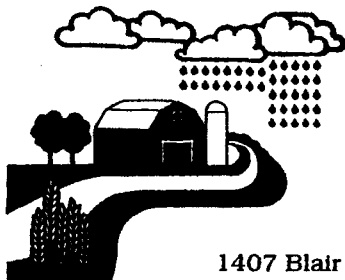


Original: 2412 187

Original: 2413 133



# BLAIR COUNTY CONSERVATION DISTRICT



1407 Blair Street • Hollidaysburg, PA 16648 • (814) 696-0877 • Fax (814) 696-9981

RECEIVED  
2004 NOV 15 PM 3:44  
STATE REGULATORY  
REVIEW COMMISSION

Dear Commission and NMA Board,

The Blair County Conservation District Board of Directors at their regularly scheduled meeting on October 25, 2004, voted to forward the following comments on the proposed changes to the Nutrient Management Act and some comments on additional proposals at the state. The Board reviewed the proposed changes and after debating the issues we reached the decision to forward these comments. We appreciate the opportunity to comment and if you have any questions please contact our District Manager, Donna Fisher.

Sincerely,

Franklin L. Long  
Board Chairman



Comments on the proposed changes to DEP regulations and the Nutrient Management Act from the Blair County Conservation District Board of Directors. The following statements were approved at the October 25<sup>th</sup> official Board Meeting of the Blair County Conservation District.

#### DEP Regulations

1. Chapter 91.36-re: Water Quality Management permits for manure storage construction. Support permitting based on storage size parameters but only required for CAFOs.
2. Regarding the ACRE initiative, we feel that any mandated manure application setback from "surface water" or permanent vegetated buffer for surface water creates an unjustified hardship for agricultural operators.

#### SCC Regulations

1. 83.351, 83.461-We support maintaining the current manure application setback language already in the regulations.
2. 83.294, 83.404-With regard to the proposal to limit fall manure applications on ground having greater than 25% cover, or land planted to a cover crop. A whole-state requirement of this kind does not consider various situations that are not reasonable or do not apply. We recommend a more individual based planning to reflect area climatic conditions, slopes and potential for pollution. Plans that specify areas for fall and winter applications based on sound environmental principles would be better.
3. 83.291, 83.342, 83.452-Regarding the proposal to require manure testing yearly on all manure groups, we feel that this creates unnecessary burden. We have plans that have in excess of 10 manure groups. We recommend manure testing every three years or sooner when significant management changes occur affecting a manure group.
4. 83.311, 83.421-We support maintaining the existing language contained in the current regulations regarding Animal Concentration Areas (ACAs). If changes are deemed absolutely necessary we feel that language stating that ACAs shall be managed to eliminate direct discharge from these areas to surface and ground water through the use of approved BMPs. Language which includes minimizing the size of ACAs is not reasonable.

The Blair County Conservation District supports the goals of the Nutrient Management Act as a tool for preserving and protecting the environment and supporting the basis for quality agricultural production. We want to ensure that regulations do not overburden already financially strapped family farms resulting in the destruction of farmland for urban sprawl. We fear the increasingly restrictive guidelines, permitting and regulations inhibit volunteer participation in the NMA.

August 24, 2004

(1)

Pennsylvania STATE Conservation Commission

I Read THE ARTICLE in THE YORK Sunday News  
concerning fertilizer regulations.

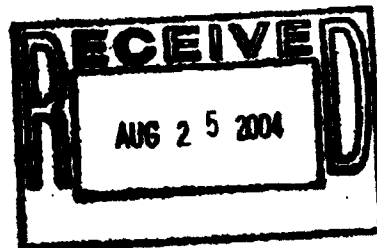
How CAN WE be SURE THE AGRICULTURE BUSINESS  
is TO be BLAMED for such a GREAT PERCENTAGE  
(36%) OF RIVERS AND STREAMS?

I FEEL OVER-USE OF DETERGENTS IN WASHERS  
AND DISHWASHERS HAS A GREATER IMPACT OF  
POLLUTION FROM DAILY USE THAN DOES THE  
AGRICULTURE BUSINESS THAT PUTS FERTILIZER  
ON THE CROPS ONCE A YEAR.

THESE ARE MY COMMENTS

SINCERELY

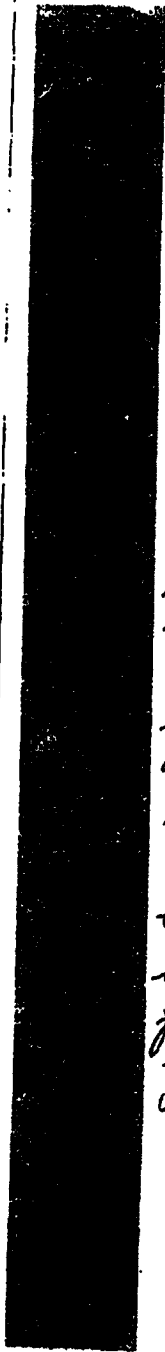
Ester Lepp  
440 Buckyard Rd.  
NW Oxford Pa 17350



STATE CONSERVATION COMM  
AUG 25 11 18 AM '04

2

Original: 2413



930 Cortright Dr.  
York, PA 17402  
9/5/04

Pennsylvania State  
Conservation Commission  
2301 N. Cameron St., Suite 405  
Harrisburg, PA 17110-9408

Dear Madam or Sir,  
I am in favor of the proposed revisions  
to the State's Nutrient Management Act.  
I feel it is vital for the health of our  
streams, rivers, and bays to limit  
not only the amount of nitrogen, but  
also the amount of phosphorus running  
into our waterways. The expansion  
of the definition of large scale live-  
stock farms to include more  
operations would be of a definite  
benefit in this regard. I realize  
it will present difficulties for some  
farmers, but it is totally important  
to the health of our future. I will proceed  
with the changes.

Sincerely yours  
Joanne M. Robertson, M.D.  
JOANNE M. ROBERTSON, M.D.

SEARCHED TO 10:30



p.o. box 8477 harrisburg, pa. 17105-8477 (717)787-4526

Environmental Quality Board

November 10, 2004

Mr. Robert E. Nyce, Executive Director  
Independent Regulatory Review Commission  
14<sup>th</sup> Floor, Harristown #2  
333 Market Street  
Harrisburg, PA 17120

Re: Nutrient Management Regulations (#7-390)

Dear Mr. Nyce:

RECEIVED  
2004 NOV 10 PM 3:40  
INDEPENDENT REGULATORY  
REVIEW COMMISSION

The Environmental Quality Board (EQB) received the enclosed comments regarding the above-referenced proposed rulemaking from the following:

1. Susan L. Wright, Esq., 147 Park Avenue, Swarthmore, PA 19081-1536
2. Robert C. Culp, 2074 Hobson Drive, Ford City, PA 16226
3. Rose Sarsfield, Pennsylvanians for Environmental Protection
4. Mr. Francis Schlegel, 457 Coldstream Dr., Berwyn, PA 19312-1113
5. Clifford Gayman, Hillside Poultry Farms, Inc., 1849 Letterkenny Road, Chambersburg, PA 17201
6. Scott Dempsey, 318 E 4<sup>th</sup> St., Boyertown, PA 19512-1202
7. William Donaldson, 170 Cherry Blossom Dr., Churchville, PA 18966-1091
8. Lawrence E. Lloyd, Conservation Specialist, Berks County Conservancy, 25 N. 11<sup>th</sup> St., Reading, PA 19601
9. Sean Levan, Jim Roush, Barry Spangler, Snyder County Conservation District, 403 West Market Street, Middleburg, PA 17842
10. Georgia Sheckard, 29 Delp Rd., Lancaster, PA 17601-3945
11. Kimberly L. Snell-Zarcone, Esquire, Citizens for Pennsylvania's Future, 610 N. Third St., Harrisburg, PA 17101-1113
12. Amos Newswanger, 158 Miller Rd., Lewisburg, PA 17837
13. Dr. Robert Mikesell, Department of Dairy and Animal Science, 324 Henning Building, University Park, PA 16802
14. Mrs. Norman A. Baglini, Battles Lane, Newtown Square, PA 19073
15. Dennis Thro, 1226 Trinity Church Rd., Wrightsville, PA 17368-9206
16. John F. Kendig, 114 Moravian Avenue, Lititz, PA 17543
17. David Ritter, 143 Peregrine Lane, Hummelstown, PA 17036

Please contact me if you have any questions.

Sincerely,  
  
Marjorie L. Hughes  
Regulatory Coordinator

Enclosures

Original: 2413

115

**Hughes, Marjorie**

**From:** Hughes, Marjorie  
**Sent:** Wednesday, November 10, 2004 1:04 PM  
**To:** Hughes, Marjorie  
**Subject:** FW: Comments on Nutrient Management Regulation Revisions

-----Original Message-----

From: Dennis Thro [mailto:denthro@aol.com]  
Sent: Monday, November 01, 2004 6:50 PM  
To: ag-scc@state.pa.us  
Subject: Comments on Nutrient Management Regulation Revisions

November 01, 2004

State Conservation Commission  
2301 North Cameron Street, Suite 405  
Harrisburg, PA 17110-9408

Dear ,

Subject: Comments on Nutrient Management Regulations: One-page summary for distribution to State Conservation Commission Members  
Many of the improvements in the revised Nutrient Management regulation will help reduce the nutrient pollution that is choking almost 4,000 miles of Pennsylvania's streams and the Chesapeake Bay. The revised regulation has improvements that resolve many of the current problems, and they need to be incorporated into the final regulation.

Please protect our waterways.

I appreciate the following improvements:

- \* Inclusion of horse operations.
- \* Tightening of the export "loophole," and requiring careful planning and tracking of manure that is shipped from one farm to another.
- \* Inclusion of the phosphorus index.
- \* Requirement that animal access to surface water be controlled, so that livestock may not directly deposit their manure in streams.
- \* Prohibition of manure application on bare ground.
- \* Requirement of an Erosion and Sedimentation Control Plan.

The proposed Nutrient Management regulation, however, has some shortcomings that I urge you to correct:

- \* A setback of 100 feet (or 200 feet on steep slopes) from surface water should be throughout the year, not just when the ground is frozen, snow-covered or saturated. Water pollution occurs throughout the year, and the regulation should be changed to require these setbacks at all times.
- \* Setbacks from all surface waters, in addition to property lines, water wells and sinkholes, should be required for manure storage facilities. Wetlands, intermittent streams, and downstream waters could suffer devastating effects if inundated by millions of gallons of manure when a manure storage facility fails, most likely after a heavy rain when intermittent streams are flowing and wetlands are full.
- \* Temporary manure stacking areas should only be used for emergency situations, and for no longer than 30 days.

Thank you very much, and I look forward to an improved regulation leading to improved water quality.

Sincerely,

Mr. Dennis Thro

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2004 NOV 10 PM 3:43  
STATE CONSERVATION COMMISSION

Original: 2413

105

TO: Karl Brown FROM: Hillside Poultry Farm  
Clifford Gayman

Subject: Proposed Rule Making

Hillside Poultry Farm has had a NMP since 1998 cost \$1012, also a revised Plan in 2002 cost \$250. You have allotted us \$800, still need \$462. We have asked Franklin Co. Conservation District employee, Dave Stoner for the additional \$462. I am also asking you, the state Conservation Commission.

Under D Background and Summary paragraph 4, it reads: The Commission is required to provide financial assistance to the Agricultural Community regarding nutrient management. Please send this \$462 to Hillside Poultry Farm right away. Mandatory regulations require funding. These costs plus additional paperwork (Hours) needed for new rules are not added to the wholesale price we receive for eggs. Any manufacturing plant, (other than farmers) add additional cost to their products sales price.

We have 400,000 Laying hens (producing eggs) and farm 400 acres. We have been delivering poultry fertilizer (stack type) by truck to other farmers, on the open market system since 1978.

