

1501: 15-5-20 DESIGNATING WATERSHEDS IN DISTRESS

- A. The chief may designate a watershed to be in distress, and thereby set requirements for the storage, handling, and land application of manure; and/or the control of the erosion of sediment and substances attached thereto; and associated nutrient management plans for land and operations within the designated watershed boundaries. In evaluating a potential designation, the chief may consider whether:
1. The watershed is listed as impaired by nutrients and/or sediments from agricultural sources as determined by the Director of Environmental Protection and published in the Ohio Integrated Water Quality Monitoring and Assessment Report pursuant to Section 303(d) of the Federal Water Pollution Control Act or waters are identified as such in an approved Total Maximum Daily Load Report pursuant to OAC Rule 3745-2-12 as required by Section 303(d) of the Federal Water Pollution Control Act;
 2. The watershed or a portion of the watershed exhibits conditions that are a threat to public health based on information provided by the Ohio department of health or local health district;
 3. Streams, lakes, or other waterbodies within the watershed exhibit periodic evidence of algal and/or cyanobacterial blooms capable of producing toxins that are harmful to humans, domestic animals or wildlife;
 4. There is a threat to, or presence of contaminants in public or private water supplies;
 5. There is a threat to, or presence of contaminants in a primary contact recreational water of a bathing water as designated in OAC 3745-1;
 6. Other unacceptable nuisance conditions exist including the depletion of dissolved oxygen in water that results in impacts to aquatic life;
 7. Other situations as determined by the chief upon consultation with other federal, state and local agencies.
- B. Prior to prosing to designate a watershed in distress, the chief shall prepare and issue a report documenting the factors in the watershed relating to the items in paragraph (A).
- C. No designation of a watershed in distress shall be issued until the Ohio soil and water conservation commission consents by a majority vote to a proposed designation.
- D. The chief may remove the watershed in distress designation upon reasonable confirmation of a sustained recovery, restoration and mitigation of the factors leading to the original designation.

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Spreadin' the News!

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Winter Nutrient Management Meeting to be held on March 10 at 6:00 pm at the Lykens Township Building on St. Rt. 19 (South of Bloomville about 5 miles). Glen Arnold will be the main speaker and will discuss five years of on-farm research plots where liquid swine and dairy manure have been applied to soft red winter wheat.

MANURE APPLICATION EQUIPMENT CALIBRATION

Manure Spreader/Tanker Calibration - There are several methods that can be used to calibrate the application rate of a manure spreader. The two best methods are the load-area method and the plastic sheet method. It is desirable to repeat the calibration procedure 2 to 3 times and average the results to establish a more accurate calibration.

Before calibrating a manure spreader, the spreader settings such as splash plates should be adjusted so that the spread is uniform. Most spreaders tend to deposit more manure near the spreader than at the edge of the spread pattern. Overlapping can make the overall application more uniform. Calibrating application rates when overlapping is involved requires measuring the width of two spreads and dividing by two to get the effective spread width.

Calibration should take place annually or whenever manure is being applied from a different source or consistency.

Load-Area Method - The load-area method is the most accurate and can be used from most types of manure handling. This method consists of determining the amount (volume or weight) of manure in a spreader and the total area over which it is applied. The most accurate method to determine the amount of manure in a spreader is to weigh the spreader when it is full of manure and again when it is empty (portable pad scales work well for this). The difference is the quantity of manure applied over the area covered. Spreader capacities listed by the manufacturers can be used to determine the amount of manure in the spreader. However care must be taken when using manufacturer's spreader capacities. Heaped loads, loading methods and manure type may vary considerably from what is listed by manufacturers of box and side delivery manure spreaders. Spreader capacities for liquid tankers are accurate provided the tanker is filled to the manufacturer's recommended levels, and no foam is present in the tank.

The area of spread is determined from measuring the length and width of the spread pattern. Measuring can be done with a measuring wheel, measuring tape or by pacing. The application rate is calculated using the following formula:

$$\frac{\text{Spreader Capacity (Tons or Gallons)} \times 43560 \text{ sq. ft/acre}}{\text{Distance Traveled} \times \text{Spreading Width}} = \text{Application Rate Tons or Gallons/Acre}$$

Plastic Sheet Method—The plastic sheet method can only be used with solid or semi-solid manure. This method of calibrating spreader application rates involves 1) cutting a plastic sheet to the specified dimensions (56 inches x 56 inches), 2) weighing the clean plastic sheet, 3) laying out the plastic sheet on the ground and driving the manure spreader (applying manure at a recorded speed and spreader setting) over the sheet, 4) weighing the plastic sheet with the manure on it, and 4) determining the net weight of the manure on the sheet (weight of manure and sheet— weight of the clean sheet), and 5) the net pounds of manure equals tons per acre applied.

When calibrating manure spreaders, all details regarding tractor speed and manure spreader settings & date(s) of each calibration should be recorded with manure application information, and written directly on the equipment. Mark equipment to ensure a known application rate is applied each time the reference tractor speed & spreader settings are used.

NEW RULES FOR THE AGRICULTURAL POLLUTION ABATEMENT PROGRAM & GRAND LAKE ST. MARY'S WATERSHED *By David Hanselmann, ODNR-DSWR Chief*

Some very serious water quality issues received a lot of attention across Ohio during the past two years. These issues have caused human health problems and threatened drinking water supplies. The Division of Soil and Water Resources in the Ohio Department of Natural Resources, as well as other state agencies, the soil and water conservation districts, and many others continue to have water quality as a major focus. When we really get down to it, it is the responsibility of every Ohioan to recognize how they can be a part of the broad effort to ensure safe, plentiful supplies of water for people, businesses, agriculture, and industry.

