the SDWA.

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

Most decisions are made independently, including technical, regulatory, and logistical ones. The decisions could impose significant impact community water supplies and/or their customers.

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

Policy and regulatory interpretation strategies where there is no guidance document or precedent. Decisions where governing law or policy is unclear or mute. Actions with significant political ramifications. Decisions on violations to refer to escalated enforcement action and case settlement issues.

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

Position requires office, travel, and inspection work to complete assigned inspections and duties. Office work, which comprises approximately 50% of the work time, requires sitting and computer work. Travel and inspections, comprising the other 50% of work time, requires standing, walking, and stooping, as well as occasional lifting and bending. Field conditions/hazards: occasional wet, cold, noisy, dusty conditions. Extensive travel in all kinds of weather. Periodic contact with hazardous materials may occur.

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.

Additional Subordinates

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

- | | | | |
|----------------------------|------------------------------------|----------------------------|-----------------------------------|
| <input type="checkbox"/> N | Complete and sign service ratings. | <input type="checkbox"/> N | Assign work. |
| <input type="checkbox"/> N | Provide formal written counseling. | <input type="checkbox"/> N | Approve work. |
| <input type="checkbox"/> N | Approve leave requests. | <input type="checkbox"/> N | Review work. |
| <input type="checkbox"/> N | Approve time and attendance. | <input type="checkbox"/> N | Provide guidance on work methods. |
| <input type="checkbox"/> N | Orally reprimand. | <input type="checkbox"/> N | Train employees in the work. |

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

Yes.

23. What are the essential functions of this position?

Serves as the senior licensed district engineer for the Drinking Water and Environmental Health Division (DWEHD). The senior level district engineer is required to be a Licensed Professional Engineer and is responsible for the review, approval, and issuance of construction permits for water supply facilities. As a licensed professional engineer, this person is tasked with the regulatory oversight of community public water supplies as defined by the Michigan Safe Drinking Water, Act 1976 PA 399, as amended (SDWA) within the assigned geographic area. The senior level district engineer is the primary contact with community water supplies to fulfill these requirements. The senior level district engineer reviews non-licensed district engineer work products, provides licensed engineer approvals, and issues construction permits for these non-licensed district staff. Examine and certify water treatment plant and water distribution system operators. Review monthly operation reports summarizing the operation of water treatment plants. Identify and monitor areas of potential ground water pollution impacting public water supplies and assist local utilities in analyzing alternatives available for dealing with contaminated source facilities.

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

Requesting to update this position to align with recently approved senior standards. This position functions as a senior licensed engineer responsible to oversee assigned geographic area community water supplies, performing review and approval of construction plans and issuance of construction permits. The position serves as the primary point of contact for the covered area responsible for providing guidance and expertise to facilities, the public, Department staff, and other agencies regarding plans and specifications for all water sources. The position examines plans and specifications for approval for all water system improvements including new water sources, treatment facilities, distribution systems, and water treatment plant waste disposal systems serving the public as required by statute. The position conducts final review of the Environmental Engineer-E's review along with plans and specifications to ensure all engineering requirements (industry standards) are met. When all requirements are met, the senior level licensed engineer will provide final review, approval, issuance, or denial of all engineering plans, construction permits, reports, engineering studies, etc. It also conducts final verification of computations calculated by "E" level non-licensed engineers and reviews complex plans in conjunction with other district and program engineers, to confirm the adequacy of the design and necessary public health protections. As the licensed engineer, this position has sole responsibility of final review and issuance of all water supply construction permits for assigned community water supplies, when all requirements are met. The position communicates and discusses project requirements with the design engineers for the water supplies to achieve final construction documents that meet all requirements and provide the necessary public health protections. It also meets with the design engineers and water suppliers to correct deficiencies in project construction plans, and determines if a water supply complies with water supply rules and identify when enforcement is required. The senior licensed engineer serves as a resource and provides professional engineer mentoring to experienced-level district engineers on construction permit package reviews of proposed water system improvements. As the technical expert, this position has sole responsibility of final engineering review for projects submitted for Drinking Water Revolving Funding. It examines plans and specifications for approval for all water system improvements including new water sources, treatment facilities, distribution systems, and water treatment plant waste disposal systems serving the public as required by statute. This position conducts final review of the Environmental Engineer-E's review along with plans and specifications to ensure all engineering requirements (industry standards) are met. When all requirements are met, the senior level licensed engineer will provide final review, approval, issuance, or denial of all engineering plans, construction permits, reports, engineering studies, etc. It also conducts final verification of computations calculated by "E" level non-licensed engineers and reviews complex plans in conjunction with other district and program engineers, to confirm the adequacy of the design and necessary public health protections. The position meets with the design engineers and water suppliers to correct deficiencies in project construction plans. The position also serves as a resource and provides professional engineer mentoring to experienced-level district engineers on construction permit package reviews of proposed water system improvements. This position also creates and follows a surveillance and evaluation schedule that meets departmental targets and works with complex water treatment and complex hydraulic distribution networks to provide engineering oversight for all assigned public water supplies. This senior licensed engineer also reviews experienced-level engineer's documentation and summary including check sheets, industry standards, and other guidance documents to determine if the project meets these standards, has evaluated all the necessary alternatives, public health impacts, provided acceptable mitigation to ensure public health protections, evaluated all reasonable engineering alternatives when it is impossible to meet industry standards. The advanced level Environmental Engineer determines if the reports, studies, and plans have evaluated the necessary alternatives/mitigations and if they will be accepted or what additional documentation is needed prior to approving.