It is Not and Should Not be my job to do soil tests and nutrient balance sheets (as you propose in section 83, 301) on 30 Different farms. If I am required to do this, all fertilizer dealers in PA. should do this also. These rules will require more paperwork, another setback for agriculture. Manure (organic matter) is better for the soil than commercial fertilizer, (a by product of natural gas and imported crude oil).

Environmentalists and Tree Huggers Keep pushing their agenda. D.E.P. & Dept. of Agriculture Keep bending to their wants. Egg production in cages is already outlawed in Europe after 2012. Is that what we want in this country?

Your rule making needs to be short and simple. Long proposals are open for many different interpretations.

Agriculture is all ready over regulated!

*Clifford Gayman*

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2004 NOV 10 PM 3:42  
REGULATORY  
REVIEW COMMISSION





**HPF INC98**  
 Hillside Poultry Farms, Inc.  
 1849 Letterkenny Road  
 Chambersburg, PA 17201

Ver 8.02  
 09/17/04  
 10:34:44  
 Page 1

**CASH JOURNAL REPORT**

10/27/98 - 10/27/98

Audit Trail Suppressed

Report Format: QUICKJ

Memo# - 2317

Inv # - ALL

Person - ALL

Order/Tags - ALL

Accounts - All accounts

Journals: Payment of Expense, Receipt of Income, Expense on Account, Income on Account, Adjusting Entries

Sort by: Off Acct - Memo#; Subtotals for: Day

DATE	MEM #	INV #	PERSON	DESCRIPTION TAGS	QUANTITY 1 UNITS QUANTITY 2 UNITS	OFF AC	AMOUNT	AMOUNT REC AC
10/27	2317		Andgrow Fertilizer	nut mgmt plan		BANK	-1,012.50	1,012.50 21520
TOTAL FOR CHECK/MEMO 2317							-1,012.50	1,012.50
REPORT TOTAL							-1,012.50	1,012.50

MarKro Consulting  
62 Mountain View Ave  
Fayetteville, PA 17222

DATE	INVOICE #
12/18/03	127

BILL TO

Hillside Poultry Farm Inc  
1849 Letterkenny Rd  
Chambersburg, PA 17201

*HPF Paid*

TERMS

ITEM	DESCRIPTION	QUANTITY	RATE	AMOUNT
Nut Mgmt	Nutrient Mgmt Plan update	1	250.00	250.00

If you have questions about this bill, please ask me.

Please send payment to:

MarKro Consulting  
c/o Martin Krone  
62 Mountain View Ave  
Fayetteville, PA 17222

Total

\$250.00

Original: 2412

195

Flanagan, Joann

Original: 2413

139

From: Zygmunt.Hank@epamail.epa.gov  
Sent: Monday, November 08, 2004 7:53 AM  
To: jflanagan@state.pa.us  
Subject: EPA Comments on PA CAFO/Nutrient Management Proposed Rulemaking

Joann:

I am resending the cover letter that was sent last Friday- November 5 providing comments on Chapter 83- Nutrient Management Proposed Rulemaking in support to DEP's CAFO proposed rulemaking.

I apologise that you were not able to open apparently a corrupted file.

I am copying the text onto this email in hopes that you can download the cover letter.

Please let me know whether you were able to properly receive.

Thank you.

Hank

Hank Zygmunt  
Agricultural Advisor  
U.S. Environmental Protection Agency  
Region III - Mid- Atlantic States  
1650 Arch Street  
Philadelphia, PA 19103-2029  
215-814-5750  
zygmunt.hank@epa.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

November 5, 2004

Sent Electronic To Ag-Sc@State.PA.US  
Comments on Nutrient Management Rulemaking revisions

State Conservation Commission  
Agricultural Building, Room 405  
2301 Cameron Street  
Harrisburg, PA 17110

To Whom It May Concern:

Thank you for allowing the U.S. Environmental Protection Agency (EPA) the opportunity to review Pennsylvania's proposed rules for Nutrient Management that relate to PA's Concentrated Animal Feeding

RECEIVED  
2004 NOV 15 PM 3:44  
STATE CONSERVATION COMMISSION

Operations draft regulations ( 34 Pa.B. 4361, August 7, 2004). The enclosed comments are offered to assist Pennsylvania in finalizing the draft nutrient management regulations that support PA's general permit and proposed regulations consistent with the requirements on the Clean Water Act (CWA) and implementing regulations including 40 C.F.R. Parts 122, 123 and 412 addressing Concentrated Animal Feeding Operations (CAFOs). We have also sent comments to the Department of Environmental Protection on the revisions to PA's Chapter 91 and 92 Concentrated Animal Feeding Operation and Other Agricultural Operations rulemaking revisions, August 9, 2004

As you know, the CWA requires any animal feeding operation that meets EPA's definition of a CAFO to obtain NPDES coverage. Our recent adoption of modifications to the NPDES permit regulations and effluent guidelines for CAFOs give States certain flexibility in how to administer NPDES permit programs. As Pennsylvania is authorized to administer the NPDES permit program for CAFO operations in Pennsylvania, EPA's primary role is oversight to provide appropriate comments to ensure consistency with CWA requirements.

2

EPA's comments (Attachment 1) cover several major areas: CAFO Definitions, Nutrient Management Plan, Nutrient Management Technical Standard, and Effluent Limitation Guidelines. Other general comments are provided. These comments were developed based upon a detailed analysis of Pennsylvania's Conservation Standards to EPA's Effluent Limitation Guidelines (Attachment 2) and a detailed comparison of Pennsylvania's program to EPA's CAFO regulation (Attachment 3).

We look forward to continuing to work with the Department of Environmental Protection in coordination with Pennsylvania's Department of Agriculture to develop PA's comprehensive CAFO program. We recognize and appreciate the significant level of investment by all agencies in developing a workable program. Please advise us of the process and timetable that you will use to address these and other comments that have been provided by other organizations and agencies so that EPA can provide full NPDES program modification approval by April 2005.

We would be glad to review these points in further detail and to meet with you. You may contact me at 215-814-5422 or Hank Zygmunt, the Region's Agriculture Adviser at 215-814-5750.

Sincerely,

Jon M. Capacasa, Director  
Water Protection Division

cc: Cedric Karper, Pennsylvania Department of Environmental Protection  
Doug Goodlander, Pennsylvania Department of Agriculture

Enclosure 1- Comments on Pennsylvania's CAFO Program  
Enclosure 2- Conservation Practice Standards and Federal CAFO ELG  
Requirements  
Enclosure 3- General Permit Review Summary Checklist

2

**ATTACHMENT 2: PENNSYLVANIA – COMPARISON OF SELECT CONSERVATION PRACTICE STANDARDS AND FEDERAL CAFO ELG REQUIREMENTS**

FEDERAL REQUIREMENT CITATION	CONSERVATION PRACTICE STANDARD	DEPOSITION THEORY STANDARD ADDRESSING REQUIREMENT	SUGGESTIONS FOR IMPROVED WATER QUALITY PROTECTION
<b>SEC. 122.23 - CONCENTRATED ANIMAL FEEDING OPERATIONS</b>			
<p>[(a) - (g) omitted]</p> <p>(h) Duty to Maintain Permit Coverage. No later than 180 days before the expiration of the permit, the permittee must submit an application to renew its permit, in accordance with § 122.21(g). However, the permittee need not continue to seek continued permit coverage or reapply for a permit if:</p> <p>(1) The facility has ceased operation or is no longer a CAFO; and</p> <p>(2) The permittee has demonstrated to the satisfaction of the Director that there is no remaining potential for a discharge of manure, litter or associated process wastewater that was generated while the operation was a CAFO, other than agricultural stormwater from land application areas.</p>	360 - Closure of Waste Impoundments	Where the PA NRCS standard is applied, based on the application of a defined risk assessment, the requirements of the standard generally appear to meet NPDES requirements. Due to the use of risk assessment criteria that are not included in the NPDES requirements the standard would not necessarily cover all operations subject to NPDES permit closure requirements.	Could remove risk assessment provision and require proper closure for all waste storage facilities at all CAFO.
<b>SEC. 412.4 – BEST MANAGEMENT PRACTICES (BMPs) FOR LAND APPLICATION OF MANURE, LITTER, AND PROCESS WASTEWATER.</b>			
<p>(c) Requirement to develop and implement best management practices. Each CAFO subject to this section that land applies manure, litter, or process wastewater, must do so in accordance with the following practices:</p>			
<p>(1) Nutrient Management Plan. The CAFO must develop and implement a nutrient management plan that incorporates the requirements of paragraphs (c)(2) through (c)(5) of this section based on a field-specific assessment of the potential for nitrogen and phosphorus transport from the field and that addresses the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters.</p> <p>(2) Determination of application rates. Application rates for manure, litter, and other process wastewater applied to land under the ownership or operational control of the CAFO must minimize phosphorus and nitrogen transport from the field to surface waters in compliance with the technical standards for nutrient management established by the Director. Such technical standards for nutrient management shall:</p>	590 - Nutrient Management	Requires site-specific assessment of risk for phosphorus loss for each land management unit. Does not require assessment for nitrogen loss. Does, however, require a nutrient budget accounting for all sources of nitrogen, phosphorus, and potassium. Appears to be inconsistent with ELG.	Could specifically require risk assessment for nitrogen transport (e.g. include section for nitrogen similar to section "Field Evaluation of Phosphorus")

**ATTACHMENT 2: PENNSYLVANIA – COMPARISON OF SELECT CONSERVATION PRACTICE STANDARDS AND FEDERAL CAFO ELG REQUIREMENTS**

FEDERAL REQUIREMENT/CREATION	CONSERVATION PRACTICE STANDARD	DISCUSSION OF HOW STANDARD ADDRESSES ELG REQUIREMENT	SUGGESTIONS FOR IMPROVED WATER QUALITY PROTECTION
<p>(i) Include a field-specific assessment of the potential for nitrogen and phosphorus transport from the field to surface waters, and address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters; and</p>	<p>590 - Nutrient Management</p>	<p>Standard uses similar language, but allows for “. . . minimizing nitrogen and/or phosphorus movement. . .” This appears to be inconsistent with the ELG.</p>	<p>Should specify that the assessment minimize nitrogen <i>and</i> phosphorus movement.</p> <p>Standard includes recommendations for fall/winter application of manure. Could either prohibit fall/winter land application of manure (as it does irrigation of wastewater on frozen or saturated ground) or specify that fall/winter land application be conducted <i>only</i> in areas with permanent vegetative cover, established cover crop, high residue levels, flatter slopes, and fields using appropriate BMPs (rather than recommending that these areas be given preference but allowing application on other areas).</p>
<p>(ii) Include appropriate flexibilities for any CAFO to implement nutrient management practices to comply with the technical standards, including consideration of multi-year phosphorus application on fields that do not have a high potential for phosphorus runoff to surface water, phased implementation of phosphorus-based nutrient management, and other components, as determined appropriate by the Director.</p>	<p>590 - Nutrient Management</p>	<p>Allows for multi-year phosphorus application. Appears to be consistent with ELG.</p>	
<p>(3) Manure and soil sampling. Manure must be analyzed a minimum of once annually for nitrogen and phosphorus content, and soil analyzed a minimum of once every five years for phosphorus content. The results of these analyses are to be used in determining application rates for manure, litter, and other process wastewater.</p>	<p>590 - Nutrient Management</p>	<p>Soil analysis for P and other parameters required at least every three years. Consistent with ELG.</p> <p>Analysis of manure, biosolids, and other organic by-products for N, P, and other parameters required “prior to application (generally using recommendations from</p>	<p>Should specify that manure sampling and analysis be used to determine application rates for the manure sampled (not future years). This would also eliminate use of</p>

**ATTACHMENT 2: PENNSYLVANIA – COMPARISON OF SELECT CONSERVATION PRACTICE STANDARDS AND FEDERAL CAFO ELG REQUIREMENTS**

FEDERAL REQUIREMENT/CRITERION	CONSERVATION PRACTICE STANDARD	DISCUSSION OF HOW STANDARD ADDRESSES ELG REQUIREMENTS	SUGGESTIONS FOR IMPROVED WATER QUALITY PROTECTION
		previous year's sampling and analyses)" except during the first year of a new operation or storage facility, when book values may be used for first year land application "with a test taken in the first year and the plan revised to reflect the actual results." This may be inconsistent with ELG if interpreted to mean that manure application rates may be based on analysis of prior year's manure.	book values for land application during the first year of a new operation or storage structure.
(4) Inspect land application equipment for leaks. The operator must periodically inspect equipment used for land application of manure, litter, or process wastewater.	590 - Nutrient Management	Standard requires calibration of application equipment, but does not address equipment inspection; inconsistent with ELG.	
<p>(5) Setback requirements. Unless the CAFO exercises one of the compliance alternatives provided for in paragraph (c)(5)(i) or (c)(5)(ii) of this section, manure, litter, and process wastewater may not be applied closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters.</p> <p>(i) Vegetated buffer compliance alternative. As a compliance alternative, the CAFO may substitute the 100-foot setback with a 35-foot wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited.</p> <p>(ii) Alternative practices compliance alternative. As a compliance alternative, the CAFO may demonstrate that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the 100-foot setback.</p>	590 - Nutrient Management	<p>Recommends using "appropriate setbacks" when applying manure adjacent to wells, springs, public water supplies, streams, lakes, ponds, and open sinkholes. Appears to be inconsistent with ELG.</p>	Should specify setback distance to be consistent with ELG.

