Concentrated Animal Feeding Operation (CAFO) Regulations Overview

Presented by the Delaware Nutrient Management Program

Purpose of This Presentation

- Provide an overview of the CAFO program & requirements
- Summarize the proposed state CAFO regulations
- Solicit feedback on the proposed regulations.
- Changes to temporary field storage of poultry litter for all who utilize poultry litter

Authority

- Nutrient Management Law
- Water Protection Law
- Clean Water Act (CWA)

Roles & Responsibilities For CAFOs

- DDA
- DNMC
- Poultry Companies
- DNREC
- NRCS
- EPA
- University of Delaware

DDA/DNMC

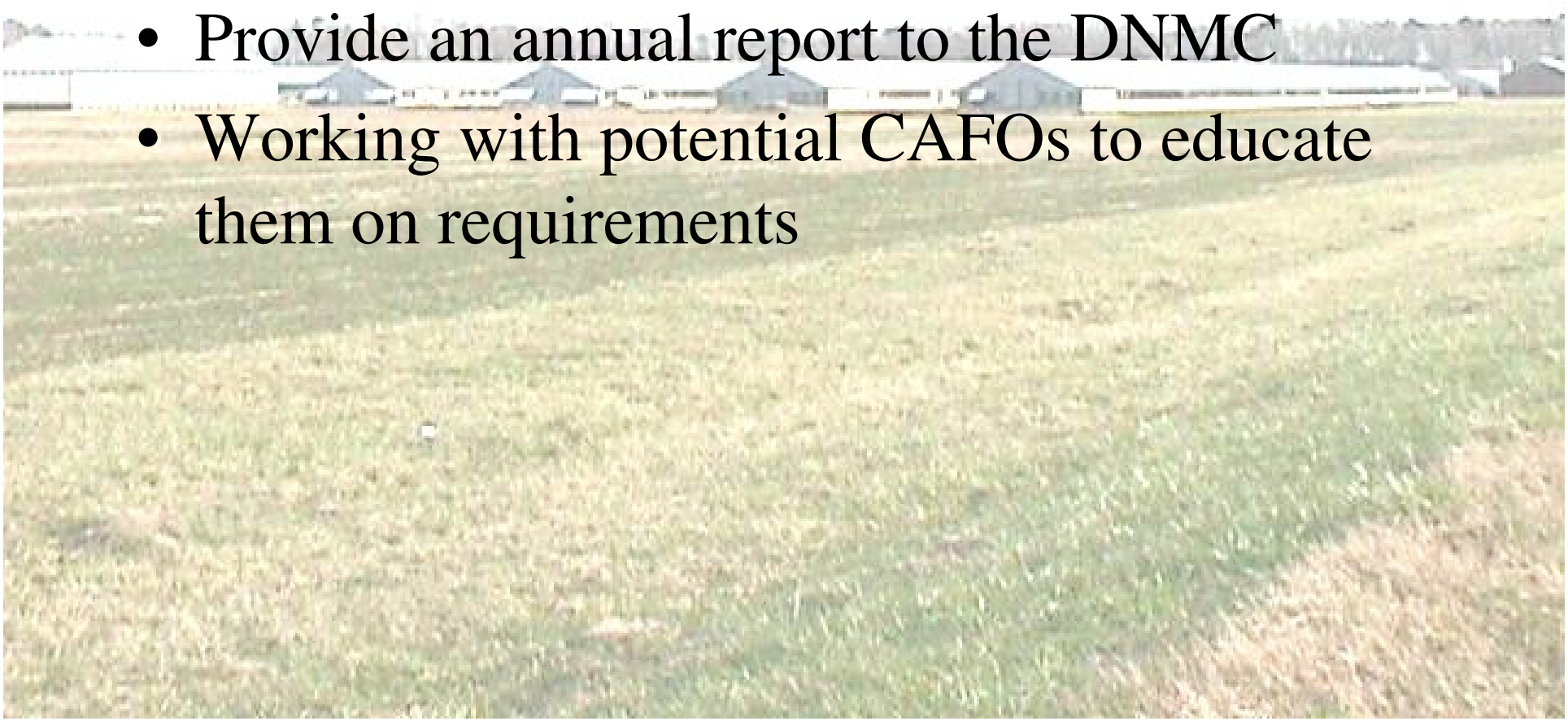
- Administer the CAFO (general and individual) permit program as outlined in the MOA and in consultation with the DNMC.
- The initial point of contact with the regulated community.
- Determine which facilities need general CAFO permit coverage.
- Determine which facilities need individual CAFO permit coverage and develop the permits.
- Receive the NOIs for CAFO general permits from facilities and maintain a list of covered facilities and provide that list to DNREC.
- Perform the inspections and monitoring as necessary to ensure compliance with the applicable regulations and provide a copy of the inspection reports and monitoring results to DNREC.
- Review and approve, or disapprove, nutrient management plans required under section 2248 of the nutrient management law.
- Be the lead on CAFO enforcement and follow the provisions of subchapter V of the nutrient management law and notify DNREC of any CAFO enforcement action.

