Update CAFO Regulations

Bob Brower, CNMP Specialist
NYS Soil & Water Conservation Committee

WNYCMA Annual Meeting
February 24, 2011
Topics for Today

• Program and Permit Status
• Permit Requirements and deadlines
• Farmer’s responsibilities
• Karst Topography
• Chesapeake Bay TMDL
• Questions I can’t answer
CAFO Permits & DEC

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• Doug Ashline, Environmental Program Specialist
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New York State CAFO Permit

• In NYS, CARE vs Southview Farm, 1995
  • Citizen’s Lawsuit Provision
• DEC issued initial CAFO Permit July 1999
  • Large and Medium CAFOs
• Initial CAFO Permit expired June 30, 2004
• 1st Update took effect July 1, 2004
• New NYS ECL CAFO Permit took effect July 1, 2009
• New NYS CWA Permit to be released (soon?)
Federal Regulations on CAFOs: February 2003

• What’s Required in a CAFO Permit?
  – Comprehensive Nutrient Management Plan
    • No discharge from farmstead
    • No discharge from properly designed manure storage
    • Includes manure applications to land
    • Record keeping to ensure farm is following plan (Large)
    • Annual reporting
    • Proper mortality disposal
  – CAFO Inspections
• Minimum for State Programs
• Lawsuits from both sides
Federal Regulations on CAFOs: October 2008

• New Federal CAFO Rule includes:
  – Removed duty to apply – only have to apply if you discharge or propose to discharge.
  • Currently permitted may self-certify that there is no discharge or plan to discharge and be removed from permit.
  – Added provision for CAFOs to submit NMP with permit application
    • Public review and comment period
  – Additional costs but no additional environmental benefits
• [link](http://cfpub.epa.gov/npdes/afo/cafofinalrule.cfm)
• Awaiting word on lawsuits from both sides
New York CAFO Requirements

• Required for ALL farms that meet size requirements
  – Expires June 30, 2014
  – Must implement CNMP to meet USDA NRCS standards
  – More management and reporting requirements
  – 9 large and 259 Medium under new ECL Permit
  – ~600 farms now operating as CAFOs
    • ~149 large, ~436 medium
    • Large CAFOs fully implemented
    • Medium CAFOs fully implemented by June 2012, 2014
CAFO Permits & DEC

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## Medium CAFOs Thresholds

<table>
<thead>
<tr>
<th>Animal Type</th>
<th>Medium CAFO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Cows</td>
<td>200 - 699</td>
</tr>
<tr>
<td>Veal Calves</td>
<td>300 - 999</td>
</tr>
<tr>
<td>Beef Cattle</td>
<td>300 - 999</td>
</tr>
<tr>
<td>Swine</td>
<td>750 - 2,499 (55 lbs or more)</td>
</tr>
<tr>
<td></td>
<td>3,000 - 9,999 (under 55 lbs)</td>
</tr>
<tr>
<td>Horses</td>
<td>150 - 499</td>
</tr>
<tr>
<td>Sheep or Lambs</td>
<td>3,000 - 9,999</td>
</tr>
<tr>
<td>Turkeys</td>
<td>16,500 - 54,999</td>
</tr>
<tr>
<td>Chickens, liquid manure</td>
<td>9,000 - 29,999</td>
</tr>
<tr>
<td>Chickens, other than a liquid manure system</td>
<td>37,500 - 124,999 (not laying hens)</td>
</tr>
<tr>
<td></td>
<td>25,000 - 81,999 (laying hens)</td>
</tr>
<tr>
<td>Ducks</td>
<td>10,000 – 29,999 (except liquid manure system)</td>
</tr>
<tr>
<td></td>
<td>1,500 – 4,999 (liquid manure system)</td>
</tr>
</tbody>
</table>
## Large CAFO Thresholds

