

**Pennsylvania Association of Conservation Districts  
Comments on Proposed Act 6 Regulation Changes**

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2004 NOV 10 PM 3:44

REGULATORY  
REVIEW COMMISSION

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submitted, naming a hauler at the time the plan is written could be difficult and impractical. Plan could instead state that a certified hauler from the approved list will be used.

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3. Since District personnel will be verifying the consistency of the conservation plan and NMP, what are they expected to do when a farm is out of compliance with Chapter 102 by not having a plan or following their plan?
4. What are dairy farmers who depend on their pastures supposed to do if a P Index shows that no manure can be applied?
5. There is a lack of trained and certified conservation planners and a backlog of farms waiting to be planned in many counties.
6. New conservation plans are going to call for more BMPs to be installed. Act 6 and other funding sources are not adequate to meet current demands for BMPs.

7. The original NM Advisory Board felt that anything that hindered moving excess manure to farms that needed more nutrients was to be avoided. What options will a CAO have if he can find no one to take his manure because of increased burdens on importers?
8. Additional resources (staff and funding) will be needed to support increased workload for Districts administering the Act 6 program and supporting activities such as BMP design and installation, conservation planning, and possible compliance assistance.
9. Turnover of nutrient management technicians across the state should be of concern to the SCC. The time to train and get new technicians certified slow down the process to meet deadlines and to effectively administer the program. Adding the complexity of the P-Index will only magnify this problem. Cross-training in the Districts is a solution for those with personnel to do so but many are short staffed as it is.
10. As District staff are being called on to administer more and more regulatory type programs, their relationship and trust with the farming community, built over years of "friendly" assistance, is being strained in many counties. DEP has never enjoyed a real positive relationship with the farming community. Has any thought been given to using PDA staff, who have developed a good reputation of dealing with agricultural regulatory issues for decades, being the frontline field presence in Act 6 compliance?
11. A concentrated effort to focus on having every farm implement an approved conservation plan would go much further than a P-Index to address phosphorus concerns and meet Bay nutrient reduction goals.

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1. There are concerns/questions about the 100 foot setbacks or buffers. Wasn't the P index developed to address manure applications near the stream? Buffers and setbacks should be the same/consistent for any approved nutrient plan regardless of the program. This type of regulation makes things harder for field level people (both DEP and District) and creates confusion for farmers, manure haulers, plan writers and the general public.
2. If the regulations do require some type of setback for manure application it needs to be clearly defined how determined. Tech Guide standards are okay but does not clearly define parameters for width or length of buffer. Are we to assume they will be using

Filter Area standard (393)? Need to keep this from being a gray area for everyone involved.

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5. Following on number 4. If the operation would not be a CAO or VAO, who performs the status reviews of the nutrient management plan? DEP should handle this. If they want Districts to do it, there needs to be a plan to reimburse them, not just add it as another responsibility in the Act 6 delegation agreement.

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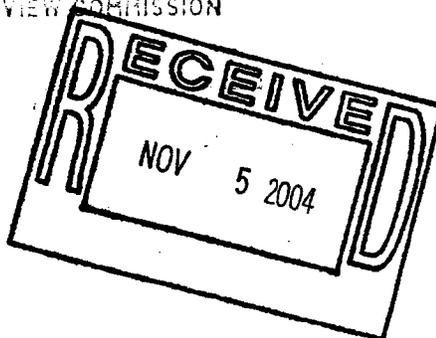
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RECEIVED REGULATORY  
REVIEW COMMISSION

November 2, 2004

Karl Brown  
Executive Secretary  
State Conservation Commission  
Agriculture Building, Room 405  
2301 North Cameron Street  
Harrisburg, PA 17110

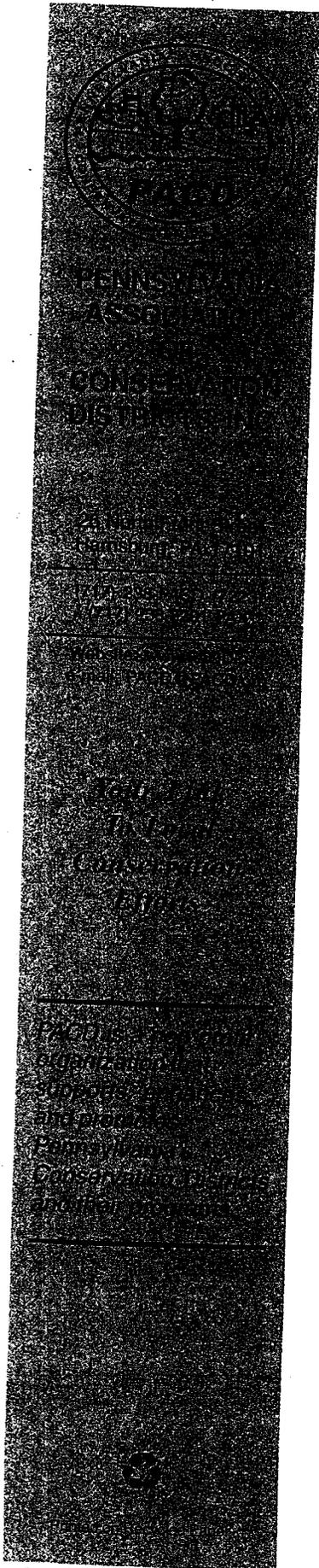


Dear Karl:

Enclosed are the Pennsylvania Association of Conservation District's comments on the proposed revisions to the CAFO and Act 6 regulations. Please feel free to contact me with any questions at (717) 238-7223 or [susan-marquart@pacd.org](mailto:susan-marquart@pacd.org).

Sincerely,

Susan Marquart  
Executive Director





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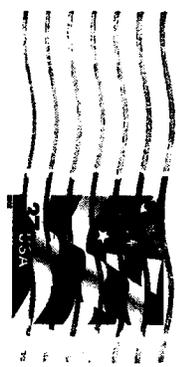
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INDEPENDENT REGULATORY  
REVIEW COMMISSION

STEPHEN B. GRAHAM, D.O.  
1227 WARM SPRINGS AVE.  
SUITE 208  
HUNTINGDON, PA 16652



CAFO Regulations  
Environmental Quality Board  
PO Box 8477  
Harrisburg, PA 17105-8477

17105+8477





# Stephen B. Graham, D.O.

Women's Health Care, Obstetrics, Gynecology, and Gynecologic Surgery  
Diplomate American Board of Osteopathic Obstetricians and Gynecologists

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INDEPENDENT REGULATORY  
REVIEW COMMISSION

J. C. Blair Memorial Hospital  
Medical Office Building -Second Floor  
Huntingdon, PA 16652  
Office: (814) 644-6588  
Home: (814) 542-8317

November 2, 2004

CAFO Regulations  
Environmental Quality Board  
P.O. Box 8477  
Harrisburg, PA 17105-8477

To Whom It May Concern

I am commenting on the proposed changes to the CAFO regulations. I write to you today as a single individual. However, I also write to you as one of over 600 individuals from the Wayne Township, Mifflin County area who recently participated in a petition to assert our opposition to a proposed, environmentally-dangerous CAFO near the village of Newton Hamilton. I would ask you to view this letter as representative of the views of the larger group.

Based on our personal experience with the current regulations, it is clear that they are inadequate in a number of ways and require improvement. Our specific comments on the proposed changes to the CAFO regulations are included below:

- Strengthen the CAFO definitions-Keep the Pennsylvania animal trigger and add federal animal number trigger to cover operations that have mixed animal species (chickens, swine, dairy, horses, etc.)(25 Pa. Code #92.1)
- Language must be added to cover operations that have pollution incidences and are not CAFOs.(Code #92.1)
- Geological features must be considered such as nearby streams, rivers, lakes, wetlands, karst features, including the cumulative effects of other operations in the same area.(Code #92.1)
- Operations with manure digesters should obtain NPDES industrial waste permits.(Code #92.1)
- Setbacks for the application of manure near streams, rivers, lakes, wetlands, sinkholes, drainage tails and other features that convey water should be at least 150 feet.(Codes #91.136(b)(2), #92.5a(d)(1)(i), #91.1 and #92.1)
- Phosphorus index must address the proximity to impaired watersheds, flooding potential, leaching potential, and the use of sludge. Phosphorus must be balanced on all fields and on lands receiving exported manure.(Code #92.5a(d)(1))
- Structures with 1 million gallon capacity and more must be required to obtain WQM permit.(Code 391.36(a)(3)(ii))
- Storage structures near an impaired watershed must be required to obtain WQM permit.(Code#1.36(a)(3)(i)(C))
- DEP must consider geology, cumulative impact of farming operations in the same area, high quality or exceptional streams, impaired streams and special protection waters, and TMDL restrictions.(Code #91.36(a)(7) and #92.1)
- Operations that conduct plowing and tilling must develop and implement an erosion and sediment control plan to limit runoff.(Code #92.5a(d)(2))
- Dry manure should not be allowed to be stockpiled uncovered in fields for more than 2 weeks.(Code #91.36(b)(2) and #92.5A(d)(1)(i))

DEP needs to ensure full compliance with the CAFO regulations not only by the owner, but also vicariously by the agribusiness corporations that contract with livestock operators or management. All parties must be required to co-sign the CAFO permits and be held jointly liable for violations. There are numerous facilities in Pennsylvania that have been shown to be out of compliance (some are listed on the DEP website). There must be more meaningful oversight and enforcement. Too many "bad actors" are given permits over and over again.

In our area of Pennsylvania, we have endured . . .

- manure spills from full lagoon pits
- spreading manure on snow covered ground
- spreading so near streams that the water turns brown
- spraying onto others private property including spraying the owner
- dead pigs strewn out in the open for wild animals to eat
- the stench

- a farm given a conservation award, yet every time it rains, the soil from the farm washes onto a state road, sometimes closing one lane
- manure haulers leaving a trail of manure and mud on the roads
- importers accepting the manure when they are not in compliance on their own land.

If there were meaningful oversight, enforcement, and stiffer penalties, these operations might clean up their act. Shut them down until they can prove that they are really "good neighbors".

Grace and peace,

A handwritten signature in black ink, appearing to be "J. Rendell", written in a cursive style.

Copy to:  
Governor Edward G. Rendell  
State Senator Jake Korman  
State Rep. Larry Sather

**Hughes, Marjorie**

**From:** Dennis Thro [dentthro@aol.com]  
**Sent:** Monday, November 01, 2004 6:57 PM  
**To:** RegComments@state.pa.us  
**Subject:** Water Quality at Risk: comments on proposed CAFO regulation

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2004 NOV 12 PM 3:44  
REGULATORY REVIEW COMMISSION

November 01, 2004

Pennsylvania Department of Environmental Protection  
PA

Dear ,

Subject: Comments on proposed CAFO regulation

The proposed Concentrated Animal Feeding Operation (CAFO) regulation is seriously inadequate at minimizing nutrient pollution and protecting water quality. Pennsylvania already has an estimated 3,903 miles of streams impaired by agricultural impacts, and this regulation holds little potential for correcting this.

Please protect our waterways.

1. The proposed regulations fail to require a NPDES permit for medium CAFOs, as required by federal regulation. The proposed definition of CAFO in § 92.1 is legally problematic because it fails to include certain medium CAFOs, that are required by the federal regulations at 40 CFR § 122.23(a), (b)(2) and (b)(6) to obtain permits. Inexplicably, while the proposed definition in § 92.1 correctly cross-references those facilities that are classified as large CAFOs, it omits the medium-sized facilities that also must be classified as CAFOs.

The federal rule includes specific language regarding "discharges" in the definition of small and medium CAFOs at 40 CFR § 122.23(b)(6)(ii). This provides an opportunity to regulate and enforce operations currently not covered by the Nutrient Management Act, that contribute heavy nutrient loads to the Commonwealth's waters. This definition would include operations with livestock in streams, stormwater flowing from manure management facilities, and other sources of stream degradation. A definition that includes operations with 300 to 1,000 AEUs that must have a Nutrient Management Plan may include more operations than the definition at 40 CFR 122.23(b)(6)(ii), but not those operations with the most serious pollution problems.

In the Chesapeake Bay watershed in Pennsylvania, agricultural operations are the largest source of nitrogen and phosphorous pollution. While many large confined animal operations have been subject to CAFO permit and nutrient management planning requirements, many medium and small size agricultural operations have operated under the regulatory radar. In order to comply with the federal Clean Water Act, to maintain NPDES delegation, and to take a positive step to ensure that major sources of agricultural nutrient pollution in the watershed are addressed, DEP must, as EPA has done, amend the definition of CAFO to include the appropriate medium-sized animal operations into the regulation.

2. The definition of CAFO in § 92.1 is vague and ambiguous. In addition to not satisfying federal CWA requirements, the proposed definition of CAFO in § 92.1 is vague and ambiguous. It is unfair to both citizens, and the potentially regulated agriculture community, since the regulation fails to give adequate notice to both groups of who is covered by the regulation. This uncertainty will only lead to litigation and the need for the paperwork, expenses, and wasted time of regulatory revisions in the future to correct the problematic language. Moreover, the regulation itself could be held by a court to be violative of due process since it is void for vagueness.

3. The proposed definition of CAFO at § 92.1 irrationally excuses unauthorized discharges from CAFO classification

The nonsensical definition includes one class of CAFOs that is: "any agricultural operation with a discharge to surface waters that is authorized by Department permit limits and conditions." It excludes from CAFO classification agricultural operations that are operating without necessary permits, or are otherwise not authorized by the Department. Thus, an agricultural operation could refuse to get a permit and by doing so avoid classification as a CAFO and the regulatory requirements that come with such a classification. In addition, the language does not specify which "Department permit limits and conditions" would result in a classification. In sum, the proposed language is completely irrational and must be amended to include agricultural operations with discharges regardless of whether they are authorized by any Department permits.

In order to eliminate irrational language, comply with the federal rule, and clarify the proposal, DEP needs to recraft the definition of CAFO in § 92.1 to read as follows:

CAFO--Concentrated animal feeding operation--A CAO with greater than 300 AEUs, any agricultural operation with greater than 1,000 AEUs, any agricultural operation defined as a large CAFO under 40 CFR § 122.23(b)(4) or a medium CAFO under 40 CFR § 122.23(b)(6) (relating to concentrated animal feeding operations (applicable to state NPDES programs, see 123.25)), or any other agricultural operation designated as a CAFO by the Department based on risk of pollution of surface waters using relevant criteria such as the size, location and management plan of the operation.

The proposed rule's calculation of Animal Equivalent Units to define CAFOs is appropriate for Pennsylvania's mixed operations. Many operations may not reach any of the species-specific thresholds to be considered a CAFO, but would have more than 300 AEUs and need to be included.

4. The Clean Streams Law must be enforced effectively. § 91.36 (c) should be rewritten to state: Discharge of Pollutants. It is unlawful for agricultural operations to discharge pollutants to waters of the Commonwealth except as allowed by regulations or a permit administered by the Department. The Department SHALL take an enforcement action against any agricultural operation in violation of this requirement. In addition, when an agricultural operation is found to be in violation of the Clean Streams Law, 35 P.S. § 691.1 et seq., the Department SHALL require the agricultural operation to develop and implement a nutrient management plan under Chapter 83, Subchapter D, for abatement or prevention of the pollution.

5. The provisions relating to buffers and setbacks are vague. The requirement for a 100-foot year round setback (or 35-foot vegetative buffer) from streams and other water bodies for land application of manure is a giant step in the right direction. However, a 50-foot buffer would capture much more pollution before it enters our streams and downstream waters. The language requiring "appropriate vegetated buffers and setbacks," is vague. The Pennsylvania Technical Guide standards for Riparian Forest Buffers (391) and Riparian Herbaceous Cover (390) would provide helpful guidance on how these buffers may be designed to capture pollution and protect water quality.

Thank you very much, and I look forward to a strengthened regulation and improved water quality.

Sincerely,

Mr. Dennis Thro  
1226 Trinity Church Rd  
Wrightsville, PA 17368-9206



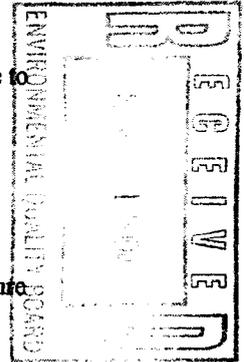
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**Citizens for Pennsylvania's Future (PennFuture) Summary of Comments on the Proposed Concentrated Animal Feeding Operation Regulations**

**Definition of a CAFO**

- Livestock operations that are currently regulated under Pennsylvania's CAFO program must continue to be regulated under the new regulations. Additionally, any facility that meets the federal definition of a CAFO should be included. (25 Pa. Code § 92.1)
- DEP should require any livestock operation that causes a pollution incident to get a CAFO permit to ensure that future pollution incidents will be avoided. (25 Pa. Code § 92.1)
- DEP should require a livestock operation to obtain a CAFO permit if it might impact high quality or exceptional value streams, if it is located in an impaired stream for which pollution limits have been developed, or in areas where the geology makes it easier for operations handling large amounts of manure to pollute groundwater and streams. (25 Pa. Code § 92.1)
- When determining if an operation needs a CAFO permit, DEP should also consider the livestock operation's potential to pollute based on local geology, cumulative impacts of farming operations in same area, proximity to high quality, exceptional value streams, or impaired streams, pollution loading (TMDL) restrictions. (25 Pa. Code § 92.1)



**Setbacks for Manure Spreading**

- PennFuture supports DEP's proposal to adopt the National Resource Conservation Service guidelines and require either a 50 foot vegetated buffer between fields where manure is spread and streams or require a 100 foot setback for manure spreading near streams. (25 Pa. Code §§ 91.36(b)(2) and 92.5a(d)(1)(i))
- Manure spreading must also be restricted near sinkholes, drainage tiles, agricultural well heads and other features that convey water as required under the federal regulations related to setbacks. (25 Pa. Code §§ 91.1 and 92.1)

**Protecting and Restoring Streams**

- DEP should be required to take allowable stream pollution loading restrictions, TMDLs, into account when issuing CAFO permits in impaired watersheds. Such permits should address the measures the CAFO will employ to ensure livestock facilities don't add to the pollution load.
- DEP should be required to perform an anti-degradation analysis for CAFO permit applications in high quality and exceptional value watersheds to demonstrate that they will not degrade water quality.
- Manure storage structures with a capacity of one million gallons or more should be required to obtain a Water Quality Management (WQM) Permit. (25 Pa. Code § 91.36(a)(3)(ii))
- Manure storage structures near an impaired watershed should be required to obtain WQM permit regardless of whether or not the agricultural operation is implementing an approved nutrient management plan. (25 Pa. Code § 91.36(a)(3)(i)(C))
- When determining if an operation needs a WQM permit, DEP should also consider the manure storage structure's potential to pollute based on local geology, cumulative impacts of farming operations in same area, proximity to high quality, exceptional value streams, or impaired streams, and pollution loading (TMDL) restrictions. (25 Pa. Code § 91.36(a)(7))

**Controlling Phosphorus Pollution**

- DEP's proposed phosphorus index does not provide adequate protection for water resources because it does not consider proximity to impaired watersheds, flooding potential, or leaching potential when determining whether or not fields can safely be used to spread manure without causing phosphorus pollution. (25 Pa. Code § 92.5a(d)(1))
- Instead of using the phosphorus index, livestock operators must be required to ensure no more phosphorus is applied to fields than the crops grown there can absorb.
- Livestock operators must also be required to ensure no more phosphorus is applied to fields to which manure is exported than the crops grown there can absorb.

**Corporate and Agribusiness Accountability**

- To ensure full compliance with the CAFO regulations, agri-business corporations that contract with livestock operators or livestock management companies that operate facilities under contract with farmers should be required to co-sign CAFO permits.

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REGULATORY  
REVIEW COMMISSION

via hand delivery



Environmental Quality Board  
Rachel Carson State Office Building, 15<sup>th</sup> Floor  
400 Market Street, P.O. Box 8477  
Harrisburg, PA 17105

To whom it may concern,

Citizens for Pennsylvania's Future (PennFuture) hereby submits for your consideration the following comments concerning the proposed rulemaking regarding 25 Pa. Code §§ 91 and 92 as published in 34 Pa. Bull. 4353.

**I. THE PENNSYLVANIA CAFO PROGRAM, AS PROPOSED, IS INADEQUATE BECAUSE IT FAILS TO REGULATE FACILITIES THAT ARE MOST LIKELY TO DISCHARGE AND THOSE THAT HAVE HISTORICALLY DISCHARGED.**

The federal regulations make it clear that their primary concern is large animal operations that pose the greatest environmental risk. However, the federal regulations define CAFOs as large, medium and small. 40 C.F.R. §§122.23(b)(2),(c). A large CAFO is one that meets certain animal thresholds and by sheer animal numbers creates a possibility of environmental impacts. 40 C.F.R. § 122.23(b)(4). Medium CAFOs are defined by the federal regulations as those facilities that meet certain animal thresholds that are less than those in the large category, but still rather significant in sheer number and have the potential to create an environmental risk. 40 C.F.R. § 122.23(b)(6). The small CAFOs may be designated as such based upon their historic impacts to waterways. 40 C.F.R. §§ 122.23(b)(9) and (c). Thus, even though the stated policy focus in the federal regulations is on large animal operations, the definition of a CAFO includes medium and small facilities.

**A. Pennsylvania's CAFO program fails to capture facilities that have a discharge as outlined in the federal regulations.**

The state regulations must require any facility that has had a pollution event involving manure or wastewater to obtain a CAFO permit. The federal regulations require agricultural operations to obtain a CAFO permit where either 1) "[p]ollutants are discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device" or 2) "[p]ollutants are discharged directly into waters of the United States which originate outside of and

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pass over, across, or through the facility or otherwise come into direct contact with animals confined in the operation.” 40 C.F.R. §§ 122.23(b)(6) and (c).