DDA/DNMC

- NM law Implementation
- Responsible for overseeing the policies and regulations including BMPs
- Recommend to the Secretary for enforcement and or penalties and fines
- Complaint or violations and certification regulations

Poultry Companies

- Formal agreement on January 8th 2001
- Provide an annual report to the DNMC
- Working with potential CAFOs to educate them on requirements

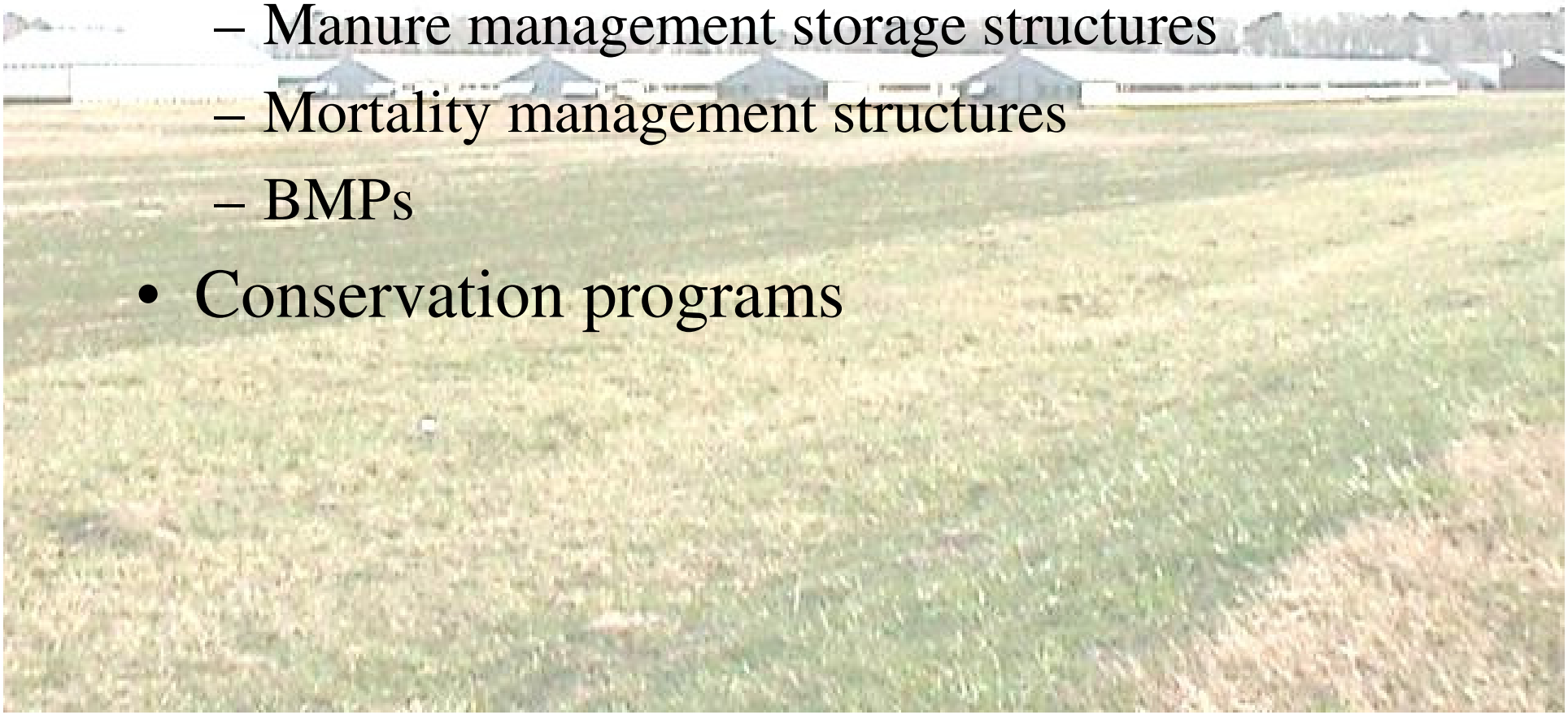


DNREC

- Promulgate general permit regulations to cover CAFOs under the regulations governing the control of water pollution. Promulgation of the general permit regulations constitutes issuance of the general permit. In the development of the general NPDES CAFO permit regulations, the DNREC shall rely to the maximum extent practicable on the requirements and procedures established by title 3, Delaware code section 2248 (nutrient management law) and the guidance manual for CAFO permits developed by the EPA.
- Initiate an enforcement action relating to CAFOs should DDA and DNMC unsuccessfully resolve an enforcement issue as defined by title 3, chapter 22 by giving 30 days notice of intent to the DDA and the DNMC. Any enforcement action taken by the DNREC will be under title 7, Delaware code, chapter 60.
- Report any information required in the NPDES permit compliance system to the EPA.
- Issue individual CAFO permits.
- Ensure that TMDL concerns are coordinated during permit issuance.
- Serve as the lead agency for coordination with the EPA consistent with the 1983 MOA between the two agencies.

NRCS

- Technical and engineering services
  - Manure management storage structures
  - Mortality management structures
  - BMPs
- Conservation programs



EPA

- Regulatory & national responsibilities
- CAFO regulations finalized February 12, 2003
- Delaware, District of Columbia, Maryland, Pennsylvania, Virginia & West Virginia make up EPA region III

University of Delaware

- Certification classes
- Research priorities

Background

- Federal CAFO regulations
  - Why regulate CAFOs?
- State nutrient management law

Federal CAFO Regulations

- Clean Water Act
- Strengthens existing CAFO rules
- National Pollutant Discharge Elimination System (NPDES) Permit Program
- Effluent Limitations Guidelines and Standards (ELGs)

State Nutrient Management Law

- Executive Order # 52 (April 21, 1998)
- House Bill 250 (June 17, 1999)
- Regulation, policies and standards for certification, complaint & enforcement, nutrient plan, cost assistance programs, BMPs and CAFO regulations

Significant Changes from Previous Proposal

Changes are a result of the 2nd Circuit Court of Appeals ruling, regarding the lawsuits by the farmer's groups and the environmentalist groups.

- New definitions:
  - Agricultural Storm Water Exemption
  - Application Area
  - Production Area (revised)
- Duty to apply changed
  - No longer based on number of animals, but on actual discharge
- Nutrient management plan must be included with the notice of intent
  - Must contain certain minimum components

What Is an AFO

