

Virginia Department of Environmental Quality

New Developments in Statewide Regulatory Programs

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Presentation Overview

- Why regulation?
- Overview of Land Application Regulations
- What's Changing?
- Specific Topics
 - Nutrient Management Plan Requirement
 - Soil Suitability (Infiltration Rates, Karst)
 - Setback Areas
 - Phosphorus Application Rates

Why Regulation?

- Discharge versus No-Discharge
- Disposal versus Beneficial Use
- Third Party Verification
- Words Get in the Way

The Goals

Protection of:

- Public Health
- Surface Water Quality
- Ground Water Quality
- Crop

Land Application Regulations

- **Virginia Pollution Abatement Permit Regulation**
 - Biosolids Land Application - Contractors
 - Individual Permits
- **Virginia Pollutant Discharge Elimination System Permit Regulation**
 - Biosolids Land App - Wastewater Treatment Plants
 - Concentrated Animal Feeding Operations
- **Animal Feeding Operations General VPA Permit Regulations**
- **Water Reclamation and Reuse Regulation**

The Times They are a Changin'

- **Biosolids Regulatory Action**
 - Begun 2008
 - Final → Winter 2011??
- **Federal CAFO Rule**
 - Begun 2003
 - ...Enter the Lawyers
 - Modified 2008
 - ...???
- **Chesapeake Bay TMDL & Watershed Implementation Plan**

Biosolids Compliance

- Calendar Year 2009
 - more than 1600 inspections conducted
 - ≈ 80% of the farms where biosolids spread were inspected
 - ≈ 65% of the fields on those farms are inspected
 - ≈ 70% of the inspections are conducted during land application

What are the Issues?

- Nutrient Management Plans
 - AFOs → Approved by DCR since 1998
 - Biosolids
 - New to program in 2008
 - Approved by DCR in only special cases
 - AFOs and frequent application
 - Proposed: Reclamation and P sat > 35%
 - Not Required
 - Commercial Fertilizer
 - Unpermitted AFOs
 - Resource Management Plan Legislation

What are the Issues?

- Soil Suitability
 - “good tilth and drainage”
 - “moderate to high surface infiltration”
 - “moderate to slow subsoil permeability
 - Depth to Bedrock or Restrictive Layers 18”
- Infiltration Rates
 - Too Rapid – Leaching
 - Too Slow – Runoff
- Soil Maps versus site-specific evaluation
 - Borings
 - Crop quality

What are the Issues?

- Karst
 - Setbacks from sinkholes
 - AFO – “shall not be applied in such a manner that it would discharge into sinkholes”
 - Biosolids – 50’ setback
 - Setback FROM WHAT?
 - Proposed → No staging in Karst areas
 - Soil Depth

What are the Issues?

- Phosphorus Application Rates
 - Potential for loss
 - P-index
 - US Environmental Protection Agency
 - Restriction on Federal Lands
 - 20% P saturation = no additional P
 - Review of NMP Technical Criteria
 - NRCS 590 Standard
 - Evaluation of P loss potential

QUESTIONS?