As drafted, the proposed state regulations do not generally include a definitional category for agricultural operations with a discharge. The proposed regulations do, however, define CAFOs with “a discharge to surface waters that is *authorized* by Department permit limits and conditions.” Proposed 25 Pa. Code § 92.1. By specifically defining CAFOs as those agricultural operations with an authorized discharge; the EQB, by implication, has excluded from the definition those agricultural operations with an unauthorized discharge. PennFuture acknowledges that the proposed state definition of CAFO also includes a catchall provision. However, by explicitly excluding facilities with an unauthorized discharge from one piece of the definition (i.e. those agricultural operations with an authorized discharge), the EQB has implicitly excluded facilities with an unauthorized discharge from the catchall provision also.

Facilities with an “unauthorized” discharge are those targeted by the federal regulations and defined as small and medium CAFOs. If the EQB is going to define CAFOs with “authorized” discharges, it must also outline and specifically define facilities as CAFOs if they have a history of polluting waters of the Commonwealth with “unauthorized” discharges as specifically contemplated in the federal regulations. The state regulations define “authorized” discharges; however, the federal regulations indicate that facilities with “unauthorized” discharges must be designated as CAFOs. Therefore, the EQB must define a facility as a CAFO if it pollutes waters of the Commonwealth with manure or wastewater. PennFuture recognizes that this requirement in the federal regulations may place strain on small and medium sized farms to keep their livestock out of waters of the Commonwealth. PennFuture also recognizes that the Clean Streams Law, under which the state NPDES CAFO regulations are promulgated, prohibits an administrative agency from requiring “any person to erect a fence along a stream in a pasture or other field used for grazing of farm livestock for the purpose of keeping farm livestock out of the stream.” 35 P.S. §691.702. However, an integration of the federal regulation into the proposed state regulations would not result in a mandate to construct stream bank fencing.

There are policy reasons for specifically stating that those facilities with a discharge to waters of the Commonwealth be classified as a CAFO. First and foremost, EPA noted during the CAFO workgroup meetings that smaller facilities were singled out in the regulation because of a history of water quality violations at these types of facilities. EPA revised the NPDES CAFO regulations to address water quality problems. Additionally, specifically requiring agricultural operations that have had a water quality impact to get a CAFO permit would remove some discretion from the Department, which clearly it has not been using. The CAFO definition in the regulations has given the Department the discretion to designate a facility as a CAFO because of water quality impacts since the regulations were first created, but the Department has never actually utilized this discretion to make such a designation. However, there have been a number of pollution events involving farms in the past few years. Most notably, the Hillandale Gettysburg facility repeatedly polluted waters of Commonwealth with both manure and

egg washwater. These pollution events warranted fines and penalties from Pennsylvania Fish & Boat Commission, the State Conservation Commission, and the Department. Although the facility houses well over the number needed to be designated a CAFO under existing regulations, the Department failed to require Hillandale Gettysburg to acquire NPDES CAFO permits.

The Department has historically taken the position that a facility is not “discharging” if it mitigates the pollution problem. The Department has also taken the position that it should only require a CAFO permit if and when the agricultural polluter fails to mitigate the pollution. This reasoning is defective for two reasons. First, and most importantly, the federal regulations state that CAFO permits are required when an agricultural operation impacts water quality, not when it fails to remediate a pollution problem. And second, if a facility is forced to get a CAFO permit because it fails to remediate a discharge, that facility would be violating its permit as soon as it was issued since NPDES CAFO permits are non-discharge permits. Discharges to waterways at agricultural operations generally happen because of improper management. Thorough scrutiny of the agricultural operation while undergoing the permitting process is likely to assist the facility in pinpointing other operational problems. Additionally, the Department has more oversight of a facility if it is in the CAFO permitting system. The Department is therefore more likely to catch management issues before a pollution event occurs again in the future. For all of the above reasons, the EQB must integrate the federal definition for small and medium CAFOs into the state regulations for agricultural operations that discharge pollutants to waterways.

- B. Any agricultural operation with an “authorized discharge” must be required to obtain a permit, such as an industrial waste permit, above and beyond an NPDES CAFO permit for the discharge.

The definition of a CAFO includes a category of agricultural operations with a “discharge to surface waters that is authorized by Department permit limits and conditions.” Proposed 25 Pa. Code § 92.1. The EQB has specifically asked for comment on this proposal. The EQB sees use of this term as encouraging technologies that use manure for energy production, some of which include a treated water discharge.

Current digester technologies are generally closed loop, meaning that any water byproduct is utilized on site. However, the EQB is including such language in the event that an agricultural operation would some day discharge water byproducts. CAFO permits are by definition non-discharge permits. The only discharge allowed from a CAFO under the federal regulations is a stormwater discharge. 44 C.F.R. §122.23(e). The inclusion of this exception by the EQB is counter to the federal regulations. The discharges proposed by the EQB are neither the result of a storm event nor in accordance with a Nutrient Management Plan. Thus, a digester discharge would not qualify as a stormwater discharge under the federal regulations. PennFuture supports the use of digesters at agricultural operations, but any planned, direct discharge of effluent from a digester or other manure processing system or device must be permitted separately from the CAFO operation.

The CAFO permit is a non-discharge permit. However, the proposed regulatory change has been offered for a technology that will have an actual discharge to waters of the Commonwealth. This is directly counter to the effluent limitation guidelines in the federal regulations. 44 C.F.R. § 412.1 *et seq.* The federal regulations state that “[t]here shall be no discharge of process waste water pollutants to navigable waters.” 40 C.F.R. §§ 412.12(a), 412.13(a), 412.15(a), 412.25(a), 412.26(a), 412.31(a), 412.32(a), 412.33(a), 412.35(a), 412.43(a), 412.44(a), 412.45(a), and 412.46(a).

The EQB has offered this exemption for the reason of encouraging technologies that use manure for energy production. However, many other state programs exist for the purpose of encouraging energy production. The Department recently awarded an energy harvest grant for a digester project in Lancaster County. Additionally, if the Renewable Portfolio Standard legislation passes there will undoubtedly be incentives from the state and private industry to place digesters at agricultural operations. The Department should not fail to permit a discharge to waters of the Commonwealth merely because it wants to encourage this technology at agricultural operations. Additionally, the NPDES CAFO program is the wrong program under which to permit this technology because it results in an actual discharge in violation of the main principle of the federal CAFO program, one of non-discharge. CAFOs wishing to utilize a digester and discharge effluent to waters of the Commonwealth must be required to obtain an industrial waste discharge permit from the Department.

C. Discretionary designation by the Department should require consideration of site specific factors.

Certain farms currently escape regulation under the CAFO program because they do not meet the required density trigger or animal equivalent unit threshold. However, some of these farms may still pose a significant risk to the watershed given the amount of manure that they store. The EQB has retained the right of the Department to deem these facilities a CAFO given certain factors. Proposed 25 Pa. Code § 92.1. However, in this analysis, the EQB does not require consideration of a number of critical factors to determine if the agricultural operation will have an adverse impact upon the waters of the Commonwealth. Id.

The proposed state regulations allow the Department to designate an operation a CAFO based upon the threat the facility represents to the waters of the Commonwealth. Proposed 25 Pa. Code § 92.1. The regulation states that the Department must consider the size, location and management plan of the operation to determine if it should be designated as a CAFO. Id. However, consideration of these factors alone is insufficient to determine potential environmental impacts by an agricultural operation.

The regulations also allow the Department to designate an agricultural operation as needing a water quality management permit for manure storage. Proposed 25 Pa. Code § 91.36(a)(7). When designating an agricultural operation as needing a water quality management permit, the Department must consider factors such as “proximity to Special Protection waters or impaired waters under Chapter 93, or the risk of pollution.”

Id. Again, consideration of these factors alone is insufficient to determine if the manure storage facility could have environmental impacts.

Additional factors must be required to be considered by the Department when designating an agricultural operation a CAFO or as needing a water quality management permit. These factors are: cumulative impact of farms in the geographic region, whether the proposed facility is located in a High Quality or Exceptional Value watershed, whether the watershed is listed as impaired on Pennsylvania's Integrated Water Quality Monitoring and Assessment Report, whether a Total Maximum Daily Load (TMDL) has been developed for the watershed, and whether the watershed consists of limestone or karst geology.

1. Discretionary designations by the Department must include consideration of the cumulative impacts of farming operations in the same geographic region.

The Department must examine the cumulative effects of agricultural operations when designating CAFOs and the need for a water quality permit. The Clean Streams Law recognizes that in order to protect the state's waters, "water quality management and pollution control in the watershed as a whole" should be considered when the Environmental Quality Board adopts rules and regulations. 35 P.S. § 691.5(a)(1). The NPDES CAFO regulations are promulgated under the Clean Streams Law and should contain a meaningful analysis of the impacts to the local watershed.

It is well recognized that animal production is becoming more concentrated than in years past. "In 1991, 47 percent of hog operations in Pennsylvania had 1,000 or more head. By 1993, only two years later, large operations had increased their share by 11 percent, and 58 percent of hog farms had 1,000 or more head. A decade later, large operations constitute 76 percent of all hog operations. A similar consolidation happened in the poultry industry." Citizens for Pennsylvania's Future, *Factory Farm Pollution in Pennsylvania: Watersheds and Communities at Risk*, p. 1 (2003).

The concentration of farming to fewer, larger farms has also led to geographic concentrations of farming operations. Attachment A shows the geographic concentration of farming operations as of February 2003. The southcentral and southeastern portions of the state are areas where most CAFOs are permitted. Lancaster and Chester counties have the densest concentrations of CAFOs. *Factory Farm Pollution in Pennsylvania*, p. 6. There are 12 watersheds in Pennsylvania in which five or more CAFOs are located. Id. The Chickies Creek Watershed, 7-G on the State Water Plan, in Lancaster County has the most CAFOs – 19. Id. The Pequea-Octoraro Watershed, 7-K on the State Water Plan, located in Lancaster and Chester counties has the second highest concentration of CAFOs with 12. Id.

"The aim of the nutrient management planning process is to ensure that the nutrients contained in the manure that is spread on crops is balanced against the needs of the crops that will be grown there. This is supposed to ensure that the nutrients are taken

up by the crops and will not find their way into the nearest stream or the groundwater. However, when a significant number of the livestock facilities in a particular area operate under contracts that require them to import feed rather than use crops grown locally, the connection between numbers of animals and cropland is broken. In this circumstance, [] more nutrients are imported into the watershed in the form of feed, and ultimately processed by the animals into manure, than can be used by the crops grown there.” Citizens for Pennsylvania’s Future, *A Barrel Full of Holes*, p. 8-9 (footnote omitted). Therefore, there is a very significant net importation of nutrients. This adds to the potential for water pollution by having more nutrients in the watershed than can be utilized by crops grown there.

CAFOs often keep the animals confined at all times. Manure is therefore collected in large quantities and must be disposed of in some manner. Because of the intensive nature of confined farming, more animals are grown on the farm than the farmland itself can support. Manure is often exported to neighboring areas. PennFuture conducted a survey of Watershed 7-K of the State Water Plan (Pequea, Conowingo and Little Conowingo, Octoraro, and Big Elk Creek) to further analyze the impacts of agricultural operations on a specific watershed. “According to the nutrient management plans, 76,972,254 gallons of liquid swine and cow manure are generated in the watershed each year. In addition, chickens and dairy operations generate 58,624 tons of dry manure yearly. Combined, the liquid and dry manure contains 2,815,115 pounds of nitrogen.” *A Barrel Full of Holes*, p. 8.

In areas of high concentrations of farming operations, excess farmland is needed to spread the manure upon because many farmers export manure. In its study of Watershed 7-K, PennFuture found that “[f]ully 89% of the livestock operators in the watershed export some manure. Our review of the nutrient management plans shows that 35% of the liquid manure and 23% of the solid manure is being exported to fields not covered by approved nutrient management plans. In addition, the manure with the highest concentration of nitrogen, swine and chicken manure, is more likely to be exported. As a result 50% of the nitrogen generated in the watershed is exported.” *Id.* at 9. It is recognized that the State Conservation Commission’s proposed nutrient management regulations would require manure exported off the home farm to account for the nutrient content and application rates given the crop to be grown. This is to be accomplished through nutrient balance sheets. It should, however, be noted that this balancing does not account for phosphorus.

The result of the geographic concentration of animal production is that the waters of the Commonwealth are degraded. “Agricultural pollution is one of the two primary causes of water quality degradation in Pennsylvania. Erosion of sediment into waterways and over-application of fertilizer to fields severely damages almost 3,000 miles of Pennsylvania streams.” *A Barrel Full of Holes*, p. 6. “[M]any of the streams in [Lancaster and Chester counties] are [] polluted by nutrients to the point where they do not meet water quality standards.” *Factory Farm Pollution in Pennsylvania*, p. 6.

The EQB must require an analysis of the cumulative effects of agricultural operations under the Clean Streams Law. The NPDES CAFO and water quality management regulations are promulgated under the Clean Streams Law and do not currently require an analysis of cumulative impacts. Such consideration when designating CAFOs and determining the need for a water quality management permit could help improve water quality in heavily agricultural areas where individual farms may not be of the size needed to trigger a CAFO classification or water quality management permit, but the cumulative impact of the farms in the area is significant.

2. The Department must consider a facility's location in a High Quality or Exceptional Value watershed when making the discretionary designation that the facility needs a CAFO permit.

Pennsylvania's water quality standards require the establishment, maintenance and protection of designated uses for surface waters across the Commonwealth, including designated uses for aquatic life. 25 Pa. Code §§ 93.3 and 93.9. The highest level of designated uses for aquatic life requiring the highest degree of protection ("special protection") are known as High Quality ("HQ") and Exceptional Value ("EV"). 25 Pa. Code §§ 93.3 and 93.4a-93.4c. Although HQ and EV streams need excellent water quality and habitat to support their designated aquatic life uses, such streams can and do become impaired as sources of pollution lower water quality and degrade instream habitat.

Pennsylvania has 83,161 miles of streams and rivers. Pennsylvania Department of Environmental Protection, *2002 Pennsylvania Water Quality Assessment 305(b) Report*, p. 8 (visited September 29, 2004) [http://www.dep.state.pa.us/dep/deputate/watermgt/Wqp/WQStandards/305\\_wq2002\\_narr.pdf](http://www.dep.state.pa.us/dep/deputate/watermgt/Wqp/WQStandards/305_wq2002_narr.pdf). 1,716 miles of these streams are designated as EV. Pennsylvania Department of Environmental Protection, *Protecting the Commonwealth's Waters* (visited October 15, 2004) <http://www.dep.state.pa.us/dep/deputate/watermgt/Wqp/WQStandards/antideg/LT-AntidegTstmy1.htm>. EV streams and rivers represent 2% of the total stream miles in Pennsylvania. 19,274 miles are designated as HQ. *Id.* HQ streams represent 23% of the total stream miles in Pennsylvania.

At the time of PennFuture's survey of NPDES CAFO permits, there were 25 CAFOs permitted in Pennsylvania in HQ watersheds and one in an EV watershed. *Factory Farm Pollution in Pennsylvania*, p. 6. These CAFOs were permitted to store 81,875,200 gallons of liquid manure and 473 tons of dry manure. *Id.* There were also permits pending for storage of 25,504,842 gallons of liquid manure and 1,721 tons of dry storage in high quality and exceptional value watersheds. *Id.*

HQ and EV watersheds are designated as our healthiest and most pristine in the state. Therefore, special consideration should be given to operations existing in or attempting to site in these watersheds. Special examination should be given to agricultural operations in these areas especially if the water quality of the stream appears to be eroding. "Seven of the streams in [Watershed 7-K, Pequea-Octoraro Creeks,] are

designated as high quality, but three of those have been classified as impaired by nutrients.” Id. In the Pequea-Octoraro Watershed alone there were permits approved for 6 million gallons of liquid manure storage in high quality watersheds at the time of PennFuture’s review of NPDES CAFO permits in 2003. Id. However, there were four permits pending in the watersheds of high quality streams in the Octoraro watershed that will more than double the permitted liquid storage to 14,168,242 gallons, most of it in impaired high quality watersheds. Id.

An examination of the NMPs in the Octoraro Watershed revealed that “27 livestock facilities, or 42% of the operations [in that watershed], [are] located in high quality watersheds. These facilities generate more than 50 million gallons of liquid manure and more than 21,000 tons of dry manure. This manure contains about 1.5 million pounds of nitrogen and about 34% of that is exported.” *A Barrel Full of Holes*, p. 13-14. Additionally, 14 of the HQ streams located in the Octoraro Watershed contain segments impaired by agricultural runoff. Id. at 14.

Examination of two watersheds in Pennsylvania reveals that there are a significant number of HQ and EV streams that could be impacted from massive quantities of manure stored in the same watersheds. In order to preserve the state’s most pristine waters, the Department must be required to consider whether the facility is located in an HQ or EV watershed during its CAFO and water quality management permitting processes.

PennFuture’s statewide analysis of NPDES CAFO permits and its analysis of NMPs in the Octoraro Watershed indicate that special protection watersheds are facing an ever increasing risk of degradation from agricultural pollution. The EQB has expressly recognized the importance of considering proximity to a special protection stream when determining that an agricultural operation needs a water quality management permit. The EQB should extend this consideration to the analysis of whether an agricultural operation needs a CAFO permit.

The EQB has recognized that certain facilities may escape regulation, but actually present a significant potential to pollute. For this reason, the EQB has maintained discretion for the Department to require these facilities to obtain an NPDES CAFO permit. Part of the risk that a facility presents is based upon the quality of the waters in the surrounding area. As discussed above, special protection waters can become degraded and reach an impaired status. For this very reason, special protection waters should receive just that, special protection. In areas where HQ and EV waters are threatened by the possibility of pollution from farms with either a large number of animals or a large quantity of manure, the Department should consider designating those agricultural operations as CAFOs. Thus, the discretionary CAFO designation language should require consideration of special protection watershed status.

3. Impacts upon impaired watersheds and any corresponding Total Maximum Daily Load allocations must also be considered when the Department designates an agricultural operation as a CAFO or as needing a water quality management permit.

The described uses of streams throughout the Commonwealth are established based upon the physical, chemical and biological conditions needed to sustain particular aquatic communities. When a stream fails to meet the conditions necessary to attain its designated uses, it is listed as "impaired" for its aquatic life use in a report to the U.S. Environmental Protection Agency. Recognition of such impairment is necessary to return these streams to their designated uses.

Streams that are designated as "impaired" are placed on a schedule to have a Total Maximum Daily Load (hereinafter "TMDL") established. "TMDLs can be considered to be a watershed budget for pollutants, representing the total amount of pollutants that can be assimilated by a stream without causing water quality standards to be exceeded." Pennsylvania Department of Environmental Protection, Bureau of Water Supply and Wastewater Management, *Pennsylvania DEP's Six-Year Plan for TMDL Development*, (updated March 2004) (hereinafter "*Six-Year Plan*"). A TMDL determines the maximum amount of a particular pollutant that may be released into a stream, stream segment, or water body each day while still allowing the stream to meet water quality standards, and allocates that maximum daily load among the point and nonpoint sources of the pollutant in the watershed. Once a TMDL is established for a stream or water body, pollution control measures should be put in place within five years. A TMDL may allocate a portion of the maximum allowed load to new sources or growth of existing sources, but such an allocation for "future growth" must be offset by greater load reductions from existing sources in order to meet the fixed, overall maximum load. Thus, if a CAFO begins operations in a watershed with a TMDL for nutrients, the maximum daily load figure for a pollutant such as nitrogen or phosphorus will not be increased because of the new activity.

The Pennsylvania Department of Environmental Protection reports that 57,217 stream miles (84 % of the assessed miles) support their designated uses for aquatic life. 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*"). The same report states that 10,762 miles (16%) of the assessed miles for aquatic life are impaired. *Pennsylvania Integrated Report*. However, the state is nowhere near having a TMDL developed for all of these waterways. In fact, only 29% of the stream segments needing a TMDL have one approved. U.S. Environmental Protection Agency, 2002 *Section 303(d) List Fact Sheet for PENNSYLVANIA* (visited September 28, 2004) [http://oaspub.epa.gov/waters/state\\_rept\\_control?p\\_state=PA](http://oaspub.epa.gov/waters/state_rept_control?p_state=PA). Thus, Pennsylvania is far from completing its development of all TMDLs for all impaired streams in the Commonwealth. Pennsylvania must complete TMDLs for all watersheds that were listed as impaired in 1996 by 2009, according to an agreement with EPA. *Six-*

*Year Plan.* Additionally, once a TMDL is developed, it must be implemented within five years.

Agriculture is a large contributor to the impairment of Pennsylvania's streams and waterways. Agricultural activities make up a large portion of the nonpoint source allocation in a TMDL. Of the Pennsylvania streams supporting aquatic life use, 3,876 stream miles (22%) attribute agriculture as the source of the impairment. *Pennsylvania Integrated Report.* Agricultural pollution of waterways is generally attributable to siltation and excess nutrients. According to the Department, siltation has caused the impairment of 5,604 stream miles (28%) supporting aquatic life and nutrients have caused the impairment of 2,347 stream miles (12%) supporting aquatic life. *Pennsylvania Integrated Report.*

"In Watershed 7-G [Chickies Creek] in Lancaster County and where many streams are impaired by nutrient pollution, there is a total of at least 43,718,572 gallons of permitted or pending liquid manure storage, and 22,822 tons of dry manure storage. A rough, very conservative estimate of the nitrogen content of liquid and dry manure being generated and stored each year in the Conestoga River watershed is about 5.34 million pounds per year." Citizens for Pennsylvania's Future, *Factory Farm Pollution in Pennsylvania: Watersheds and Communities at Risk*, p. 6 (October 2003). At the time of our review of NPDES CAFO permits there were also permits pending in impaired watersheds to allow an additional 35,933,165 gallons of liquid manure storage. *Id.* at 6-7. "Absent a mechanism in the permitting system to account for and control the new nutrients generated by new and expanding livestock operations, additional nutrient loadings in some watersheds will overwhelm the ability of conservation practices and restoration projects to reduce nutrient pollution." *Id.* at 7.