- Animals stabled, confined, fed or maintained for a total of 45 days or more in any 12 month period, and the animal confinement areas do not sustain crops, vegetation, forage growth or post harvest residues in the normal growing season
- Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining the number of animals in an operation, if the production areas adjoin each other or if the AFOs use a common area or system for the disposal of manure or wastes

Production Area

- Production area is that part of an AFO that includes the animal confinement area, the manure storage area, the raw materials storage area and the waste containment areas. The animal confinement area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes but is not limited to lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes but is not limited to feed silos, silage bunkers, and bedding materials. The waste containment area includes but is not limited to settling basins, and area within berms and diversions which separate uncontaminated storm water. Also included in the definition of production area is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities.
- Must withstand 25 year 24 hour rainfall event without damaging or flooding animal building, feed storage or manure storage areas

Liquid Manure & Liquid Manure Handling System

- Liquid Manure - means usually less than 8.0% solids. Wash water, runoff, precipitation, and so forth are added, if needed to dilute the manure and lower the solids content.
- Liquid Manure Handling System - means an operation where animals are raised outside with swimming areas or ponds, or with a stream running through an open lot, or in confinement buildings where water is used to flush the manure to a lagoon, pond, or some other liquid storage structure.

Other Important Definitions

- Agricultural Storm Water Exemption – means an exempt discharge of manure, litter or process wastewater provided the manure or process wastewater has been applied in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure or process wastewater.
- Application Area – means land under the control of an AFO owner or operator, whether it is owned, rented, or leased, to which manure, litter or process wastewater from the production area is or may be applied.

What Is a CAFO?

An AFO is a CAFO if the number of animals equal or exceed the following criteria and the AFO is not currently compliant with the state nutrient management law and regulations:

- 1,000 beef cattle or heifers,
- 700 mature dairy cattle (whether milked or dry cows),
- 2,500 swine each weighing over 55 pounds,
- 10,000 swine weighing under 55 pounds,
- 500 horses,
- 10,000 sheep or lambs,
- 55,000 turkeys,
- 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system,
- 125,000 chickens except laying hens (if other than a liquid manure handling system),
- 82,000 laying hens (if other than a liquid manure handling system),
- 1,000 veal calves,
- Any AFO identified as a non-compliance, high threat operation

Who has a Duty to Apply for a Permit?

