



Ashland County Land and Water Conservation Department  
 315 Sanborn Ave., Suite 100  
 Ashland, WI 54806-1014

email: [MaryJo.Gingras@co.ashland.wi.us](mailto:MaryJo.Gingras@co.ashland.wi.us) Phone: (715) 682-7187 FAX (715) 682-0042

## APPLICATION MANURE IRRIGATION USE PERMIT

The Ashland County Agricultural Performance Standards and Animal Waste Storage Ordinance requires that a permit be obtained to apply manure using aerial spray irrigation techniques.

APPLICANT NAME:		APPLICATION DATE:	
MAILING ADDRESS:			
TELEPHONE:			
EMAIL ADDRESS:			
<u>FEE AMOUNT</u> (see fee schedule):		<u>DATE PAID:</u>	<u>CHECK NUMBER:</u>
APPLICATION APPROVED?	YES <input type="checkbox"/> NO <input type="checkbox"/>	<u>DETERMINED BY:</u>	<u>DATE:</u>

Please attach a technical and operational plan that meets the technical standards and operational requirements as detailed in this application form. The plan shall include the following information at a minimum. The applicant may use this checklist to ensure a complete application.

All landowners within 1000 feet of a field receiving the manure via aerial irrigation equipment will be notified prior to issuance of the permit and will have 30 days to provide written comments or concerns.

### **LOCATION MAP**

A map of each field to which manure will be applied through an irrigation system showing all waterways, buildings within 1000 feet of the field edge, adjoining land use, and setback buffers. The map shall include a color aerial photo	<input type="checkbox"/>
The scale of the map and the north arrow.	<input type="checkbox"/>
The date the map was prepared and the date of the aerial photo	<input type="checkbox"/>

### **ADJOINING LANDOWNER NOTIFICATION**

Provide a list of all landowners within 1000' of the perimeter of each field to which manure will be applied through an irrigation system	<input type="checkbox"/>
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### **IRRIGATION SYSTEM AND EQUIPMENT STANDARDS**

Provide detailed specifications on the irrigation system and equipment being used to apply the manure. Sufficient information must be provided to demonstrate compliance with the applicable technical standards.	<input type="checkbox"/>
Provide a description of the equipment and plan for monitoring and recording wind speed and direction at 15 minute increments while the irrigation equipment is applying manure.	<input type="checkbox"/>

### **OPERATIONAL PLAN**

Provide a copy of a nutrient management plan that meets the standards listed in NRCS WI Practice Code 590 for each field to which manure will be applied through the irrigation equipment	<input type="checkbox"/>
Provide a detailed explanation of any required setbacks or wind speed restrictions for each field to which manure will be applied through irrigation equipment	<input type="checkbox"/>
Provide a detailed explanation of a supervision plan during application (active monitoring, automation, etc.) to account for changes in wind speed or direction and leaks or other equipment malfunction	<input type="checkbox"/>



## **Ashland County Manure Irrigation Technical and Operational Standards**

### Applicability

The owner of the manure must obtain a valid permit from the Land Conservation Department prior to application of manure with irrigation equipment. If using a contractor to apply the manure, the owner is strongly recommended to use a written contract or service agreement to ensure the contractor understands and can comply with the technical and operational standards. The permit shall be for a specific method of application to a specific field or fields and shall be valid for 365 days.

Manure irrigation refers to the practice of applying livestock manure or process wastewater through irrigation equipment. It generally involves pumping the liquid manure from a storage area (such as a manure storage basin) through pipes or hoses to equipment conventionally used for irrigation—for example, “center pivots” or “travelling guns”—that are used to apply the liquid material to a field. Manure irrigation does not include manure spreaders or tankers with high volume discharge against splash plates or via toolbars.

### Adjoining Landowner Notification Requirements

1. All landowners within 1000 feet of a field receiving the manure via irrigation equipment shall be notified prior to issuance of the permit and will have 30 days to provide written comments or concerns.
2. All landowners within 1000 feet of the field receiving the manure via aerial irrigation equipment shall be provided written or oral notification of the application by the owner of the manure not less than 24 hours prior to making the application. Adjacent landowners may waive this notification requirement through written notice to the LWCD and permittee.

Manure Irrigation Equipment Standards: The manure irrigation equipment shall conform to the following standards:

1. Sprinkler irrigation systems will operate as a “low pressure” system between 2-35 pounds per square inch (PSI) as defined by NRCS WI Practice Code 442.
2. Droplet size must be “coarse” or larger based on ANSI/ASAE classifications unless drop nozzles are used that average less than 18” from the ground and are used within a crop canopy. The permittee will demonstrate compliance with this requirement through documentation of nozzle specifications and operating pressures. (\*ANSI/ASAE S572.1. 2013. “Spray nozzle classification from droplet spectra.” American Society of Agricultural and Biological Engineers. (<http://www.asabe.org/standards/>))
3. Comply with all federal, state and local laws, rules, and regulations regarding backflow and anti-siphon prevention measures on the installation and operation of a sprinkler system designed for the purpose of nutrient or wastewater application.
4. Pressure regulators are required on center pivot and linear move sprinkler outlets if pressure variation at any sprinkler, resulting from elevation difference exceeds 20% of design operating pressure at that sprinkler.
5. Unless pressure reducers or regulators are installed at each outlet or other pressure compensating or flow control devices are used, lateral lines shall be designed so that pressure variation along the lateral line does not exceed 20% of average design operating pressure.