PennFuture's review of NMPs and CAFO permits in the Octoraro Watershed reveals that "[h]alf of the livestock facilities in this review are located in watersheds where the entire streams or significant stream segments do not meet water quality standards because of agricultural runoff and nutrient pollution. These 32 facilities generate a total of almost 43 million gallons of liquid manure and more than 20,000 tons of dry manure. This manure contains 1.25 million pounds of nitrogen. About a quarter of the manure is exported, but since the manure with the highest concentration of nitrogen is more likely to be exported, 44 percent of the nitrogen in the impaired watersheds is being exported to fields not covered by an approved nutrient management plan." Citizens for Pennsylvania's Future, *A Barrel Full of Holes: A Case Study of Pennsylvania Regulations on High Density Livestock Farm Pollution*, p. 13 (July 2004).

It is critical for Pennsylvania to take the impaired status and any developed TMDLs for waters of the Commonwealth into consideration in the permitting processes it oversees so that these waters can be restored to health. The EQB can not ignore the impacts of nonpoint source pollution in DEP's permitting processes, particularly those related to agriculture. Agriculture has a significant impact on the health of Pennsylvania's waterways and accounts for most of the nonpoint source pollution. Additionally, massive quantities of nutrients are currently stored and land applied in

watersheds with impaired waters. Consideration of these factors would help restore Pennsylvania's waterways in a timely manner.

The proposed regulations would require the Department to consider the proximity of a manure storage structure to impaired waters when exercising its discretionary authority to require the operator to obtain a Water Quality Management Permit. Proposed 25 Pa. Code § 91.36(a)(7). However, the regulations giving the Department discretion to designate facilities as CAFOs still does not require the Department to consider this factor. Pennsylvania's regulations includes, as part of the CAFO definition, "any other agricultural operation designated as a CAFO by the Department based on risk of pollution of surface waters using relevant criteria such as the size, location and management plan of the operation." Proposed 25 Pa. Code § 92.1. Neither discretionary designation requires the EQB to consider TMDL allocations. Proposed 25 Pa. Code § 91.36(a)(7) and proposed 25 Pa. Code § 92.1.

The purpose of the CAFO program is to protect water quality. Impaired watershed designations are an indicator of poor water quality. Failure to consider actual water quality in the designation criteria for a program that is supposed to protect water quality is nonsensical. The Department must be given the discretion to consider the present status of water quality of receiving streams when designating agricultural operations as a CAFO. Consideration of such information is critical to determining if a specific agricultural operation must be required to meet the heightened requirements of the CAFO program.

TMDLs are another means to monitor and regulate activity that impact stream health. TMDL restrictions must be a key factor in the determination of whether or not a livestock facility must obtain a CAFO permit or water quality management permit because TMDLs are indicators that pollutant levels over a certain amount are unhealthy for the stream. The CAFO program's purpose is to protect and preserve water quality. Consideration of the maximum amount of nutrients a stream can accommodate before becoming impaired is an important factor that should be examined by the Department when deciding if an agricultural operation should be designated as a CAFO.

Knowledge and oversight of sources, both point and nonpoint, in an impaired watershed is needed to determine the total amount of pollutants being discharged and establish the load and wasteload allocations required by the TMDL. A major criticism of the impaired waters/TMDL program is that there is lack of oversight and implementation, especially with regard to nonpoint sources.

Because agricultural operations make up such a large portion of the nonpoint source category, the EQB has a real opportunity to give teeth to two programs, the CAFO program and the impaired waters/TMDL program. The coordination of the CAFO program and the TMDL program would help achieve the goals of both programs by utilizing the tools of the other program. The impaired waters/TMDL program sets pollutant allocations for watersheds in an attempt to preserve water quality, but lacks a means of implementation because load reduction mechanisms are not specified

particularly with respect to nonpoint sources. The CAFO program seeks to protect water quality, but fails to look at the total impact to a watershed. By integrating the two programs, the Department will be able to better analyze impacts upon a watershed and implement necessary protections.

The impacts to a watershed that has been impaired by agriculture and for which a TMDL may have been developed are primarily, as discussed above, nutrients and sedimentation. The CAFO program has the authority to analyze both of these factors. As the backbone of the CAFO regulatory structure, NMPs are required under the CAFO program to control the escape of nutrients from the farm fields. Additionally, erosion and sediment control plans are required to prevent the soil from leaving the farmland. DEP and county conservation districts are a repository for these plans. Therefore, DEP has the information needed to evaluate how agricultural nonpoint source pollution should be allocated in a watershed.

The EQB should require the Department to analyze whether unpermitted facilities are impacting water quality attributable to barn construction or land application practices. The Department should also be required to generate information regarding the amount of permitted land application of manure in watersheds or stream segments. This information can then be compared to the TMDL for an area. If more of a listed pollutant is reaching a waterway than allowed under the TMDL, the Department can require the agricultural operation to delineate measures to control pollution under the NPDES programs. During the permitting process for those facilities required to obtain either a CAFO or WQM permit, DEP can also utilize this information to ensure that the pollutant load does not exceed that permitted under the TMDL. Integration of the two systems would allow for real protection of watersheds with a TMDL because the load allocation would actually be implemented and enforced.

The Clean Streams Law declares that “[i]t is the objective of the [ ] Law not only to prevent further pollution of the waters of the Commonwealth, but also to reclaim and restore to a clean, unpolluted condition every stream in Pennsylvania that is presently polluted.” 35 P.S. §691.4(3). The Law further states that DEP has the “power and its duty shall be: (2) [to] establish policies for effective water quality control and water quality management in the Commonwealth of Pennsylvania and be responsible for the development and implementation of comprehensive . . . water quality plans.” DEP can only properly meet the mandate of the Clean Streams Law to protect Pennsylvania’s water quality by implementing programs that protect watersheds as a whole. A proper avenue through which DEP has regulatory authority to utilize for achieving this goal is the NPDES program. Proposed 25 Pa. Code § 91.36(a)(7) should be amended to include consideration of “relevant criteria such as proximity to Special Protection waters, the assessment of waters as impaired as required by Section 303 of the federal Clean Water Act, 33 U.S.C. § 1313, the establishment of Total Maximum Daily Loads (“TMDLs”) for the watershed in which the facility is located, and the risk of pollution,” in addition to other factors discussed herein. Additionally, the definition of a CAFO in Proposed 25 Pa. Code § 92.1 should be amended to include consideration of “risk of pollution of surface waters using criteria such as the size, location, management plan of the operation,

proximity to Special Protection waters and establishment of Total Maximum Daily Loads,” in addition to other factors discussed herein, when designating a facility as a CAFO. Therefore, the EQB should amend the proposed regulations to require DEP to consider whether waters are impaired and whether TMDLs have been established when designating an agricultural operation as a CAFO or as needing a Water Quality Management Permit.

4. One of the factors that must be considered by the Department when designating an agricultural operation as a CAFO or as needing a water quality management permit is the geological composition of the area.

Neither discretionary designation requires the Department to consider the geological composition of the land beneath an agricultural operation. Attachment B shows that much of the land under traditionally agricultural areas in Pennsylvania is composed of carbonate rocks, such as limestone and dolomite. Carbonate rocks are known to have “solution cavities and bedrock irregularities in the subsurface and sinkholes at the surface.” Commonwealth of Pennsylvania, Department of Conservation and Natural Resources, Bureau of Topographic and Geologic Survey, Limestone and Dolomite Distribution in Pennsylvania (visited June 16, 2004) <http://www.dcnr.state.pa.us/topogeo/maps/map15.pdf>. Because of the potential for sinkholes, subsurface investigations are critical when construction activities are planned in areas known to have carbonate rock geology. *Id.* “These investigations should include local geologic mapping, test borings, and possibly geographical surveys to establish subsurface conditions. . . .” *Id.*

“The permeable nature of the carbonate rocks also makes them natural conduits for conveying solid and liquid wastes. Using these conduits, contaminants can rapidly enter the groundwater system and travel long distances underground over a relatively short period of time. Therefore, it is important to be particularly careful in conducting industrial, agricultural, or construction activities in limestone-dolomite areas to prevent the contamination of valuable groundwater resources.” *Id.*

Many of the traditionally agricultural areas in Pennsylvania are in those same areas with extensive carbonate rock geology. Carbonate rock formations allow material spread on the land surface to freely flow to the groundwater. Thus, carbonate rock geology poses significant water quality concerns in agricultural areas. Because the CAFO program is designed to protect water quality, the Department should consider geological composition and the potential for water quality degradation attributable to it when designating agricultural operations as CAFOs.

**II. AS PROPOSED, NUTRIENT MANAGEMENT PLANS UNDER THE PENNSYLVANIA STATE DELEGATED NPDES CAFO PROGRAM FAIL TO ACCOUNT FOR ALL PHOSPHORUS APPLIED TO ALL FIELDS.**

Nutrient Management Plans (“NMPs”) are the backbone of the NPDES CAFO permitting structure. NMPs are a required element of a CAFO permit application under Proposed 25 Pa. Code § 92.5a(d)(1). The provision states that the application must include:

A nutrient management plan meeting the requirements of Chapter 83 (relating to State Conservation Commission), Subchapter D and approved by the county conservation district or the State Conservation Commission. The plan must include written agreements with importers or brokers related to the land application of manure, and nutrient balance sheets or a nutrient management plan for the importing farms.

Although Pennsylvania’s program has contained a requirement to have a NMP since its inception, this is a new requirement in the federal regulation, 40 C.F.R. § 122.42(e), which the state program is implementing. Thus, it is critical to determine if the state nutrient management program is sufficient, as is, to meet the requirements mandated in the federal regulations.

In addition to requiring development and implementation of a NMP, the federal regulation states that the NMP must, “[e]stablish protocols to land apply manure, litter or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater.” 40 C.F.R. § 122.42(e)(1)(viii). Under this language, a one plan fits all approach is unacceptable because site specific considerations are critical. Additionally, the federal regulations require that the NMP ensure proper utilization of all nutrients that are critical to plant growth and development. PennFuture’s comments regarding the Nutrient Management regulatory revisions are attached hereto as Attachment C.

Until recently, Pennsylvania’s nutrient management program took the position that nitrogen was the nutrient of primary concern and was the only nutrient that had to be accounted for when land applying manure. From the outset, opponents of the nitrogen-only approach have pointed to phosphorus as a nutrient of additional concern given the fact that it can result in severe environmental damage if allowed to accumulate unchecked on the land.

Phosphorus has been used in the last half century to increase crop yields and maintain soil fertility. However, excessive phosphorus in surface water can cause algae and aquatic plants to grow at accelerated rates. This then causes decreased oxygen levels in the water, which can in turn lead to fish and other aquatic organisms dying from a lack of oxygen. It is recognized that the threat of eutrophication in fresh water is most attributable to excess soluble phosphorus.

The State Conservation Commission recently recognized the threat that phosphorus poses to the environment due to runoff. During the statutorily mandated regulatory revision of the nutrient management program, the State Conservation Commission proposed consideration of phosphorus in certain limited situations to prevent potentially mobile sources of phosphorus from reaching surface waters. Proposed 25 Pa. Code 83.281(c). On May 12, 2004, the Environmental Hearing Board also held that “[t]he Nutrient Management Act does require the Commission to establish procedures to determine proper application rates for plant nutrients other than nitrogen, such as phosphorus.” Adam v. Commonwealth of Pennsylvania, No. 2002-189 MG (Pennsylvania Environmental Hearing Board May 12, 2004). One of the major changes to the Nutrient Management Program being proposed is the inclusion of a Phosphorus Index (“P-Index”). PennFuture explains below why the proposed P-Index does not satisfy the federal regulation’s mandate to “ensure appropriate agricultural utilization of the nutrients.”

The State Conservation Commission proposes utilizing a P-Index to determine the potential for phosphorus in land applied manure to reach surface waters. If conditions exist where phosphorus could be transported to surface waters, then phosphorus must be managed on that specific farm field. “The P index accounts for and ranks [phosphorus] sources (soil P, applied P type, rate, and application method) and transport factors (runoff, erosion, and contributing distance to water) that control potential [phosphorus] loss to the environment. Two screening parameters are used to determine if a full accounting of P source and transport factors (i.e., full running of P-Index) for a field is required: 1) Is soil test (Mehlich 3) P > 200 ppm? Or 2) is the field within 150 feet of a stream.” Kogelmann et al., p. 3 (July 8, 2002). It is important to understand that the P-Index triggers management of phosphorus on individual fields, not on whole farm operations.

It is a fatal flaw that the SCC did not include these details of the P-Index in the Proposed Regulations, nor did they include reference to a Penn State agricultural extension fact sheet on the P-Index. The Proposed Regulations merely define the P-Index as, “[t]he field evaluation tool developed specifically for this Commonwealth and approved by the Commission, which combines indicators of phosphorus sources and phosphorus transport, to identify areas that have a high vulnerability or risk of phosphorus loss to surface waters, and provides direction on the land application of phosphorus-containing nutrient sources to protect water quality.” Proposed 25 Pa. Code § 83.201. The P-Index is referenced numerous times throughout the Proposed Regulations, but none of these references provide specific information on the source and transport factors to be evaluated by the P-Index. Even more importantly, the Proposed Regulations do not detail how nitrogen and phosphorus applications may be restricted under the P-Index. Thus, the Proposed Regulations are completely void of any guidance regarding the “proper application rates of nutrients,” as required under the Nutrient Management Act. 3 P.S. § 1704(1)(ii) (emphasis added).

The SCC believes that the use of the P-Index accounts for conditions that contribute to surface and groundwater pollution by nutrients, specifically nitrogen and

phosphorus. The Proposed Regulations do not describe how the P-Index will account for source and transport factors and do not detail if and how manure applications must be restricted. PennFuture vigorously objects to the lack of detail contained in the Proposed Regulations regarding the P-Index. Additionally, PennFuture disputes that the P-Index fully and accurately identifies the source and transport factors and will explain below why it thinks the P-Index, as detailed in other resources, is deficient.

- A. Because non-mobile phosphorus poses a significant threat to farm productivity and the surrounding environment, manure applications on all farm fields should be balanced for phosphorus.

The proposed phosphorus index is an improvement over the existing nutrient management program, which generally has failed to address phosphorus. But is it not sufficient to meet the federal requirement that a nutrient management plan “[e]stablish protocols to land apply manure, litter or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater.” 40 C.F.R. 122.42(e)(1)(viii). This requires something more than a phosphorus index, because a P-Index does not account for the utilization of the nutrients in the manure. It only addresses some of the nutrients in the manure for some of the fields.

U.S. Department of Agriculture scientist Andrew Sharpley notes that intensification of animal farming has created regional and local imbalances of phosphorus. Andrew N. Sharpley, et al., Agricultural Phosphorus and Eutrophication, USDA-ARS Report 149, p. 2 U.S. Gov’t Printing Office, Washington, D.C. 1999. “The potential for [phosphorus] surplus at the farm scale can increase when farming systems change from cropping to intensive animal production, since [phosphorus] inputs become dominated by feed rather than fertilizer.” *Id.* at 3. “Specialization and intensification of farm operations has resulted in imbalances in farm nutrient inputs and outputs. Community, national, and international agribusiness infrastructures have dictated, by default, regions of net nutrient accumulation, or nutrient sinks. The Chesapeake Bay watershed is a phosphorus sink.” Frank Coale, *The Science of Phosphorus From Agriculture and Other Sources Entering the Chesapeake Bay* (visited 4/29/2004), <<http://www.arec.umd.edu/Policycenter/Pfiesteria/coale/coale.htm>>.

Sharpley states that soil phosphorus levels have built up and often exceed crop needs. Sharpley at 4. Kogelmann et al. assert 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). They estimate that 48% of the soil samples they took statewide had soil test phosphorus values of 50 parts per million or more. *Id.* “High soil nutrient levels not only represent an economic loss, but they also may indicate potential crop, animal, or environmental problems.” The Agronomy Guide 2002, 28 (Eston Martz ed., 2001). Sharpley states that it is common to supplement poultry and hog feed with mineral forms of phosphorus because of the low digestibility of the major

phosphorus compound in grain. Sharpley at 16. He further states that this supplementation contributes to the phosphorus enrichment of animal manures and litters. Id.

Phosphorus exists in the soil in both soluble and sediment-bound forms. Soluble phosphorus is that which is available for plant uptake and use. Sediment-bound phosphorus is a mineral form of phosphorus that is not available for plant uptake and use. Phosphorus converts quickly from soluble phosphorus to sediment-bound phosphorus; however, it does not convert quickly from sediment-bound phosphorus to soluble phosphorus. High levels of sediment-bound phosphorus in the soil “may lead to crop production or feed quality problems.” The Agronomy Guide 2002, 28 (Eston Martz ed., 2001).

It is well recognized that applying manure to meet a plants’ nitrogen needs, results in overapplication of phosphorus. Sharpley 1994; The Agronomy Guide 2002 at 23 and 28. Since the P-Index only requires an accounting of phosphorus on fields where erosion and runoff are highly likely, phosphorus will continue to be overapplied on most fields in Pennsylvania. Because phosphorus is also a nutrient of concern in Pennsylvania, the goal of the nutrient management program should be to apply manure to meet maximum nutrient efficiency of nitrogen and phosphorus.

Studies indicate that when phosphorus exists in soils at certain levels it can negatively impact crop production. Christenson et al. found that for most crop fields grown on mineral soil, there is little chance that phosphorus that is applied in bands (an application method) will increase crop yields when soil test phosphorus level is above 60 pounds per acre. D.R. Christenson et al., Michigan State University, Extension Bulletin E-550A, Cooperative Extension Service, Fertilizer Recommendations for Field Crops in Michigan, 1992. Another study found that a 69 pound per acre or greater phosphorus rate resulted in above-optimum soil-test P values. Anthonio Mallarino and David Rueber, Iowa State University, Northern Research and Demonstration Farm, ISRF02-22, Long-term Evaluation of Nitrogen, Phosphorus, Potassium, and Lime Requirements of Continuous Corn. “The results for [phosphorus] fertilization are interesting in showing that the highest [phosphorus] rate, which increased soil-test [phosphorus] to levels seven times higher than the optimum level compared with the check, decreased corn yield slightly. The yield reduction was smaller when optimum rates of [potassium] fertilizer were applied.” Id. The report concluded that producers should use all available information to avoid applying “either deficient or excessive nutrient amounts for crop production.” Id. To achieve maximum yield, the studies indicate that phosphorus should not be applied in excess of crop needs.

Rates of manure application need to be based on the nutrient present at the highest level in terms of crop needs. In most cases this is phosphorus. The Agronomy Guide 2002 states that once the optimum level of phosphorus and potassium is obtained in the soil, “the recommendation is to maintain that level by applying P and K to offset the amount that is removed by the harvested crop.” The Agronomy Guide 2002 at 28. The Agronomy Guide 2002 states that “management action should be taken to limit

applications in excess of crop needs.” *Id.* at 29. Therefore, manure should be applied at a rate which will meet the crop’s requirement for phosphorus. Because it is true that applying manure to meet a crop’s nitrogen needs results in over-applying phosphorus, the converse is also true. Applying manure to meet a crop’s phosphorus needs will result in not meeting the crop’s nitrogen needs. However, additional nitrogen and potassium can be supplied with commercial fertilizers. This strategy is least likely to cause undesirable environmental effects, and makes the most efficient use of all nutrients in manure.

In addition to decreasing crop yields, excess phosphorus in the soil has the potential to cause environmental harm. Although the P-Index accounts for the potential loss of phosphorus via erosion and runoff, it does not account for the other risks posed to the environment from having excess phosphorus in manure, and in turn in the soil. Another path for phosphorus to escape the farm is through “subsurface lateral flow along the gradients of internal drainage.” Coale, *The Science of Phosphorus From Agriculture and Other Sources Entering the Chesapeake Bay*. Subsurface pathways are of particular concern in Pennsylvania given the large number of tile drainage systems in place. Many of these systems are undocumented, so farmers may not know the exact location of tile drainage systems on their property. Because the placement of these systems is unknown, setbacks and balancing phosphorus on some, but not all, fields is not likely to accomplish the goal of limiting the possibility of phosphorus movement by way of subsurface lateral flow. Thus, additional control mechanisms, such as balancing for phosphorus on all fields, must be put into the nutrient management regulatory structure to ensure that phosphorus is not allowed to move along subsurface paths and into groundwater or surface water.

The federal regulations require Pennsylvania farmers applying for an NPDES CAFO permit to develop “site specific nutrient management practices that *ensure agricultural utilization of the nutrients* in the manure.” Final Rule, 40 C.F.R. §122.42(e)(1)(viii) (emphasis added). To satisfy the mandate of the federal regulation, both nitrogen and phosphorus must be utilized. The most efficient utilization of the manure, as discussed above, comes when the manure is applied based upon the phosphorus content of the manure. The best crop yields also occur at an application rate based upon the phosphorus needs of the crop. Additional environmental risks can be avoided when phosphorus is not over-applied to crops.