<table>
<thead>
<tr>
<th>Animal Type</th>
<th>Large CAFO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Cows</td>
<td>700</td>
</tr>
<tr>
<td>Veal Calves</td>
<td>1,000</td>
</tr>
<tr>
<td>Beef Cattle</td>
<td>1,000</td>
</tr>
<tr>
<td>Swine</td>
<td>2,500 (55 lbs or more)</td>
</tr>
<tr>
<td></td>
<td>10,000 (under 55 lbs)</td>
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<tr>
<td>Horses</td>
<td>500</td>
</tr>
<tr>
<td>Sheep or Lambs</td>
<td>10,000</td>
</tr>
<tr>
<td>Turkeys</td>
<td>55,000</td>
</tr>
<tr>
<td>Chickens, liquid manure</td>
<td>30,000</td>
</tr>
<tr>
<td>Chickens, other than a liquid manure system</td>
<td>125,000 (not laying hens)</td>
</tr>
<tr>
<td>Ducks</td>
<td>30,000 (except liquid manure system)</td>
</tr>
</tbody>
</table>
2 CAFO General Permits

http://www.dec.ny.gov/permits/6285.html

General Framework – 2 Permits

- **Clean Water Act SPDES General Permit (GP-04-02 & GP-0-09-002)**
  - What we have now
  - Will be changed to meet new EPA requirements
  - Old permit will eventually be nullified

- **ECL CAFO SPDES General Permit (GP-0-09-001)**
  - Maintains most of the current technical and administrative requirements for those farms that are in compliance with the existing CAFO program
Transition
Which CAFO Permit is for you?

Eligibility

- **Clean Water Act SPDES General Permit**
  - Any facility that “discharges or proposes to discharge”

- **ECL CAFO SPDES General Permit**
  - Medium CAFOs – non-structural BMPs fully implemented and meeting the deadlines in the new permit
  - Large CAFOs – fully implemented CNMP (+ O&M) and meeting the deadlines in the new permit
“Discharge or Propose to Discharge”

- **What’s a discharge?**
  - Manure, litter or process wastewater meets waters of NY State
  - Discharges of Agricultural Stormwater

- **What’s an overflow?**
  - Manure, litter or process wastewater leaves the production area

- **What does it mean not to discharge or propose to discharge?**
  - My CNMP is working (up to date & compliant)
Clean Water Act Permit Requirements

• Discharge or Propose to Discharge

• Public Participation
  – Gives the public an opportunity to review, comment and request a hearing

• CNMP Changes
  • Any additions of land for applications of manure, litter and process wastewater
  • Public opportunity to review, comment and request a hearing prior to change
Should I get coverage under the new ECL CAFO Permit?

- **When?**
  - Existing, permitted facilities can submit now, January, next year, etc.
  - Existing unpermitted facilities must submit before 3/31/10

- **Why submit now?**
  - Medium CAFOs will gain an extension for implementation under the new ECL Permit – mediums in existing CWA permit out of compliance
  - Your current CAFO permit is going to be replaced by a new, very different CWA Permit
ECL CAFO Permit Requirements

Comprehensive Nutrient Management Plan

- Based on NRCS Standards

- Land application areas
  - under the control of the CAFO
  - Manure, litter, process wastewater applications
  - Fertilizer applications if manure, etc. applied during the crop rotation

- Production areas
  - Under the control of the CAFO
  - Fermented feed storage areas, manure storage, milkhouse wastes, mortality management, etc. etc.

- Co-mingling of manure and feed production or storage
Compliance with NRCS Standards

- Updates and replacements
  - Environmental protection during construction and transition periods

- New BMPs
  - Must meet the NRCS standards in place on 7/1/09
  - Done under the oversight of an AEM certified planner (and engineer)

- Existing Open Waste Storage Structures Evaluation
  - Professional Engineer
  - AEM Tool for the Evaluation of Undesigned Waste Storage Facilities
  - Does not include under-barn waste storage structures

- Existing BMPs – existing vs. new practices
ECL CAFO Permit Requirements

Existing BMPs – Evaluations done by 3/31/11

- Vegetated Treatment Areas
  - Wastewater Treatment Strips, Filter Areas
  - PE evaluation

- Permanent Waste Transfer Structures
  - Not installed under direction of an engineer
  - PE evaluation

- Existing Improperly Functioning BMP
  - AEM certified planner evaluation
ECL CAFO Permit Requirements

Medium CAFO Implementation Requirements

- **Non-structural Practices**
  - Prior to submitting the NOI
  - Unless under a consent order

- **Structural Practices**
  - Eliminate all discharges prior to submitting the NOI
  - 3/31/12 Unless:
    - Low risk as per AEM evaluation protocols
    - Extension requests
CAFO Permits & DEC

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ECL CAFO Permit Requirements

Medium CAFO Extension Requests

• Substantial efforts for the previous 2 years including implementation of some BMPs

• Date indicating when farm will be in compliance

• Pending grant, financial constraints, etc.