- Provided one of the following conditions is met and the number of animals is equal to or greater than the number specified, the operator has a duty to apply:
  - Pollutants are discharged into waters of the State through a man-made ditch, flushing system, or other similar man-made device; or
  - Pollutants are discharged directly into waters of the State, which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation; or
  - Pollutants are discharged into waters of the State caused by the improper handling of animal mortalities or improper manure management as identified by standards adopted by NRCS and or the Commission; or
  - Pollutants are discharged into waters of the State from the application area as agricultural storm water, except for agricultural storm water exemption.

Who has a Duty to Apply?

- 300 beef cattle or heifers,
- 210 mature dairy cattle (whether milked or dry cows),
- 750 swine each weighing over 55 pounds,
- 3,000 swine weighing under 55 pounds,
- 150 horses,
- 3,000 sheep or lambs,
- 16,500 turkeys,
- 9,000 laying hens or broilers, if the AFO uses a liquid manure handling system,
- 37,500 chickens except laying hens (if other than a liquid manure handling system),
- 24,600 laying hens (if other than a liquid manure handling system),
- 300 veal calves,

***Provided they meet the criteria on the previous slide.

What Is Required of a CAFO Under the General Permit?

- Notice of Intent (NOI)
- Copy of Nutrient Management Plan submitted with NOI
- NM/AWP Plan
- NM Certification
- Site Specific Requirements
- Adequate Storage
- Application Setbacks
- Record Keeping
- Annual Report

Notice Of Intent (NOI)

- Legal commitment to meet general permit requirements
- NOI is publicly available
- When to submit:
  - 120 days of effective date of regulations
  - 120 days prior to beginning operation for new facilities
  - Expanding Facilities
    - 90 days after becoming a CAFO or
    - 2/13/06 which ever is later
  - Permit renewals – 180 days prior to expiration

DELAWARE NUTRIENT MANAGEMENT

2320 S. DuPont Highway
Dover, DE 19901
1-800-282-8685 (DE Only)
(302) 698-4500

DDA

Website: www.state.de.us/deptagri
Email: nutrient.management@.state.de.us
Fax: (302) 697-6287

Delaware Concentrated Animal Feeding Operation (CAFO)
NOTICE OF INTENT (NOI)
And Application for Coverage

CONTACT INFORMATION

Name of applicant, operator, or person managing operation:

Farm or Business Name:

Address:

City: | State: | Zip Code:

Telephone: ( ) | Fax: ( ) | Email:

OWNER'S CONTACT INFORMATION

☐ Same as above

Owner's Name:

Address:

City: | State: | Zip Code:

Telephone: ( ) | Fax: ( )

OPERATION DATA

911 Emergency Address or Closest Road Name to intersection of CAFO:

Watershed ID/Receiving Stream/Waterbody:

Animal Type and Quantity:	☐ Poultry: _____	☐ Dairy: _____	☐ Beef: _____	☐ Horse: _____	☐Other: (specify) _____

☐ Existing Facility | ☐ New or Expanding Facility / Date of projected occupancy: _____

Manure Storage Capacity: _____tons/gals

Manure Storage System: ☐ Liquid ☐ Solid ☐ Other: _____

Animal Mortality Handling System: ☐ Composter ☐ Rendering ☐ Other: _____

Land under control and available for manure application _____

ANNUAL BUDGET
of intended manure disposition identifying the following:

☐ Manure Generation:

☐ Land Application:

☐ Exportation from farm operation:

☐ Other Use:

I certify under penalty of law that this NOI is completed to the best of my knowledge. I agree to prepare and implement a nutrient management plan in accordance with the requirements of a general or individual CAFO permit. I certify as the owner or manager of the above facility and take primary responsibility for the actions and management of the facility.