Distinguished researchers and well respected agricultural organizations have also supported the proposition that manure applications should be balanced for phosphorus on all fields. To reduce phosphorus losses from agriculture, Sharpley recommends balancing phosphorus in the soil. Sharpley et al. at 14. The Technical Manual, one of Pennsylvania’s two main guidance documents on nutrient management, also “strongly recommends” that the farmer calculate a balanced manure application rate based on net nitrogen, phosphorus and potassium needs of the crops so that the farmer will manage the application of manure most efficiently. Pennsylvania’s Nutrient Management Act Program Technical Manual, p. 40. Additionally, during regulatory hearings on the nutrient management program, PennAg Industries testified that it was not opposed to balancing nutrients for phosphorus. In sum, the state delegated NPDES CAFO program

must require nutrient management plans that balance for phosphorus in order to decrease the risk for environmental pollution, provide the most efficient crop yield for farmers, and, most important, satisfy the requirements of the federal regulations.

**B. Pennsylvania's proposed Nutrient Management Program does not ensure appropriate utilization of all manure nutrients because the P-Index fails to account for factors that can greatly effect phosphorus movement and water quality.**

1. The proposed P-Index utilized in the Nutrient Management Program is inadequate because it fails to account for impaired waters in the calculation.

The federal regulation regarding nutrient management plans states that site specific nutrient management practices should be considered. Final Rule, 40 C.F.R. § 122.42(e)(1)(viii). A critical site specific consideration is whether local waterways are impaired by agricultural runoff. Another site specific consideration is whether an agricultural operation's practices will impact the already impaired waters. Pennsylvania's P-Index, as proposed, does not consider whether impaired waters are located in close proximity to the farm field being evaluated.

Alabama, Delaware and Maryland all have P-Indexes that take into consideration whether impaired waters are located in the proximity of the farm fields being evaluated. Alabama includes impaired waters in a category separate from source and transport factors and weights it heavily. Delaware and Maryland include impaired waters as part of their site and transport characteristics (the remaining considerations are classified as source and management characteristics).

Pennsylvania should consider impaired waters, for all of the above stated reasons, in its P-Index transport factors, or as a separate factor in the P-Index. Inclusion of impaired waters as a factor in the P-Index would result in farm fields located in close proximity to an impaired watershed as being more likely to have to restrict phosphorus applications. This is a rational result given the environmental harms phosphorus presents to already fragile waters. In the alternative, PennFuture recommends that inclusion of a farm field in an impaired waterway should be added as another screening parameter used to determine if a full accounting of source and transport factors. Thus, location of a farm field in an impaired waterway would require the agricultural operation to run a complete P-Index for that specific field, and any others located in impaired waters.

2. The proposed P-Index utilized in the Nutrient Management Program fails to account for exceptional value and high quality waters in the calculation.

The CAFO program relies heavily upon the Nutrient Management Program to achieve water quality protection. However, NMPs undertake no analysis of whether an agricultural operation is located in a HQ or EV watershed. A NMP merely requires a

listing of a HQ or EV stream in the farm description section of the plan. The real analysis under a NMP come in the manure application rates section. The proposed Nutrient Management regulations will now require an agricultural operation to run a P-Index to determine if phosphorus is being over-applied on farm fields or whether conditions are such where manure nutrients could move from farm fields to waters of the Commonwealth.

Pennsylvania's P-Index, as proposed, does not consider whether special protection waters are located in close proximity to the farm field being evaluated. Alabama, Delaware and Maryland all have P-Indexes that take into consideration whether special protection waters are located in the proximity of the farm fields being evaluated. Alabama includes special protection waters in a category separate from source and transport factors and weights it heavily. Delaware and Maryland include special protection waters as part of their site and transport characteristics (the remaining considerations are classified as source and management characteristics).

Pennsylvania should integrate a special protection waters factor, for all of the above stated reasons, into its P-Index transport factors. Inclusion of special protection waters as a factor in the P-Index would result in farm fields located in close proximity to these waters as being more likely to have to restrict phosphorus applications. This is a rational result given the environmental harms phosphorus presents to these pristine waters. In the alternative, PennFuture recommends that inclusion of a farm field in a special protection waterway should be added as another screening parameter used to determine if a full accounting of source and transport factors. Thus, location of a farm field in a special protection waterway would require the agricultural operation to run a complete P-Index for that specific field, and any others located in impaired waters.

3. The proposed P-Index utilized in the Nutrient Management Program fails to account for the flooding potential of fields or the precipitation amounts for a given area in the calculation.

Pennsylvania, like much of the east coast, has experienced significant amounts of rainfall over the past few months, resulting in serious flooding of streams and rivers. Farmers are keenly aware of the damage that this, and other, flooding has caused. Many farmers suffered crop losses or were unable to harvest due to water-logged fields. Fortunately, these flooding events did not occur when farmers were applying manure to the fields. Flooding after manure applications, much like the spreading of manure on frozen or snow-covered fields, would result in significant nutrient losses.

The potential for flooding to occur during the times of year when manure is applied is high. The past three years have been some of the wettest on record. According to the National Oceanic and Atmospheric Administration (hereinafter "NOAA"), the period from March to August 2004 was the wettest on record, with 28.95 inches of rainfall. National Oceanic and Atmospheric Administration, *Climate at a Glance: Most Recent 6-Month Period (Mar-Aug) Precipitation Pennsylvania* (visited October 1, 2004)

<http://climvis.ncdc.noaa.gov/cgi-bin/cag3/hr-display3.pl>. 2003 was the seventh wettest March to August six month period, with 27.85 inches. Id.

Given the particularly wet weather over the past few years, the EQB should include consideration of rainfall and flooding in the P-Index. Arkansas and Western Oregon and Washington all take the flooding potential of the fields into consideration in their respective P-Indexes as transport factors. Additionally, Arkansas considers precipitation amounts in its P-Index as a category separate from source and transport factors. Pennsylvania should follow the lead of these various states and integrate rainfall and flooding potential into the transport factors of its P-Index.

- C. The federal regulations require the management of nitrogen and phosphorus on each farm field; however, phosphorus content is not accounted for in manure that is exported from the farm where it was generated and land applied at an importing farm.

Under the proposed regulations, a farmer using manure exported from another site will not have to account for its phosphorus content before applying it. Manure exported to a known landowner and land applied is completely exempt from phosphorus evaluation under the proposed Nutrient Management Regulations. The proposed Nutrient Management Regulations only require manure applications at importing farms to be balanced for nitrogen and to comply with a 150 foot setback from surface waters. Proposed 25 Pa. Code §83.301(a)(4); Proposed 25 Pa. Code §83.301(g)(1). The use of a setback to control for phosphorus is inappropriate. The P-Index takes into account both source and transport factors. Use of a setback to control phosphorus only accounts for the transport factors but fails to address source factors, such as phosphorus level in the soil.

The federal CAFO regulations require something more. The effluent limitations require development of field specific NMPs that evaluate the transport of nitrogen and phosphorus on "each field." 40 C.F.R. 412.4(c)(1). The federal regulations do not state that the phosphorus analysis should be limited to fields at the farm which generated the manure. Thus, farms that import manure generated at a CAFO are bound to evaluate the transport potential of both nitrogen and phosphorus.

According to the State Conservation Commission, 1,643,791,920 gallons of manure are generated by CAOs in Pennsylvania. State Conservation Commission, Nutrient Management Act Program Data CAOs. Of this amount, 466,497,360 gallons are exported from CAOs. Id. This amounts to 28% of CAO manure being exported and the phosphorus content remaining unexamined. Information regarding the amount of CAFO manure generated and exported was unavailable. However, CAFOs generally export a higher percentage of their manure.

Additionally, nutrients are exported off the farm in varied levels given the nutrient content of the manure. Thus, merely because 28% of CAO manure is exported does not mean that 28% of the nutrients were exported. In the Octoraro Watershed, an

examination of CAOs revealed that 24,673,329 gallons of liquid manure (32% of the total liquid manure generated) and 14,060 tons of dry manure (23% of the total) is sent off the farm. *A Barrel Full of Holes*, p. 5. However, almost 50% of the nitrogen, 1,403,326 pounds, is exported. *Id.* (The study did not examine the amount of phosphorus exported.) Manures with higher nutrient content are those most likely to be exported. It is therefore important that exported manure must be examined for its nitrogen and phosphorus content before it is land applied.

Both the federal regulations and the state Nutrient Management Act require NMPs to include a phosphorus analysis for manure generated by a CAFO no matter where it is applied. The proposed Nutrient Management regulations do not require sites importing manure to undertake a phosphorus analysis, limiting nutrient balance sheets to a nitrogen analysis and coupling this with a 150 foot setback from surface waters. The state CAFO program incorporates many requirements of the Nutrient Management program. However, the current nutrient management program proposed in the draft regulations fail to meet the mandate of the federal CAFO regulations to require a phosphorus analysis on each field where CAFO manure will be applied. To maintain a delegated program, the EQB must require consideration of phosphorus on all fields to which CAFO manure is applied, including fields at "importing" farms.

**III. SETBACKS FOR MANURE APPLICATION SHOULD BE APPLICABLE TO ALL FARMING OPERATIONS AS ALLOWED IN THE CLEAN STREAMS LAW AND THE STATE REGULATIONS SHOULD INCLUDE AN ENUMERATION OF THE CONDUITS TO WHICH THE SETBACKS SHOULD APPLY.**

Setbacks have traditionally been used in the Nutrient Management Program to keep nitrogen, and arguably phosphorus, from entering surface waters. The CAFO program has integrated these setbacks but unlike the Nutrient Management Program requires them regardless of the moisture content of the soil. The CAFO program also offers an alternative of utilizing a vegetative buffer.

- A. The use of setbacks on all farms is appropriate to help prevent nutrients from polluting state waters.

Keeping manure applications a reasonable distance from surface waters is one means of preventing nutrients from reaching streams and other surface waters. Large and small farms alike have the potential to pollute a stream when manure is land applied directly adjacent to a waterway. For this reason, all farmers should limit their manure applications in such sensitive areas.

All farms are subject to regulation and penalty under the Clean Streams Law for pollution of waters of the Commonwealth. The regulations for which public comment is sought are promulgated under the authority of the Clean Streams Law. Therefore, it is proper for these regulations to place requirements upon all farms.

The setback requirements outlined in the CAFO and water quality management regulations, Proposed 25 Pa. Code §§ 92.5a(d)(1) and 91.36(b)(2), are similar to those already applied in the Nutrient Management Program and in the Manure Management Manual, but provide additional flexibility by allowing for a vegetative buffer in lieu of a setback.

The Manure Management Manual is virtually unknown as a management tool for non-CAO farmers. The Nutrient Management Program ensures that plans are written, but with only one inspection every three years, the program can hardly ensure that setbacks are followed when the manure is actually applied. If waters of the Commonwealth are polluted by a farm covered by a NMP, the Department is charged with the duty of dealing with the waterway pollution, not the State Conservation Commission. So, it is logical to codify the setback and buffer requirements in regulations enforced by DEP.

**B. A minimum 50 foot vegetated buffer comprised of non-harvestable vegetation should be required to control nutrient runoff and sediment loss.**

Agricultural runoff has the potential to harm streams by placing additional nutrients in the stream and throwing off the natural, and fragile, balance of the stream. Agricultural runoff also harms streams by adding sediment to the waterways. The proposed regulations seek to decrease agricultural runoff to waterways by requiring manure application setbacks or the alternative use of vegetated buffers. The EQB is asking for input regarding whether the regulations should incorporate EPA's buffer concept of either a 100 foot manure application setback or 35 feet of vegetated buffer. The EQB has alternatively offered incorporation of the vegetated buffer allowed under the "Pennsylvania Technical Guide" published by the United States Department of Agriculture, Natural Resources Conservation Service (NRCS). The current NRCS standard for a vegetated buffer is 50 feet.

Vegetated buffers prevent nitrogen overloading of streams by filtering and absorbing the nutrient before it reached the stream. Buffers also removed nitrogen from agricultural runoff by converting nitrogen compounds into nitrogen gas. Buffers help prevent sedimentation of streams by preventing the movement of the sediment to streams and waterways. Blocking the movement of sediment to streams naturally helps stop phosphorus from reaching streams and waterways since phosphorus is carried by soil and other organic material.

The EQB appears to have determined that setting a fixed minimum buffer is preferable to allowing variable buffer widths. The EQB must then determine what buffer width provides the most protection to the environment while simultaneously allowing farmers the best and most productive use of their land. Research regarding vegetated buffers indicates that bigger is better, to a point. Determining when additional width of riparian buffers no longer provides protection to the environment involves analysis of four criteria. "They are the: 1. existing or potential value of the resource to be protected, 2. site, watershed, and buffer characteristics, 3. intensity of adjacent land use, and 4. specific water quality and/or habitat functions desired." Pennsylvania Department of

Environmental Protection Bureau of Watershed Management, ed., *Stream Releaf Technical Training Manual 2001*, p. 6-1.

The 35 foot buffers width option presented by the EQB and required at a minimum by the federal regulations is inadequate by the Department's own findings. PennFuture concurs with the Department in its analysis. The Stream Releaf Technical Manual states, "[b]uffers of less than 50 feet have proven increasingly difficult to maintain as effective filters in the field, except on small, low order drainages." *Id.* at 6-7. Additionally, "very narrow buffer strips of 15 to 25 feet are generally inadequate for sediment or nutrient reductions, except on small, low order streams." *Id.* Only when "conditions for water storage, vegetative uptake, and denitrification are ideal, widths as small as 35 feet may provide substantial removal of the nitrogen passing through the buffer." *Id.* at 6-9. However, very rarely, if ever, will all of those conditions be ideal. The Department has found that "buffers of less than 35 feet cannot sustain long-term protection of aquatic resources." *Id.* at 6-13. "Most studies show buffer widths of 50 to 100 feet for adequate [sediment] removal." *Id.*

The 35 foot buffer width appears inadequate to accomplish the dual goal of capturing nutrients and controlling sediment losses. "The most commonly prescribed minimum buffer widths for use in water quality and habitat maintenance are approximately 75 to 100 feet." *Id.* at 6-13. The recommended width for maximizing nitrogen removal is 35 feet to 100 feet. USDA Forest Service, The Chesapeake Bay Watershed Forestry Program, *Riparian Forest Buffer Widths* (December 2003). Buffers ranging in size from 50 feet to 100 feet are generally adequate for trapping sediment. *Id.* "It should be noted that wide buffers are easier to sustain, as they include less edge area that is likely to be damaged in storms." *Id.* The minimum width the EQB should consider is the 50 foot vegetated buffer suggested by the Pennsylvania Technical Guide.

Concern should be focused not only on the appropriate width of the buffers, but also on the proper maintenance of buffers. "In agricultural areas, researchers found that of the 35 or more grass filter strips inspected after three to five years of use, less than 10 percent continued to be effective because of channelized flow and sediment build-up at the field edge of the filter strip." *Stream Releaf Technical Training Manual 2001*, p. 6-13. To aid the long term health of streams, buffer strips must remain effective over time. Otherwise negative stream impacts may just be delayed. Therefore, the Department must ensure that buffer strips remain a viable mechanism for reducing and controlling nutrient and sediment losses over an extended period of time.

To reach the goal of viable buffers, the EQB must ensure that vegetated buffers are comprised of native, natural vegetation and not crops. Vegetated buffers must contain dense cover and preferably trees, shrubs, bushes, and a thin under layer. If crops were allowed to qualify as a vegetated buffer, they would instead actually be operating as a setback instead of a buffer. The purpose of a vegetated buffer is to keep a dense non-removable zone between the farm fields and the waterway. The dense nature of the barrier offsets the generally shorter width of the buffer, as compared to a setback distance. A harvestable crop would be an improper vegetated buffer because the dense

nature of the barrier would not be maintained when it is harvested back. It is recognized that some appropriate buffer material may need pruning; however, buffers should not contain vegetation that can be harvested. The definition of a vegetated buffer should be amended to ensure that crops and harvestable material are not considered appropriate "perennial vegetation." 25 Pa. Code §§ 91.1 and 92.1.

- C. The definition of setback must be expanded in the CAFO regulations and water quality management regulations to properly capture all conduits to surface waters as defined by the Environmental Protection Agency in the federal regulations.

While it is proper for setbacks to be included in the water quality management and CAFO regulations, the definition of the term setback must be altered to include all conduits to surface waters as defined by the Environmental Protection Agency. The federal regulations state that unless a vegetated buffer or alternative compliance practices are utilized, "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." 40 C.F.R. § 412.4(c)(5). A setback is defined in Proposed 25 Pa. Code §§ 91.1 and 92.1 as "[a] specified distance from surface waters or potential conduits to surface waters where manure, litter, and process wastewater may not be land applied." The state regulations fail to list the specific examples of conduits to which manure applications restrictions apply.

The state regulations integrate the federal regulations' distance setback from surface waters. They also integrate the size of a vegetated buffer. However, the state regulations fail to integrate an enumerated list of conduits from which manure application setbacks should apply. The EPA has recognized the risk to surface and groundwater presented by these conduits. The state must follow suit and also enumerate these conduits in its regulations to ensure that setbacks are established from these potential conduits to surface waters. The EQB must amend Sections 91.1 and 92.1 to define a setback as "[a] specified distance from surface waters or potential conduits to surface waters, including but not limited to open tile line intake structures, sinkholes, and agricultural well heads, where manure, litter, and process wastewater may not be land applied."

**IV. THE WATER QUALITY MANAGEMENT AND CAFO REGULATORY REVISIONS REGARDING MANURE STORAGE ARE INADEQUATE BECAUSE THEY FAIL TO ACCOUNT FOR FACTORS CONTRIBUTING TO ENVIRONMENTAL RISK.**

- A. The manure storage trigger for a water quality management permit should be 1 million gallons because that figure is more in line with the environmental risk created by large CAFOs as defined under EPA's federal regulations.

The current water quality management regulations require any agricultural operation with more than 1,000 AEUs to obtain a water quality management permit. Proposed 25 Pa. Code § 91.36(a)(1). The regulatory revision proposed would require an agricultural operation to obtain a water quality management permit if the facility has a manure storage capacity over 2.5 million gallons. Proposed 25 Pa. Code § 91.36(a)(3)(ii). One might think that this shift from AEUs to gallons of storage capacity was based on a determination that storage capacity provides a better proxy for environmental risk, but that does not appear to have been the rationale.

The Department acknowledged in the CAFO workgroup meetings that the change in the trigger for a water quality management permit from AEUs to gallons of manure was driven by agricultural operations oversizing their manure storage to avoid the need to obtain a permit in a future expansion. So it seems that agricultural operations were consciously oversizing their manure storage facilities when operating at an AEU level less than 1,000 with the expectation of housing over this level of animals at some point in the near future. However, the EQB could have prevented this activity by requiring in the regulations that a manure storage facility be sized to meet the storage needs of an agricultural operation based upon the current number of animals housed.

Although the EQB may have had a legitimate motive for switching from AEUs to gallons of manure generated for the water quality management permit trigger, the total number of gallons set for this threshold is too high. Facilities that have a much smaller manure storage capacity present an adequate environmental risk to be required to have a Department-issued permit. The EQB failed to justify its change in the threshold trigger by linking manure storage capacity to environmental risk. The EQB's proposed 2.5 million gallon trigger is based on an incomplete analysis that utilized a model operation with a single species. In Pennsylvania, blended livestock operations are commonplace and may generate more manure than single species operations.

It is obvious that when determining the new trigger the EQB merely calculated how much manure 1,000 AEUs would generate. It is fairly common for manure storage facilities to be designed for 6 months, or 180 days, of storage. A completely empty manure storage with a capacity of 2.5 million gallons would be completely full (i.e. no freeboard) in 180 days if the daily manure production was 13,888 gallons. According to the average daily manure production in The Agronomy Guide 2002, p. 36, a farm with either 1,068 AEUs of milking cows or 1,262 AEUs of finishing swine would fill a 2.5

million gallon manure storage completely full in 180 days.<sup>1</sup> Thus it appears that the EQB just attempted to figure roughly how much manure 1,000 AEUs would generate to fill a manure storage in 6 months.

The threshold established in the proposed regulations (2.5 million gallons) is not in line with the environmental risks outlined in the federal regulations. A more appropriate threshold for a water quality management permit is 1 million gallons.

The federal regulations place CAFOs in small, medium and large categories. One can assume that the largest facilities have the most manure to store since they generate the most manure. For this reason, the largest CAFOs should be those with which we are most concerned about their manure storage capabilities, all other things being equal. The federal CAFO regulations outline this concern by requiring only the large CAFOs to comply with effluent limitation guidelines. 40 C.F.R. §§ 412.10, 412.20, 412.30, and 412.40. Since the large facilities are those which the federal regulations are most concerned about manure causing pollution, those are the facilities that should be required to obtain a manure storage permit under the water quality management regulations.

The federal CAFO regulations define a large CAFO by animal numbers while the state regulations define the different permitting levels by animal equivalent units. The table below shows how the federal regulations would define a large CAFO and the various AEUs for these animal numbers.