**ATTACHMENT 2: PENNSYLVANIA – COMPARISON OF SELECT CONSERVATION PRACTICE STANDARDS AND FEDERAL CAFO ELG REQUIREMENTS**

FEDERAL REQUIREMENT / CITATION	CONSERVATION PRACTICE STANDARD	DISCUSSION OF HOW STANDARD ADDRESSES ELG REQUIREMENT	SUGGESTIONS FOR IMPROVED WATER QUALITY PROTECTION
<b>Subpart C – Dairy Cows and Cattle Other Than Veal Calves, Subpart D – Swine, Poultry, and Veal Calves</b>			
<p>Sec. 412.31 [Sec. 412.43 references 412.31] Effluent limitations attainable by the application of the best practicable control technology currently available (BPT). Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BPT:</p> <p>(a) For CAFO production areas. Except as provided in paragraphs (a)(1) through (a)(2) of this section, there must be no discharge of manure, litter, or process wastewater pollutants into waters of the U.S. from the production area.</p>			
<p>(1) Whenever precipitation causes an overflow of manure, litter, or process wastewater, pollutants in the overflow may be discharged into U.S. waters provided: (i) The production area is designed, constructed, operated and maintained to contain all manure, litter, and process wastewater including the runoff and the direct precipitation from a 25-year, 24- hour rainfall event;</p>	<p>313 - Waste Storage Facility</p>	<p>Recommends location of structures to avoid or protect from flooding and minimize impacts from accidental spills. Required design storage volume appears to be consistent with ELG.</p> <p>Allows discharge of treated “seepage” from liquid storage structures. This is inconsistent with ELG and NPDES requirements, unless permit includes alternative performance standards as described at 40 CFR 412.31(a)(2).</p>	<p>Could consider adding ephemeral streams to Table 4 - Potential Impact Categories from Breach of Embankment or Accidental Release. In many cases, accidental releases occur during wet weather when ephemeral streams are flowing.</p>
	<p>317A - Waste Stacking and Handling Pad</p>	<p>Under certain conditions, allows temporary storage of solid manure exposed to precipitation and without clean water diversion. All runoff from stacking facility must be either directed to a filter area (refers to Standard 393 - Filter</p>	



**ATTACHMENT 2: PENNSYLVANIA – COMPARISON OF SELECT CONSERVATION PRACTICE STANDARDS AND FEDERAL CAFO ELG REQUIREMENTS**

FEDERAL REQUIREMENT/CITATION	CONSERVATION PRACTICE STANDARD	DISCUSSION OF HOW STANDARD ADDRESSES ELG REQUIREMENTS	SUGGESTIONS FOR IMPROVED WATER QUALITY PROTECTION
		Areas) or stored and utilized in accordance with a waste management plan. Requires contingency plans for excessive runoff. Appears to be consistent with ELG only if filter area is sufficiently sized and appropriately located so that no runoff reaches waters of the U.S.	
<p>(ii) The production area is operated in accordance with the additional measures and records required by Sec. 412.37(a) and (b).</p> <p>(2) [omitted]</p> <p>(3) The CAFO shall attain the limitations and requirements of this paragraph as of the date of permit coverage.</p>			
<p>Sec. 412.37 [Sec. 412.47 references 412.37] Additional measures.</p> <p>(a) Each CAFO subject to this subpart must implement the following requirements: (1) Visual inspections. There must be routine visual inspections of the CAFO production area. At a minimum, the following must be visually inspected:</p> <p>(i) Weekly inspections of all storm water diversion devices, runoff diversion structures, and devices channelling contaminated storm water to the wastewater and manure storage and containment structure;</p> <p>(ii) Daily inspection of water lines, including drinking water or cooling water lines;</p> <p>(iii) Weekly inspections of the manure, litter, and process wastewater impoundments; the inspection will note the level in liquid impoundments as indicated by the depth marker in paragraph (a)(2) of this section.</p>		No standards include equivalent inspection requirements.	
(2) Depth marker. All open surface liquid impoundments must have a	313 - Waste Storage	Requirements appear to be	

**ATTACHMENT 2: PENNSYLVANIA – COMPARISON OF SELECT CONSERVATION PRACTICE STANDARDS AND FEDERAL CAFO ELG REQUIREMENTS**

FEDERAL REQUIREMENT / CITATION	CONSERVATION PRACTICE STANDARD	DISCUSSION OF HOW STANDARD ADDRESSES ELG REQUIREMENT	SUGGESTIONS FOR IMPROVED WATER QUALITY PROTECTION
depth marker which clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event, or, in the case of new sources subject to the requirements in Sec. 412.46 of this part, the runoff and direct precipitation from a 100-year, 24-hour rainfall event.	Facility	consistent with ELG.	
(3) Corrective actions. Any deficiencies found as a result of these inspections must be corrected as soon as possible.			
(4) Mortality handling. Mortalities must not be disposed of in any liquid manure or process wastewater system, and must be handled in such a way as to prevent the discharge of pollutants to surface water, unless alternative technologies pursuant to Sec. 412.31(a)(2) and approved by the Director are designed to handle mortalities.	318 - Mortality Composting	Facility design must conform to Standard 313 (Waste Storage Facility). Includes considerations for topography (avoid locating on slopes >5% and in drainage ways, low areas, etc.) and well heads (locate facility at least 100 feet from, and preferably down-gradient). Land application of compost must conform to Standard 590. Appears to be consistent with ELG.	Could implement a standard applicable to all mortality handling practices, not just composting.
(b) Record keeping requirements for the production area. Each CAFO must maintain on-site for a period of five years from the date they are created a complete copy of the information required by 40 CFR 122.21(i)(1) and 40 CFR 122.42(e)(1)(ix) and the records specified in paragraphs (b)(1) through (b)(6) of this section. The CAFO must make these records available to the Director and, in an authorized State, the Regional Administrator, or his or her designee, for review upon request.  (1) Records documenting the inspections required under paragraph (a)(1) of this section;			
(2) Weekly records of the depth of the manure and process wastewater in the liquid impoundment as indicated by the depth marker under	313 - Waste Storage Facility	No record-keeping requirement included in 313. Not consistent	

**ATTACHMENT 2: PENNSYLVANIA – COMPARISON OF SELECT CONSERVATION PRACTICE STANDARDS AND FEDERAL CAFO ELG REQUIREMENTS**

FEDERAL REQUIREMENT/CITATION	CONSERVATION PRACTICE STANDARD	DISCUSSION OF HOW STANDARD ADDRESSES ELG REQUIREMENT	SUGGESTIONS FOR IMPROVED WATER QUALITY PROTECTION
paragraph (a)(2) of this section;		with ELG.	
(3) Records documenting any actions taken to correct deficiencies required under paragraph (a)(3) of this section. Deficiencies not corrected within 30 days must be accompanied by an explanation of the factors preventing immediate correction;			
(4) Records of mortalities management and practices used by the CAFO to meet the requirements of paragraph (a)(4) of this section.	318 - Mortality Composting	Standard does not address record-keeping.	
(5) Records documenting the current design of any manure or litter storage structures, including volume for solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity;	313 - Waste Storage Facility  317A - Waste Stacking and Handling Pad	Design data, construction specifications and engineering drawings must be addressed in design folder (design and check data requirements). Appears to be consistent with ELG.  Design data must be included in the design folder (design and check data requirements ). Appears to be consistent with ELG.	
(6) Records of the date, time, and estimated volume of any overflow.			
(c) Recordkeeping requirements for the land application areas. Each CAFO must maintain on-site a copy of its site-specific nutrient management plan. Each CAFO must maintain on-site for a period of five years from the date they are created a complete copy of the information required by Sec. 412.4 and 40 CFR 122.42(e)(1)(ix) and the records specified in paragraphs (c)(1) through (c)(10) of this section. The CAFO must make these records available to the Director and, in an authorized State, the Regional Administrator, or his or her designee, for review upon request.  (1) Expected crop yields;	590 - Nutrient Management  590 - Nutrient Management	Requires operation to maintain records for three years or longer if more stringent requirements apply. Standard requirement not consistent with ELG and does not specifically refer to ELG's more stringent requirement.  Requires records of the actual crop yields, but does not specifically require records for expected yields. Appears to be inconsistent with	



**ATTACHMENT 2: PENNSYLVANIA – COMPARISON OF SELECT CONSERVATION PRACTICE STANDARDS AND FEDERAL CAFO ELG REQUIREMENTS**

PRACTICE OR REQUIREMENT / CITATION	CONSERVATION PRACTICE STANDARD	DISCUSSION OF HOW STANDARD ADDRESSES ELG REQUIREMENT	SUGGESTIONS FOR IMPROVED WATER QUALITY PROTECTION
<b>SUBPART D – SWINE, POULTRY, AND VEAL CALVES</b>			
<p>Sec. 412.46 New source performance standards (NSPS). Any new source subject to this subpart must achieve the following effluent limitations representing the application of NSPS:</p> <p>(a) For CAFO production areas. There must be no discharge of manure, litter, or process wastewater pollutants into waters of the U.S. from the production area, subject to paragraphs (a)(1) through (a)(3) of this section.</p>			
<p>(1) Waste management and storage facilities designed, constructed, operated, and maintained to contain all manure, litter, and process wastewater including the runoff and the direct precipitation from a 100-year, 24-hour rainfall event and operated in accordance with the additional measures and records required by Sec. 412.47(a) and (b), will fulfill the requirements of this section.</p>	<p>313 - Waste Storage Facility</p> <p>317A - Waste Stacking and Handling Pad</p>	<p>Standards do not reflect NSPS requirements.</p>	
<p>(2) The production area must be operated in accordance with the additional measures required by Sec. 412.47(a) and (b).</p> <p>(3) Provisions for upset/bypass, as provided in 40 CFR 122.41(m)- (n), apply to a new source subject to this provision.</p>			

**Attachment 1**  
**EPA General Comments on PA CAFO Program**  
**November 5, 2004**

**General Comments**

EPA supplements these comments by Attachment 3- Summary Checklist which provides specific comments on individual regulatory changes. These General Comments should be read in conjunction with those specific comments.