_____ **Signature** | _____ **Name Printed** | _____ **Date**

NM/AWM Plan Requirements

- Developed by a certified consultant
- Contact information
- Watershed
- Total acres under control of CAFO
- Certification statement
- Field maps or aerial photos
- Crop & nutrient information
- Soil samples
- Best Management Practices

NM Certification Requirements

- Must be certified at appropriate level
  - Nutrient Generator
  - Private Nutrient Handler

Site Specific Requirements

- Manure balance budget within the NM plan
- Runoff control within the production area
- No animals in streams/ditches or other water bodies
- Proper animal mortality management for daily and catastrophic events

Adequate Storage

- Proper timing of clean outs
- NRCS approved structure
- Typically 90-180 days
- To withstand 25 year event (5.99,6.46,6.69”)
- Temporary storage – must be conducted to prevent a discharge and be consistent with standards adopted by NRCS and/or the Commission

Temporary Storage of Litter

Production Area Storage	Non-Production Area Storage Up to 90 Days	Non-Production Area Storage Over 90 Days to 150 Days
"Production Area" means that part of an Animal Feeding Operation that includes the animal confinement area, the manure storage area, the raw materials storage area and the waste containment areas, also includes egg washing or processing facility and any area used in the storage, handling, treatment or disposal of mortalities. The Production Area should be defined in the operation's Nutrient Management Plan.	Temporary Storage away from the "Production Area" can be staged for land application and is limited to 90 days without the use of an impervious cover.	For conditions that require temporary storage of litter beyond 90 days, individual or general authorization may be granted by the DNMC or Delaware Department of Agriculture for storage up to 150 days. For any storage greater than 150 days, an impervious cover is required.
Temporary storage within the "Production Area" (as defined above) is limited to 14 days without the use of an impervious cover.		
The following BMP(s) are required for Production Area Storage: 1. The stockpile must be separated from any channeled runoff, standing water and other drainage systems such as roof runoff and down spouts. These following additional BMPs are required for Production Area Storage of 2-14 days: 2. The stockpile must be at least 6 feet high; and 3. The stockpile site must meet Natural Resources Conservation Service (NRCS) standard or other containment area lining (standards) approved by the DNMC.	The following BMPs are required for Non-Production Area Storage Up to 90 days: 1. The pile must be at least 6 feet high and in a conical cross section shape; and 2. Litter shall not consist of more than 5% crust out material; and 3. The selection of the temporary storage site must consider the highest, most practical site possible and shall not use the same site more than once every two years without a storage site that meets NRCS standards or other containment lining standards approved by the DNMC; and 4. The temporary storage sites must be identified in the nutrient management plan; and 5. The site must be located at least 100 feet from a public road, 100 hundred feet from any surface water and 200 feet from any residence not located on the property; and 6. The site must be at least 200 feet from a domestic well and 300 feet from a public water supply well; and 7. Post litter removal treatment must include the removal of all litter and the top 1-2 inches of topsoil if the topsoil is co-mingled with the litter to prevent nutrient loads; and 8. A production crop or cover must be established and maintained at the site as soon as practical following post removal treatment. 9. For temporary storage sites on soils classified as located within 1 ½ feet of the depth to the seasonal high water table, any <u>one</u> of the following practices must be implemented: a. The establishment of a storage site that meets NRCS standards or other containment lining standards approved by the DNMC; or b. The use of high carbon (content) material (straw, wood shavings, fodder) as the base of the pile at least 8 inches thick to serve as a barrier and easy post storage removal; or c. The use of powdered bentonite or similar material that will seal the area under the pile	The following BMPs are required for Non-Production Area Storage Over 90 days: 1. The pile is to be constructed as large as possible and be at least 10 feet high and in a conical cross section shape; and 2. Litter shall not consist of more than 5% crust out material; and 3. The selection of the temporary storage site must consider the highest, most practical site possible and shall not use the same site more than once every two years without a storage site that meets NRCS standards or other containment lining standards approved by the DNMC; and 4. The temporary storage sites must be identified in the nutrient management plan; and 5. The site must be located at least 100 feet from a public road, 100 hundred feet from any surface water and 200 feet from any residence not located on the property; and 6. The site must be at least 200 feet from a domestic well and 300 feet from a public water supply well; and 7. Post litter removal treatment must include the removal of all litter and the top 1-2 inches of topsoil if the topsoil is co-mingled with the litter to prevent nutrient loads; and 8. A production crop or cover crop must be established and maintained at the site as soon as practical following post removal treatment; and 9. The establishment and maintenance of a 24-foot vegetative buffer surrounding the stockpile site. 10. For temporary storage sites on soils classified as located within 1 ½ feet of the depth to the seasonal high water table, any <u>one</u> of the following practices must be implemented: a. The establishment of a storage site that meets NRCS standards or other containment lining standards approved by the DNMC; or b. The use of high carbon (content) material (straw, wood shavings, fodder) as the base of the pile at least 8 inches thick to serve as a barrier and easy post storage removal; or c. The use of powdered bentonite or similar material that will seal the area under the pile.

