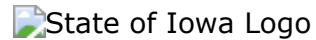


**STATE OF IOWA**  
invites applications for the position of:



**TMDL/Nonpoint Source Senior  
Engineer**

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<b>SALARY:</b>	\$33.68 - \$51.85 Hourly \$2,694.40 - \$4,148.00 Biweekly \$70,054.40 - \$107,848.00 Annually
<b>LOCATION:</b>	Des Moines - 50319 - Polk County
<b>JOB TYPE:</b>	Full-time
<b>AGENCY:</b>	542 Iowa Department of Natural Resources
<b>OPENING DATE:</b>	01/11/23
<b>CLOSING DATE:</b>	02/13/23 11:59 PM
<b>LINKEDIN TAG:</b>	#LI-POST
<b>POINT OF CONTACT:</b>	Katie Greenstein, katie.greenstein@dnr.iowa.gov, 515-490-2095

**JOB DESCRIPTION:**

**Only applicants who meet the Minimum Qualification Requirements and meet all selective requirements (listed below) will be placed on the eligible list.**

**Join The Team!**

Are you ready to assist the Iowa Department of Natural Resources in furthering its mission of: Conserving and enhancing our natural resources in cooperation with individuals and organizations to improve the quality of life in Iowa and ensure a legacy for future generations? If yes - we are seeking a Water Quality Monitoring and Assessment team member to help protect our watersheds and impaired waters in the State of Iowa and ensure clean water for all citizens.

Join us on our journey to become a role model for public service nationwide!  
Careers with the DNR enjoy a culture of meaningful and satisfying work.

**What We're Looking for in You!**

This role will allow an individual to contribute experience and knowledge towards fulfilling our mission through one's behaviors and actions demonstrating the DNR's Guiding Principles of Accountability, Collaboration, Continuous Improvement, Customer Focus, Data-Based Decisions, Empowerment, Integrity, Long-Term Thinking, Mutual Respect, Results/Outcome Orientation, and Valuing Employees.

Describe in your resume and cover letter how you demonstrate the Guiding Principles & Critical Job Competencies, can perform the Essential Functions, and have education/experience transferable to the Job Description. Applicants are encouraged to attach a resume and cover letter to best describe their experience and education.

**Duties & Responsibilities:**

This pivotal role is responsible for leading and coordinating the team of total maximum daily load (TMDL) engineers in the prioritization and development of TMDLs. This position also conducts advanced water quality modeling using data that includes, but is not limited to, stream hydrology and the fate and transport of pollutants, to complete TMDLs for Iowa's 303(d) impaired waters list in accordance with the Clean Water Act and EPA requirements. This position develops guidance and directions related to TMDLs and TMDL methodologies based on review and analysis of available technical information and Department goals. This position reviews technical aspects of TMDLs prepared by program staff and others and provides technical QA/QC on all TMDL projects. This position will facilitate internal and external stakeholder engagement to ensure TMDLs are implementable. This position will serve as a technical expert for nonpoint sources.

This position is critical to executing a holistic approach toward the Department's work on minimizing pollution with partners and the regulated community under the Clean Water Act, especially as a bridge between point source and nonpoint source water quality issues. This position provides leadership, coordination, and expertise that is necessary for the development of TMDLs and other technical nonpoint source work products.

**Essential Functions**

Create a professional, collaborative work environment to ensure input and teamwork between all department stakeholders.

Prepare TMDLs according to EPA rules, regulations, policies and best practices.

Analyze and interpret water quality data for use in TMDL models. Data includes soil, water, air sampling, and laboratory analysis.

Review TMDL models for quality and completeness.

Prepare complex TMDLs using SWAT, BATHTUB, QUAL2K, STEP-L, and BITool.

Present TMDL information to the public and prepare responses to public comments in an

understandable manner.

Prepare written documents for TMDL work product submission to department management and EPA.

Analyze and interpret federal guidelines for the development of all components of a TMDL program.

Communicate and collaborate with parties with diverse levels of environmental expertise particularly for purposes of meetings, hearing and negotiating critically sensitive issues.

Provide scientifically backed input regarding nonpoint sources.

Collaborate with team members within the section and the department to create work processes for various TMDL products.