Overall, EPA supports much/most of the proposed changes to its NPDES permitting regulations and program in Pennsylvania's efforts to address EPA's recently adopted changes to its CAFO regulations set forth in 40 CFR Parts 9, 122, 123 and 412. EPA understands that Pennsylvania has a comprehensive program to address agricultural operations and the control of nutrients beyond the scope of EPA NPDES requirements. Nevertheless, EPA provides these comments in order to (1) request additional information from the Commonwealth as to how these proposed revisions and/or the current nutrient management program may address inconsistencies with EPA requirements; or (2) to provide comments to ensure that Pennsylvania adopts final regulations and a CAFO program fully consistent with requirements of the Clean Water Act and the NPDES CAFO permit program. In many of the specific comments set forth Attachment 2, EPA notes that the 25 PA Code Chapter 83 and/or PADEP guidance documents may conflict or overlap some of the CAFO requirements or procedures. In many of those cases EPA is requesting PADEP to identify how those different mandates are reconciled consistent with the NPDES CAFO requirements. EPA notes that PADEP did provide some additional clarification of the proposed CAFO program and a crosswalk between the Federal and Commonwealth CAFO regulatory provisions in the Preamble to the Proposed CAFO Rule. EPA appreciates PADEP's assistance in understanding how all parts of Pennsylvania's nutrient management program operates.

**CAFO DEFINITIONS**

1. The proposed PA NPDES regulations at 25 PA Code Section 92.1 appear consistent with the federal definition of a Large CAFO by including the definition by specific reference. EPA understands that this incorporation by reference includes all parts of EPA's definition at 122.23(b)(4) including the categories and numbers of animals in 122.23(b)(4)(i)-(xiii). EPA supports this definition. It is not clear, however, whether this definition addresses EPA definition for medium CAFOs. The proposed PA regulations include CAOs with greater than 300 AEUs (based on PA's CAO program in 25 PA Code Part 83) and "any agricultural operation with a discharge to surface waters that is authorized by Department permit limits and conditions" appear to clearly address most of

facilities covered by EPA's definition for Medium CAFOs. EPA understands from the PADEP's Preamble to the proposed regulations that PADEP intends this definition of CAFO include any AFO that has a discharge to surface waters regardless of size. EPA does not understand whether the clause "authorized by Department permit limits" excludes some facilities that would be included under EPA's definition. In other words is there a category agricultural operation that is not regulated by the Department of Environmental Protection but that otherwise meets the federal definition. Please provide further information as to how PADEP believes their definition of CAFO is fully consistent with EPA definitions of Large and Medium CAFOs. In the alternative EPA requests PA to consider expanding their definition to clearly cover the scope of both large and medium CAFOs as defined in 40 CFR Part 122.23 (b)(4) and (6).

2. EPA adopted definitions of land application area and production area as integral parts of the CAFO regulations and effluent guidelines. See 40 CFR 122.23(b)(3) & (8), 412.2(e) & (h). These definitions are critical in defining the scope of the NPDES requirements on agricultural operations including the scope of activities to which the CAFO effluent guideline limitations apply. The proposed PA regulations do not specifically propose these terms nor is it clear whether the proposed regulations fully cover the activities encompassed by the federal regulatory definitions. PA has proposed revised definitions and controls of animal manure storage facilities in the definitions section of Chapter 91 and 91.36 that does address part but not all of the activities covered by the federal term "production area." To the extent these terms cover some of the federal terms EPA supports those definitions. EPA understands that PADEP's program is complex and requires review of not only the proposed NPDES CAFO changes but also certain provisions set forth in 25 PA Code Chapter 83 and PA USDA NRCS Technical Guides. EPA requests further clarification as to how PA proposed regulations (and other relevant parts of PA's existing or proposed nutrient management program) provide an equally protective program and scope. EPA requests that a list of AFO related areas (i.e., animal confinement area, manure storage area, raw materials storage area, waste containment storage area) that are included throughout PA draft regulation be packaged and cross referenced under one term. This will clarify that all components of a CAFO including the production area and land application areas are equally subject to achieving the effluent guideline of zero discharge (except under specified circumstances and/or consistent with approved NMPs).

3. A definition for small animal feeding animal operations that recognizes that the appropriate authority (i.e., State Director or EPA's Regional Administrator) may designate any AFO as a CAFO upon determining that it is a significant contributor of pollutants to waters of the United States is not included. This regulatory provision would allow PA to designate an animal feeding operation based upon a number of factors that PA could include as well as placing emphasis to Special Protection waters or impaired waters.

Streams needing a Total Maximum Daily Load under PA Six Year Plan for TMDL Development could benefit by having the ability to designate clusters of animal feeding operations as being CAFOs.

4. Effluent Guidelines - EPA understands that PADEP proposed regulations address many of the requirements set forth in the effluent guidelines applicable to CAFOs - 40 CFR Part 412. In addition to some of the regulatory scope of the CAFO program as proposed PADEP addressed above in Comment 2, EPA is concerned that PA's proposed program is not fully consistent with the federal requirements.

In a number of cases the proposed regulation relies upon the USDA NRCS Technical Standard or reference manuals. We are providing three examples where these standards are not as stringent as required by EPA's ELG.

Example 1: Chapter 83, In-field stacking of dry manure allowed to be stacked to the next growing season which EPA understands can be up to six (6) months-page 61 and Manure shall be removed from temporary stacking for utilization on cropland or other acceptable uses as soon as feasible- page71) the proposed regulations relies upon USDA NRCS PA technical standards or manuals.

It is our understanding that PA has comprehensively adopted the federal definition for large CAFOs and has included these categories into the State's modified CAFO program. Since the term temporary manure stacking and in-field stacking of dry manure is included in Chapter 83 with timeframes that go significantly beyond EPA's guidelines for stockpiling in the production area (15 days), EPA requests confirmation that for the sector Laying hens or broilers (liquid manure handling system) for Large operations (30,000) is included in PA draft regulation (40 CFR Part 122.23 (b) (4)(ix).) This practice may present a significant conflict between the Nutrient Management regulations and EPA's CAFO regulations and further place numerous dry broiler and other operations that temporarily stack manure and litter for time periods greater than 15 days in need of a CAFO NPDES permit. To reduce the potential number of additional operations that would fall into the large CAFO threshold category, Section 83.294(h) should be revised. Additionally, DEP needs to clarify whether the term stockpiles is recognized as an area where the zero discharge requirement is to be met (40 CFR 122.23 (b) (8)).

Example 2: EPA could not clearly identify the field-specific assessment method that Large CAFOs will be required to utilize to determine N and P application rates. The Phosphorus Index (PI) is recognized as the field evaluation tool developed for the State Secretary and the State Conservation Commission to be used as an important screening tool in identifying areas throughout the Commonwealth as having high vulnerability or risk of phosphorus loss to surface waters and to provide direction for land application of phosphorus -containing nutrient sources to protect water quality. Our review concludes



that the PI focuses on the determination of Nitrogen-based application rates with phosphorus loss to surface water controlled through the use of properly designed, installed and maintained soil and water conservation practices.

CAFOs are required to develop NMPs in accordance with Chapter 83 which requires the use of the Manure Management Manual. Chapter 83.293 is entitled "Determination of Nutrient Application Rates", however it only addresses N application rates and thus avoid phosphorus application rates. A supplement to the Manure Management Manual entitled Field Application of Manure includes a section entitled "Manure Application in Relation to Soil Nutrient Levels and Crop Needs" however it does not include a field-specific assessment methodology for determining N and P application rates.

EPA requests PADEP to provide additional information as to how the proposed regulations ensure that Large CAFOs conduct such an assessment in accordance with 40 CFR 412.4(c). We believe the inclusion of proper phosphorus application rates is not only required as part of the federal CAFO regulations but will help achieve nutrient load reductions throughout sensitive and impaired waters including the Chesapeake Bay and other significant water bodies.

Example 3: Section 92.5a(e)(4) that requires all NPDES CAFO permits to comply with 91.36. Chapter 91.36 specifies that the animal manure storage facility must be designed to prevent discharges to surface waters of a storm event of less than a 25-year/24-hour storm. The regulation specifies that the manure storage facility must be designed, constructed, operated, and maintained in accordance with the PA Technical Guide. The PA Technical Guide is a compilation of the PA NRCS Conservation Practice Standards. Our analysis ( Attachment 2) concludes that some standards may not meet the requirements specified in the ELG. EPA requests that DEP review Attachment 2 and provide documentation that demonstrates that all relied upon standards satisfy ELG requirements.

Overall EPA is also concerned that many of the technical guidance documents use terms such as "should" that arguably do not require the permittee to implement those recommendations. EPA understands that many of these manuals were written as specific guidance for the agricultural community where cost share funds are available through USDA conservation programs and as such DEP may need to develop its own Technical Standards that are regulatory. Please describe further how these "requirements" can be made enforceable NPDES permit conditions consistent with federal requirements.

## **NUTRIENT MANAGEMENT PLAN**

1. The revised State NPDES CAFO regulation [92.5a(d)(1)] requires a NMP for all NPDES CAFO permits that meets the requirements of Chapter 83. Please clarify that CAFOs based upon

the requirements in Chapter 83 will be required to have a nutrient management plan . Chapter 83 contains the state's nutrient management regulations. Some potential issues concerning the practices specified in this Chapter and consistency with ELG or NPDES requirements were identified. These potential issues include:

\* Section 83.294(5)(i) - allows manure to be applied within 100 feet of an open sinkhole where surface water flow is toward the sinkhole if the manure is mechanically incorporated within 24 hours of application. This would appear to be inconsistent with the setbacks for manure application specified in the CAFO ELG.

\*Section 83.294(5)(ii) - allows manure to be applied within 100 feet of an active private drinking water sources such as wells and springs where surface water flow is toward the water source if the manure is mechanically incorporated within 24 hours of application. This would appear to be inconsistent with the setbacks for manure application specified in the CAFO ELG.

\*Section 83.311(c)(5) - allows for the use of temporary manure stacking areas if they are located outside concentrated water flow areas and areas where manure application is restricted or prohibited. It is not specified as to the length of time that these temporary manure stacks can be used and there is no requirement that runoff from these stacks at Large CAFOs would need to be diverted or contained in order to be in compliance with the CAFO ELG.

\*Section 83.311(d) - When temporary manure stacking areas are used to implement the NMP. This section requires that manure shall be removed from temporary stacking areas for utilization on cropland or other acceptable uses as soon as feasible. It is not specified as to the length of time that these temporary manure stacks can be used and there is no requirement that runoff from these stacks at Large CAFOs would need to be diverted or contained in order to be in compliance with the CAFO ELG.

2. Proper Management of Dead Animals: Clarification is needed to determine how the PA Nutrient Management Plan addresses handling of dead animals in a manner that protects water quality. Based upon our review it appears that the proposed regulations do not require CAOs to include mortality management in nutrient management plans.