Application Setbacks

- The distance between the application area and any down-gradient surface waters, open tile line, intake structures, sinkholes or other conduits to surface waters
- The direct application of manure or processed wastewater to ditches or surface waters is prohibited

What Is a Ditch?

- Drainage ditch is defined as a constructed or reconstructed watercourse with a drainage area less than 800 acres.

Application Setbacks

- 100’ setback
- 35’ vegetative buffer
- Alternative compliance practices

	Ditch	Other
– Cover crop or incorporation	20’	50’
– Cover crop and incorporation	10’	15’

Record Keeping Requirements

- Must keep for 6 years
- NMP/AWP
- Site specific requirements
- Records of implementation
- Soil Tests
- Inspection/Correction requirements
- Transfers of Manure
- Nutrient Analysis (annually)
- Quantity of Nutrients applied
- Methods and dates of application
- Crops planted & yields
- Annual Report

Annual Report

- Same as the annual report required by the Nutrient management law
- Must be submitted by March 1 of the following calendar year or a form developed and supplied by the NMP

DELAWARE NUTRIENT MANAGEMENT PROGRAM

2320 South DuPont Highway
Dover, DE 19901
1-800-282-8685 (DE Only)
(302) 698-4500
Fax: (302) 697-6287
Email: nutrient.management@.state.de.us
Website: www.state.de.us/deptagri

********FOR DNMP USE********
Form/Control Number : _____
_____
Certification Number : _____
Nutrient Management Consultant

Nutrient Management Annual Report

The Nutrient Management Annual Report is due no later than March 1st and represents nutrient handling information from the previous calendar year (i.e., 2003 crop year is due March 1st, 2004).

Applicant Name: _____
Farm or Business Name: _____
Address: _____
City: _____ State: _____ Zip Code: _____
County: _____
Telephone Number: (_____)_____-_____
Fax Number: (_____)_____-_____
Email: _____

Management Plan Type:
☐ Nutrient Management Plan
☐ Animal Waste Management Plan
Date of Plan Creation: _____
Duration of Plan: ☐ 01yr ☐ 02yrs ☐ 03yrs
NMP Consultant Certification: _____
NMP Consultant Name: _____
Total Acres under Management Plan: _____ ac.

Operation Description:
☐ Animal Operation of Confinement ☐ Crop Production ☐ Golf Course ☐ Other _____

Watershed Geographical Location:
1. Grand: _____ Watersheds: _____

Animal Type Entry:
1. Poultry ☐ Dairy ☐ Beef ☐ Horse ☐ Others ☐ _____ Capacity _____

Manure Nutrient Application:
1. Amount _____ ☐ Tons ☐ gals Poultry ☐ Dairy ☐ Beef ☐ Horse ☐ Others ☐ _____ Acres _____

Commercial Fertilizer Application:

Total land that received commercial fertilizer : _____ acres
Total Nitrogen : _____ _____ lbs
Total Phosphorus as P2O5 : _____ _____ lbs

Manure Export for Land Application:
1. Type _____ Amount _____ ☐ lbs ☐ Tons ☐ gals Name of Receiver _____

Manure Export for Alternative Use(0ther than land application of raw manure):
1. Type _____ Amount _____ ☐ lbs ☐ Tons ☐ gals Name of Receiver _____

Is a DNREC land treatment Permit associated with your operation? ☐ Yes ☐ No
Is a CAFO general or individual permit associated with your animal operation? ☐ Yes ☐ No

_____ Signature

_____ Date

Individual Permit

- Individual permits may be required for operations that meet a following condition
  - Non-compliance with the regulations
  - Non-compliance with state NM law
  - The operation is a significant threat to the environment, such as:
    - Animals in surface water
    - Improper mortality management
    - Spills or discharges from the production area
  - Operator requests for coverage

What Is Required of a CAFO For an Individual Permit

- All applicable contents found in a General Permit
- Conditions and compliance measures to mitigate or prevent pollutants from entering waters of the State
- The time line for implementation requirements and an expiration date not to exceed five years
- Permit/facility specific public notice required

Emergency Notification

- Any spills or discharges must be verbally reported to DDA within 24 hours
  - Delaware Department of Agriculture, Nutrient Management 800-282-8685 or 302-698-4500
  - DNREC Emergency line 800-662-8802
- Within 5 days a written report containing:
  - A description of the discharge, cause and volume of discharge
  - Period of discharge, dates, times & steps being taken to prevent recurrence
  - If caused by precipitation event(s) the amount of rainfall, as measured by a rain gauge at the site
  - Results of any further sampling and analysis of the discharge

