

VAMWA-MWCOG-MAMWA
Regional Biosolids Meeting
March 23, 2020

Background Information:
Review of State Restrictions on
Biosolids Beneficial Use

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Increasingly Difficult to Reuse Biosolids

2018 Weather Impacted Local Programs

- High amt. of precipitation in 2018
 - EX: City of Baltimore had 71.28" (vs. normal amt. of 40.72")
- Less land application means more materials in storage
- Also, increased demand for landfilling, incineration
- More severe precipitation swings may be new norm

Each Jurisdiction Has Different Rules

- That impact biosolids management
- See slides below for overview

But, All Generators Share Concerns

- About the future of their programs
- Across the region, questions about long-term planning

MD: Restrictions on Land Application

Winter Ban on Nutrient Applications

- Adopted in 2012 as part of Nutrient Management Manual
- Relates to State's concerns re nitrogen leaching potential
- Historically only applied to manures
- 2012 version covered ALL organics (including biosolids)
- Winter lasts from Dec. 16 through Feb. 28 of following year

Some Minor Changes Made in 2017

- Benefitted agricultural community
 - Allowed for applications in emergency situations
 - Due to imminent overflow of storage facility
 - Limited to on-farm generated organic fertilizer
- Md. Dept. of Ag. unwilling to extend to wastewater plants
- State expects generators to have storage
 - Including emergency storage or resources to pay for it

MD: Winter Ban

E. Prohibition against Winter Application

1. Except as provided in subsections E.2 and, E.3 and E.4, after July 1, 2016, a person may not make a winter application of a nutrient source to agricultural land.

2. a. The prohibition against making a winter application after July 1, 2016 does not apply to a nutrient source that originates from:

(i) A dairy or livestock operation with less than 50 animal units; or

(ii) A municipal wastewater treatment [plan] plant with a design flow capacity of less than 0.5 million gallons per day.

b. This exception to the general prohibition referenced in subsection E.1 expires after the winter application that ends on February 28, 2020.

3. The prohibition against making a winter application does not apply to potash, liming materials, or manure deposited directly by livestock. A person may make a winter application of certain nutrients for greenhouse production and for certain vegetable crops, small fruit crops, small grain crops, and cool season grass sod production listed in the Maryland Nutrient Management Manual Section I-B.

4. Applications required in emergency situations due to an imminent overflow of a storage facility from on farm generated organic fertilizer shall be managed AS PROVIDED IN III D.2 [and] in consultation with the Maryland Department of Agriculture. Operators in such situations shall contact the MDA regional nutrient management representative for guidance. Operators will be required to enter into an agreement of intent with the Soil Conservation District or private entity that is a certified Technical Service Provider approved by NRCS.

MD: PMT Adoption

PMT Referenced in Phase I WIP

- In the State's Table of Strategies
 - “The State of Maryland will support development of a revised P Site Index that incorporates the best available science in an effort to more appropriately identify the risk for phosphorus loss from agricultural lands.”

Negotiated Phase In To Replace 2005 PSI Tool

- Result of 2015 compromise by Gov. Hogan, General Assembly
- See slide below

Purpose and Use of PMT

Identifies Areas With High “P Loss Potential”

- Based on possible transport
 - 3 separate pathways
 - Surface runoff, subsurface discharge, particulate bound P
- Applies if soil test for P is >150 soil fertility index value (FIV)

Calculation Results in a “Risk” Score

- Low, medium, or high

Classification Establishes Rules for Applications

- Low = P ltd. to no more than 3-yr removal rate, 3-yr. period
- Medium = P ltd. to amt. removed by next crop or soil test P
- High = No P applications on site

Dept. of Agriculture Soil Testing

Md Dept. of Ag. Has Completed Soil P Data

- On 88% of farms
- 1,124,319 acres total

20% of Farms Will Require PMT

- Approx. 226,863.8 acres

Confirms POTW Initial Concerns

- Large amounts of agricultural acres
- Not available for biosolids land application
- Especially on Eastern Shore of MD

VA: EQ Permitting Requirements

DEQ Very Conservative with EQ Permits

- Issued pilot Distribution and Marketing (D&M) permit
 - To DC Water for 2 years (Feb. 2, 2018 – Jan. 31, 2020)
 - For cake EQ materials

DEQ Concerned with Public Perception

- Neighbors cannot see difference between A and B
 - If land applied on agricultural field
- Incorporated Class B type requirements in permit
 - EX: Must have Virginia Certified Land Applicator at land app. site
 - EX: Setbacks for Class B materials apply

Result is Chill in Market Development

- Much of material is going to MD, PA

Most Critical EQ Permitting Issue

Generator Responsibility for Third Parties

- Creates long regulatory “tail”

DEQ: Generator Responsible for 3rd Party

- Existing regulations require NMP for bulk EQ land app.
 - Except bulk blended product applied to non-agricultural site
- DEQ must enforce NMP requirements
- D&M permit can “cover” land app. activities
 - Instead of requiring 3rd party to obtain land application permit
 - But permittee will bear risk of 3rd party noncompliance with NMP

Creates Unworkable System for Generator

- Cannot be responsible once product leaves hands

Text from BLOOM Fact Sheet

Distribution and marketing of EQ cake biosolids and Blended EQ biosolids products in bulk, bag or other container. Application rates of bulk biosolids shall be in accordance with site-specific Nutrient Management Plans (NMP) when EQ cake biosolids are land applied or blended EQ cake biosolids are land applied on agricultural land. DC Water is also responsible for ensuring that when bulk cake biosolids are provided to a blender, and that when blended material is provided in bulk for application to an agricultural site, the land application is performed in accordance with an NMP. Where distribution of Bloom products occurs in bag or other container, DC Water is not responsible for the end use of the material.

VAMWA Steps to Address

Have Attended Meetings with DEQ Staff

- To discuss options for removing the regulatory “tail”

DEQ and VAMWA Have Reviewed GP Option

- Would allow EQ permittees to be covered under GP
- Could consider including end-user requirements
 - For larger users
 - Similar to poultry waste regulations

DEQ Unwilling to Move Forward At This Time

- Without sign-off by Secretary of Natural Resources
- Encouraged VAMWA to review positive impacts
- On the environment (esp. climate change) from land app.

VA: Recent Va. Dept. Health Study

VA General Assembly Funded 2 VDH Studies

- \$50,000 each
- For epidemiological pilot study
- For Class B pathogens testing

VDH Issued Report on Jan. 3, 2020

- Submitted to General Assembly committees
- Available at: <https://rga.lis.virginia.gov/Published/2020/RD14>

VDH Report Recommendations

Based on Pathogen Study

- Additional epidemiological studies needed within 400'
- If biosolids are aerobic or anaerobic
- Fecal shows lime stabilization is "more effective"

If Future Studies Conducted

- To look at odor and its impacts on quality of life
- Should include homes beyond 1,000'
- And look at all treatment methods

Report Recommendations (cont.)

Need Higher Response Rate to Surveys

- To assess impact of Class B on health
- Consider repeat survey mailings or door-to-door interviews

For Generators of Aerobic, Anaerobic

- Report pathogen content to DEQ “until biosolids generated by facilities using these methodology can meet the pathogen content found in Class B biosolids generated by lime stabilization methods.”

Report Recommendations (cont.)

DEQ Should Increase Buffers

- Between occupied dwellings and land app. sites to 400'

VDH Would Need Additional Funding

- To conduct a more thorough follow-up
- Estimated minimum cost of \$250,000
- To hire 2 FTE contract staff, cover costs

QUESTIONS?

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