

POSITION SUMMARY:

Functioning under the general supervision of the Conservation Engineering Section Manager, this advanced position has statewide responsibility for complex projects related to soil and water conservation practices, with a focus on assigned areas of specialization. Responsibilities include providing engineering assistance to County Land Conservation Department (LCD) staff, other conservation professionals and landowners in support of state and county programs including; Soil and Water Resource Management (SWRM) grants, County Land and Water Resource Management Plans, County Manure Storage/Management Ordinances, Conservation Engineering Practitioner Certification, and other Land and Water Resources Bureau (LWRB) programs. This advanced position provides complex, difficult, and advanced professional services and technical assistance to properly design and install conservation practices, and to evaluate and review permit applications with an emphasis on statewide support for geotechnical engineering. The broad duties of this position include cross-program issues and policy making responsibilities that require (1) outreach and other assistance to ensure compliance with the requirements of federal, state and local law; (2) research and evaluation to develop water quality and other standards and practices; and (3) strategic program planning as well as technical support to develop rule, policy and program requirements. Additional responsibilities include the certification of technical staff under the Conservation Engineering Practitioner Certification program (s. ATCP 50.46).

GOALS AND WORKER ACTIVITIES:

55% GOAL A: Provision of statewide expertise pertaining to geotechnical engineering. This includes participating in strategic planning, rulemaking activities and serving as a technical expert to management and staff.

- A.1 Prepare and review geotechnical computations and designs related to soil and water conservation practices.
- A.2 Participate in the development of LWRB policies, programs, rulemaking and planning activities related to geotechnical engineering.
- A.3 Provide plan and specification review in collaboration with the State Drainage Engineer in the implementation of DATCP's Agricultural Drainage Program.
- A.4 Provide highly-specialized technical support and assistance to staff within the LWRB and to external customers related to geotechnical engineering specialization, including guidance on the adequacy of practice design and construction, project consultation, certification of properly installed practices and compliance of design and construction work with technical and legal standards.
- A.5 Independently research and identify new technologies and emerging issues in the geotechnical engineering area of specialization and apply this knowledge to the evaluation and development of new technical standards, designs and specifications.

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- A.6 Collect, analyze and present data based on specialized site assessments, practice installations, field trials and other similar investigations involving geotechnical questions.
- A.7 Provide specialized assistance to county and other conservation partners statewide in planning and funding projects in the area of geotechnical engineering specialization.
- A.8 Serve as the lead staff person to handle complicated, complex, and multi-faceted work related to soil and water conservation practices, including preparation and review of engineering designs, construction plans, specifications, operation and maintenance plans and inspection plans related to manure management systems and other conservation best management practices.
- A.9 Assist LCDs with review of engineering plans submitted by applicants for Wisconsin Pollution Discharge Elimination System permits issued by the Department of Natural Resources (DNR) and permits issued under local livestock ordinances, with an emphasis on review of complex engineering designs for large agricultural facilities.

25% GOAL B: Provision of engineering services and technical support in multi-county area related to the planning, design, installation, and review and approval of conservation practices.

- B.1 Prepare and review engineering designs, construction plans, specifications, operation and maintenance plans, inspection plans, and cost estimates for conservation practices and complex systems. Where possible, perform these tasks with LCD/NRCS personnel while providing guidance and training to them.
- B.2 Evaluate plans and specifications developed by conservation professionals, including private engineers, to ensure conformance to engineering principles, environmental goals, standards, codes, ordinances, and department policies.
- B.3 Provide construction inspection services to ensure high quality construction of engineering practices.
- B.4 Assist conservation planners in determining alternatives and cost estimates to solve complex soil and water resource protection problems.

10% GOAL C: Coordination with and support for federal, state and local conservation and related programs.

- C.1 Assist in the development, administration and implementation of federal, state and local programs related to financial incentive and cost-sharing, permitting of

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livestock facilities and manure storage systems and execution of County Land and Water Resources Management Plans.

- C.2 Assist in the development, administration and implementation of DATCP's Agricultural Drainage Program and other statewide LWRB programs.
- C.3 Represent the Conservation Engineering Section in interactions with DNR, LCDs, Natural Resource Conservation Service (NRCS) and affected landowners to coordinate projects.
- C.4 Coordinate with the DATCP environmental specialist and NRCS staff assigned to multi-county area in the management of program activities including; review of engineered construction plans, implementation of quality control measures, evaluation of area training needs and the development of an area training program.
- C.5 Provide technical support to the Southeast Area Interagency Training Committee (AITCOM) and the State Interagency Training Committee (SITCOM) in the development of a statewide training program in the area of specialization designated in A.1.
- C.6 Maintain project files, monitor and track activities using spreadsheets and other approved methods and prepare reports and other program summaries to document progress.
- C.7 Assist with development and updating of technical standards for conservation engineering practices through participation in teams sponsored by the Standards Oversight Council (SOC) or other expert groups, including leadership of teams assigned to develop and revise standards related to soil and water conservation practices focusing on standards in the area of specialization designated in A.1.
- C.8 Develop tools and aids, such as standardized designs, drawings and computer spreadsheets, for the support of engineering planning and design.
- C.9 Provide technical guidance to LWRB and cooperating agencies for the development of rules, policies and procedures.