CAFO Audits & Inspection

- Operations are subject to audit of NM Plans
- Inspection of Farms & Production areas
- Access & right to copy records required under permit
- Sample or monitor any discharges from site
- 48 hours advanced notice, except under special circumstances

Transfer of Ownership

- Proposed new owner or applicant must submit either an application for an individual permit or a NOI for the general permit
- Must notify DDA 30 days prior to transfer, including the proposed date of transfer to avoid any lag in coverage

New Facilities

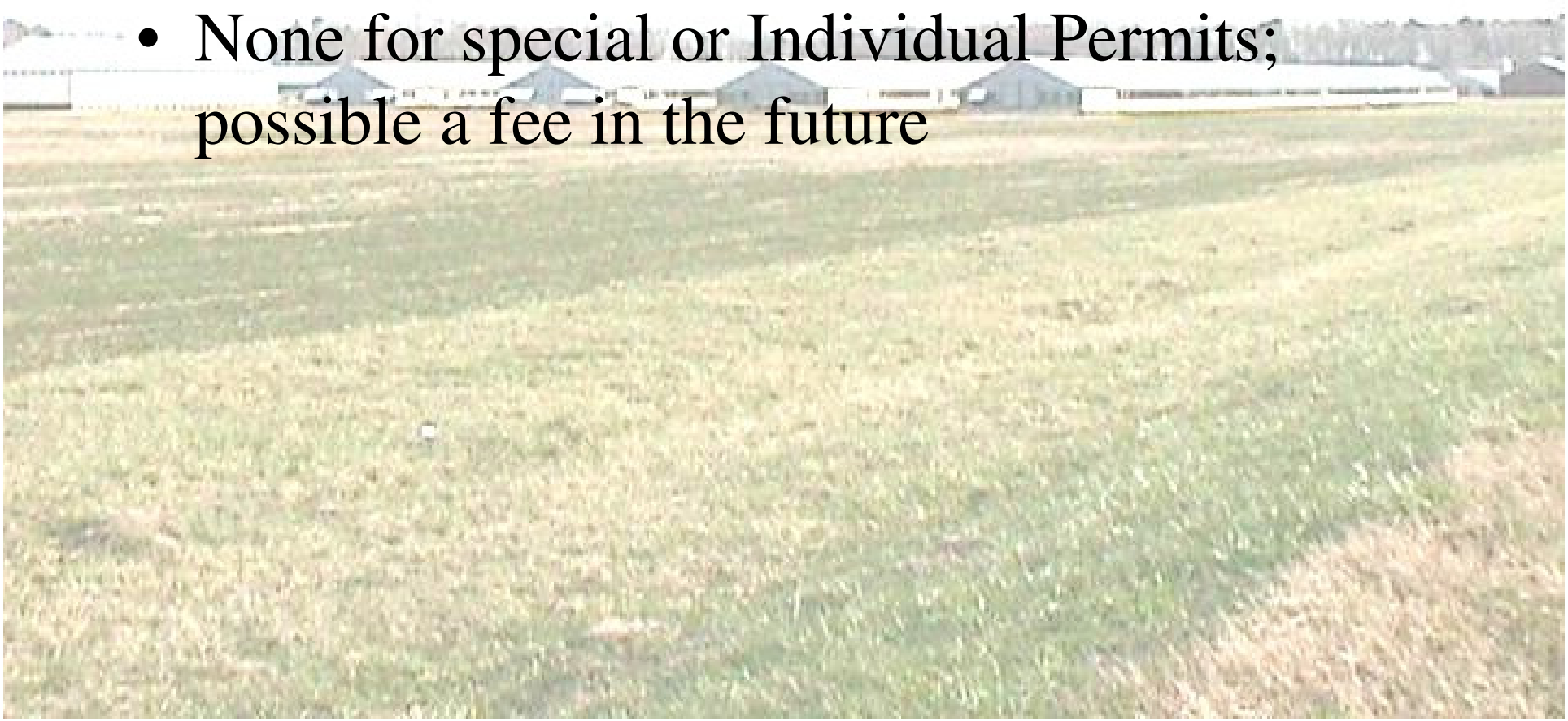
- Can not be in the 100 year flood plain
- Manure storage and animal confinement must be 200’ from domestic well and 300’ from public well
- Production area and manure storage must be designed to withstand a 100 yr 24 hr rainfall event for chickens, turkeys, veal and swine
- Production area and manure storage must be designed to withstand a 25 yr 24 hr rainfall event for dairy, beef and horses