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

The District office is responsible for oversight and enforcement of the drinking water program within six counties of the southeastern lower peninsula. This position serves as the senior licensed district engineer for the Drinking Water and Environmental Health Division (DWEHD). The senior level district engineer is required to be a Licensed Professional Engineer and is entirely responsible for the review, approval, and issuance of construction permits for water supply facilities. As a licensed professional engineer, this person is tasked with the regulatory oversight of community public water supplies as defined by the Michigan Safe Drinking Water, Act 1976 PA 399, as amended (SDWA) within the assigned geographic area. The senior level district engineer is the primary contact with community water supplies to fulfill these requirements. The senior level district engineer reviews non-licensed district engineer work products, provides licensed engineer approvals, and issues construction permits for these non-licensed district staff. Duties associated with this advanced level position include serving as the primary point of contact for the covered area responsible for providing guidance and expertise to facilities, the public, Department staff, and other agencies regarding plans and specifications for all water sources; conducts final review of the Environmental Engineer-E's review along with plans and specifications to ensure all engineering requirements (industry standards) are met. When all requirements are met, the senior level licensed engineer will provide final review, approval, issuance, or denial of all engineering plans, construction permits, reports, engineering studies, etc; conducting final verification of computations calculated by "E" level non-licensed engineers and reviews complex plans in conjunction with other district and program engineers, to confirm the adequacy of the design and necessary public health protections. This position is also responsible for communicating and negotiating with design engineers for the water supplies to achieve final construction documents that meet all requirements; performing extensive evaluations and investigations of the most complex water pollution problems in regards to the construction plans; and assisting/training other district engineers on construction plan review of facilities.

26. 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 engineering.

EXPERIENCE:

Environmental Engineer Licensed 12

Three years of professional environmental engineering experience in the protection and improvement of land and water resources, occupational health or air quality equivalent to an Environmental Engineer, including one year equivalent to an Environmental Engineer P11.

KNOWLEDGE, SKILLS, AND ABILITIES:

The ability to communicate accurately and tactfully with individuals and groups verbally and by letter is essential. The district engineer must be able to meet people and work with them at the technical level and at the lay level. District engineers must have confidence in their ability and yet recognize limitations in new situations. The engineer must have basic knowledge of the Safe Drinking Water Act including an understanding of design/operation concepts of membrane filtration, conventional water treatment, or disinfection practices. Knowledge of computer software commonly used to analyze operational data is also required.

CERTIFICATES, LICENSES, REGISTRATIONS:

Michigan licensure as a registered professional engineer is required.

A valid driver's license is required.

NOTE: Civil Service approval does not constitute agreement with or acceptance of the desired qualifications of this position.

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Supervisor

Date

TO BE FILLED OUT BY APPOINTING AUTHORITY

Indicate any exceptions or additions to the statements of employee or supervisors.

None

I certify that the entries on these pages are accurate and complete.

HEATHER KREINER

Appointing Authority

1/10/2023

Date

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Employee

Date