

**Madison Metropolitan Sewerage District  
Biosolids Specialist -Ecosystem Services Department**

**Title: Biosolids Specialist**

**Department: Ecosystem Services**

**FLSA: Exempt**

**Reports To: Director, Ecosystem Services**

**Grade: 12**

### **Position Description**

The Biosolids Specialist has primary responsibility for overseeing the environmental regulatory and compliance activities associated with the District's current land application biosolids reuse program (Metrogro); works with the Metrogro operations supervisor to ensure success during land application; and provides support for other District resource recovery and nutrient management initiatives related to Class A and Class B biosolids.

### **Success Factors**

- **Collaborative:** Articulate and confident communicator. Builds strong external working relationships and partnerships and can influence people with a focus on developing and promoting better management practices around biosolids reuse.
- **Analytical:** Can effectively collect, organize, analyze and interpret data. Understands the importance of accuracy and strives to produce high-quality, error-free work. Pays attention to detail.
- **Motivated:** Inspired to perform well by the ability to contribute to the success of the District and has a passion for sustainability, the environment and protecting public health.
- **Sustainable Thinker and Problem Solver:** Is open to and seeks new novel solutions to problems and brings holistic thinking to every situation.
- **Adaptable:** Is flexible and open-minded to change and new ideas. Can adjust and modify to fit the situation. Has the courage to create change when necessary.

### **Job Duties**

- Perform all necessary regulatory permitting and reporting in accordance with state and federal guidelines and regulations
- Solicit farmers to identify new fields for biosolid application.
- Conduct activities related to the Wisconsin Department of Natural Resources' (DNR) site-approval process for the biosolids reuse programs, including site verification,

inspection, site soil investigations for soil morphological reports, and gathering up-to-date soil tests and appropriate permission signatures from farm customers.

- Conduct surveys of agricultural fields to determine their suitability for biosolids application.
- Coordinate soil sampling for all application sites prior to field application to support permit compliance and nutrient management planning, as needed.
- Gather information, permit new application sites, and establish application boundaries in accordance with state and federal rules.
- Conduct soil borings to verify field conditions and create field maps for land application including flagging fields for applicators.
- Calculate site-specific biosolid application rates, based biosolids nutrient availability, previous and planned crops, nutrient credits, and soil yield potential.
- Conduct post-application inspections to ensure compliance with applicable regulatory requirements.
- Record data from application sites to ensure compliance with state and federal regulations and maintain and record data in electronic form for biosolids application and field information.
- Update and maintain program specific GIS data, including field boundaries, application setbacks and restrictions, well locations, and others.
- Uses GPS and GIS to accurately record field locations and properties.
- Prepares and presents necessary reports verbally, in writing, and electronic as necessary.
- Optimize current data management practices.
- Meet and correspond with regulators as needed for new or existing land application permits or permit compliance.
- Maintain all site approval records in the Metrogro database, GIS, and Onbase.
- Communicate all nutrient application credits to farmers and/or consultants in a timely manner for nutrient management planning.
- Enter and maintain all daily application records in the Metrogro database.
- Completes the biosolids program DNR annual reporting.
- Ensure District compliance with applicable federal and state regulations and permits relative to biosolids reuse and disposal through regular operational reviews and contractor quality control checks, as well as facilitate any necessary corrective actions, if needed.
- Participate in the long-range planning for the beneficial reuse of biosolids, including the evaluation of alternative methods and technologies.

- Maintain constructive relationships with regulatory agency representatives to resolve technical and compliance issues and communicate program activities and objectives
- Investigate various methods of application to reduce nutrient runoff and over application of nutrients and stay up to date with technologies.
- Locate and build land base for beneficial reuse of biosolids at farms, and form relationships within the agricultural community, farmers, and contracted applicator operators and contracted truck drivers.
- Provide technical information and presentations to regulatory agencies, community customers, and the general public as needed.
- Monitor and understand regulatory trends such as phosphorus limitations, micro-contaminants, and personal care products and their potential impact on District land application program operations.
- Stay up to date on administrative codes, statutes, laws and new technology that can impact activities associated with the biosolids reuse programs.
- Participate in professional organizations and attend meetings/conferences as necessary to build relationships and enhance technical and project management skills.
- Participate in projects and research pertaining to emerging contaminants in the realm of biosolids.
- Provide support on an as-needed basis for activities related to resource recovery initiatives and to the District's adaptive management project.
- Manages all aspects of the spring yield guarantee program, including working with the biosolids operations supervisor to coordinate spring field application timing.
- Manages all aspects of the Metrogro wheat price guarantee program.
- Other duties as assigned.

## **Qualifications**

- Four (4) year degree in agronomy, soil science, environmental studies, water resource management or related environmental degree from an accredited college or university.
- A minimum of five (5) years of agronomy experience.

## **Required Credential**

Credentials are required upon appointment to obtain State DNR self-approver status under Wis. Admin Code NR 204.06(6) for biosolids application site approvals for demonstration of competence to review sites. In order to obtain said credentials, one of the following is required:

- a Bachelor of Science degree in soil science from a 4-year accredited college, **or**

- a certified professional soil scientist in good standing with the American Society of Agronomy, **or**
- the possession of a certified soil tester classification (CSTM or CSTS) from the Wisconsin Department of Safety and Professional Services (DSPS).

If one does not possess the above, a variance is possible. In order to qualify for a variance, either of the following is necessary upon appointment:

- Licensure through DSPS as a Professional Soil Scientist, **or**
- Credentials as a Wisconsin Certified Crop Advisor (CCA) **or** Certified Professional Agronomist (CPAg) with the American Society of Agronomy.

### **Knowledge, Skills, and Abilities**

- Thorough knowledge of farming, including agronomic application rates and control of organic and inorganic pollutants, nutrient management practices, and soil conservation.
- Thorough knowledge of geology (specifically the local geology) and other factors affecting migration of pollutants into groundwater or surface waters.
- Working knowledge of pertinent federal, state and local laws, codes and regulations associated with biosolids management.
- Strong skills in using GIS applications and computerized databases.
- Experience interpreting and evaluating maps and specifications for application sites.
- Skill in using Microsoft Office Suite software.
- Ability to communicate effectively in both verbal and written form.
- Strong interpersonal skills.
- Skill in organizing and planning project activities.
- Skill in maintaining records and preparing reports.
- Ability to develop rapport and maintain effective working relationships with a variety of employees and external parties.
- Ability to work independently and in a team environment.

### **Physical Demands and Work Environment**

Work is performed both in the field and in a standard office environment. The seasonal nature of the biosolids program will result in extended hours (early mornings and some evenings) during the spring and fall, as well as work on the weekend, dependent on the weather. Must be able to use computer equipment for extended periods of time. Requires enough hand, arm, and finger dexterity to operate computer keyboard or other office equipment. Requires visual acuity to read and write words and numbers. Requires speaking and hearing ability enough to communicate in person, publicly or over the phone. Must be able to lift to 50 pounds occasionally. The noise level varies from quiet to loud. Requires the ability to work outside, stand, walk, kneel, and stoop for extended periods. Because work is performed in farm fields, the ability to physically access and walk over uneven terrain, ranging from dry to muddy condition, is essential.