**The following documents were used to support and inform EPA's review of PA's draft CAFO program:**

- CAFO Rule Preamble (2/12/03)
- NPDES CAFO Permit Writers' Guidance and Example Permit (12/31/03)
- Revised PA Regulations Title 25 - Environmental Protection, Part I, Subpart C, Article II, Chapter 91 - General Provisions
- Revised PA Regulations Title 25 - Environmental Protection, Part I, Subpart C, Article II, Chapter 92 - NPDES

- PA Regulations Title 25, Chapter 83, Subchapter D - Nutrient Management
- PA Department of Environmental Protection, Manure Management for Environmental Protection, November 15, 2001
- PA Department of Environmental Protection, Manure Management for Environmental Protection, Field Application of Manure, November 15, 2001
- PA Nutrient Management Act Program, Technical manual, May 2003
- PA Soil and Water Technical Guide (NRCS)
- PA State Conservation Commission, Nutrient Management Program Administrative Manual, November 2000

### Attachment 3

## Pennsylvania CAFO Regulation Review Summary Checklist

### NPDES CAFO Permit Requirement Summary

### General Permit or Regulatory Reference

#### Definitions:

AFO 122.23(b)(1)

*Not defined in State regulations. State uses CAO - concentrated animal feeding operation which is based on animal density (2 AEUs/acre)*

CAFO 122.23(b)(2)

Chapter 92.1

Large CAFO 122.23(b)(4)

Chapter 92.1(Incorporated by reference)

Medium CAFO 122.23(b)(6)

*Not defined in State NPDES CAFO regulation.*

Manure 122.23(b)(5)

*Not defined in State NPDES CAFO regulation.*

Process Wastewater 122.23(b)(7)

*Not defined in State NPDES CAFO regulation.*

Production Area 122.23(b)(8)

*Not defined in State NPDES CAFO regulation.*

*The PA NPDES Program appears to only cover operations that meet the federal definition of a Large CAFO. Documentation is needed that supports that a regulatory mechanism has been developed for the coverage of medium and small CAFOs as defined in 122.23(b)(4) and (6) under the NPDES Permit program that would be classified as a CAO*

#### Designation

122.23 (c)

*The State NPDES CAFO (Chapter 92.5a) regulation does not appear to address designation. Documentation is needed either to clarify that both the State Director or the Regional Administrator has authority to designate an animal feeding operation as a CAFO.*

#### Nutrient Management Plan

122.42(e)(1)

*Chapter 92.5a(d)(1) requires all NPDES CAFO permits to require a NMP. The NMP must meet the requirements of Chapter 83. Documentation is needed that supports that all CAFOs and CAOs will need a NMP under Chapter 83*

#### Ensure Adequate Storage Capacity

122.42(e)(1)

Chapter 92.5a requires compliance with Chapter 91.36 which requires compliance with the PA Technical Guide. The PA Technical Guide is essentially the PA NRCS practice standards. While this may meet the requirements of this minimum practice, it is important to note that the storage requirements specified in the PA NRCS practice standards are not entirely consistent with the CAFO ELG. See review of PA NRCS conservation practices table included in Attachment 2.

#### Prevention of Direct Contact of Animals with Waters of the United States

122.42(e)(1)

*Chapter 92.5a(e)(1) requires compliance with Chapter 91.36 which requires compliance with the PA Technical Guide. NRCS standards do address animal contact with surface water*

but do not require it to be prevented in all circumstances.

Protocols for the Land Application of Manure and Process  
Wastewater  
122.42(e)(1)

*92.5a(d)(1) requires CAOs (which include large CAFOs) to comply with the requirements of Chapter 83. Chapter 83 provides protocols for addressing land application. While this would appear to address this minimum practice documentation is needed to determine whether the land application requirements of the regulation address all of the land application requirements specified in the ELG (122.42(e)(1)).*

Record keeping  
122.42 (e)(1)

*Chapter 83.341 - The record keeping requirements specified in this Chapter would appear to satisfy the NPDES record keeping requirement specified at 122.42(e)(1). However, Chapter 83 only requires records to be maintained for 3 years. NMPs prepared as a requirement of NPDES CAFO permits must meet the requirements of Chapter 83. The state requirements do not appear to be as stringent as the 5 year record keeping requirement of the NPDES CAFO regulations. Chapter 83.342 specifies the nutrient management records that are to be maintained. These do not address all of the records specified by the ELG, however, it is recognized that the specific records to be maintained can be specified in the NPDES permit itself.*

Manure Transfer Records for Large CAFO  
122.42(e)(3)

*92.5a(d)(1) requires CAOs (which include large CAFOs) to comply with the requirements of Chapter 83. Chapter 83.343 requires the completion of a manure transfer sheet for all transfers. The transfer sheet is located in the "PA Nutrient Management Program Administrative Manual 11/00 (Page A-81). This form is consistent with federal requirements.*

*Chapter 83.341 only requires manure transfer records to be maintained for 3 years. The NPDES regulations require the records to be maintained for 5 years. Documentation is needed to modify Chapter 83 to reflect records to be maintained for 5 years.*

#### **CAFO ELG Requirements Summary**

Discharge Limitation for Existing CAFOs  
Subpart A - 412.13  
Subpart B - 412.22  
Subpart C - 412.33  
Subpart D - 412.45

#### **General Permit or Regulatory Reference**

*92.5a(e)(4) requires all NPDES CAFO permits to comply with 91.36. Chapter 91.36 specifies that the animal manure storage facility must be designed to prevent discharges to surface waters of a storm event of less than a 25-year/24-hour storm. The regulation specifies that the manure storage facility must be designed, constructed, operated, and maintained in accordance with the PA Technical Guide. The PA Technical Guide is a compilation of the PA NRCS Conservation Practice Standards. These standards may not meet all of the requirements specified in the ELG. Attachment 2 is a review of select PA NRCS Conservation Practice Standards. Documentation is needed to determine whether all of the ELG requirements are being met by relying upon NRCS Standards. In addition it is not clear whether the states definition of a "animal manure storage facility" is as encompassing as the*

*federal definition of "production area." It appears that the Federal ELG requirements for the production area are only applied to manure storage facilities. The term production area is not defined in the state regulations.*

Nutrient Management Plan  
412.4 (c) (1)

*Chapter 92.5a(d)(1) requires all NPDES CAFO permits to require a NMP. The NMP must meet the requirements of Chapter 83.*

Nutrient Management Technical Standard  
412.4 (c) (2)

*Pennsylvania has a very comprehensive and complex program for addressing nutrient management that involves a number of State regulations and manuals. Based on the limited review that we have been conducted we are not certain as to whether these materials adequately address all of the requirements in 40 CFR 412.4. In a number of cases the reference technical manuals use terms such as "should" so the application of these materials to fulfill specific NPDES regulatory requirements seems questionable. Our review did not identify the field-specific assessment method that Large CAFOs will be required to utilize to determine N and P application rates. For the most part the manuals appear to focus on the determination of Nitrogen-based application rates with phosphorus loss to surface water controlled through the use of properly designed, installed and maintained soil and water conservation practices. CAFOs are required to develop NMPs in accordance with Chapter 83 which requires the use of the Manure Management Manual. Chapter 83.293 is entitled "Determination of Nutrient Application Rates", however it only addresses N application rates. A supplement to the Manure Management Manual entitled Field Application of Manure includes a section entitled "Manure Application in Relation to Soil Nutrient Levels and Crop Needs" however it does not include a field-specific assessment methodology for determining N and P application rates. EPA should request that the State provide information as to how it intends to ensure that Large CAFOs conduct such an assessment in accordance with 412.4*

Manure and Soil Sampling  
412.4 (c) (3)

*92.5a(d)(1) requires CAOs (which include large CAFOs) to comply with the requirements of Chapter 83. Chapter 83.291 requires:*

*Soil Tests - Initial to support NMP development then at least once every 6 years.*

*Manure tests - No sampling/analysis required - can default to book values.*

*These requirements address the NPDES protocol requirements but are less stringent than the federal ELG requirements for large CAFOs as defined at 412.4(c)(3). Documentation is needed that reflects that the State program will comply with the federal requirements for large CAFOs.*

Setback Requirements  
412.4 (c) (5)

*92.5a(d)(1)(i) : Rewrite*

**Flanagan, Joann**

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**From:** Zygmunt.Hank@epamail.epa.gov  
**Sent:** Friday, November 05, 2004 2:44 PM  
**To:** Ag-SCC@state.pa.us  
**Cc:** dgoodlande@state.pa.us  
**Subject:** EPA Comments on PA Proposed Rulemaking : Chapter 83 Nutrient Management- CAFO



SCCCAFOLTR.wpd



paattach1.wpd



PA\_Attachment  
2\_ELG.wpd



PASummary  
Checklist.wpd

(See attached file: SCCCAFOLTR.wpd) (See attached file: paattach1.wpd)  
(See attached file: PA\_Attachment 2\_ELG.wpd) (See attached file:  
PASummary Checklist.wpd)

Please provide confirmation of receipt. Thank you.

Hank Zygmunt  
Agricultural Advisor  
U.S. Environmental Protection Agency  
Region III - Mid- Atlantic States  
1650 Arch Street  
Philadelphia, PA 19103-2029  
215-814-5750  
zygmunt.hank@epa.gov

**Flanagan, Joann**

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**From:** Klimkos, Michael  
**Sent:** Friday, November 05, 2004 3:03 PM  
**To:** Flanagan, Joann  
**Subject:** attached

SCCAFOLTR.wpd is apparently a corrupt file. As the sender to re-send it. Others are attached.

Mike

*Program Coordinator  
Dirt and Gravel Road Maintenance Program  
State Conservation Commission  
717-787-2103*



PA\_Attachment  
2\_ELG.doc



paattach1.doc



PASummary  
Checklist.doc



ORIGINAL: 2413



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PENNSYLVANIA STATE ASSOCIATION OF TOWNSHIP SUPERVISORS

2004 NOV -9 AM 9:56  
INDEPENDENT REGULATORY  
REVIEW COMMISSION

November 5, 2004

State Conservation Commission  
Agriculture Building  
Room 405  
2301 North Cameron Street  
Harrisburg, PA 17110

Dear Commissioners:

We are writing to you on behalf of the 1,456 townships represented by the Association to comment on the Proposed Rulemaking on Nutrient Management that was published in the August 7, 2004 issue of the *Pennsylvania Bulletin*. Concentrated animal operations have become controversial facilities in many townships across the Commonwealth and township officials are concerned that these facilities be properly regulated to reduce the risk of pollution and other negative impacts on the community.

We understand that this proposed rulemaking is due in part to Governor Rendell's directive in his veto message for HB 1222 and would attempt to reduce the concerns over animal feeding operations that are leading to the adoption of municipal ordinances.

We believe that this proposed regulation is a step in the right direction. The regulation would expand the types of facilities that must meet the program's requirements, as well as to establish more stringent standards to protect water quality, a major concern of our members.

However, it is essential that sufficient enforcement be provided for these regulations or they will do little to correct the real and perceived problems caused by these facilities. Without sufficient enforcement, this regulation will do little to address the concerns of communities across the Commonwealth. The Commission must have the resources to fully enforce these regulations, include the imposition of necessary fines and the ability to require violators to clean up environmental damage that they have caused at their own expense, not with taxpayer funds. Without adequate staffing resources, how can we be sure that these regulations will be fully enforced?

This regulation would require nutrient management plans to include additional information such as the application rates of manure application equipment, descriptions of all land that will be used for land application of manure, agreements with manure exporters and brokers, and use of the phosphorus index. We believe that this is an appropriate addition to protect the Commonwealth's waters and to close loopholes caused by the exporting of manure by these operations.

We support language in these regulations to require inclusion of all types of nutrients applied to farmland to be taken into consideration when preparing a nutrient management plan, including chemical fertilizers applied during the planned manure application period, application rates, type of manure, and planned manure incorporation time. Manure incorporation time is

4855 Woodland Drive ■ Enola, PA 17025-1291 ■ Internet: [www.psats.org](http://www.psats.org)

PSATS ■ Pennsylvania Township News ■ Telephone: (717) 763-0930 ■ Fax: (717) 763-9732

Trustees Insurance Fund ■ Unemployment Compensation Group Trust ■ Telephone: (800) 382-1268 ■ Fax: (717) 730-0209

State Conservation Commission  
November 5, 2004  
Page 2

important and should be required in a reasonable period of time, such as 24 hours. In some cases the manure is not incorporated or is left laying on the fields for some time, causing a risk of water pollution if the manure runs into water sources and a significant cause of odor, thereby reducing the community's quality of life.

We support language in these regulations requiring testing for both phosphorus and nitrogen content of the soil and that manure application be in compliance with these tests. This is necessary to manage and alleviate degradation of streams that is caused by agricultural runoff.

We support additional restrictions on manure application, such as not applying liquid manure at rates exceeding the soil's water holding capacity within the root zone. We also support the manure application setback of 100 feet from all active drinking water sources and the new setback from inactive open drinking water wells.

