



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Updating Permits – Expanding Manure Restrictions in Michigan

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Outline

- Some background
- Updates to the permit
- Current status



WRD: What we protect

- **1/5** of the world's surface fresh water in the Great Lakes
- 3,000 miles of shoreline
- 36,000 miles of streams
- 11,000 lakes and ponds
- 6.4 million acres of wetlands

2020 Permit Background

- Sixth General Permit since 2002
- Fourth iteration of the modern permit which was issued in 2005
- Robust Process
 - Three Stakeholder Meetings
 - Three Public Meetings & Hearings throughout the state
 - Several individual meetings with stakeholders and facilities
 - 45-day public comment period with over 2,400 comments

2020 Permit Background

- Balance the need for protecting our freshwater lakes and streams while keeping Michigan's largest livestock operations a vibrant part of the state's economy.
- More protective measures are necessary as agriculture contributes to increasingly troublesome harmful algal blooms in Lake Erie and other waterways.

2020 Michigan General Permit Changes

- Increased sampling requirements
- Specifies 180 days of storage for both solid and liquid waste
- Better accounting of residual solids in structures
- Land application allowable soil P levels
- Cold weather land applications, aka “Winter Spreading”
- Implement TMDL guidelines
- Increased manifest and land application reporting requirements

2020 Michigan General Permit Changes

- Sampling Requirements

- Now making facilities sample all discharges, regardless of whether they are considered authorized or unauthorized.
- Expanded list of parameters includes
 - 5-Day Carbonaceous Biochemical Oxygen Demand (CBOD5)
 - *Escherichia coli* (*E. coli*)
 - Total Phosphorus (as P)
 - Ammonia Nitrogen (as N)
 - Total Suspended Solids (TSS)

Waste Storage Requirements

- Facilities aren't achieving required minimum 6 months storage capacity between November 1 and December 31
- Continue to see “winter applications”
- Ensuring adequate storage related to waste storage practices, i.e. solids in a liquid pit
- Ensuring capacity is achieved and solids are being removed



Phosphorus Management

- 2015 Permit
 - Can use Michigan Phosphorus Risk Assessment (MPRA) or soil P level tiers of <75 ppm, 75-150 ppm, and >150 ppm.
- 2020 Permit Initial Draft
 - Only use MPRA
- 2020 Permit Final
 - Use MPRA or modified soil P level tiers

Phosphorus Management

- 2020 Permit
 - MPRA – no change there
 - Soil P level tiers
 - From stakeholder input
 - 10% reduction in tiers across the board: <68 ppm, 68-135 ppm, and >135 ppm
 - 20% reduction in nutrient **TMDL areas**: <60 ppm, 60-120ppm, >120 ppm
 - Additional criteria for land application near surface waters
 - 100-foot setback **AND**
 - 35-foot permanent vegetative buffer

Cold Weather Land Application

- Can still land apply without incorporation on frozen or snow-covered ground using Michigan's Technical Standard
- Exceptions during January, February, and March (JFM) can only land apply if:
 - Immediately incorporate or inject
 - Less than 4 inches of snow
 - Less than 2 inches of frost
 - Soil P levels <68 or <60 for TMDL areas



Cold Weather Land Application

- Why?
 - We know these are high risk months for runoff
 - Continued responses to melt/thaw type discharges
 - Most stakeholders say they don't do "winter application" anyways
 - We negotiated from a complete ban to allowing if conditions are right
- JFM – No manifesting of waste for land application during this time period either

TMDL Implementation at CAFOs

- TMDLs
 - Nutrient (N and P) applies to land application in TMDL areas
 - Lowered allowable soil P levels in these TMDLs by 20%
 - Max of 150 ppm Bray P1 to 120 ppm
 - Crop removal limit at 75 ppm to 60 ppm
 - MPRA – Have to obtain a “low” score
 - *E. coli*, Biota, Dissolved Oxygen
 - Applies to both production area & land application areas
 - Facilities must complete an evaluation based on EGLE guidance
 - If needed implement additional pollutant control measures

TMDL Implementation at CAFOs

- TMDLs
 - *E. coli*, Biota, Dissolved Oxygen – Continued
 - Most controls for *E. coli*
 - Treatment
 - Increased buffer and setback criteria, timing of applications
 - Additional criteria for liquid waste
 - » Limit application rate at one time
 - » Increase time between applications
 - » Tiled field considerations: not flowing vs. flowing

Manifesting Requirements

- CAFOs must use approved manifest form as before
- Must obtain soil P data for field receiving manifested manure, prior to transfer
- Cannot manifest for land application in January, February or March
- Continued expectation that manifested manure follows CAFO land application requirements, i.e. timing, placement, and rate

Reporting Requirements

- Quarterly reporting of land application and manifesting activities
- Similar but different information for both



Current Status

- EGLE produced a robust and thorough permitting update process
- Permit has been contested and currently moving through that process
- Several of the changes highlighted today are being contested
- Last 3 General Permits were not contested

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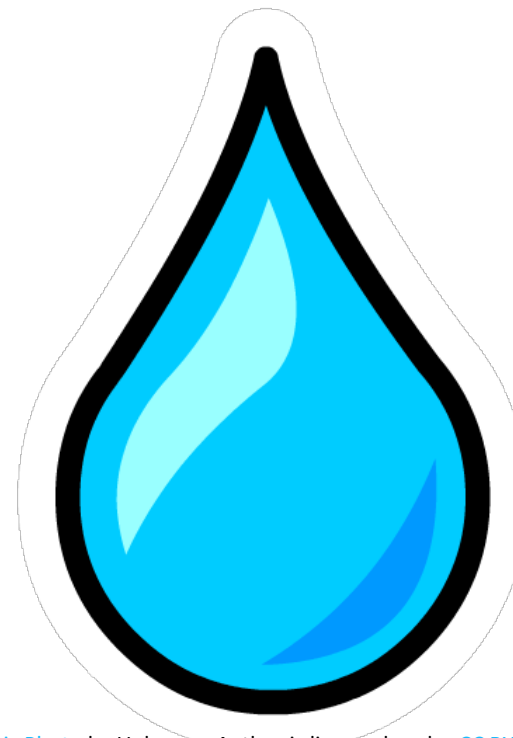
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Thank You!

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