<b>ANIMAL TYPE</b>	<b>NUMBER OF ANIMALS UNDER FEDERAL REGULATIONS</b>	<b>AEUs UNDER STATE REGULATIONS</b>
Mature Dairy Cow	700	910 AEUs
Heifers (0-1)	1,000	375 AEUs
Veal Calves	1,000	250 AEUs
Finishing Swine	2,500	363 AEUs
Sheep	10,000	1,500 AEUs
Lambs	10,000	500 AEUs
Turkeys (toms)	55,000	776 AEUs
Turkeys (hens)	55,000	391 AEUs
Chickens using dry manure storage	125,000	375 AEUs
Hens (layers) using dry manure storage	82,000	285 AEUs
Hens (pullets) using dry manure storage	82,000	116 AEUs
Ducks (layers) using dry manure storage	30,000	210 AEUs
Ducks (growers) using dry manure storage	30,000	107 AEUs

<sup>1</sup> Daily manure production (2.5 million gallons ÷ 180 days) = 13,888 gallons per day  
 Milking cow AEUs generating 2.5 million gallons of manure in 180 days (13,888 gallons per day ÷ 13 gal/AU/day) = 1068 AEUs  
 Swine AEUs generating 2.5 million gallons of manure in 180 days (13,888 gallons per day ÷ 11 gal/AU/day) = 1262 AEUs

The above chart indicates that there is no set AEU figure where a large CAFOs presents an environmental risk, assuming only one animal type and maturity level. The complicating factor for how the EQB interprets this information is that Pennsylvania has a number of blended and mixed animal operations. According to information published in the *Pennsylvania Bulletin* and compiled by PennFuture, of the 130 currently permitted CAFOs approximately 54 of these facilities are mixed animal operations, having more than one animal type at the facility. See CAFO spreadsheet at Attachment D. Approximately 76 are blended animal operations, having at least one animal type at different levels of maturity. *Id.* Thus, the environmental risk of agricultural operations in Pennsylvania is best regulated by considering the different animal types and maturity levels rather than looking at just one specific animal type at one point of maturity.

The issue then becomes how to convert the environmental risk demonstrated by having a single animal type on a farm by animal numbers as calculated in the federal regulations to mixed or blended farms with the environmental risk calculated by AEUs as determined in the state regulations. A logical first choice would be to examine the primary sectors of animal production in Pennsylvania. As far as CAFOs are concerned, most farms have dairy cows, finishing swine and/or chickens of some variety. Chickens are of little impact in this conversation because most litter in Pennsylvania is handled as a dry matter. For the purposes of this conversation, the animals of concern are dairy cows and finishing swine.

According to the EPA, a large dairy operation is 910 AEUs and a large finishing swine operation is 363 AEUs. This dairy figure is close to the 1,000 AEU trigger established in the current state regulations and echoed in the proposed state regulations. However, the swine finishing figure is drastically different from the 1,000 AEU trigger established in the current water quality management regulations. To find some common ground between these two seemingly disparate figures, we turn to an examination of mixed agricultural operations in Pennsylvania that contain swine and dairy. In Pennsylvania, currently permitted CAFOs that contained swine and dairy averaged 645 AEUs, while operations that contained swine and beef cattle averaged 502 AEUs. These farms are generally comprised of one swine finishing house (approximately 300 AEUs) and a healthy dairy herd (approximately 200 AEUs). These numbers seem to find a comfortable middle ground between the two drastically diverse AEU triggers for the individual animals.

Now that a range in the 500 to 600 AEU range has presented itself as a logical starting point, one must determine the amount of manure generated in gallons by a mixed operation containing cows and swine. It would take 427 AEUs of milking cows or 505 AEUs of finishing swine to fill a 1 million gallon manure storage completely full in 180 days.<sup>2</sup> Assuming a mixed facility with one finishing house and a 200 AEU dairy herd, a 1 million gallon manure storage would be slightly more than filled in 180 days.<sup>3</sup>

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<sup>2</sup> Daily manure production (1 million gallons ÷ 180 days) = 5,555 gallons per day  
Milking cow AEUs generating 1 million gallons of manure in 180 days (5,555 gallons per day ÷ 13 gal/AU/day) = 427 AEUs

The 1,000 AEU and 2.5 million gallon triggers for a water quality management permit appear to have no sound basis and are drastically out of line with what the federal government considers an environmental risk, as defined by a large CAFO. However, an examination of the agricultural industry in Pennsylvania shows that a more reasonable and sound threshold trigger for a water quality management permit is 1 million gallons.

**B. Manure storage facilities with less than 1 million gallons of storage also present environmental risks and should be required to obtain a water quality management permit.**

1. Clay-lined manure storage structures and those located in high quality, exceptional value or impaired watershed should also be required to obtain a water quality management permit.

The proposed regulations establish two sets of facilities that need to obtain a water quality management permit. Proposed 25 Pa. Code § 91.36(a)(3). The proposed first set, discussed above, are facilities with over 2.5 million gallons of manure storage. Proposed 25 Pa. Code § 91.36(a)(3)(ii). As discussed above, PennFuture believes a more proper threshold for this class of facilities is 1 million gallons.

The second set is those facilities that have a storage capacity between 1 million and 2.5 million and meet other conditions. Proposed 25 Pa. Code § 91.36(a)(3)(i). The facilities outlined in the second trigger, those with storages between 1 million and 2.5 million gallons, present an additional environmental risk. The additional conditions that must be met to trigger the need for a water quality management permit at these facilities shows that these facilities must be coupled with another factor to present an environmental risk. A clay-lined storage structure is much more likely to leak than a geotextile lined storage; therefore, storages with clay linings should have a lower threshold for requiring a water quality management permit. Proposed 25 Pa. Code § 91.36(a)(3)(i)(A). Additionally, storages sited near High Quality or Exceptional Value waters should have a lower trigger because they have the potential to pollute pristine waters. Proposed 25 Pa. Code § 91.36(a)(3)(i)(B). Manure storages that are in close proximity to impaired waters also have the potential to add pollution to an already fragile stream. For this reason, manure storages located in impaired watersheds should have a lower trigger for requiring a water quality management permit. Proposed 25 Pa. Code § 91.36(a)(3)(i)(C).

Because the facilities outlined in Proposed 25 Pa. Code § 91.36(a)(3)(i) present a risk of pollution when coupled with an additional factor, the trigger for a water quality

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Swine AEU's generating 1 million gallons of manure in 180 days (5,555 gallons per day ÷ 11 gal/AU/day) = 505 AEU's

<sup>3</sup> 427 AEU's of milking cows or 505 AEU's of finishing swine would completely fill a 1 million gallon manure storage in 180 days. 300 AEU's of finishing swine would fill a 1 million gallon manure storage pit 59% of the way in 180 days. Additionally, a dairy herd of 200 cows would fill a 1 million gallon manure storage pit 46% of the way in 180 days. Therefore, a mixed agricultural operation with one swine finishing barn and a 200 AEU dairy herd would slightly more than fill a 1 million gallon manure storage pit in 180 days.

management permit should be lower on them. As argued above by PennFuture, the trigger for the facilities in Proposed 25 Pa. Code § 91.36(a)(3)(ii) should be 1 million gallons. Therefore, the trigger for the manure storage facilities in Proposed 25 Pa. Code § 91.36(a)(3)(i) should be something less than 1 million gallons.

2. Manure storage facilities near an impaired waterway should automatically trigger the need for a water quality management permit without adding the requirement that the storage structure be located on an agricultural operation that is not implementing an approved Nutrient Management Plan.

The proposed regulation requires a manure storage facility to obtain a water quality management permit if “[t]he nearest downgradient stream that has been assessed and has been determined by the Department to be impaired from nutrients from agricultural activities and the manure storage facility is on an agricultural operation that is not implementing a Nutrient Management Plan approved by the State Conservation Commission under Chapter 83, Subchapter D (relating to nutrient management).” Proposed 25 Pa. Code § 91.36(a)(3)(i)(C). As argued above, serious environmental risk is posed by manure storage facilities located in impaired watersheds. The design, construction and operation of these facilities are of utmost concern because any pollution from them could further degrade the water quality. However, the presence or absence of an approved nutrient management plan for the agricultural operation presents little additional protection from a pollution event because NMPs do not involve engineering review of the design and construction of the manure storage structure. Pre-construction review of the design of manure storage occurs only through the Water Quality Management permitting process. Exemptions for operations with a NMP doesn’t make sense because a NMP does not include review and approval for design, location and other factors considered during the Water Quality Management permitting process. It would be irrational to give a NMP exemption to an operation that has its Water Quality Management permit for its storage structure, because there would be no review of manure content, manure applications and other important factors considered during the nutrient management planning process. The converse is true of giving a WQM permit exemption to facilities that have a NMP. Thus, any facility with a manure storage structure located near an impaired watershed should be required to obtain a water quality management permit.

C. Clarification is needed in the regulations as to how the manure storage capacity is calculated when determining if an agricultural operation needs a water quality management permit under Proposed 25 Pa. Code § 91.36(a)(3).

1. All manure storage structures and impoundments located on a farm should be included in the figure to determine the total manure storage capacity for purposes of issuing a water quality management permit.

The water quality management regulations establish different regulations for facilities with different sizes of manure storage. As written, although objected to above, the proposed regulations require a water quality management permit when the storage capacity is between 1 million and 2.5 million gallons and certain other conditions are met, or if the storage capacity is over 2.5 million gallons. Proposed 25 Pa. Code § 91.36(a)(3). The definition in Proposed 25 Pa. Code 91.1 indicates that a manure storage facility includes “a group of structures or facilities at one agricultural operation.” As a result, an agricultural operation would need a water quality management permit if the total manure storage exceeded either of the thresholds listed above.

The storage capacity of under barn pits must be included in this calculation of total manure storage capacity. Although under barn pits are used to transfer manure to an alternate storage location, all under barn manure storage structures can and are used, to at least some extent, as manure storage, if only for a brief period, and should be considered in the calculation of manure storage for triggering the requirement for obtaining a water quality management permit. Additionally, storage facilities that are no longer in use must be included in the calculation of manure storage capacity. The operative concept is the manure storage capacity of the farm, not the amount of storage actually in use. Therefore if a farm has an existing storage structure it should also be considered in the figure to determine manure storage capacity for purposes of triggering the need for a water quality management permit. To clarify these points, PennFuture recommends adding the word “total” before “manure storage capacity” in both Proposed 25 Pa. Code §§ 91.36(a)(3)(i) and (ii).

2. All manure storage structures and impoundments located at multiple farms sites but under the joint operation and control of one farming operator should be included in the figure to determine the total manure storage capacity for purposes of issuing a water quality management permit.

Another clarification in the regulations is needed where a farmer has the farming operation based out of more than one physical location. It is becoming increasingly common for farmers to have their farming operations spread out at over more than one physical location, for example, by having heifers and dry cows at one location and milking cows at another. In this situation the agricultural operation is still operating as a

basic unit, with manure management decisions for all farming locations being made by one operator. Because manure management decisions are being made by the farm operator, the water quality management permit triggers should apply to all of that operator's properties that are being used as a single unit. In the past, the Department has issued CAFO permits for farming operations being run from multiple sites. By extension, the EQB should follow suit and regulate the manure storages at these facilities in a similar manner.

- D. The physical location of a manure storage facility should be considered by the Department before issuing a water quality management permit to the facility.

Location matters, especially when it comes to the siting of manure storage facilities. The Department should also be required to analyze whether the chosen location is an acceptable location measured against geological composition and soil investigation. The geological composition of the earth beneath a manure storage facility can greatly impact its structural integrity. "A soils investigation to determine depth to bedrock, water table, and type of soils at the site is critical when determining site suitability for an earthen manure storage pond." Vernon County, Wisconsin Land & Water Conservation Department, Manure Storage (visited July 29, 2004) <http://www.lwcd.org/manure.htm>. Minnesota and Missouri requires a similar site analysis. See John P. Chastain and Larry D. Jacobson, *Site Selection for Animal Housing and Waste Storage Facilities*, Biosystems and Agricultural Engineering, University of Minnesota Extension Program, AEU-6 (last modified January 16, 2004) <http://www.bae.umn.edu/extens/aeu/aeu6.html>; Donald Pfof and Charles Fulhage, *Selecting a Site for Livestock and Poultry Operations*, Department of Biological and Agricultural Engineering, University of Missouri Extension, EQ378 (Last modified June 5, 2000) <http://muextension.missouri.edu/xplor/envqual/eq0378.htm>. Minnesota requires "the bottom of a waste storage [to] be 2 feet above the seasonally-high water table and 5 feet above normal bedrock if the soil is heavy. If the proposed site has fractured bedrock or very sandy soil then the depth to bedrock should be at least 10 feet." Id.

In addition to assuring the structural integrity of a storage structure, it should be the goal of the Department to keep manure storage facilities a safe distance from certain physical land features, such as wetlands. A manure storage facility sited close to wetlands presents the potential for pollution to the wetlands if the storage facility leaks or is overtopped. Minnesota requires that all manure storage facilities be 300 or more feet from any wetland. John P. Chastain and Larry D. Jacobson, *Site Selection for Animal Housing and Waste Storage Facilities*.

Certain locations upon an agricultural operation may present a more suitable location for a storage facility given the proximity to neighbors. Colorado State University Cooperative Extension states that critical considerations for siting an agricultural operation include: "distance from neighbors (1 mile minimum), wind direction (downwind from neighbors), land base for manure disposal, good soil drainage,

and visibility.” J.G. Davis et. al, *Liquid Manure Management*, Colorado State University Cooperative Extension, no. 1.221 (last modified June 09, 2004) <http://www.ext.colostate.edu/pubs/livestk/01221.html>. Minnesota mimics these factors by stating that the following should be evaluated when siting a manure storage facility: “direction of prevailing winds, distance to neighbors and the farm residence, topography, and presence of natural windbreaks.” John P. Chastain and Larry D. Jacobson, *Site Selection for Animal Housing and Waste Storage Facilities*. Manure storage structures are recommended to be located so the prevailing winds do not direct odors and particulate matter toward the farm residence or neighbors. Id.

Manure storage facilities should also be a minimum distance from neighboring properties. Different states suggest different separation distances, but anywhere between a quarter of a mile and one mile seems to be the norm. “The topography of the area can also have an effect on the separation distance due to a condition called air drainage. During calm summer evenings the air near the ground begins to cool and drifts down-slope since cool air is heavier than warm air. If a livestock building or waste storage is located uphill from a town or cluster of houses the cool air will flow past the livestock facility, may pick up unpleasant odors, and may create a nuisance around dwellings in its path. As a result, it is best to choose a site that is not up-slope from the residences of neighbors.” Id.

The proposed water quality management regulations do not require the Department to analyze site specific factors regarding the location of a manure storage facility. Proposed 25 Pa. Code §§ 91.36(a)(1) and (4). As discussed above, other states have recognized the need to examine whether a location is appropriate for a manure storage facility. In fact, Pennsylvania’s proposed Nutrient Management Regulations also establish standards for the “location” of manure storage facilities. Proposed 25 Pa. Code § 83.351. The Nutrient Management regulations state that, “[m]anure storage facilities shall be designed, constructed, located, operated maintained, and if no longer used for the storage of manure, removed from service, in a manner that protects surface water and groundwater quality, and prevents the offsite migration of pollution. . . .” Proposed 25 Pa. Code § 83.351(a)(1) (emphasis added). The proposed Nutrient Management regulations continue that, “manure storage facilities shall be designed and located in accordance with the following criteria: (i) Facilities shall comply with the applicable criteria in § 91.36 (relating to pollution control and prevention at agricultural operations).” Proposed 25 Pa. Code § 83.351(a)(2) (emphasis added). Thus, the Nutrient Management regulations require an analysis of the manure storage facility location, but the water quality management regulations do not contain such a requirement. Additionally, the Nutrient Management regulations, while discussing the analysis of location criteria, directly reference the water quality management regulations which don’t address location criteria. PennFuture suggests that the EQB require an analysis of location criteria in the NPDES CAFO program in the water quality management regulations.

- E. Section 91.36(a)(4) of the water quality management regulations should be revised to clarify the regulatory threshold for manure that is mixed with swine, poultry and/or veal manure.

The water quality management regulations state that manure storage facilities must prevent discharges to surface waters during either a 25-year/24-hour storm or a 100-year/24-hour storm. Proposed 25 Pa. Code § 91.36(a)(4). Agricultural operators generally must prevent a discharge during a 25-year/24-hour storm. Id. However, if the agricultural operation has a new manure storage facility for swine, poultry or veal manure, then the facility must prevent a discharge during a 100-year/24-hour storm event. Id.

The water quality management regulation states:

All manure storage facilities at CAFOs as defined in Chapter 92 (relating to NPDES permitting, monitoring and compliance) shall be designed, constructed, operated and maintained to prevent discharges to surface waters during a storm event up to and including a 25-year/24-hour storm, except for new or expanded *agricultural operations* that are CAFOs, that commenced operations after April 13, 2003, and that include swine, poultry or veal calves. The *facilities* for those swine, poultry or veal calves shall prevent discharges to surface waters during a storm up to and including a 100-year/24-hour storm.

Proposed 25 Pa. Code § 91.36(a)(4) (emphasis added).

Because Pennsylvania has a number of mixed and blended agricultural operations, the intention of the EQB seems to be to require a higher discharge prevention standard at manure storage facilities for swine, poultry or veal. However, the EQB's use of the word "agricultural operation" and then later use of the term "facilities" leaves some ambiguity. The EQB likely only meant to require the higher protection (100-year/24-hour storm) for new or expanded swine, poultry and veal manure storage facilities. Additionally, the EQB likely meant to include any manure storage facilities that contain manure blended with swine, poultry and veal manure.

Many agricultural operations use a centralized manure storage facility. All animal manure gravity flows from the barns or animal concentration areas to a central location, usually a lagoon. Manure is then managed from this centralized location. However, since manure flows from different barns or animal concentration areas, manure from different animal types (i.e. blended and mixed animals) could be combined at the centralized manure storage. For new or expanded CAFOs, the question becomes whether this mixed manure storage facility should be regulated under the threshold for the swine, poultry and veal manure, 100-year/24-hour storm event, or the threshold for all other manure, 25-year/24-hour storm. Proposed 25 Pa. Code § 91.36(a)(4). PennFuture suggests that manure storage facilities holding any manure mixed with swine, poultry and/or veal should be required to prevent a discharge to surface waters during a 100-year/24-hour storm event.

Swine, poultry and veal manure present the greatest risk to waters of the Commonwealth. According to The Agronomy Guide 2002, these types of manure have the highest concentrations of nitrogen and phosphorus. The Agronomy Guide 2002, p. 36. Clearly “diluting” swine, poultry and veal manure with manures of lower nutrient values would decrease the potential for pollution during a major storm event. However, mixing manure would still create manure with a nutrient level somewhere between the swine, poultry and veal nutrient levels and all other manures. But, the nutrient concentration of the mixed manure will be greatly impacted by the quantities of the various manures added to the mixture. The resultant manure will still present an elevated risk to waters of the Commonwealth during a major storm. For this reason, any manure storage facility holding manure that has been mixed with swine, poultry or veal should be required to prevent a discharge during a 100-year/24-hour storm. It is important to note that this requirement would only apply to new or expanded facilities, so the operator would have the chance to make manure handling changes if he or she did not wish to be regulated at the higher standard. Thus, the operator could choose to handle different kinds of manure separately at a new or expanded operation if he or she did not wish to have the 100-year/24-hour regulation apply to mixed manure storage facilities.

The EQB should revise the second sentence of 25 Pa. Code § 91.36(a)(4) to read “At such agricultural operations, all facilities that receive manure from swine, poultry or veal calves shall prevent discharges to surface waters during a storm up to and including a 100-year/24-hour storm.”

F. The Nutrient Management Program’s allowance of in-field manure stacking will send many poultry farmers, unknowingly, into the federal CAFO regulatory structure.

The practice of stacking manure in-field may present a conflict between the Nutrient Management regulations and the federal CAFO regulations. The proposed Nutrient Management regulations allow for dry manure to be stacked in-field if the manure is spread by the beginning of the next growing season. Proposed 25 Pa. Code § 83.294(h). However, the manure does not have to be covered when it is stacked in-field. Because the manure does not have to be covered, it takes on various amounts of moisture and presents the possibility of leaching contaminants into the ground. “Stockpiling litter uncovered on the soil can result in a fivefold reduction in the nitrogen content of the manure. The nitrogen lost from the manure can be carried by water to surface streams or ditches and into the groundwater.” R. A. Bucklin et al., *Storage of Broiler Litter*, Dairy and Poultry Sciences Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Factsheet PS-15 (May 2004) <http://edis.ifas.ufl.edu/PS003>.

EPA has taken the position that manure should only be stacked in-field for less than 2 weeks if uncovered. EPA states that after this amount of time, the manure becomes liquid manure and is subject to different obligations under the CAFO regulations. Thus, a chicken facility that stacks manure in-field for more than 14 days would become a large CAFO under the federal regulations if it has more than 30,000

birds. Final Rule 40 C.F.R. § 122.23(b)(4)(ix). The facility would then have the obligation to obtain a CAFO permit within 90 days from being designated a CAFO. Final Rule 40 C.F.R. § 122.23(g)(5).

To prevent poultry operations from unknowingly making themselves subject to the CAFO regulatory scheme by engaging in a practice allowed by the Nutrient Management regulations, Section 83.294(h) should either require that manure be covered if it is to be stacked in the field for more than two weeks or alert operators that they may be classified as a large CAFO under 40 C.F.R. § 122.23(b)(4)(ix) for handling the litter as a liquid.

**V. THE PROPOSED CAFO AND WATER QUALITY REGULATIONS ARE INADEQUATE BECAUSE SURFACE WATER QUALITY IS NOT MAINTAINED AND PROTECTED AS REQUIRED FOR HIGH QUALITY AND EXCEPTIONAL VALUE STREAMS UNDER THE ANTI-DEGRADATION REGULATIONS.**

Surface waters are protected by the Department in an attempt to maintain the water quality. An important mechanism in Pennsylvania used to protect the surface waters is the antidegradation program. The antidegradation protections promulgated by the Department are applicable to surface waters. 25 Pa. Code § 93.4a(a). The Department requires existing instream water uses to be maintained and protected. 25 Pa. Code § 93.4a(b). The water quality of High Quality waters must be maintained and protected unless important social or economic justifications can be demonstrated by an applicant for a reduction in water quality. 25 Pa. Code § 93.4a(c). The water quality of Exceptional Value waters must be maintained and protected under the antidegradation policy. 25 Pa. Code § 93.4a(d).