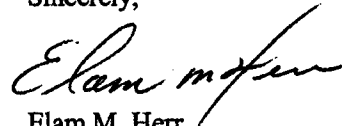
Section 83.311 includes language to address existing inadequate manure management practices. Subsection (e) adds a requirement to size, locate, implement, and manage animal concentration areas to eliminate the discharge of polluted stormwater from these areas to surface water and groundwater. Would this take into account municipal zoning and subdivision and land development ordinances? Also, the facilities would be required to minimize the size of animal concentrations and the amount of clean water entering the animal concentration area and would include a requirement for the use of BMPs, instead of the current recommendation. We support these provisions

Section 83.341 requires additional record keeping and soil testing, includes dates of application, and includes record keeping for exported manure, such as where and when it is land applied. We believe these record-keeping requirements will help eliminate loopholes in the current system.

While these regulations do address water quality, they do not address odor, the number one concern that we hear from our members about CAOs and CAFOs. Odor issues can have a direct effect on community's quality of life and best management practices should be required to reduce the potential effects that odor from a CAO can have on a community.

Thank you for the opportunity to comment on these documents. We would like to work with the Commission on these issues and to resolve the concerns of our members. If you would like to discuss this issue further, please contact me at the Association's office.

Sincerely,



Elam M. Herr  
Assistant Executive Director

cc: Robert Nyce

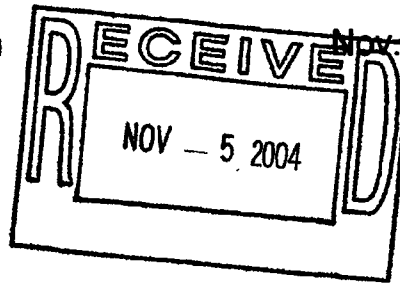
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2004 NOV 16 AM 9:05

State Conservation Commission  
2301 North Cameron Street  
Suite 405  
Harrisburg, PA 17110 - 9408



Dear Folks:

Having been unable to attend the public hearing in Mechanicsburg on September 13<sup>th</sup>, we thought we would make a comment regarding proposed changes to the Nutrient Management Act regulations.

Of particular concern to us is in regard to Section 83.201 and also Section 83.262. Definitions. We sincerely doubt there are very many, if any, small farms that come even close to two AEU's per acre. Why saddle these farms with increased costs and burdensome regulations, which can only speed up the exit from farming of these owners and operators? The result is, we just see more houses going up on this once productive land.

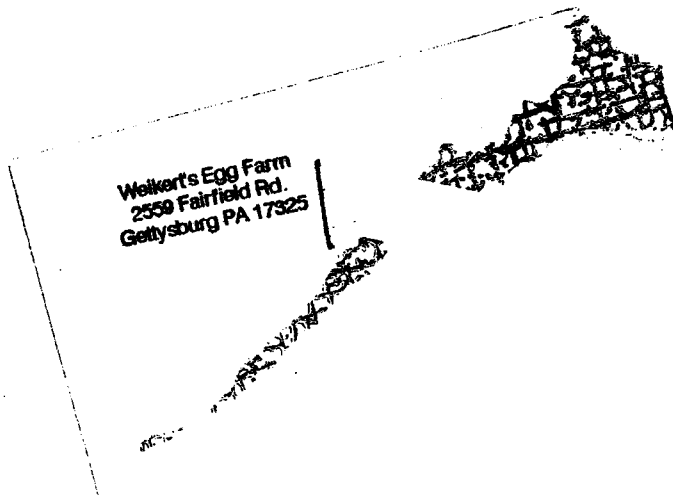
In summation, what has been proposed with regard to the above sections is regulatory overkill. What has been defined as a CAO in the past is certainly a more realistic definition and will allow small, prudent and productive farmers to have an economic future.

Sincerely,

*Allen Weikert*

*Amy Weikert*

Allen Weikert  
Amy Weikert  
Weikert's Egg Farm



Original: 2413

144

**Flanagan, Joann**

**From:** jodefey@waterkeeper.org  
**Sent:** Friday, November 05, 2004 4:01 PM  
**To:** ag-scc@state.pa.us  
**Subject:** Comments on Proposed Revisions to Nutrient Mgmt regulations

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2004 NOV 16 AM 9: 04

STATE OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WATER QUALITY CONTROL DIVISION  
REVIEW COMMISSION



Waterkeeper NMP  
comments.pdf

Dear State Conservation Commission,  
Attached please find comments respectfully submitted by Waterkeeper Alliance regarding the proposed revisions to 25 Pa. Code Chapter 83, Nutrient Management. A hard copy, with exhibits, it to follow via Federal Express.

Sincerely,  
Jeffrey Odefey  
Staff Attorney  
Waterkeeper Alliance  
828 S. Broadway, Suite 100  
Tarrytown, NY 10591  
914.674-0622

-----  
mail2web - Check your email from the web at  
<http://mail2web.com/> .



November 5, 2004

State Conservation Commission  
Agricultural Building, Room 405  
2301 Cameron Street  
Harrisburg, PA 17110

Re. PROPOSED NUTRIENT MANAGEMENT PLAN REGULATIONS

Via E-mail and Priority U.S. Mail

Dear Commission Members,

Waterkeeper Alliance respectfully submits these comments on the Proposed Revisions to Pennsylvania's Nutrient Management Regulations, 25 Pa. Code Chapter 83, Subchapter D (hereinafter "Proposed NMP Rules"). Waterkeeper Alliance is an umbrella organization comprised of 126 community based watershed protection organizations and a unifying national office. Members of the Alliance active in Pennsylvania watersheds and communities include the Allegheny Riverkeeper, Delaware Riverkeeper, Monongahela Riverkeeper, Upper Susquehanna Riverkeeper, and the Youghioghny Riverkeeper. Together, Waterkeeper Alliance and these local programs advocate on behalf of thousands of Pennsylvanians who enjoy the Commonwealth's public waterways and live and work in these watersheds.

Waterkeeper Alliance and its members routinely comment on regulatory proposals at the state and federal levels that potentially impact water quality and undertake litigation to protect our members' interests in healthy, vibrant and accessible waterways. Waterkeeper Alliance also conducts a national campaign to redress the adverse environmental impacts of concentrated animal feeding operations (CAFOs). As part of that initiative, Waterkeeper Alliance is the lead party to a legal challenge to the National Pollutant Discharge Elimination System Permit Regulations and Effluent Limitation Guidelines and Standards for CAFOs; Final Rule ("Final CAFO Rule") promulgated by EPA in February 2002.

Together with Delaware Riverkeeper and the Youghioghny Riverkeeper, Waterkeeper Alliance and its members (collectively "Waterkeeper") submit the following comments for the Board's consideration. In addition, we wish to express our support for, and agreement with, all of the comments, concerns, and suggestions raised in the comment letter submitted by Citizens for Pennsylvania's Future ("PennFuture").

#### INTRODUCTION

Waterkeeper's interest in the Proposed NMP Rules stems from the central role these plans play in limiting the flow of pollutants from Concentrated Animal Feeding Operations

("CAFOs"), as contemplated by federal NPDES regulations (40 CFR Parts 122, 123, 412) and revisions to Pennsylvania's Animal Feeding Operations regulations (25 Pa. Code Chs. 91 and 92) currently proposed by Pennsylvania Department of Environmental Protection. Nutrient Management Plans ("NMPs" or "an NMP") are effectively the sole mechanism for controlling the flow of contaminants from CAFO land application areas. As a result, they are the last line of defense for Pennsylvania's rural waterways. While existing Pennsylvania NMP regulations provide significant protection for the Commonwealth's lakes, streams, and rivers, the Proposed NMP Rules must be improved to increase the security of these waterways while enabling Pennsylvania's farmers to make beneficial, and efficient, use of a valuable, nutrient rich resource.

### SPECIFIC CONCERNS

1. Nutrient management regulations need to provide detailed guidance.

The revisions proposed by the Soil Conservation Commission ("the SCC") incorporate a Phosphorus Index to guide land application of CAFO manure and wastewater. Despite the importance of phosphorus based land-application limits, the Proposed NMP Rules do not include any specific guidance or detailed description of the Phosphorus Index. Instead, they rely on a generalized definition of a Phosphorus Index, with the apparent assumption that Commonwealth residents and the regulated community will agree that the regulations refer to phosphorus index incorporated into USDA-NRCS Pennsylvania Practice Standard 590.<sup>1</sup> See Proposed 25 Pa. Code §§ 83.201 and 83.292(e). In order for the Proposed NMP Rules to effectively protect the Commonwealth's public waters, they must include specific technical guidance for the development of an NMP that incorporates a Phosphorus Index. Furthermore, the Rules must spell out, in detailed restrictions, potential limitations on manure applications based on limits derived from the Phosphorus Index, as required under the Nutrient Management Act. 3 P.S. § 1704(1)(ii).

2. Manure on all farms should be applied at phosphorus rates.

Phosphorus is the limiting nutrient for freshwater ecosystems; excessive inputs of phosphorus can lead to massive algal growth and eutrophication. CAFOs are recognized as significant sources of phosphorus, especially in the runoff from land application areas. EPA, Preamble to the Proposed National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations (Dec. 2000) ("2000 Preamble") at 32-4, 41-2 (available at <http://www.epa.gov/npdes/pubs/cafo.pdf>). A 1995 estimate notes that 36 percent of all nitrogen and 64 percent of all phosphorus inputs to watersheds in the northeastern United States come from manure. General Accounting Office, Animal Agriculture: Information on Waste Management and Water Quality Issues, June 1995, at 14-15 (available at <http://www.gao.gov/archive/1995/rc95200b.pdf>).

Management techniques for phosphorus flows from CAFOs must treat both organic and inorganic forms of the nutrient. Over 70 per cent of the phosphorus in animal manure is in organic form, which is highly water soluble and prone to leaching through soils to groundwater and surface waters.

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<sup>1</sup> Reviewed at <http://pubs.cas.psu.edu/freepubs/pdfs/UC180.pdf> for purposes of this comment letter.

EPA, 2000 Preamble, at 42, also EPA, "Environmental Assessment of Proposed Revisions to the National Pollutant Discharge Elimination System Regulation and the Effluent Guidelines for Concentrated Animal Feeding Operations," Jan. 2001, at 2-10. Inorganic phosphorus, on the other hand, tends to adhere to soils and reaches surface waters through sediment-laden runoff from land application areas. Id.

Despite the pressing need to limit phosphorus discharges from CAFOs, THE SCC has neglected to include any meaningful operational controls or practices. The SCC's current response to the threat of phosphorus runoff, the inclusion of a "P Index" as a non-binding criteria within the CNMP, will not provide Pennsylvania waterways with sufficient protection from phosphorus. The Proposed NMP Rules must be revised to include tangible, effective, and non-discretionary measures, including a mandatory phosphorus balance for all fields that receive manure. See, e.g., Rotz, C. Alan, et al., Production and Feeding Strategies for Phosphorus Management on Dairy Farms in New York, ASAE Meeting Paper No. 01-2013 (2001), attached at Exhibit A.

3. The Proposed NMP Rules offer inadequate protection for Pennsylvania's water resources.
  - a. Nutrient management planning must take into account potential flows to impaired waterways.

Waterkeeper urges the SCC to bear in mind the ultimate importance of nutrient management planning in Pennsylvania – the protection of Pennsylvania's outstanding freshwater resources and the watersheds they contribute to, particularly the Delaware and Chesapeake Bays. In that light, nutrient management planning must look beyond the farm and field boundaries, and take into consideration the impact farm manure management has on water quality. The SCC must recognize that water quality is an integral component of nutrient management planning.