• Full implementation by June 30, 2014
ECL CAFO Permit Requirements

Duty to Amend the CNMP

• Call your planner first!

• Before you add cows:
  – Do you have enough storage?
  – Do you have enough landbase?
  – Do you have proper bunker treatment systems in place and working?

• Before making cropping changes:
  – Call planner for new manure rates
  – Document in the CNMP
  – Follow the CNMP — it’s required
ECL CAFO Permit Requirements

Major Changes

• 20% increase in animal numbers as described in CNMP
  – Larges – amended NMP (or portion thereof)
  – Mediums – amended CNMP certification form

• 1M gallon Waste Storage structure
  – Larges – amended NMP (or portion thereof)
  – Mediums – amended CNMP certification form
ECL CAFO Permit Requirements

Overflow and Discharge Reporting

- Call within 24 hours (DEC Regional Office or Spills Hotline)
  - Manure storage overflows
  - All Discharges

- Submit Incident Report within 5 days (DEC Regional Office)
  - Manure storage overflows
  - All Discharges

- Annual Compliance Report
  - All other instances of non-compliance
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ECL CAFO Permit Requirements

Recordkeeping Requirements

• On-Site Rain Gauge
  – All rain events in excess of 0.3 inch

• Weather conditions
  – At the time of application
  – Day prior to and day following
  – Actual and forecasted conditions

• Depth Marker
  – maximum operating level for all open waste storage structures, earthen and fabricated with contributing drainage area
  – 25/24 plus 1 foot freebord

• Annual NMP Submittal – LARGES ONLY
• Mortality management
Engineering

• New or expanded practices must conform to NRCS standards in place at time of permit

• Existing open WSS need PE evaluation (per AEM)
  – Medium need to be done before permit is authorized
  – Large need to eval and address deficiencies before permit authorized
  – Underbarn not ‘open’

  – PE evaluation required of:
    » Permanent transfer structures
    » VTA’s
    » Improperly functioning engineering practices
Engineering

- Construction limitations
  - No new manure or feed storages within 100’ of surface waters of the state (both new and existing operations).
    - Existing Operations – NO construction:
      » In surface water of the state (wetlands)
      » In 100 year flood plain UNLESS protected
    - New Operations, NO construction:
      » In 100 year flood plain
      » In surface water of state
Other Requirements

– For Larges
  • Manure Applicator Training
  • Submit an Annual Nutrient Management Plan

– Submit Annual Compliance Report
  • Tells what you did last year and has to match ANMP or explain

– Construction Activities require separate permit

– Must follow O & M of BMPs or be in violation
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Reporting Requirements

• Nutrient applications
  – Rates, type, location, date
• Exports (and Imports) of manure over 50 tons
• Crops planted and yield results
  – Used to justify increased nutrient needs
ECL CAFO Permit Requirements

Field Setback Requirements

• 100 Feet
  – Top of bank from down-gradient surface waters of NYS
  – NY State Regulatory Wetland with surface connection to field
  – Open tile line intake structure

• Vegetated Buffer
  – 35 foot wide vegetated buffer

• Alternative Practice
  *15 foot wide setback when incorporate within 24 hours of application

• Other practices to reduce risk
SECTION IX: PLANNER CERTIFICATION  I hereby certify that:

I am an Agricultural Environmental Management (AEM) Planner certified to develop and review Comprehensive Nutrient Management Plans (CNMPs) for Concentrated Animal Feeding Operations (CAFOs) in New York State.

The Comprehensive Nutrient Management Plan (CNMP) developed for this operation is in full conformance with the requirements of “NRCS Conservation Practice Standard No. NY312” and New York State General Permit No. GP-04-02 for Concentrated Animal Feeding Operations, under authority of the New York State Pollutant Discharge Elimination System.

I have reviewed the Comprehensive Nutrient Management Plan (CNMP) with the owner and/or operator responsible for the proper operations of this CAFO.