Collaborate with Clean Water Act team members on the topics of Water Quality Standards, Monitoring and Assessment.

Create working relationships based on professionalism, trust and teamwork.

### **Critical Job Competencies**

Competency Requirements - Accountability, Communication Skills, Computer Skills, Customer Focus, High Productivity, Interpersonal Skills, Integrity, Self-Management, Team Player, and Technical Skills (engineering, TMDL).

### **What You Get From Us:**

- A competitive pay plan and rewarding work.
- Insurance benefits that start the first of the month following 30 days of employment.

(Premiums can start as low as \$56/month for single and \$187/month for family coverage).

- Separate vacation and sick leave accruals that start on the first day and can roll over annually.
- Nine paid holidays/year.
- Iowa Public Employee Retirement System (IPERS) retirement package with employer match.
- Optional deferred compensation (457/401A) plan with employer match.
- Professional training opportunities.
- Flexible schedules and opportunities for hybrid telework (as approved by supervisor).
- Family friendly and professional work environment.
  
- The State's total compensation package features benefits that are worth about 30% of your total compensation. For a list of additional benefits, please visit the [DAS website](#) for more information.
- Employee Discount Programs for vision, cellular, fitness, recreation, season passes, travel, counseling, legal, and financial.
- In 2022, the Des Moines Metro area was named a top 20 Best City for Young Professionals and regularly receives accolades as the Best Place to Live.

The starting salary for new state (Executive Branch) employees is expected to be at the base of the pay range. Additional salary increases may occur after the first six months, and then annually

(if applicable).

The State of Iowa is an Equal Employment Opportunity Employer.

The Department of Natural Resources encourages all applicants to upload a current resume and cover letter to their DAS online application.

Iowa DNR Mission:

To conserve and enhance our natural resources in cooperation with individuals and organizations to improve the quality of life in Iowa and ensure a legacy for future generations.

## **SELECTIVES:**

### **007 Agricultural Engineering**

6 months' experience, 12 semester hours, or a combination of both including knowledge in one or in a combination of the following areas: machinery and power systems, structural design, mechanical analysis or ventilation, and climate control.

OR

### **035 Engineering**

6 months' experience, 12 semester hours, or a combination of both in the application of scientific, economic, social, and practical knowledge in order to invent, design, build, maintain, research, and improve structures, machines, devices, systems, materials and processes.

OR

### **182 Environmental Engineering**

6 months' experience, 12 semester hours, or a combination of both in the area of engineering that is centered on the technology concerned with the reduction of pollution, contamination, and deterioration of the surroundings in which humans live.

## **MINIMUM QUALIFICATION REQUIREMENTS:**

Graduation from an accredited college or university with a Bachelor's Degree in Environmental, Sanitary, Civil, Chemical, Nuclear, Mechanical, Industrial, Agricultural, or Public Health Engineering and three years of full-time professional work in environmental engineering;

OR

an equivalent combination of education and experience substituting thirty semester hours of accredited graduate level course work in Environmental, Sanitary, Civil, Chemical, Mechanical, Industrial, Agricultural, or Public Health Engineering for each year of the required experience to a maximum substitution of two years;

OR

licensure as a Professional Engineer by the Iowa Board of Engineering Examiners.

For additional information, please click on this [link to view the job description.](#)

### **ADDITIONAL QUALIFICATION REQUIREMENTS:**

Licensure as a Professional Engineer to practice in Iowa may be required at the option of the employing department within one year of employment.

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#### **TO CONTACT THE HIRING AGENCY:**

Wallace State Office Building  
502 E 9th St, 4th Floor  
Des Moines, IA 50319

Position #23-02317  
TMDL/NONPOINT SOURCE SENIOR ENGINEER  
SM

<http://www.iowadnr.gov/>

To Contact DAS HRE: [dashre.info@iowa.gov](mailto:dashre.info@iowa.gov)

**Please Note: The Hiring Agency listed above is responsible for all decisions regarding interviews and hiring. Please contact them if you have questions.**

**The State of Iowa is an Equal Opportunity/Affirmative Action Employer.**

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### **TMDL/Nonpoint Source Senior Engineer Supplemental Questionnaire**