The Proposed NMP Rules do not take water quality impacts into consideration, and must be revised to do so. The Pennsylvania Department of Environmental Protection reports that 57,217 stream miles (84 % of the assessed miles) support their designated fish and aquatic life use but that at least 10,762 miles (16%) are impaired. Commonwealth of Pennsylvania, Department of Environmental Protection, *2004 Pennsylvania Integrated Water Quality Monitoring and Assessment Report: Clean Water Act Section 305(b) Report and 303(d) List* (hereinafter "*Pennsylvania Integrated Report*"). For 3,876 stream miles (22%) listed as impaired in Pennsylvania, agriculture is identified as the source of the impairment. *Pennsylvania Integrated Report*. Agricultural pollution of waterways is a leading cause of waterbody impairment, contaminating streams and rivers with siltation and excess nutrients. According to DEP, siltation has caused the impairment of 5,604 stream miles (28%) and nutrients have caused the impairment of 2,347 stream miles (12%). *Pennsylvania Integrated Report*.

Despite agriculture's widespread contribution to impaired rivers and streams in Pennsylvania, the Proposed NMP Rules make absolutely no effort to use nutrient management planning as a tool to protect and restore the Commonwealth's impaired waterbodies. As a result, there is no systematic effort to implement controls on manure application that are based on the environmental impacts of this practice. Farmers who apply animal manure, whether from their own CAFO or imported from another facility, must be required to determine manure application rates that are linked to tangible reductions in nutrient loading in streams and rivers. Furthermore, NMPs on these facilities must include additional

measures to reduce and/or control run-off and groundwater infiltration in order to prevent further nutrient flows to impaired waters.

Implementation of this planning priority now will benefit both the agriculture community and Pennsylvania's residents in advance of the development of Total Maximum Daily Loads ("TMDLs") for the Commonwealth's impaired waters. Pennsylvania must complete TMDLs for all watersheds that were listed as impaired in 1996 by 2009, according to an agreement with EPA. Additionally, once a TMDL is developed, it must be implemented within five years.

- b. Nutrient management planning must take into account the need to protect outstanding and high quality waters.

Pennsylvania DEP has designated 1,716 miles of the Commonwealth's streams as Exceptional Value waterways and a further 19,274 miles as High Quality.<sup>2</sup> Nutrient management planning in these watersheds needs to serve as an active tool in the preservation of these outstanding resources. The Proposed NMP Rules fail to account for the need to protect water quality these watersheds from degradation by manure-based pollutants. NMPs on CAFO and waste receiving farms in High Quality and Exceptional Value watersheds must incorporate additional limitations and operational requirements in order to ensure that nutrient runoff and infiltration are avoided or minimized to the greatest extent possible.

- c. The nutrient management and NMP approval process must consider the cumulative impacts of manure applications throughout a watershed.

Nutrient management and manure application on individual farms and CAFOs does not occur in a vacuum. Each farm or facility that applies manure adds to the total nutrient and pathogen load within any given watershed. Individual NMPs, including export agreements, must be analyzed against the combined manure production and application within a given watershed. In short, every effort must be made to avoid overloading watersheds with applied nutrients that exceed both the assimilative capacity of the area's agricultural fields and the carrying capacity of the watershed.

4. Pennsylvania's phosphorus index offers inadequate water quality protection.

The proposed Pennsylvania Phosphorus-Index is a risk assessment tool that determines the risk or vulnerability of phosphorus loss to surface water. It does not estimate the actual loss of phosphorus. Calculating an estimation of actual phosphorus losses would improve the identification of critical phosphorus loss sites. To estimate phosphorus loss, the Pennsylvania Phosphorus-Index would require additional development to create a spatially based model requiring data inputs of the soil chemical, physical, and microbial characteristics; the timing of nutrient applications; landscape features; and hydrological events. Furthermore, the proposed Pennsylvania Phosphorus-Index does not incorporate phosphorus-loss reductions that may be required to meet local TMDLs.

The proposed Pennsylvania Phosphorus-Index has an inadequate initial screening process. Pennsylvania's environmental threshold limit of 200 ppm (equivalent to 400 lb/ac phosphorus) is one of

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<sup>2</sup> Pennsylvania Department of Environmental Protection, *Protecting the Commonwealth's Waters* (visited October 15, 2004) <http://www.dep.state.pa.us/dep/deputate/watermgmt/Wgp/WQStandards/antideg/LT-AntidegTstmy1.htm>.



the highest thresholds set by any state. Other states using the Mehlich-3 soil phosphorus test have environmental thresholds of 150 (Arkansas and Delaware) or 130 (Oklahoma) ppm. Kansas has an environmental threshold of 200 ppm, but phosphorus additions are not allowed, regardless of the phosphorus-index outcome.

Soil P test thresholds and recommendations for Mehlich-3 soil phosphorus testing states

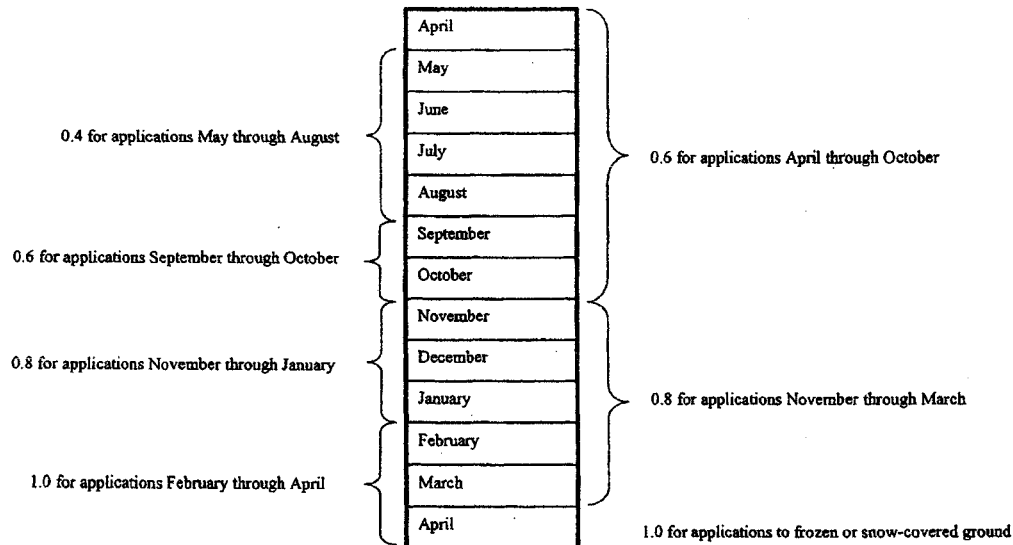
State	Threshold		Recommendation
	Agronomic	Environmental	
Arkansas	50	150	>150 ppm add no P, provide buffers next to streams, overseed pastures with legumes to aid P removal, provide constant soil cover to minimize erosion
Delaware	50	150	>150 ppm use P-Index or P-based NMP
Kansas	50	200	Above 200 ppm no addition P regardless of P-Index rating
Oklahoma	30	130 and 200	Non-nutrient limited watersheds with 130-200 ppm halve P rate and adopt measures to decrease runoff and erosion, >200 ppm P addition not to exceed crop removal; nutrient limited watersheds with 60-130 ppm halve P rate, > 130 ppm add no P; slopes 8-15% halve P rate, slopes >15% add no P
Pennsylvania	50	200	>200 ppm and <150 feet from water body use P-Index

Recent research indicates that the optimum range of phosphorus for agronomic crops is 30 – 50 parts per million. Wilhelm J. Kogelmann et al., A Statewide Assessment of the Impacts of P-Index Implementation in Pennsylvania: Phase I Report, p. 9 (July 8, 2002) (submitted to the Pennsylvania State Conservation Commission and Pennsylvania Department of Agriculture). A review of soil conditions undertaken by these researches revealed that 48% of the soil samples taken statewide had soil test phosphorus values of 50 parts per million or more. Id. Waterkeeper strongly encourages the SCC to develop a phosphorus index that more accurately reflects agronomic needs, current soil conditions, and the need to sharply reduce phosphorus contributions to public waters. Additionally, Pennsylvania's distance to water body parameter of 150 feet is too weak and should be reduced. This parameter in the initial screening should take into consideration if the water body is impaired or phosphorus sensitive.

The highest seasonal risk for phosphorus losses is during cold, wet periods and the opportunity for phosphorus loss exists for 50 to 100 days after application. The source factor portion of the Pennsylvania Phosphorus-Index does not adequately address this issue. The timing of phosphorus applications should be discrete parts of the index and given greater weight than they currently are. Below is a comparison of seasonal ranges and penalties for the New York Phosphorus-Index and the Pennsylvania Phosphorus-Index.

New York

Pennsylvania



Pennsylvania should adopt seasonal ranges and values at least as strong as what is used in New York with an additional note that any applications to frozen or snow-covered ground should receive a value of 1.0.

Pennsylvania is also too lenient in the length of time, seven days, allowed to incorporate fertilizer and manure in the proposed phosphorus-index source factor. The Pennsylvania Phosphorus-Index should adopt ranges and values at least as strong as what is used in the New York Phosphorus-Index:

- Injection or surface banded at least two inches deep (0.2)
- Broadcast and incorporate within one to two days (0.4)
- Broadcast and incorporate within three to five days (0.6)
- Broadcast and not incorporate within five days (0.8)

The proposed Pennsylvania Phosphorus-Index does not consider multiple applications of manure and fertilizer. Individual applications, whether commercial fertilizer or manure, should be scored separately with a source factor determined for each and then summed for a total source factor.

The transport factor in the proposed Pennsylvania Phosphorus-Index does not clearly delineate differences between dissolved phosphorus and particulate phosphorus. Different runoff mechanisms are responsible for different kinds of phosphorus lost at different locations in an application area. Dissolved phosphorus is associated with saturation-excess overland flow runoff and leaching. This kind of phosphorus engages a greater depth of soil profile, is dependent on the position in the landscape, and dependent on soil depth (available water storage capacity). Areas prone to saturation may have a high ground water table or an impermeable layer or bedrock at a shallow depth. This type of runoff produces flow for as long as precipitation exceeds evaporation. Particulate phosphorus is associated with

infiltration-excess overland flow runoff and erosion. This kind of runoff is dependent on the soil type (infiltration rate and soil erodibility) but independent of the position of the site in the landscape. A large amount of particulate phosphorus is lost during a single intense storm even though the runoff volume is a small percentage of the total annual runoff. Both New York and Virginia consider the different forms of phosphorus in their phosphorus indices and Pennsylvania should as well.

The contributing distance upper boundary (500 feet) and contributing lower boundary distance (150 feet) are too high. For comparison, New York uses 300 feet for a perennial stream, 200 feet for an intermittent stream and goes down to 50 feet for a perennial stream and 25 feet for an intermittent stream. Additionally, the proposed Pennsylvania Phosphorus-Index does not distinguish between kinds of water bodies (perennial, intermittent), does not consider flooding risk or frequency, does not consider slope, does not consider the presence of concentrated flow, and does not adequately address direct connections from field to water bodies. The transport factor for the Pennsylvania Phosphorus-Index should be completely overhauled to include the above components.

Pennsylvania has the weakest phosphorus-index interpretation of the Chesapeake Bay watershed states (see below). Pennsylvania has the highest upper limit for a "low" rating with 59, while other states use 50 or 30. The "medium" rating management guidance is too lenient. The guidance should limit phosphorus-based applications to crop removal rates and limit the use of nitrogen-based applications to one year in a three-year cycle. Stronger language for high and very high management guidance is recommended, requiring erosion, phosphorus limiting best management practices, and remediation.