Enforcement, Fines & Penalties

- Equal to NM law
  - Civil penalty $25-1,000 fine $10,000 max
  - Court of Chancery injunction or restraining order
  - Administrative penalty - $1,000 max

Fees For Permits

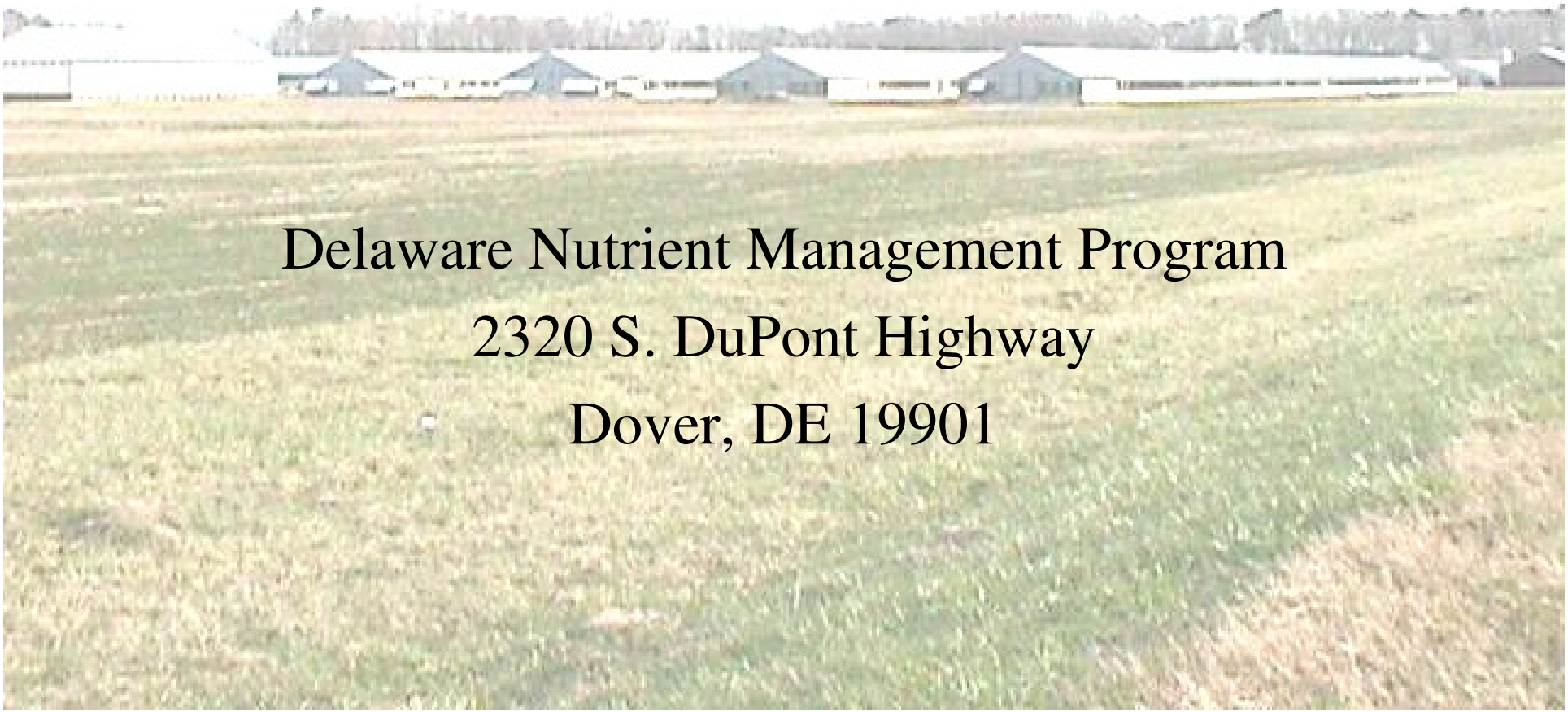
- None for those under the General Permit
- None for special or Individual Permits; possible a fee in the future



When Do These Regulations Take Effect?

- September 2005 – program in place
- January 2006 – NOI submission due
- Annual report due March 1st of every year

Written comments will be accepted through June 30, 2005 at the following address:



Delaware Nutrient Management Program

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