Ohio's largest inland lake, Grand Lake St. Mary's, located in western Ohio has experienced major water quality problems. Blooms of blue green algae have developed and are producing toxins that can cause liver and neurological problems. While regular tests of Celina's finished drinking water from Grand Lake never detected the toxins, tests of lake water were far above the World Health Organization standard for moderate risk from recreational use. The State posted warnings around the lake in 2009 and again in 2010. This past summer conditions grew dramatically worse with widespread algal blooms. Use of the lake became nearly non-existent, and the local economy was hit hard.

During the summer and fall of 2010, public and media attention led agencies to investigate other public bodies of water across Ohio and the same algal and toxin problems were found in some cases, although at levels lower than at Grand Lake. The western basin of Lake Erie also experienced widespread blooms, and delivery of dissolved reactive phosphorus from the Maumee and Sandusky Rivers and other tributaries were at the highest levels ever recorded in Lake Erie.

There are many causes and sources of these problems, but the Division of Soil and Water Resources recognized that at Grand Lake and its watershed, runoff from agriculture needs to be reduced further. The 13,500 acre Grand Lake is a "canal feeder" lake that is only about seven feet deep, and water going into the lake "turns over" approximately every 1 ½ years. In the relatively small 57,000 acre watershed there are approximately 450 farms, of which approximately 300 have livestock. This is the largest concentrations of livestock in Ohio, and agriculture accounts for 80%-90% of the land use in the watershed. Data collected in 2009 from the Chickasaw Creek gauging station, located within the watershed, shows phosphorus loading 11 times the Total Maximum Daily Load target. Reducing the external (watershed) loading of phosphorous has been identified as a means to address environmental decline and poor water quality at Grand Lake.

The State is currently evaluating several in-lake treatments to manage the algal problems and hopes there is a basis to treat the whole lake next spring. At the same time, the Division of Soil and Water Resources has adopted new rules under its Agricultural Pollution Abatement Program to help address manure nutrient runoff in the watershed. The new rules allow the Division to designate watersheds, like the Grand Lake St. Mary's Watershed, as "distressed" with the consent of the Ohio Soil and Water Conservation Commission. This designation invokes new rules that require anyone handling more than 350 tons or 100,000 gallons of manure per year to obtain a nutrient management plan and operate in conformance with it. The designation also significantly restricts land application of manure between December 15th and March 1st, or when ground is frozen outside those dates. Limited exceptions between those dates will be allowed and guidelines will be developed prior to the rules taking effect in two years. Moreover, USDA NRCS Standard 633 Waste Utilization must be followed as soon as a watershed is designated "distress".

Our hope is that people across Ohio realize that we must do more to protect and manage our abundant water resources before conditions worsen and we experience more economic and social impacts as we have seen recently at Grand Lake. Ohio's water resources are a great advantage for our economy, for recreation, and for our environment, and protecting and managing them with demand much from all of us.

ODNR DIVISION OF SOIL & WATER RESOURCES AGRICULTURAL POLLUTION ABATEMENT PROGRAM

WHAT ARE THE APAP RULES?

The Agricultural Pollution Abatement Rules, 1501:15-5-01 to 1501:15-5-20 of the Administrative Code, apply to the control of pollutants from areas within the state used for agricultural production or silvicultural operations including land used for: production or keeping of animals, production of agricultural crops, and private, commercial, & public woodlands.

These rules establish state standards for a level of management and conservation practices in farming, silvicultural operations and animal feeding operations on farms in order to abate excessive soil erosion or the pollution of waters of the state by soil sediment and animal manure. ODNR, Division of Soil and Water Resources (ODNR-DSWR) in cooperation with Ohio's Soil and Water Conservation Districts (SWCDs) is responsible for administration of the Agricultural Pollution Abatement Program as outlined in OAC 1501:15-5-01 to 1501:1505-20.

RULES HAVE BEEN REVISED AND UPDATED.

State agencies are required to complete rule reviews every 5 years. All eighteen existing rules were edited plus two new additional rules were added for "watersheds in distress". Proposed changes were filed in October and hearings were held in November and December. The rule changes were finalized in mid December.

NEW RULES FOR WATERSHEDS IN DISTRESS

WINTER MANURE APPLICATION

Within two years after designation of a watershed in distress:

- Manure shall not be applied between December 15th and March 1st without prior approval.
- Before December 15th and after March 1st manure shall not be surface applied on frozen ground or ground covered by more than one inch of snow. It is permissible to apply when manure is injected or incorporated within 24 hours of surface application.
- Shall keep records of manure storage volumes and ensure a minimum manure storage capacity of 120 days on December 1st of each year.
- No manure shall be surface applied if the local weather forecast for the land application area contains a greater than fifty per cent chance of precipitation exceeding one-half inch for a period extending twenty-four hours after the projected start of land application of manure.

Effective Immediately: NRCS Practice Standard 633 Waste Utilization must be followed. Not following this standard is considered a violation regardless of whether pollution to waters of the state has occurred.

NUTRIENT MANAGEMENT PLANS

Within two years after designation of a watershed in distress:

- Operations producing, applying, or receiving in excess of 350 tons and/or 100,000 gallons of manure annually must develop and operate in conformance with a nutrient management plan.
- CNMP or the OSU Nutrient Management Workbook acceptable formats.
- Soil and manure analysis must be included as part of the plan.
- Plans are submitted a minimum of once every 3 years to the local SWCD or ODNR DSWR for approval.
- Manure nutrient application records, weather forecasts, manure and soil analysis and storage volumes shall be kept and made available for review.

For more information: <http://www.dnr.state.oh.us/tabid/23035/Default.aspx>