**Pennsylvania P-Index Interpretation**

P-Index Value	Rating	Management Guidance
0-59	Low	Nutrients can be applied to meet the nitrogen crop requirement; low potential for phosphorus loss; maintenance of current farming practices is recommended to minimize the risk of adverse impacts on surface waters
60-79	Medium	Nutrients can be applied to meet the nitrogen crop requirement; medium potential for phosphorus loss; the chance for adverse impacts on surface waters exists; an assessment of current farm nutrient management and conservation practices is recommended to minimize the risk of future phosphorus losses
80-99	High	Nutrients can be applied to meet the phosphorus crop removal; high potential for phosphorus loss and adverse impacts on surface waters; soil and water conservation measures and phosphorus-based management plans are needed to minimize the risk of phosphorus loss
>100	Very High	No phosphorus can be applied; very high potential for phosphorus loss and adverse impacts on surface waters; conservation measures and a phosphorus-based management

**New York P-Index Interpretation**

P-Index Value	Rating	Management Guidance
<50	Low	Phosphorus application according to N-based NMP
50-74	Medium	Phosphorus application according to N-based NMP, use BMPs
75-99	High	Phosphorus applications should not be greater than crop removal

≥100	Very High	No phosphorus should be added.
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#### Delaware and Maryland P-Index Interpretation

P-Index Value	Rating	Management Guidance
≤50	Low	Nitrogen-based nutrient management planning is satisfactory for this site; soil P levels and P loss potential may increase in the future due to N-based nutrient management
51-75	Medium	Practices should be implemented to reduce P losses by surface runoff, subsurface flow, and erosion; nitrogen-based nutrient management should be implemented no more than one year out of three; phosphorus-based nutrient management should be implemented two years out of three during which time P applications should be limited to the amount expected to be removed from the field by crop harvest or soil test P based application recommendations, whichever is greater
76-100	High	Phosphorus-based nutrient management should be used for this site; phosphorus applications should be limited to the amount expected to be removed from the field by crop harvest or soil test P based application recommendations; all practical management practices for reducing P losses by surface runoff, subsurface flow, or erosion should be implemented
>100	Very High	No phosphorus should be applied to this site; active remediation techniques should be implemented in an effort to reduce the P loss potential of this site

#### Virginia P-Index Interpretation

P-Index Value	Rating	Management Guidance
0-30	Low	Phosphorus application according to N-based NMP
31-60	Medium	Phosphorus application should not be greater than 1.5 times crop removal rate
61-100	High	Phosphorus applications should not be greater than crop removal
>100	Very High	No phosphorus should be added

5. The Proposed NMP Rules must be revised to include additional control measures necessary to protect water quality.

a. The Proposed NMP Rules must be revised to prohibit winter application of manure [Suggested Revision to 25 Pa. Code § 83.294(g)]

The winter application of waste is not conducive to beneficial reuse of nutrients contained in livestock waste and presents an unjustifiable threat to the quality and integrity of surface and ground waters. Considerable research has demonstrated that runoff from manure application on frozen or snow-covered ground creates a high risk of adverse water quality impact. Fleming, Ron, et al., Impacts of Winter Spreading of Manure on Water Quality – Literature Review, attached at Exhibit B. Spring runoff following winter applications of manure is likely to contain considerably higher concentrations of nitrogen, phosphorus and potassium. Id., citing Phillips, P.A., et al. "Pollutant Potential and Corn Yields from Selected Rates and timing of Liquid Manure Applications," *Trans. Am. Soc. Agr. Eng.* 139-144 (1981). Further research documents the excessive loss of nutrients from manure applied to frozen or snow-covered ground. See Minnesota Planning Agency Environmental Quality Board, "Final Generic Environmental Impact Statement on Animal Agriculture, Soil and Manure Issues: Technical Work Paper: Effect of animal agriculture on soil in

Minnesota,” (“Minnesota GEIS”) June 2001, at 53, excerpt attached at Exhibit C. See also van Es, Harold, et al., “The Effect of the Timing of Animal Manure Application on Nutrient Fate Under Maize and Grass,” at 1 of 7, attached at Exhibit D.

The result of a literature review conducted by Canadian researchers showed that nitrogen losses in runoff following winter manure application can be as high as 20 per cent; frozen soils are virtually impervious, leading to a high likelihood of runoff of pollutants from manure covered ground; and the risk of manure runoff is similar for frozen bare ground and snow covered ground. See Fleming, et al., at Exhibit B.

- b. Sound nutrient management strategies must also control pathogens.

CAFOs are a leading contributor to impaired water quality throughout the country. EPA, National Water Quality Inventory, 2000 at ch. 2, p. 13-14. According to EPA, pathogens rank second highest in the list of pollutants of concern for rivers and streams, behind siltation and ahead of nutrients. Id. at p.15. For all of the Draft Permit’s emphasis on nutrient management, it does very little to address the more pressing issue of pathogens.

A significant body of research has concluded that runoff from manure piles and land application can carry pathogens to surface or groundwater through highly permeable soils or drainage tiles. See Sobsey, M.D., Pathogens in Animal Wastes and the Impacts of Waste Management Practices on Their Survival, Transport and Fate, summary attached at Exhibit E. See also Minnesota GEIS at 3, Exhibit C.<sup>3</sup> Pathogens have demonstrated the ability to survive in manure storage piles and land application methods. Id. Current manure storage systems, including those contemplated by the Proposed NMP Rules, “contain all of the favorable environmental characteristics for pathogen survival and pathogen decrease is particularly slow for some organisms.” Id. at 54. In order to prevent the dangerous flow of pathogens to surface waters, the SCC must modify the Proposed NMP Rules to require the immediate incorporation of broadcast manure and liquid manure waste. See Soupier, Michelle, et al., Bacteria Release and Transport from Livestock Manure Applied to Pastureland, ASAE Meeting Paper No. 032149 (2003), attached at Exhibit F.

- c. The Proposed NMP Rules must contain specific conditions on manure application timing. [Suggested Revision to 25 Pa. Code § 83.294(b) or (f)]

There is an ample body of evidence demonstrating that CAFOs and crop areas receiving CAFO wastes are significant sources of excess nitrogen and phosphorus flows to surface and ground waters. See, e.g., Berka, C., et al., Linking Water Quality with Agricultural Intensification in a Rural Watershed, 127 Water Air and Soil Pollution 389-401 (2001), attached at Exhibit G.

In particular, recent research on New York model farms shows that early-fall and late-fall manure applications result in high levels of nitrate leaching. See van Es, H.M., et al., Management effects on nitrogen leaching and guidelines for a nitrogen leaching index for New York, 57 J. of Soil

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<sup>3</sup> The entire Minnesota GEIS is available at <http://www.eqb.state.mn.us/geis/> (last visited March 18, 2004). The reports cited in the sections of the document referred to above are hereby incorporated into these comments by reference.

and Water Conservation 6: at \*2, attached at Exhibit H. This study also indicates that poorly timed manure applications to clay loam soils may result in excessive phosphorus leaching, leading in turn to phosphorus levels that are “10 to 70 times the level of concern in surface water bodies.” Id (emphasis added).

Another New York study revealed that late-spring sidedressing of manure provides more plant available nitrogen than a spring plowdown, the difference being lost to either the air or water. See id. at 2. This study also indicated that fall applications of manure, “when soils are warm and crop uptake is non-existent is likely to result in considerable nitrate leaching losses during the following winter and spring.” Id.

Waterkeeper Alliance, THE OTHERS, and their individual members appreciate this opportunity to provide comments and suggestions on the Commission’s proposed regulatory revisions. We look forward to working with the Commission towards our shared goals of protecting Pennsylvania’s waters for the future.

Sincerely,

Jeffrey Odefey  
Staff Attorney  
Waterkeeper Alliance

Maya van Rossum  
Delaware Riverkeeper

Beverly Braverman  
Youghiogheny Riverkeeper



Original: 2413  
Flanagan, Joann

159

From: Susan Munch [susanm@alb.edu]  
Sent: Friday, November 05, 2004 10:16 AM  
To: ag-scc@state.pa.us  
Subject: CAO regulations

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2004 NOV 16 AM 9:05

REGULATORY  
REVIEW COMMISSION

To the State Conservation Commission:

The november 3 meeting on proposed changes in regulations governing farms where livestock are concentrated presented significant improvements in regulations controlling nutrient release into surface waters. As a biologist who has spent a lot of time studying the effect of phosphorus in freshwater ecosystems, however, it seems to me more needs to be done. Manure storage in fields (sec. 83.294h) should be limited to a month or less, and setbacks should be more stringent for manure application(sec. 83.294f). If a hundred feet is really enough when the ground is frozen or snow-covered, then when it is not the setback should be 50 feet or more likely 150 feet and 75 feet respectively. Setbacks from hq or ev streams should be even higher. Setbacks for manure storage should be set (sec. 83.351) and made at least as high as for application. The level of P used as a threashhold for P control is too high in the proposed regulations, and P balance sheets hould b used both on the farm where the manure is produced (83.201) and on any it is exported to (83.301.)

Please take water quality into account more and make the nutrient release regulations more stringent than those proposed so far.

Sincerely,

Susan Munch Ph.D.

Associate Professor of Biology

Albright College

P.O. Box 15234, Reading PA 19602

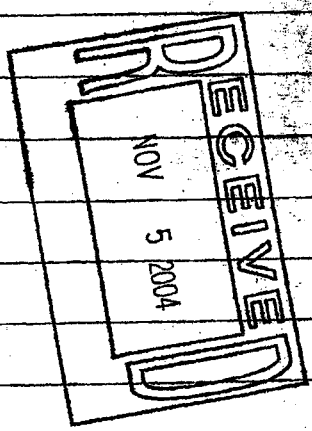


nal: 2413

Greetings to have it may concern,

This letter is to express our concerns about <sup>community</sup> patient management we are a <sup>community</sup> member in Ratter Co.

We hope you take the small family farms in consideration when making rules. As it is not affordable to spent a lot of change the way to handle measures we need the small farms but it seems they are being squeezed out.



Thank  
Arthur Miller

464 Bellin Hill Rd.  
Ulysses Mo 65748

RECEIVED  
2004 NOV 16 AM 9:00  
LEWIS & CLARK COMMISSION

Matt McClellan  
RR 1 Box 181  
Granville Summit PA 16926

193

Original: 2413

the  
from

Two different signatures on  
letters received  
at this one address.



State Conservation Commission  
2301 North Cameron Street  
Suite 405  
Harrisburg, PA 17110-9408

17110-9408 93



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2004 NOV 16 AM 9:07

STATE CONSERVATION  
COMMISSION

- Nutrient Application Rates should be allowed as either **phosphorus indexing OR phosphorus balancing for nutrient management plans**. This will give additional flexibility to the agricultural community in its efforts to address phosphorus loss. Phosphorus balancing would limit the amount of phosphorus that will be applied for a given year, to that amount that will be removed by the crop that given year. If the Commission is not agreeable to also allowing phosphorus balancing for all CAOs and CAFOs, I would recommend that the addition of phosphorus balancing be allowed for existing CAOs and CAFOs only, and not for new operations. Also, I am concerned about how the Commission defines the term “stream or other water body” for its use in the current version of the Phosphorus Index. The identification of streams or other water bodies (as defined for the index) on a farm serves a critical role in the calculation of the Phosphorus Index for a given field.
- I do not support manure export sheets, nutrient balance sheets and any other paperwork pertaining to manure importing and exporting being considered “official” components of a Nutrient Management Plan. When it is considered “official” it is available to the public to inspect. Too many times the public retrieves this information and has no understanding of the information. The Conservation District does not have time to explain it because that would require the District to provide a mini course in Nutrient Planning to the individual.
- I would recommend that either the State or the Conservation District have on staff a person to assist the farming community in identifying land that is available for manure application.
- I would recommend that both small and large animal agriculture operations be considered equal. Still today, I can drive down the road and see animals standing in the stream – what is that doing to the water quality?
- What is being done to regulate commercial fertilizer applications? Do they need to follow the same setbacks that an animal manure application must follow?
- I would recommend that Pennsylvania regulations be identical to the EPA regulations.

I believe that farming must be done in an environmentally responsible manner to protect our food supply, the waters of the Commonwealth and the health and safety of our citizens. We need clear regulations, consistently applied so that we are not always trying to hit a moving target.

At the same time, however, it must be noted that regulations that are too stringent or drive the cost of farming up too much will negatively affect the contribution that agriculture makes to the economy of Pennsylvania.

Sincerely,