The responsibility to implement the antidegradation regulations is split between point source dischargers and nonpoint source dischargers. The Department has designated agriculture as a nonpoint source activity with respect to the antidegradation implementation. Commonwealth of Pennsylvania, Department of Environmental Protection, Water Quality Antidegradation Implementation Guidance, p. 39, document number 391-0300-002 (November 29, 2003). However, the Clean Water Act specifically classifies CAFOs as point source dischargers. 33 U.S.C. § 1362(14). The regulations promulgated under the Clean Water Act also classify segments of CAFOs as point source dischargers. 40 C.F.R. § 122.23(a). It is recognized that a discharge resulting from a land application area in accordance with an approved Nutrient Management Plan is exempt from classification as a point source under the agricultural stormwater discharge exception. 40 C.F.R. § 122.23(e). However, there is no exemption for production areas including, but not limited to animal confinement areas, manure storage areas and raw material storage areas. 40 C.F.R. §§ 412.12(a), 412.13(a), 412.15(a), 412.25(a), 412.26(a), 412.31(a), 412.32(a), 412.33(a), 412.35(a), 412.43(a), 412.44(a), 412.45(a), and 412.46(a). Thus, CAFOs actually are a hybrid of point source and nonpoint source elements. Assuming land application in accordance with a Nutrient Management Plan, crop fields are the only nonpoint source element of a CAFO.

Therefore, the Department should require a hybrid antidegradation analysis for CAFO operations. The land application area (i.e. crop fields) should have to meet the standard for nonpoint source dischargers; while the production areas (i.e. animal confinement areas, lagoons and other manure storage structures) should have to meet the standard for point source dischargers. Under this analysis, land application areas receiving manure applications in accordance with a nutrient management plan would have to implement "cost-effective and reasonable best management practices." 25 Pa. Code § 93.4c(b)(2). This standard is currently met by the Department because best management practices are required in nutrient management plans.

However, the Department must require a different standard for the point source elements of a CAFO, such as the production areas. In a HQ and EV water, the Department must require a person proposing a new facility or an expanded facility to evaluate nondischarge alternatives and utilize either an environmentally sound and cost-effective alternative or the best available combination of cost-effective treatment, land disposal, pollution prevention and wastewater reuse technology. 25 Pa. Code § 93.4c(b)(1)(i)(A). Additionally, the Department must require a public hearing if the CAFO production areas are in EV waters. 25 Pa. Code § 93.4c(b)(1)(ii)(A). Finally, the Department may allow a reduction in the water quality of HQ waters only if important economic or social justifications necessitate. 25 Pa. Code § 93.4a(b)(1)(iii). However, the waters must still be able to support existing and designated water uses. Id. The Department may not allow a reduction in the water quality of EV waters.

It is problematic that the Department is ignoring the hybrid nature of CAFOs as a combination of point source and nonpoint source elements. CAFO elements are specifically delineated in the federal regulations as point source discharges. The Department must recognize this classification and integrate an antidegradation analysis into the NPDES CAFO program. The EQB should add language to Proposed Section 92.5a(e) requiring compliance with 25 Pa. Code §§ 93.4a through 93.4c.

**VI. ALL RESPONSIBLE PARTIES WITH OPERATIONAL CONTROL AT AN AGRICULTURAL OPERATION MUST BE REQUIRED BY THE EQB TO BE CO-PERMITTED WITH OWNERS AND OPERATORS ON DEPARTMENT ISSUED CAFO AND WATER QUALITY MANAGEMENT PERMITS.**

One object of issuing a permit to an agricultural operation is to make clear who is accountable to the Department for the environmental stewardship of the facility. However, the CAFO regulations do not require all responsible parties with operational control of an agricultural operation to be a Department permittee.

The EQB currently requires, at a maximum, the owner of the farm where the agricultural operation is located and the operator of the agricultural operation to be Department permittees. However, the EQB is missing a key actor at agricultural operations in Pennsylvania. Pennsylvania agricultural operations are heavily contract based, resulting in a vertically integrated structure. Thus, operational directives often

originate with an integrator. Integrators often dictate the specific animals at an agricultural operation; additionally, in many animal sectors the integrator also owns the animals. Integrators also specify how animals are grown, fed and medicated. All of these considerations greatly affect the amount and nutrient content of manure generated. Most importantly, integrators often dictate the type of physical structure in which the animals are housed, possibly even how the manure is handled.

Linking the integrator and the grower by permit would have desirable environmental effects. When the integrator is liable for manure generated at the sites of its growers, less manure is likely to be produced. Tomislav Vukina, *The Relationship between Contracting and Livestock Waste Pollution*, Review of Agricultural Economics, vol. 25, num. 1, pp. 66-88. Additionally, the nutrient content of the manure is also likely to be lowered. Id.

Of the approximately 179 CAFOs currently permitted or with permit applications pending, 33 integrators hold permits or have applied for them in their name. PennFuture applauds these integrators for taking responsibility for the agricultural operations to which they are linked. Most of these permits are, however, held by one integrator – Country View Family Farms. The EQB should require other integrators to assume responsibility for their livestock and contracted agricultural operations by requiring that all persons with a thirty-three percent or greater ownership interest in the animals housed at a facility or with any contractual or other right to control any operations at the facility be listed as co-permittees on the CAFO permit, along with the owner and principal operator.

**VII. THE PENNSYLVANIA TECHNICAL GUIDE SHOULD BE MADE MORE WIDELY AVAILABLE TO THE PUBLIC TO ENSURE THAT MANURE STORAGE FACILITIES ARE DESIGNED, CONSTRUCTED AND OPERATED IN ACCORDANCE WITH THE STANDARDS MANDATED IN THE GUIDE.**

The Pennsylvania Technical Guide is published by the National Resources Conservation Service. This document is relied upon heavily by the proposed CAFO regulations for technical standards, specifically those related to manure storage facilities. Proposed 25 Pa. Code § 91.36. However, this document is not readily available to the public. An interested party would have to go to a county agricultural extension office to review a copy of the Guide. Additionally, an interested party would have to pay to copy material from the Guide.

PennFuture does not object to the reference to the Pennsylvania Technical Guide to develop standards for manure storage. However, such a reference makes it difficult for interested persons to obtain what those standards actually are. If the EQB is going to make such a reliance on the Technical Guide, it must ensure that this reference document

if more accessible to the general public so that they can review permit applications in a meaningful manner.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kimberly L. Snell-Zarcone". The signature is written in a cursive style with a large, stylized initial "K".

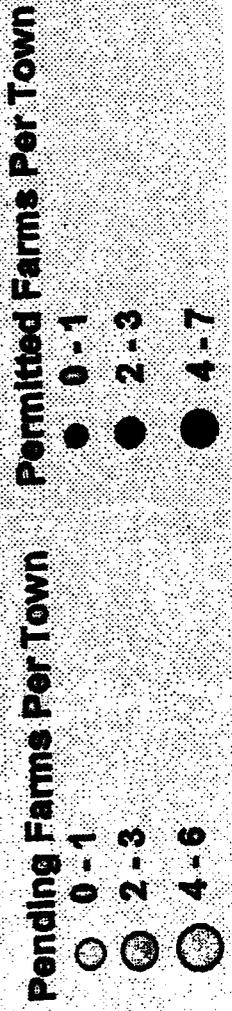
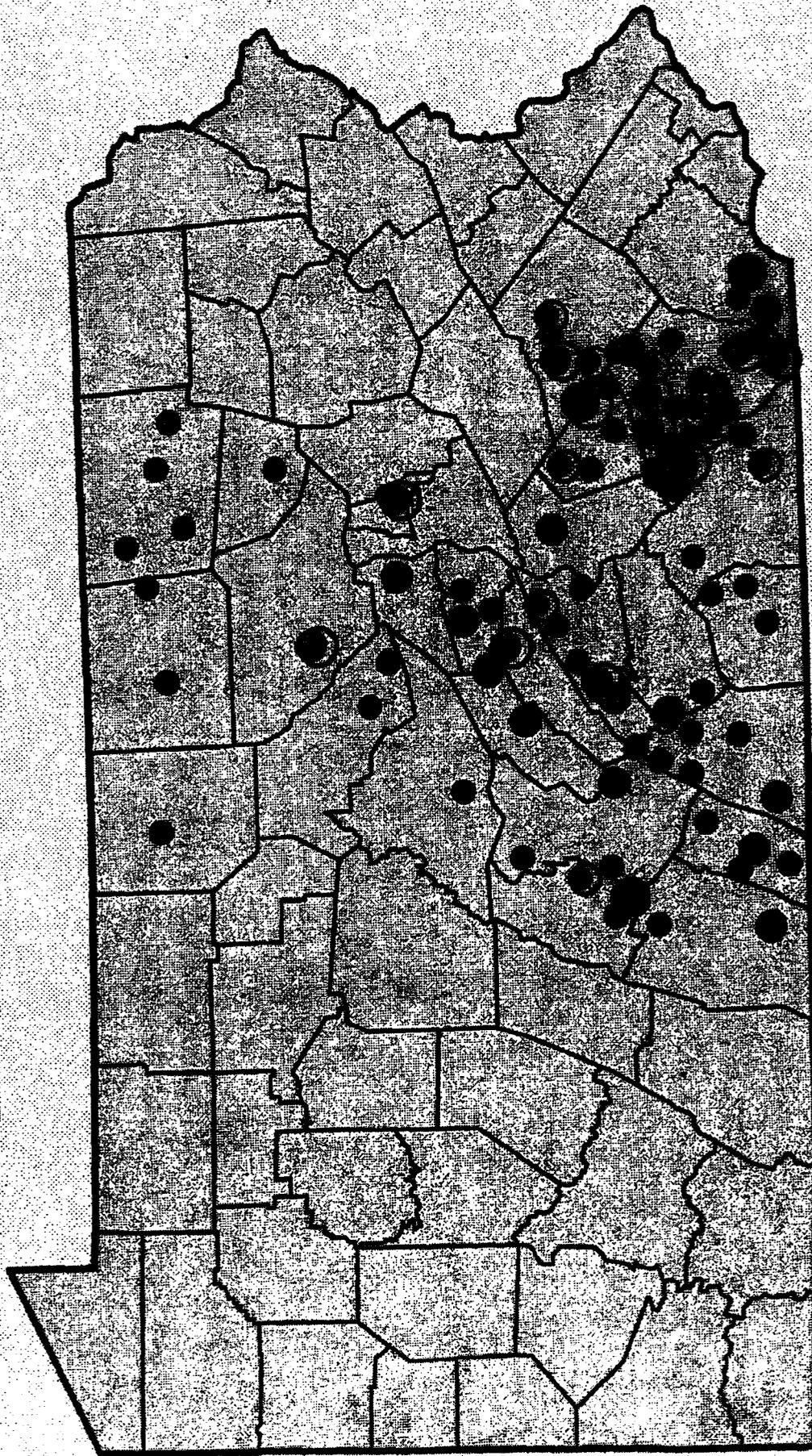
Kimberly L. Snell-Zarcone, Esquire  
Staff Attorney

Attachments



# Attachment A

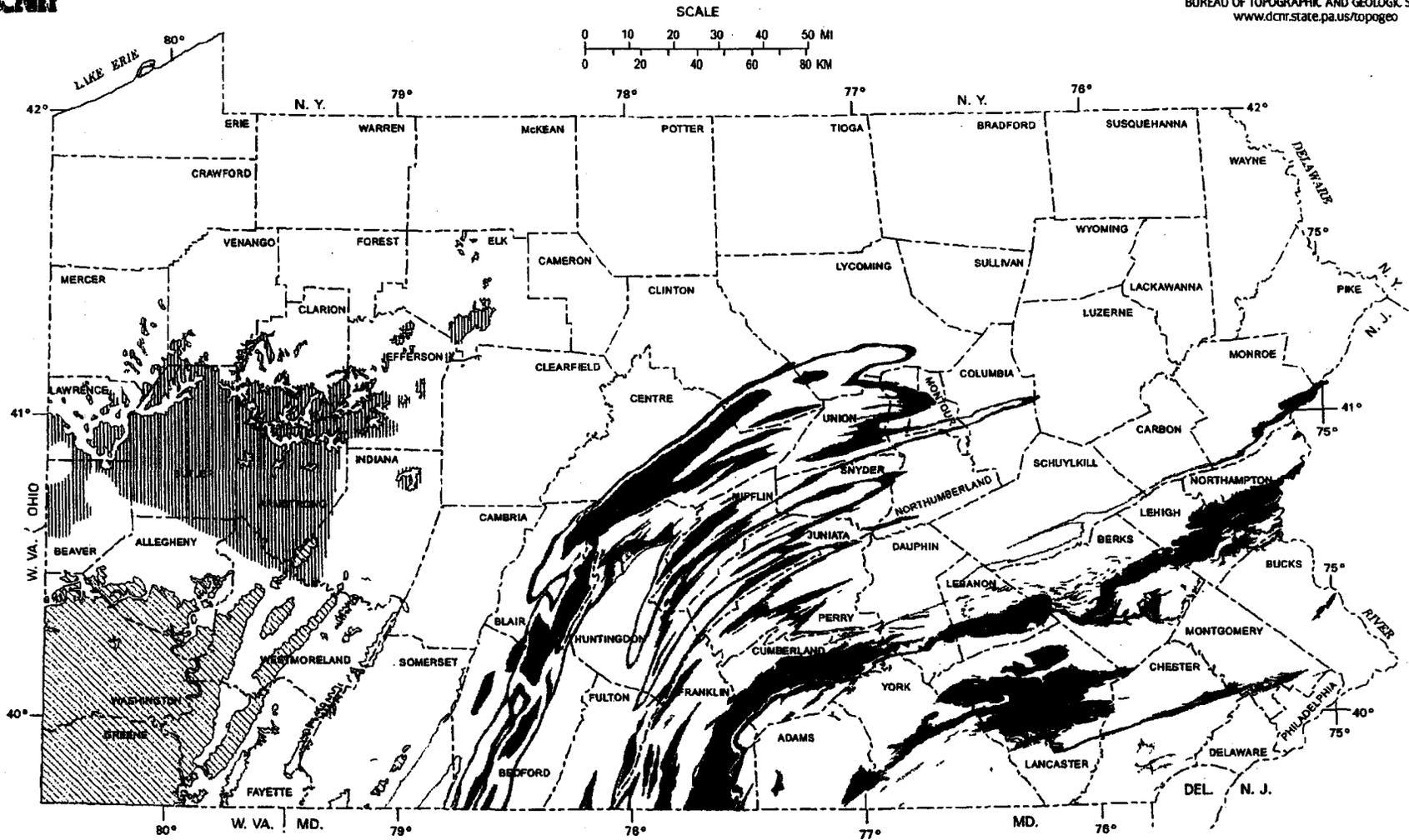
# Permitted & Pending Concentrated Animal Feeding Operations In Pennsylvania



# Attachment B

# LIMESTONE AND DOLOMITE DISTRIBUTION IN PENNSYLVANIA

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF  
CONSERVATION AND NATURAL RESOURCES  
BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY  
www.dcnr.state.pa.us/topogeo



### EXPLANATION



Area where limestone, dolomite, or both are at the surface. Layers are usually strongly folded and steeply dipping, includes economically important high-calcium limestones of the Kinzers, Annville, Benner, and Keyser Formations and the Cockeysville Marble, as well as the high-magnesian dolomites of the Ledger Formation and the Cockeysville Marble. This area is most susceptible to sinkhole development.



Area underlain by flat-lying, generally thin, but locally thick, limestone beds, which are discontinuous in places and are commonly interbedded with shale.



Area underlain by the generally flat lying Pennsylvania Vanport Limestone, a high-calcium limestone. This limestone is generally overlain by less than 100 feet of sedimentary rocks, except in the southern part of the area.

# Attachment C



November 1, 2004

*via hand delivery*

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

To whom it may concern,

Citizens for Pennsylvania's Future (PennFuture) hereby submits for your consideration the following comments concerning the proposed rulemaking regarding 25 Pa. Code § 83 as published in 34 Pa. Bull. 4361.

**I. AS PROPOSED, NUTRIENT MANAGEMENT PLANS UNDER THE NUTRIENT MANAGEMENT ACT FAIL TO ACCOUNT FOR ALL PHOSPHORUS APPLIED TO ALL FIELDS.**

Nutrient Management Plans ("NMPs") are the backbone of the State Conservation Commission's ("SCC") nutrient control program. NMPs are required for Concentrated Animal Operations ("CAOs") under the Nutrient Management Act. 3 P.S. § 1706(B). The proposed regulations define CAOs as, "[a]gricultural operations with eight or more animal equivalent units where the animal density exceeds two AEUs per acre on an annualized basis." Proposed 25 Pa. Code § 83.201. The Nutrient Management Regulations are being revised in accordance with a mandate in the Nutrient Management Act. 3 P.S. § 1704(3).

Until recently, Pennsylvania's Nutrient Management Program took the position that nitrogen was the nutrient of primary concern and was the only nutrient that had to be accounted for when land applying manure. The Act, however, specifically mandates that procedures be established "to determine proper application rates of *nutrients* to be applied to land based on conditions of soil and levels of existing nutrients in the soil and the type of agricultural, horticultural or floricultural production to be conducted on the land." 3 P.S. § 1704(1)(ii) (emphasis added). From the outset, opponents of the nitrogen-only approach have pointed to phosphorus as a nutrient of additional concern given the fact that it can result in severe environmental damage if allowed to accumulate, unchecked, on the land or enter streams in excessive amounts.

Phosphorus has been used in the last half century to increase crop yields and maintain soil fertility. However, excessive phosphorus in surface water can cause algae and aquatic plants to grow at accelerated rates. This then causes decreased oxygen levels in the water, which can in turn lead to fish populations and other aquatic organisms dying

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from a lack of oxygen. It is recognized that the threat of eutrophication is most attributable to soluble phosphorus in fresh water.

The SCC recently recognized the threat that phosphorus poses to the environment due to runoff. During the statutorily mandated regulatory revision of the nutrient management program, the SCC proposed consideration of phosphorus in certain limited situations to prevent potentially mobile sources of phosphorus from reaching surface waters. Proposed 25 Pa. Code 83.281(c). On May 12, 2004, the Environmental Hearing Board held that “[t]he Nutrient Management Act does require the Commission to establish procedures to determine proper application rates for plant nutrients other than nitrogen, such as phosphorus.” Adam v. Commonwealth of Pennsylvania, No. 2002-189 MG (Pennsylvania Environmental Hearing Board May 12, 2004). One of the major changes to the Nutrient Management Program being proposed is the inclusion of a Phosphorus Index (“P-Index”). PennFuture explains below why the proposed P-Index does not satisfy the Act’s requirement “to determine proper application rates” for phosphorus.

The SCC proposes utilizing a P-Index to determine the potential for phosphorus in land applied manure to reach surface waters. If conditions exist where phosphorus could be transported to surface waters, then phosphorus must be managed on that specific farm field. “The P index accounts for and ranks [phosphorus] sources (soil P, applied P type, rate, and application method) and transport factors (runoff, erosion, and contributing distance to water) that control potential [phosphorus] loss to the environment. Two screening parameters are used to determine if a full accounting of P source and transport factors (i.e., full running of P-Index) for a field is required: 1) Is soil test (Mehlich 3) P > 200 ppm? Or 2) is the field within 150 feet of a stream.” Kogelmann et al., p. 3 (July 8, 2002). It is important to understand that the P-Index *may* trigger management of phosphorus on individual fields, not individual farms.

The SCC’s omission of the details of the P-Index and an omission of a reference to a Penn State agricultural extension fact sheet on the P-Index is a fatal flaw in the Proposed Regulations. The Proposed Regulations merely define the P-Index as, “[t]he field evaluation tool developed specifically for this Commonwealth and approved by the Commission, which combines indicators of phosphorus sources and phosphorus transport, to identify areas that have a high vulnerability or risk of phosphorus loss to surface waters, and provides direction on the land application of phosphorus-containing nutrient sources to protect water quality.” Proposed 25 Pa. Code § 83.201. The P-Index is referenced numerous times throughout the Proposed Regulations, but none of these references provide specific information on the source and transport factors to be evaluated by the P-Index. Even more importantly, the Proposed Regulations do not detail how nitrogen and phosphorus applications may be restricted under the P-Index. Thus, the Proposed Regulations are completely void of any guidance regarding the “proper application rates of nutrients,” as required under the Nutrient Management Act. 3 P.S. § 1704(1)(ii) (emphasis added).

The SCC believes that the use of the P-Index accounts for conditions that contribute to surface and groundwater pollution by nutrients, specifically nitrogen and phosphorus. The Proposed Regulations do not describe how the P-Index will account for source and transport factors and do not detail if and how manure applications must be restricted. PennFuture vigorously objects to the lack of detail contained in the Proposed Regulations regarding the P-Index. Additionally, PennFuture disputes that the P-Index fully and accurately identifies the source and transport factors and will explain below why it thinks the P-Index, as detailed in other resources, is deficient.

- A. Because non-mobile phosphorus poses a significant threat to farm productivity and the surrounding environment, manure applications on all farm fields should be balanced for phosphorus.

The proposed phosphorus index is an improvement over the existing nutrient management program, which generally has failed to address phosphorus. But, it is not sufficient to meet the requirement of the Act to determine land application rates for *nutrients*. This requires something more than a phosphorus index, because a P-Index does not account for nutrients on all fields. It only addresses some of the nutrients in the manure for some of the fields.