Name (please print or type) ___________________________ Signature ___________________________ Date ____________

SECTION X: OWNER/OPERATOR CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (please print or type) ___________________________ Signature ___________________________ Date ____________
CAFO Update Take Homes

• Keep your planner up to date on any changes to herd size, land base, crops
• Be sure to follow the O & M for all BMPS
• Check with your planner before any modifications or additions to operation-barns, storages, etc

» Keep accurate and complete records (when in doubt, write it down)
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Karst Topography and Sensitive Groundwater

- Manure Management Guidelines for Limestone Bedrock/Karst Areas of Genesee County, New York: Practices for Risk Reduction

- Just released on Monday, Feb. 21

Manure Management Guidelines for Limestone Bedrock/Karst Areas of Genesee County, New York: Practices for Risk Reduction

Karl Czymmek¹, Larry Geohring², Jacqueline Lendrum³, Peter Wright⁴, Greg Albrecht⁵, Bob Brower⁵, and Quirine Ketterings¹

¹ Cornell University Department of Animal Science
² Cornell University Department of Biological and Environmental Engineering
³ NYS Department of Environmental Conservation
⁴ USDA Natural Resources Conservation Service
⁵ NYS Soil and Water Conservation Committee
Karst is not unique to NY

From USGS Survey website
Karst – what does it mean to me?

• Need to help planner identify actual spots in fields that may be hydrologically active
  – Sinkholes
  – Non-draining or closed off depressions
  – Shallow soils (breaking plow points, etc)

• Need to follow planner’s manure spreading recommendations
  – Timing, rates, etc.
Take Homes on Karst

• Pay attention to your land – sinkholes, low spots with no outlets, etc.
• Keep your planner up to date on problem areas
• Follow your planners recommendations and use your head
• Watch out for hydrologically active days with saturated soils, heavy run-off, etc
Chesapeake Bay Watershed

Upper Susquehanna River Watershed

- USGS Towanda Gauge Station
- Upper Susquehanna Coalition Members in **Bold**
Executive Order:

- CWA authority
- Pollution control measures to clean up the Bay in place by 2025
- Point and non-point sources
- Use TMDLs
TMDL’s?

- Too Many Darn Lawyers?
- Total Maximum Daily Loads
- Selected pollutants: N, P, sediment
- Set daily limits ("pollution diet")
- Estimate sources
  - Sewage
  - Urban runoff
  - Farms and forests, etc
- Assign reduction goals
**IMPACTS ON NY AGRICULTURE:**

**Suggested EPA Backstops:**

- Farms of any size will be regulated as CAFOs
- Farms of any size will have CNMPs
- Large farms will be required to use Precision Feed Management
Farms of any size will be required to have manure storage.

Farms of any size will be prohibited to spread manure during the winter.

All manure applied to crop fields will need to be injected.

All farms will be required to have ammonia emission controls on their facilities.

Add about 800 regulated farms.
NY Watershed Implementation Plan Goals for 2025

- Plan requires more than just CAFO regulation to get us allocations
- Voluntary approach for AFOs
- Work at reduced till, cover crops, buffers, more waste management:
  - **Conservation Tillage 40% of available acreage**
    (61,071 ac/yr out of 152,678 acres)
  - **Cover Crops on 20% of the total available row crop acreage**
    (30,000 ac/yr out of possible 152,678 acres)
  - **100% fence on trampled riparian corridor;**
    47% (80,000 acres) other pasture acres
  - **60% Animal Units (A.U.) under Animal Waste Management Systems**
  - **65% A.U. under Barnyard Runoff Control Systems**
  - **50% A.U. under Precision Feed Management**
- Probably more EPA CAFO inspections in watershed
Why should we care?

• Other TMDLs already in place
  – Chautauqua Lake, Chautauqua County
  – Findley Lake, Chautauqua County
  – Silver Lake, Wyoming County
  – Lake Salubria, Steuben County
  – Buck, Long and Cranberry Ponds, Monroe County
  – Port Bay, Wayne County
  – Lake Champlain, Eastern NY
Take Homes for Chesapeake

• Hang together… Proactive adoption allows us to work at own pace

• Keep land base in line with manure

• TMDLs for impaired waters will continue - Talk of Mississippi, Great Lakes

• Watch and learn - more TMDL s likely
What is the Single Most Important Thing I Can Do as a Farmer?

• Work closely with your AEM Certified Planner