- \* 1. Do you understand that the answers to all of the following questions must be truthful, honest, and accurate to the best of your ability?  
Please read all questions and answers thoroughly and make sure you understand them completely. **Ensure the answers to your questions match the information filled out on your application and the attachments you have uploaded. If the answers to your questions are inconsistent with your application information or uploaded attachments, you will be given zero points for the question.**  
Knowingly misrepresenting the facts when submitting any information related to an application, examination, certification, appeal, or any other facet of the selection process will result in your disqualification from this application and future employment with the state of Iowa.
- Yes - I understand and agree.  
 No

- \* 2. **PLEASE READ CAREFULLY**  
Have you filed a registration statement pursuant to the federal Foreign Agents Registration Act of 1938, as amended, 22 U.S.C. §611 et seq?
- No - I have NOT filed a registration statement pursuant to the federal Foreign Agents Registration Act of 1938, as amended, 22 U.S.C. §611 et seq
  - Yes - I HAVE filed a registration statement pursuant to the federal Foreign Agents Registration Act of 1938, as amended, 22 U.S.C. §611 et seq
- \* 3. Have you graduated from an accredited college or university with a Bachelor's Degree in Environmental, Sanitary, Civil, Chemical, Nuclear, Mechanical, Industrial, Agricultural, or Public Health Engineering? **IF YES** How many years do you have of full-time professional work in environmental engineering?
- I do not have a Bachelor's Degree in Environmental, Sanitary, Civil, Chemical, Nuclear, Mechanical, Industrial, Agricultural, or Public Health Engineering
  - No full time professional work experience in environmental engineering
  - Less than two years of full time professional work experience in environmental engineering
  - Two years to less than three years of full time professional work experience in environmental engineering
  - Three or more years of full time professional work experience in environmental engineering
- \* 4. How many years do you have of a combination of full time professional work experience in environmental engineering and GRADUATE level (post bachelor's degree) course work in Environmental, Sanitary, Civil, Chemical, Mechanical, Industrial, Agricultural, or Public Health Engineering?
- 30 semester hours equals one year of experience. Applicants may substitute a MAXIMUM of 60 semester hours (2 year) of graduate level course work in the designated areas
- I do not have any of the combined graduate education and/or experience
  - Less than two years of full time professional work experience in environmental engineering
  - Two years to less than three years of full time professional work experience in environmental engineering
  - Three or more years of full time professional work experience in environmental engineering
- \* 5. Do you currently hold a licensure as a Professional Engineer by the Iowa Board of Engineering Examiners?
- Yes
  - No
- \* 6. Are you currently a permanent Iowa Department of Natural Resources employee?

Yes

No

- \* 7. Does your application demonstrate that you have 6 months' experience, 12 semester hours, or a combination of both including knowledge of Agricultural Engineering, in one or in a combination of the following areas: machinery and power systems, structural design, mechanical analysis or ventilation, and climate control?

Yes

No

- \* 8. Does your application demonstrate that you have 6 months' experience, 12 semester hours, or a combination of both in Engineering, the application of scientific, economic, social, and practical knowledge in order to invent, design, build, maintain, research, and improve structures, machines, devices, systems, materials and processes?

Yes

No

- \* 9. Does your application demonstrate that you have 6 months' experience, 12 semester hours, or a combination of both in Environmental Engineering, the area of engineering that is centered on the technology concerned with the reduction of pollution, contamination, and deterioration of the surroundings in which humans live?

Yes

No

- \* 10. After reviewing the list of essential functions for the Iowa Department of Natural Resources position you are applying for, please answer the following question: Based on the list of essential functions listed within the job announcement, are you able to perform the essential functions of this position, with or without a reasonable accommodation?

Yes

No

- \* 11. Reference Checks: If you are one of the top candidates for this position, the Hiring Team may wish to contact the references provided by you or any others we deem appropriate in order to verify your current or prior employment for the purpose of evaluation of your qualifications for the above position. Any information obtained through a reference check shall be kept confidential to the extent allowed under the Iowa Open Records Act (Iowa Code chapter 22). Please list below three professional business references, including at least one current or former supervisor. Please provide name, title, organization, relationship to you, phone, email, and full address of the reference. You may attach these to your application or type them in the box provided below.

\* Required Question