U.S. Department of Agriculture scientist Andrew Sharpley notes that intensification of animal farming has created regional and local imbalances of phosphorus. Andrew N. Sharpley, et al., Agricultural Phosphorus and Eutrophication, USDA-ARS Report 149, p. 2 U.S. Gov't Printing Office, Washington, D.C. 1999. "The potential for [phosphorus] surplus at the farm scale can increase when farming systems change from cropping to intensive animal production, since [phosphorus] inputs become dominated by feed rather than fertilizer." *Id.* at 3. "Specialization and intensification of farm operations has resulted in imbalances in farm nutrient inputs and outputs. Community, national, and international agribusiness infrastructures have dictated, by default, regions of net nutrient accumulation, or nutrient sinks. The Chesapeake Bay watershed is a phosphorus sink." Frank Coale, *The Science of Phosphorus From Agriculture and Other Sources Entering the Chesapeake Bay* (visited 4/29/2004), <<http://www.arec.umd.edu/Policycenter/Pfiesteria/coale/coale.htm>>.

Sharpley states that soil phosphorus levels have built up and often exceed crop needs. Sharpley at 4. Kogelmann et al. assert 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). They estimate that 48% of the soil samples they took statewide had soil test phosphorus values of 50 parts per million or more. *Id.* "High soil nutrient levels not only represent an economic loss, but they also may indicate potential crop, animal, or environmental problems." The Agronomy Guide 2002, 28 (Eston Martz ed., 2001). Sharpley states that it is common to supplement poultry and hog feed with mineral forms of phosphorus because of the low digestibility of the major phosphorus compound in grain. Sharpley at 16. He further states that this

supplementation contributes to the phosphorus enrichment of animal manures and litters. Id.

Phosphorus exists in the soil in both soluble and sediment-bound forms. Soluble phosphorus is that which is available for plant uptake and use. Sediment-bound phosphorus is a mineral form of phosphorus that is not available for plant uptake and use. Phosphorus converts quickly from soluble phosphorus to sediment-bound phosphorus; however, it does not convert quickly from sediment-bound phosphorus to soluble phosphorus. High levels of sediment-bound phosphorus in the soil “may lead to crop production or feed quality problems.” The Agronomy Guide 2002, 28 (Eston Martz ed., 2001).

It is well recognized that applying manure to meet a plants’ nitrogen needs, results in overapplication of phosphorus. Sharpley 1994; The Agronomy Guide 2002 at 23 and 28. Since the P-Index only requires an accounting of phosphorus on fields where erosion and runoff are highly likely, phosphorus will continue to be overapplied on most fields in Pennsylvania. Because phosphorus is also a nutrient of concern in Pennsylvania, the goal of the nutrient management program should be to apply manure to meet maximum nutrient efficiency of nitrogen and phosphorus on all farm fields.

Studies indicate that when phosphorus exists in soils at certain levels it can negatively impact crop production. Christenson et al. found that for most crop fields grown on mineral soil, there is little chance that phosphorus that is applied in bands (an application method) will increase crop yields when soil test phosphorus level is above 60 pounds per acre. D.R. Christenson et al., Michigan State University, Extension Bulletin E-550A, Cooperative Extension Service, Fertilizer Recommendations for Field Crops in Michigan, 1992. Another study found that a 69 pound per acre or greater phosphorus rate resulted in above-optimum soil-test P values. Anthonio Mallarino and David Rueber, Iowa State University, Northern Research and Demonstration Farm, ISRF02-22, Long-term Evaluation of Nitrogen, Phosphorus, Potassium, and Lime Requirements of Continuous Corn. “The results for [phosphorus] fertilization are interesting in showing that the highest [phosphorus] rate, which increased soil-test [phosphorus] to levels seven times higher than the optimum level compared with the check, decreased corn yield slightly. The yield reduction was smaller when optimum rates of [potassium] fertilizer were applied.” Id. The report concluded that producers should use all available information to avoid applying “either deficient or excessive nutrient amounts for crop production.” Id. To achieve maximum yield, the studies indicate that phosphorus should not be applied in excess of crop needs.

Rates of manure application need to be based on the nutrient present at the highest level in terms of crop needs. In most cases this is phosphorus. The Agronomy Guide 2002 states that once the optimum level of phosphorus and potassium is obtained in the soil, “the recommendation is to maintain that level by applying P and K to offset the amount that is removed by the harvested crop.” The Agronomy Guide 2002 at 28. The Agronomy Guide 2002 states that “management action should be taken to limit applications in excess of crop needs.” Id. at 29. Therefore, manure should be applied at

a rate which will meet the crop's requirement for phosphorus. Because it is true that applying manure to meet a crop's nitrogen needs results in over-applying phosphorus, the converse is also true. Applying manure to meet a crop's phosphorus needs will result in not meeting the crop's nitrogen needs. However, additional nitrogen and potassium can be supplied with commercial fertilizers. This strategy is least likely to cause undesirable environmental effects, and makes the most efficient use of all nutrients in manure.

In addition to decreasing crop yields, excess phosphorus in the soil has the potential to cause environmental harm. Although the P-Index accounts for the potential loss of phosphorus via erosion and runoff, it does not account for the other risks posed to the environment from having excess phosphorus in manure, and in turn in the soil. Another path for phosphorus to escape the farm is through "subsurface lateral flow along the gradients of internal drainage." Coale, *The Science of Phosphorus From Agriculture and Other Sources Entering the Chesapeake Bay*. Subsurface pathways are of particular concern in Pennsylvania given the large number of tile drainage systems in place. Many of these systems are undocumented, so farmers may not know the exact location of tile drainage systems on their property. Because the placement of these systems is unknown, setbacks and balancing phosphorus on some, but not all, fields is not likely to accomplish the goal of limiting the possibility of phosphorus movement by way of subsurface lateral flow. Thus, additional control mechanisms, such as balancing for phosphorus on all fields, must be put into the nutrient management regulatory structure to ensure that phosphorus is not allowed to move along subsurface paths and into groundwater or surface water.

The Act requires Pennsylvania CAOs to develop "procedures to determine proper application rates for nutrients to be applied to land based on conditions of soil and levels of existing nutrients in the soil and the type of agricultural, horticultural or floricultural production to be conducted on the land." 3 P.S. § 1704(1)(ii). To satisfy the mandate of the Act, application rates for both nitrogen and phosphorus must be identified. To properly examine a nutrient application rate, one must know the amount of nutrients available (from both the soil and the manure or other fertilizer) and the amount of nutrients needed for crop growth. *Id.* As explained above, in order to properly analyze the application rates for nutrients, these amounts must be balanced for phosphorus.

The Proposed Regulations require an analysis of the nutrient content of the manure, Proposed 25 Pa. Code § 83.291(a)(3), and the soil, Proposed 25 Pa. Code § 83.292(e).<sup>1</sup> Both nitrogen and phosphorus availability in the manure and soil are required under a NMP. This appears to fulfill the amount of nutrients available requirement of the Act. Then, one must determine the amount of nutrients needed for crop production. The Proposed Regulations require an analysis of the amount of nitrogen and phosphorus needed for realistic crop yields. 25 Pa. Code §§ 83.292(f) and 83.293(d). However, the Proposed Regulations then allow CAOs to ignore the balanced rates for nutrients (both

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<sup>1</sup> PennFuture supports the SCC's proposal to require actual manure content analysis for an existing facility. Proposed 25 Pa. Code § 83.291(b)(3)(i). PennFuture supports the extension of this concept to requiring analysis of manure at an existing operation to the three year update of CAO NMPs. Proposed 25 Pa. Code § 83.291(b)(3)(iii).

nitrogen and phosphorus) and proceed forward with application rates based solely upon nitrogen. Under the Proposed Regulations, CAOs are permitted to apply manure in accordance with only the nitrogen needs of a crop unless a farm field has a high or very high rating under the P-Index. Proposed 25 Pa. Code § 83.293(b). This leaves a majority of the farm fields in Pennsylvania having manure applied with consideration of only one nutrient, as opposed to the “nutrients” that must be considered under the Act. Additionally, the Act does not state that “proper application rates of nutrients” must be determined for only *some* fields, but instead for all “land” to which manure will be applied.

Distinguished researchers and well respected agricultural organizations have also supported the proposition that manure applications should be balanced for phosphorus on *all* fields. To reduce phosphorus losses from agriculture, Sharpley recommends balancing phosphorus in the soil. Sharpley et al. at 14. The Technical Manual, one of Pennsylvania’s two main guidance documents on nutrient management, also “strongly recommends” that the farmer calculate a balanced manure application rate based on net nitrogen, phosphorus and potassium needs of the crops so that the farmer will manage the application of manure most efficiently. Pennsylvania’s Nutrient Management Act Program Technical Manual, p. 40. Additionally, during regulatory hearings on the nutrient management program, PennAg Industries testified that it was not opposed to balancing nutrients for phosphorus.

The P-Index is inadequate to meet the mandate of the Act. The Act requires a determination of proper application rates for nutrients. The EHB ruled that this meant that both nitrogen and phosphorus application rates must be examined. The P-Index fails to account for phosphorus in application rates for a majority of the farm fields in Pennsylvania.

In addition to being required by the Act, balancing for phosphorus makes sense. The most efficient utilization of the manure, as discussed above, comes when the manure is applied based upon the phosphorus content of the manure. The best crop yields also occur at an application rate based upon the phosphorus needs of the crop. Additional environmental risks can be avoided when phosphorus is not over-applied to crops. In order to decrease the risk for environmental pollution, provide the most efficient crop yield for farmers, and, most important, satisfy the requirements of the Act, the Proposed Regulations must require NMPs to balance for phosphorus.

B. Pennsylvania's proposed Nutrient Management Program does not ensure appropriate utilization of all manure nutrients because the P-Index fails to account for factors that can greatly effect phosphorus movement and water quality.

1. The proposed P-Index utilized in the Nutrient Management Program is inadequate because it fails to account for impaired waters in the calculation.

The state designates uses for streams after studying them and determining what aquatic life they can support. The stream designations are based upon the physical, chemical and biological conditions needed to sustain particular aquatic communities. When a stream fails to meet the conditions necessary to attain its designated uses, it is listed as "impaired" for its aquatic life use in a report to the U.S. Environmental Protection Agency. Recognition of such impairment is necessary to return the streams to their designated uses.

Streams that are designated as "impaired" are placed on a schedule to have a Total Maximum Daily Load (hereinafter "TMDL") established. "TMDLs can be considered to be a watershed budget for pollutants, representing the total amount of pollutants that can be assimilated by a stream without causing water quality standards to be exceeded." Pennsylvania Department of Environmental Protection, Bureau of Water Supply and Wastewater Management, *Pennsylvania DEP's Six-Year Plan for TMDL Development*, (updated March 2004) (hereinafter "*Six-Year Plan*"). A TMDL determines the maximum amount of a particular pollutant that may be released into a stream, stream segment, or water body each day while still allowing the stream to meet water quality standards, and allocates that maximum daily load among the point and nonpoint sources of the pollutant in the watershed. Once a TMDL is established for a stream or water body, pollution control measures should be put in place within five years. A TMDL may allocate a portion of the maximum allowed load to new sources or growth of existing sources, but such an allocation for "future growth" must be offset by greater load reductions from existing sources in order to meet the fixed, overall maximum load. Thus, if a CAFO begins operations in a watershed with a TMDL, the maximum daily load figure for a pollutant such as nitrogen or phosphorus will not be increased because of the new activity.

The Pennsylvania Department of Environmental Protection reports that 57,217 stream miles (84 % of the assessed miles) support the designated fish and aquatic life use and 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*"). However, the state is nowhere near having a TMDL developed for all of these impaired waterways. In fact, only 29% of the stream segments needing a TMDL have one approved. U.S. Environmental Protection Agency, *2002 Section 303(d) List Fact Sheet for PENNSYLVANIA* (visited September 28, 2004) [http://oaspub.epa.gov/waters/state\\_rept.control?p\\_state=PA](http://oaspub.epa.gov/waters/state_rept.control?p_state=PA). Thus, Pennsylvania is far

from developing a complete index of TMDLs. Pennsylvania must complete TMDLs for all watersheds that were listed as impaired in 1996 by 2009, according to an agreement with EPA. *Six-Year Plan*. Additionally, once a TMDL is developed, it must be implemented within five years.

Agriculture is a large contributor to the impairment of Pennsylvania's streams and waterways. Agricultural activities make up a large portion of the nonpoint source allocation in a TMDL. 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 generally attributable to siltation and excess nutrients. According to the Department, 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*.

"In Watershed 7-G [Chickies Creek] in Lancaster County and where many streams are impaired by nutrient pollution, there is a total of at least 43,718,572 gallons of permitted or pending liquid manure storage, and 22,822 tons of dry manure storage. A rough, very conservative estimate of the nitrogen content of liquid and dry manure being generated and stored each year in the Conestoga River watershed is about 5.34 million pounds per year." Citizens for Pennsylvania's Future, *Factory Farm Pollution in Pennsylvania: Watersheds and Communities at Risk*, p. 6 (October 2003). At the time of our review of NPDES CAFO permits there were also permits pending in impaired watersheds to allow an additional 35,933,165 gallons of liquid manure storage. *Id.* at 6-7. "Absent a mechanism in the permitting system to account for and control the new nutrients generated by new and expanding livestock operations, additional nutrient loadings in some watersheds will overwhelm the ability of conservation practices and restoration projects to reduce nutrient pollution." *Id.* at 7.

PennFuture's review of NMPs and CAFO permits in the Octoraro Watershed reveals that "[h]alf of the livestock facilities in this review are located in watersheds where the entire streams or significant stream segments do not meet water quality standards because of agricultural runoff and nutrient pollution. These 32 facilities generate a total of almost 43 million gallons of liquid manure and more than 20,000 tons of dry manure. This manure contains 1.25 million pounds of nitrogen. About a quarter of the manure is exported, but since the manure with the highest concentration of nitrogen is more likely to be exported, 44 percent of the nitrogen in the impaired watersheds is being exported to fields not covered by an approved nutrient management plan." Citizens for Pennsylvania's Future, *A Barrel Full of Holes: A Case Study of Pennsylvania Regulations on High Density Livestock Farm Pollution*, p. 13 (July 2004).

It is critical for Pennsylvania to take the impaired status and any developed TMDLs for waters of the Commonwealth into consideration in the permitting and planning processes it oversees so that these waters can be restored to health. Agriculture has a significant impact on the health of Pennsylvania's waterways and accounts for most of the nonpoint source pollution. Additionally, massive quantities of nutrients are

currently stored and land applied in watersheds with impaired waters. Consideration of these factors would help restore Pennsylvania's waterways in a timely manner.

The proposed P-Index utilizes source and transport factors to determine if phosphorus applications may be restricted. Impaired waters status is a critical indicator of the sensitivity of a stream and is not integrated into the proposed P-Index. Pennsylvania's P-Index, as proposed, does not consider whether impaired waters are located in close proximity to the farm field being evaluated. Alabama, Delaware and Maryland all have P-Indexes that take into consideration whether impaired waters are located in the proximity of the farm fields being evaluated. Alabama includes impaired waters in a category separate from source and transport factors and weights it heavily. Delaware and Maryland include impaired waters as part of their site and transport characteristics (the remaining considerations are classified as source and management characteristics).

Pennsylvania should consider impaired waters, for all of the above stated reasons, in its P-Index transport factors, or as a separate factor in the P-Index. Inclusion of impaired waters as a factor in the P-Index would result in farm fields located in close proximity to an impaired watershed as being more likely to have to restrict phosphorus applications. This is a rational result given the environmental harms phosphorus presents to already fragile waters. In the alternative, PennFuture recommends that inclusion of a farm field in an impaired waterway should be added as another screening parameter used to determine if a full accounting of source and transport factors. Thus, location of a farm field in an impaired waterway would require the agricultural operation to run a complete P-Index for that specific field, and any others located in impaired waters.

2. The proposed P-Index utilized in the Nutrient Management Program fails to account for exceptional value and high quality waters in the calculation.

The federal Clean Water Act Section 305(b) requires states to biennially evaluate the water quality of surface waters for High Quality (hereinafter "HQ") and Exceptional Value (hereinafter "EV") waters. 33 U.S.C.A. § 1315(b)(1). These two designations are reserved for the most pristine streams in Pennsylvania. The EV or HQ designated uses of these streams can become impaired if their water quality declines even slightly.

Pennsylvania has 83,161 miles of streams and rivers. Pennsylvania Department of Environmental Protection, *2002 Pennsylvania Water Quality Assessment 305(b) Report*, p. 8 (visited September 29, 2004) [http://www.dep.state.pa.us/dep/deputate/watermgmt/Wqp/WQStandards/305\\_wq2002\\_narr.pdf](http://www.dep.state.pa.us/dep/deputate/watermgmt/Wqp/WQStandards/305_wq2002_narr.pdf). 1,716 miles of these streams are designated as EV. Pennsylvania Department of Environmental Protection, *Protecting the Commonwealth's Waters* (visited October 15, 2004) <http://www.dep.state.pa.us/dep/deputate/watermgmt/Wqp/WQStandards/antideg/LT-AntidegTstmy1.htm>. EV streams and rivers represent 2% of the total stream miles in Pennsylvania. 19,274 miles are designated as HQ. *Id.* HQ streams represent 23% of the total stream miles in Pennsylvania.

An examination of the NMPs in the Octoraro Watershed revealed that “27 livestock facilities, or 42% of the operations [in that watershed], [are] located in high quality watersheds. These facilities generate more than 50 million gallons of liquid manure and more than 21,000 tons of dry manure. This manure contains about 1.5 million pounds of nitrogen and about 34% of that is exported.” *A Barrel Full of Holes*, p. 13-14. Additionally, 14 of the HQ streams located in the Octoraro Watershed contain segments impaired by agricultural runoff. *Id.* at 14.

PennFuture’s statewide analysis of NMPs in the Octoraro Watershed indicates that special protection watersheds are facing an ever increasing risk of degradation from agricultural pollution. The Proposed Regulations undertake no analysis of whether an agricultural operation is located in a HQ or EV watershed. A NMP merely requires a listing of a HQ or EV stream in the farm description section of the plan. The real analysis under a NMP comes in the manure application rates section. The proposed Nutrient Management regulations will now require an agricultural operation to run a P-Index to determine if phosphorus is being over-applied on farm fields or whether conditions are such where manure nutrients could move from farm fields to waters of the Commonwealth.

Pennsylvania’s P-Index, as proposed, does not consider whether special protection waters are located in close proximity to the farm field being evaluated. Alabama, Delaware and Maryland all have P-Indexes that take into consideration whether special protection waters are located in the proximity of the farm fields being evaluated. Alabama includes special protection waters in a category separate from source and transport factors and weights it heavily. Delaware and Maryland include special protection waters as part of their site and transport characteristics (the remaining considerations are classified as source and management characteristics).

Pennsylvania should integrate a special protection waters factor, for all of the above stated reasons, into its P-Index transport factors. Inclusion of special protection waters as a factor in the P-Index would result in farm fields located in close proximity to these waters as being more likely to have to restrict phosphorus applications. This is a rational result given the environmental harms phosphorus presents to these pristine waters. In the alternative, PennFuture recommends that inclusion of a farm field in a special protection waterway should be added as another screening parameter used to determine if a full accounting of source and transport factors. Thus, location of a farm field in a special protection waterway would require the agricultural operation to run a complete P-Index for that specific field, and any others located in HQ or EV waters.

3. The proposed P-Index utilized in the Nutrient Management Program fails to account for the flooding potential of fields or the precipitation amounts for a given area in the calculation.

Pennsylvania, like much of the east coast, has experienced significant amounts of rainfall over the past few months, resulting in serious flooding of streams and rivers.

Farmers are keenly aware of the damage that this, and other, flooding has caused. Many farmers suffered crop losses or were unable to harvest due to water-logged fields. Fortunately, these flooding events did not occur when farmers were applying manure to the fields. Flooding after manure applications, much like the spreading of manure on frozen or snow-covered fields, would result in significant nutrient losses.

The potential for flooding to occur during the times of year when manure is applied is high. The past three years have been some of the wettest on record. According to the National Oceanic and Atmospheric Administration (hereinafter "NOAA"), the period from March to August 2004 was the wettest on record, with 28.95 inches of rainfall. National Oceanic and Atmospheric Administration, *Climate at a Glance: Most Recent 6-Month Period (Mar-Aug) Precipitation Pennsylvania* (visited October 1, 2004) <http://climvis.ncdc.noaa.gov/cgi-bin/cag3/hr-display3.pl>. 2003 was the seventh wettest March to August six month period, with 27.85 inches. *Id.*

Given the particularly wet weather over the past few years, the SCC should include consideration of rainfall and flooding in the P-Index. Arkansas and Western Oregon and Washington all take the flooding potential of the fields into consideration in their respective P-Indexes as transport factors. Additionally, Arkansas considers precipitation amounts in its P-Index as a category separate from source and transport factors. Pennsylvania should follow the lead of these various states and integrate rainfall and flooding potential into the transport factors of its P-Index.

- C. The Act requires the management of nitrogen and phosphorus on each farm field; however, phosphorus content is not accounted for in manure that is exported from the farm where it was generated and land applied at an importing farm.

Under the proposed regulations, a farmer using manure exported from another site will not have to account for its phosphorus content before applying it. Manure exported to a known landowner and land applied is completely exempt from phosphorus evaluation under the proposed Nutrient Management Regulations. The proposed Nutrient Management Regulations only require manure applications at importing farms to be balanced for nitrogen and to comply with a 150 foot setback from surface waters. Proposed 25 Pa. Code § 83.201 regarding definition of "nutrient balance sheet;" Proposed 25 Pa. Code §83.301(a)(2); and, Proposed 25 Pa. Code §83.301(g)(1). The use of a setback to control for phosphorus is inappropriate. The P-Index takes into account both source and transport factors. Use of a setback to control phosphorus only accounts for the transport factors but fails to address source factors, such as phosphorus levels in the soil. This is one of the criteria specifically mentioned in the Act. Because a manure application setback at importing farms fails to account for source factors specifically mentioned in the Act, a setback is inadequate to meet the mandate of the Act.