10% GOAL D: Provision of technical training, guidance and oversight to LCD field office personnel and other conservation professionals in planning, surveying, designing, construction inspection and the operation and maintenance of engineered practices.

- D.1 Administer the DATCP Conservation Engineering Practitioner Certification Program by assigning appropriate certification ratings to conservation professionals within the assigned multi-county area, including serving as the statewide expert for establishing certification ratings related to soil and water

conservation practices focusing on standards in the area of specialization designated in A.1.

- D.2 Effectively support professional training by ensuring compliance with the requirements for professional development hours, identifying training needs and resources and actively participating in the Southeast Area AITCOM and SITCOM.
- D.3 Develop and deliver training programs in classroom and workshop settings with an emphasis on advanced trainings related to soil and water conservation practices and standards in the area of specialization designated in A.1.
- D.3 Provide technical guidance and on-the-job training to individual field staff with a focus on delivery of advanced level training.
- D.4 Conduct project status reviews and spot checks to ensure that conservation practices are of high quality and are cost-effective and to monitor the performance and training needs of field staff.
- D.5 Assist LCD technicians and others to acquire resource materials and technologies.

SPECIAL REQUIREMENTS:

1. Assigned field work is required more than 50% of work time and may include extensive travel to field offices and construction or project locations, and is typically during business hours.
2. Possession of or the ability to obtain a valid driver's license, and the ability to obtain authorization to drive a State of Wisconsin vehicle.
3. Must have one of the following:
 - a. Registration as a Professional Engineer as determined by the Department of Safety and Professional Services per s. 443.04, Wis. Stats.
 - b. Specific record, issued by the professional engineering section of the Department of Safety and Professional Services, showing 4 years or more of experience in engineering work of a character satisfactory to the professional engineering section and satisfactory completion of the fundamentals of engineering exam.
 - c. Have graduated from a recognized college or university with a degree in a related engineering field such as electrical, mechanical, civil or environmental engineering.
 - d. Have equivalent professional training and practical experience so as to be deemed a professional engineer as defined by the Department of Safety and Professional Services per s. 443.01, Wis. Stats. and also deemed to be qualified to engage in professional engineering practice as determined by the Department of Safety and Professional Services per s. 443.04 or 443.05, Wis. Stats.
4. Establish and maintain Conservation Engineering Practitioner Certification (ATCP 50.46) for conservation practices as appropriate to provide technical assistance to the multi-county area served, and must include a certification rating of Job Class V for the

design and construction oversight covering a minimum of five practices. The position must have sufficiently high ratings to support the designation of specific area of specialization.

PHYSICAL DEMANDS:

Ability to walk over uneven and/or muddy terrain, stand for long periods of time, bend, stoop, and climb ladders at construction/project sites is required.

WORKING ENVIRONMENT:

In addition to work performed in an office setting, this position also performs work outdoors at construction/project sites. Project sites may include: farmsteads, farm fields, lakes, streams, woods, wetlands, etc.

KNOWLEDGE, SKILLS AND ABILITIES:

- A. Extensive knowledge of the laws, codes and regulations pertaining to soil and water conservation programs and the agencies that administer them.
- B. Extensive knowledge of the state's resource management practices, including agricultural practices, and the ability to talk with farmers and other landowners about these issues.
- C. Extensive knowledge of geotechnical engineering principles associated with civil/environmental practices.
- D. Extensive knowledge of the principles and practices of soil and water conservation engineering pertaining to water quality and animal waste management.
- E. Extensive knowledge of the technical guides and standards used by engineers and governmental agencies for practices, structures and facilities implemented by landowners to improve water quality and manage animal wastes.
- F. Considerable knowledge of computer applications such as Microsoft Office programs (i.e. Word, Excel, Outlook), geotechnical programs (i.e. GSLOPE or similar), and AutoCAD.
- G. Extensive ability to make difficult engineering computations to analyze data and design conservation practices, structures and facilities with an emphasis on geotechnical engineering.
- H. Ability to work with a wide range of people representing many agencies, special interest groups, and units of government, and acting with tact in controversial or politically sensitive situations.
- I. Considerable skill in oral and written communications.
- J. Considerable knowledge of administrative procedures.