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6. Sprinkler irrigation systems used to apply wastewater shall be designed with sprinkler nozzles of sufficient size to prevent clogging. Drop nozzles are required on the center pivot and lateral move systems.
7. If flexible drop tubes on the center pivot and lateral move systems are used they shall be weighted to maintain an average height of 18 inches or less.

Manure Irrigation Operational Standards:

1. No application of manure or process wastewater through irrigation equipment directly on or within 100 feet of lakes, ponds, perennial or intermittent streams.
2. No application of manure or process wastewater directly to concentrated flow channels, or direct conduits to waters of the state.
3. No human waste or septage may be added with the manure.
4. The permit holder must maintain a written or electronic record of wind speed and direction at 15 minute increments during the time the manure is being applied. These records must be maintained for a minimum of 3 years and provided upon request by the LWCD.
5. The land on which the manure is applied must be included in a nutrient management plan that meets the NRCS WI 590 Practice Code standard.
6. No runoff or diffused spray from the system onto neighboring property or public right-of-way.
7. Application operations shall not be conducted if rainfall that may produce runoff is forecasted within 24 hours.
8. Timing and rate of application shall be based on approved nutrient management plans.
9. No irrigation of liquid on frozen or snow-covered ground.
10. Have suitable means of supervising/controlling the equipment (e.g., active supervision, automatic sensors/controls, etc.)

Manure Irrigation Setback Requirements:

1. *Adjoining forested parcels with no recreational use:* A setback distance of 0 feet for private or public forested parcels provided there are no trails or other recreational uses within 100 feet of the property line. It shall be the responsibility of the adjacent landowner, upon receiving notification of a permit application, to notify the permittee and Land Conservation Department of recreational uses.
2. *Adjoining forested parcels with recreational use:* A setback distance of 100 feet and wind speed must be 10 mph or less. In addition, wind direction must be toward the manure irrigation equipment to ensure the adjoining parcel is upwind of the equipment.
3. *Adjoining agricultural parcels in pasture, forage, or grain crops:* A setback distance of 0 feet.
4. *Adjoining agricultural parcels in crops intended for human consumption (fruits, vegetables, etc):* A setback distance of 100 feet and wind speed must be 10 mph or less. In addition, wind direction must be toward the manure irrigation equipment to ensure the adjoining parcel is upwind of the equipment.
5. *Adjoining agricultural parcels when farmworkers are likely to be present within 3 days or less after the application:* A setback distance of 100 feet and wind speed must be 10 mph or less. In addition, wind direction must be toward the manure irrigation equipment to ensure the adjoining parcel is upwind of the equipment.
6. *Road-right-of-way:* A setback distance of 0 feet.



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7. *Adjoining public recreational areas (playgrounds, parks, etc.):* A setback distance of 100 feet and wind speed must be 10 mph or less. In addition, wind direction must be toward the manure irrigation equipment to ensure the adjoining parcel is upwind of the equipment.
8. *Dwellings or occupied buildings:* A setback distance of 500 feet. If wind direction is toward the manure irrigation equipment such that the dwelling is upwind of the equipment the manure application can occur in wind speeds up to 25 mph. If wind direction is toward the dwelling such that the dwelling is downwind of the equipment the manure application can only occur with wind speed 10 mph or less.
9. *Nighttime applications:* Prohibited between the time of sunset and sunrise for each day as listed by the National Oceanic and Atmospheric Administration.
10. *Adjoining lakes, ponds, perennial and intermittent streams:* A setback distance of 100 feet and wind speed must be 10 mph or less. In addition, wind direction must be toward the manure irrigation equipment to ensure the adjoining waterbody is upwind of the equipment.

#### Emergency Application of Manure with Irrigation Equipment

1. In the event of unforeseen catastrophic failure of manure transfer or storage facilities where immediate dispersal of manure is required to prevent or mitigate environmental or public health degradation, the owner of the manure may utilize manure irrigation to disperse the manure without a permit. However, the owner of the manure shall contact the Ashland County LWCD and adjoining landowners upon commencement of the spreading.
2. In the event of an impending overflow of a manure storage facility for which manure irrigation is necessary to draw down the facility, the Land Conservation Department shall be notified as soon as possible to obtain a manure irrigation permit. At that time, the Land Conservation Department shall have the discretion to waive certain requirements of this permit, such as the 30-day adjoining landowner notice, in order to facilitate the safe dispersal of the manure and avoid an overflow. However, waiving permit requirements shall be done only when an impending overflow is caused by factors not in the control of the owner of the manure, such as record storms or other unforeseen occurrences.