According to the State Conservation Commission, 1,643,791,920 gallons of manure are generated by CAOs in Pennsylvania. State Conservation Commission, Nutrient Management Act Program Data CAOs. Of this amount, 466,497,360 gallons are

exported from CAOs. *Id.* This amounts to 28% of CAO manure being exported. All of this exported manure escapes a phosphorus content examination. Additionally, nutrients are exported off the farm in varied levels given the nutrient content of the manure. Thus, merely because 28% of CAO manure is exported does not mean that 28% of the nutrients were exported. In the Octoraro Watershed, an examination of CAOs revealed that 24,673,329 gallons of liquid manure (32% of the total liquid manure generated) and 14,060 tons of dry manure (23% of the total) is sent off the farm. *A Barrel Full of Holes*, p. 5. However, almost 50% of the nitrogen, 1,403,326 pounds, is exported. *Id.* (The study did not examine the amount of phosphorus exported.) Manures with higher nutrient content are those most likely to be exported. It is therefore important that exported manure be examined for its nitrogen and phosphorus content before it is land applied.

The Act requires NMPs to include a phosphorus analysis for manure generated by a CAO no matter where it is applied. The proposed Nutrient Management regulations do not require sites importing manure to undertake a phosphorus analysis, limiting nutrient balance sheets to a nitrogen analysis and coupling this with a 150 foot setback from surface waters. The current nutrient management program and that proposed in the draft regulations fail to meet the mandate of the Act to establish proper application rates for nutrients.

## **II. THE SCC MUST FURTHER REVISE MANURE APPLICATION PRACTICES, SUCH AS SETBACKS, WINTER SPREADING AND LIQUID MANURE SPREADING, TO PROTECT WATER QUALITY.**

### **A. Manure application setbacks are integral to protecting water quality; certain setback provisions in the Proposed Regulations should be expanded to better protect water quality.**

Setbacks have traditionally been used in the Nutrient Management Program to keep nitrogen, and arguably phosphorus, from entering surface waters. The Nutrient Management Program ensures that plans are written, but with only one inspection every three years, the program can hardly ensure that setbacks are followed when the manure is actually land applied. Keeping manure applications a reasonable distance from surface waters is one means of preventing nutrients from reaching streams and other surface waters. Large and small farms alike have the potential to pollute a stream when manure is land applied directly adjacent to a waterway. For this reason, all farmers should limit their manure applications in such sensitive areas.

1. Manure application setbacks from concentrated water flow areas, streams, lakes, ponds, wetland and intakes to agricultural drainage systems should be applicable regardless of whether the ground is frozen, snow-covered or saturated.

The Proposed Regulations restrict manure applications from concentrated water flow areas, streams, lakes, ponds, and intakes to agricultural drainage systems only when

the soil is frozen, snow-covered or saturated. Proposed 25 Pa. Code §§ 83.294(f)(v), (vii), and (viii). However, the possibility of manure runoff, and resultant water contamination, in these areas is present throughout the year given the close proximity of the manure application to these surface waters.

The Proposed Regulations have an increased, but still insufficient, recognition of the potential impacts nitrogen and phosphorus can have on waters of the Commonwealth. The proposed P-Index is triggered if manure is applied within 150 feet of a body of water. Although this threshold does not impose a manure application restriction, it does, however, recognize that the proximity of manure application to waters increases the risk of contamination.

Exported manure may not be land applied at importing farms within 150 feet of surface water. Proposed 25 Pa. Code § 83.301(g). This land application restriction is not limited to times of the year when the ground is frozen, snow-covered or saturated. Nor should it be. However, this same restriction does not apply unconditionally at the home site. Seventy-two percent of the manure generated at CAOs stays on the home farm. State Conservation Commission, Nutrient Management Act Program Data CAOs. Most of the risk of pollution associated with manure generated at CAOs exists at the home farm. It would, therefore, be logical to make the manure application restrictions at least as restrictive for home farm manure application as they are for farms importing CAO manure. Additionally, the federal CAFO regulations prohibit manure, litter, and process wastewater from being 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. 40 C.F.R. § 412.4(c)(5).

The SCC should revise Proposed 25 Pa. Code §§ 83.294(f)(v) to restrict manure applications “[w]ithin 150 feet of concentrated water flow areas, such as intermittent streams, ditches, waterways, gullies and swales.” Proposed Section 83.294(f)(vii) and (viii) should be combined and revised by the SCC to restrict manure applications “[w]ithin 150 feet of streams, springs, lakes, ponds, wetlands and intakes to agricultural drainage systems (such as in-field catch basins, and pipe outlet terraces), or other types of surface water conveyance.”

2. The SCC should revise the Proposed Regulations to include manure application and manure storage setbacks from intermittent streams and wetlands.

The SCC has given much consideration to other conduits to surface waters and has shied away from intermittent streams and wetlands because of the difficulty in defining them. Many state and federal programs define intermittent streams and wetlands. The SCC should integrate the definition of intermittent stream from Chapter 87<sup>2</sup> and the definition of wetland from Chapter 105<sup>3</sup> into Section 83.201.

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<sup>2</sup> 25 Pa. Code § 87.1 defines intermittent stream as, “[a] body of water flowing in a channel or bed composed primarily of substrates associated with flowing water, which, during periods of the year, is below the local water table and obtains its flow from both surface runoff and groundwater discharges.”

- a. Manure application setbacks for intermittent streams should be revised by the SCC to be consistent with setbacks for exported manure regardless of vegetated cover or soil saturation.

Small intermittent streams are critical to the maintenance of water quality in Pennsylvania. More than 50% of the stream miles in Pennsylvania flow only seasonally. These intermittent streams make up 85% of the total drainage network in any given watershed, and when they are flowing, provide direct conduits to larger streams and rivers.

As referenced above, the Proposed Regulations currently allow manure to be spread in concentrated flow areas (e.g. intermittent stream beds or drainage swales) if there is vegetation and the ground is not frozen, snow-covered and saturated. Proposed 25 Pa. Code § 83.294(f)(v). The Proposed Regulations also restrict manure applications in concentrated flow areas that are without a vegetated cover. Proposed 25 Pa. Code § 83.294(f)(vi).

PennFuture has already suggested that Section 83.294(f)(v) is inappropriate as drafted given the inconsistency between the manure application setbacks for manure applied at the generating farm and that which is exported. PennFuture reiterates that only restricting manure applications at the home farm when the ground is frozen, snow-covered or saturated is illogical since the pollution potential for surface waters is significant given the proximity of the manure application area to a conduit to surface waters or surface waters themselves.

Neither Section 83.294(f)(v) nor Section 83.294(f)(vi) as drafted contains a distance setback. The manure application is merely restricted within the concentrated flow area itself. This is inappropriate given the very nature of a concentrated flow area. The flow area would channel any material that reaches it to waters downstream. Spreading right to the bank's edge creates a situation that makes manure flowing into the concentrated flow area much more likely. For this reason, manure applications should be restricted to at least 150 feet from a concentrated flow area, regardless of whether there is a vegetated cover or whether the soil is frozen, snow-covered or saturated. Because there should be no differentiation on the basis of the ground being frozen, snow-covered or saturated, Proposed Sections 83.294(f)(v) and 83.294(f)(vi) could be combined into one setback regulation which would state that manure may not be applied "[w]ithin 150 feet of concentrated water flow areas, such as intermittent streams, ditches, waterways, gullies and swales."

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<sup>3</sup> 25 Pa. Code § 105.1 defines a wetlands as, "[a]reas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs and similar areas."

- b. The SCC should include wetlands in the list of natural features protected from manure applications by a setback.

The Proposed Regulations for manure application make no mention of setbacks from wetlands. Wetlands “are lands that are permanently or regularly flooded or remain saturated for extended periods of time during the growing season.” Commonwealth of Pennsylvania, Department of Environmental Protection, *Wetland and Riparian Stewardship in Pennsylvania: A Guide to Voluntary Options for Landowners, Local Governments and Organizations*. Wetlands aid in filtering pollutants by “trapping sediment, fertilizers, bacterial and viral pathogens, chemicals, and heavy metals before they reach the nearest waterway.” *Id.* They also help control floodwaters and recharge groundwater. *Id.* “In 1780, Pennsylvania had over 1,000,000 acres of wetlands. Today, less than 404,000 wetland acres remain, covering less than 2 percent of the state’s total land area.” Although wetlands are a natural filter, these features should not be willfully overloaded with nutrients. Overloading wetlands with nutrients is of particular concern because they are a direct means of recharging groundwater.

As drafted, Sections 83.294(f)(vii) and (viii) both contain manure application restrictions from surface waters under certain conditions. As suggested above Proposed Section 83.294(f)(vii) and (viii) should be combined and revised by the SCC to restrict manure applications “[w]ithin 150 feet of streams, springs, lakes, ponds, wetlands and intakes to agricultural drainage systems (such as in-field catch basins, and pipe outlet terraces), or other types of surface water conveyance.” The revision of these sections into one new regulation would allow sufficient protection of wetlands so that they are not overloaded with nutrients at agricultural operations.

- c. The SCC should amend the manure storage setbacks in Proposed 25 Pa. Code §§ 83.351(a)(2)(v)(A) and 83.351(a)(2)(vi)(A) to include setbacks from intermittent streams and wetlands.

Because manure has the potential to pollute water given its nitrogen and phosphorus content, manure should be kept from coming into contact with surface waters and other conduits to surface and groundwater. However, the Proposed Regulations currently do not contain a manure storage setback from intermittent streams or wetlands. Intermittent streams are by their very definition streams. They carry water, sometimes large volumes of water, to other surface waters and recharge groundwater. Intermittent streams generally flow during wet times of the year, when manure is likely to be in storage. Wetlands are by their very definition wet land. Although they are natural filters, they are also direct links to groundwater.

The SCC must then recognize the hazard presented by constructing manure storage facilities near intermittent streams and wetlands. Both intermittent streams and wetlands are likely to contain surface waters during the spring time when manure storage facilities would be at their fullest. The slightest fissure in the foundation of a manure storage facility would be catastrophic at this time of year, polluting surface waters and

groundwater. The SCC should revise the language of the manure storage setbacks at Proposed 25 Pa. Code §§ 83.351(a)(2)(v)(A) and 83.351(a)(2)(vi)(A) to prohibit location “[w]ithin 100 feet of a perennial stream, intermittent stream, river, spring, lake, pond, reservoir or wetland.”

3. Proposed Section 83.294(f)(i) should be amended to require a 100 foot manure application setback from sinkholes regardless of whether the manure is mechanically incorporated within 24 hours of application.

Proposed Section 83.294(f)(i) states that manure applications should be restricted “[w]ithin 100 feet of an open sinkhole *where surface water flow is toward the sinkhole, unless the manure is mechanically incorporated within 24 hours of application.*” However, the federal CAFO regulations prohibit manure, litter, and process wastewater from being 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. 40 C.F.R. § 412.4(c)(5). The federal regulations do not remove the manure application prohibition if the manure is mechanically incorporated in a given time period. Almost all CAFOs are CAOs. Additionally, the CAFO program relies heavily upon the Nutrient Management Program to protect waters of the Commonwealth from pollution. The NM Program regulations should be in line with the federal regulations given that virtually all CAFOs are CAOs and regulated under both programs.

4. The SCC or a county conservation district with a delegation agreement should not be allowed to waive manure storage setbacks as related to private wells.

Manure storage setbacks are put in place to protect the waters of the Commonwealth from pollution. The regulations contain manure storage setbacks of 100 feet to protect public and private wells. Proposed 25 Pa. Code §§ 83.351(a)(2)(v)(B) and (C) and Proposed 25 Pa. Code §§ 83.351(a)(2)(vi)(B) and (C). However, the SCC has included provisions in the Proposed Regulations that allow the Commission and delegated conservation districts to waive these distance restrictions for private wells, but not those protecting public drinking water wells. Proposed 25 Pa. Code § 83.351(a)(2)(vii)(D). Additionally, the Commission allows waiver of manure storage setbacks for existing agricultural operations, but not for new agricultural operations.

Bacteria can be passed through contaminated water supplies and cause campylobacter, Escherichia coli, leptospirosis, listeria, salmonella and yersinia. Parasites such as cryptosporidium and giardia may also move through a drinking water supply that has been contaminated by manure. Water polluted by manure presents many health risks: bacterial, viral, and parasitic. Additionally, the manure storage setback provided for under the Proposed Regulations is only 100 feet, which is modest given the human health risks presented. The Commission should recognize the risk that a manure storage facility poses to any drinking water source and protect *all* drinking water sources from potential manure pollution, not just public ones and ones at new agricultural operations. The SCC

should revise Section 83.351(a)(2)(vii) to exclude waiver of manure storage facility setbacks related to private wells by deleting the reference to (v)(B) and subparagraph (D). The revised regulation should read:

The Commission or a delegated conservation district may waive the distance restrictions in subparagraphs (v)(A) and (F), if the following can be demonstrated to the satisfaction of the Commission or a delegated conservation district:

- (A) The siting restrictions contained in subparagraph (v) would make the placement economically unreasonable or physically impractical.
- (B) A site investigation – including consultation with affected landowners – has been conducted which demonstrates that the proposed system will protect water quality and protect against offsite migration of nutrients.
- (C) The type, design and contingency plan developed for the facilities meet additional criteria the Commission or delegated conservation district, in consultation with the NRCS, may require to protect water quality, and protect against offsite migration of nutrients.

B. The SCC should prohibit winter manure spreading because it is not a practice used to provide nutrients to crops, but rather a means for disposing of excess animal sewage.

Proposed Section 83.294(a) states that, “[n]utrients shall be uniformly applied to fields during times and conditions that will hold the nutrients in place for crop growth. . . .” The Proposed Regulations require the NMP to detail winter manure spreading procedures if the application is planned. Proposed 25 Pa. Code § 83.294(g). “The plan shall list all crop management units where winter application is anticipated or restricted, planned ground cover on the application site, and what procedures shall be utilized for each crop management unit to protect the quality of surface water and groundwater.” Id.

However, winter spreading is not likely to result in nutrients being held in place for crop growth. The Agronomy Guide indicates that winter spreading is defined as “when it is so cold that there is no plant growth or microbial activity.” The Agronomy Guide 2002, p. 37, table 1.2-14 (Eston Martz ed., 2001). Thus, nutrients applied in the winter are not being held for crop growth during the winter itself. Additionally, nutrients are scantily held for crop growth in the following spring and summer. The Agronomy Guide indicates that manure applied in the winter will have *at best* a 50% nitrogen availability factor if utilized in the spring. Id. At worst, only 15% of the nitrogen will be available for crop growth if utilized in the summer. Id. When at least half of the manure’s nutrients will be wasted, the application does not come close to satisfying the standard of holding the nutrients in place for crop growth.

Winter spreading of manure has caused serious environmental problems in the recent past. "During the winter, the Chester County Water Authority frequently must pump in water from the Susquehanna River to dilute the Octoraro reservoir water in order to reduce the nitrate levels sufficiently to meet drinking water standards." Citizen for Pennsylvania's Future, *A Barrel Full of Holes: A Case Study of Pennsylvania Regulations on High Density Livestock Farm Pollution*, p. 14 (July 2004) (footnote omitted). Additionally, winter spreading occurred at the Hillandale Gettysburg Farm in Adams County on snow-covered fields which were already saturated, at a time when heavy rains were forecast for the next forty-eight hours. According to the National Weather Service, over two inches of rain fell during the forty-eight hours after the manure application. Hillandale was fined by the SCC for spreading manure in violation of its NMP. This sort of winter spreading is an aberration. A drive around Lancaster County in the winter reveals many fields colored chocolate brown from being heavily loaded with manure.

Winter manure spreading should be prohibited because the nutrients are not sufficiently utilized for crop growth, as no plant growth happens during the winter season. Additionally, winter manure spreading causes pollution to surface waters such as the Octoraro reservoir. The SCC should revise Proposed Section 83.294(a) to read that "[w]inter spreading of manure on soil that is frozen, snow-covered or saturated is prohibited."

Farmers have rationalized winter spreading in the past by claiming that they had unanticipated manure storage issues during the winter months and must spread manure in order to avoid over-topping their manure storage facility. In effect, the farmers are asking for permission to shift a potential pollution event from an over-topped manure storage structure to a potential pollution event from runoff associated with manure applications to frozen, snow-covered or saturated fields. Such situations should be prevented by better nutrient management planning and, if necessary, an increase in storage capacity. Winter spreading presents too much risk of pollution to waters of the Commonwealth and too little nutrient retention to be of significant benefit to crop growth. The SCC should prohibit this sewage disposal practice in the Proposed Regulations.

- C. The SCC should consider the infiltration capabilities of the soil and the water holding capacity within the root zone for any liquid manure application.

The Proposed Regulations outlining nutrient application procedures only require consideration of the infiltration capabilities of the soil and the water holding capacity within the root zone for irrigated liquid manure. Proposed 25 Pa. Code § 83.294(d)(1). However, the spreading of liquid manure by other means also presents environmental risks by loading the soils beyond their capability to absorb the manure.

Manures, with the exception of poultry and some dairy, are generally handled in a liquid state. Swine manure has the lowest percentage of dry matter, ranging between 2% and 7%. *The Agronomy Guide*, p. 36, table 1.2-13. Dairy manure handled in a liquid form has less than 5% dry matter. *Id.* Traveling guns can spray irrigate manure with up to 8% dry matter. Albert R. Jarrett and Robert E. Graves, *Irrigation of Liquid Manures With a Traveling Gun*, F 255, The Pennsylvania State University, College of Agricultural Science, Agricultural and Biological Engineering. Manure spread by non-irrigation techniques does not have a percentage dry matter limitation. Thus, all manure that is spray irrigated can also be spread by non-irrigation means.

Depending upon the liquid content of the manure, manure has the potential to be applied at a rate in excess of that which the soil can soak up the liquid. Applying liquid manure at a rate beyond the infiltration rate of the soil results in manure runoff. Albert R. Jarrett and Robert E. Graves, *Irrigation of Liquid Manures*, F 254, The Pennsylvania State University, College of Agricultural Science, Agricultural and Biological Engineering. Water holding capacity is the amount of water in the soil that can be absorbed by plant roots of most crops. Liquid manure has the possibility of being applied in excess of the water holding capacity, also resulting in runoff.

As detailed above, manures with the same percentage dry matter are spread by both irrigation and non-irrigation means. However, only the nutrient application rates for manure that is spray irrigated must consider the infiltration capabilities of the soil and the water holding capacity within the root zone. Both irrigated and non-irrigated manure can be applied in excess of infiltration capabilities and water holding capacity. The SCC should revise Proposed 25 Pa. Code § 83.294(d)(1) to read, “[a]pplication rates for liquid manure shall be based on the lesser of the following.”

### **III. PENNFUTURE SUPPORTS THE SCC’S EFFORTS TO REQUIRE DESIGNATED CAOS TO REMAIN REGULATED AT THE HIGHER REGULATORY THRESHOLD AND TO REQUIRE CAOS TO MAINTAIN RESPONSIBILITY FOR MANURE EXPORTED TO KNOWN LANDOWNERS.**

- A. PennFuture supports the SCC’s Proposed Regulation to hold designated CAOs to the higher standards in the regulations and not allow facilities that present real water quality threats be regulated merely as VAOs.

The Proposed Regulations state that “CAOs required under the act, or other operations directed by the Commission or the Department to submit and implement a plan shall comply with the following sections: §§ 83.261 and 83.271-83.381.” Proposed 25 Pa. Code § 83.204(a). In the past it had been unclear whether agricultural operations required to comply with the Act at the direction of the Commission or the Department were to follow the regulations applicable to CAOs or Volunteers (now VAOs). The addition of this language clarifies that those agricultural operations must follow the regulations applicable to CAOs.

PennFuture fully supports the inclusion of this language. Generally, agricultural operations are required to comply with the mandates of the Act because of a pollution event. PennFuture believes that agricultural operations that have had a history of pollution should be more heavily regulated and inspected. This can only happen by requiring agricultural operations that have polluted to comply with the more stringent CAO regulations.

- B. PennFuture also supports the SCC's Proposed Regulation to require a CAO that is exporting and land applying manure at a known farm to maintain responsibility for the handling and application of that manure.

The Proposed Regulations state that a "CAO exporting manure shall also be responsible for the handling and application of the manure if the CAO, or its employees or contractor of the CAO, applies manure at the importing operations." Proposed 25 Pa. Code § 83.301(a)(3). PennFuture supports inclusion of this provision. Historically, agricultural operations have networked between family and neighbors to dispose of all the manure accumulated at a particular operation. If the importing land owner did not spread the manure obtained from a neighboring agricultural operation, he may not be familiar with exactly how it was land applied to his fields. The manure may have been applied too heavily in a certain area and run off into a stream.

This proposed provision recognizes the role of community networks while maintaining environmental liability for the responsible party. It is logical for the SCC to require the CAO to retain environmental liability for the manure it applies on neighboring farms. The CAO owner, operator and contract hauler all should be keenly aware of the nutrient content of the manure and the rates at which it can be safely applied. They would have this knowledge from their experiences on their owned or rented land where manure had been land applied. They would also know whether manure was applied in accordance with acceptable standards, since they were the ones who either applied the manure or had control and authority over those who did. PennFuture supports the SCC's efforts to require environmental liability for CAOs who export and land apply their manure.

#### **IV. THE NUTRIENT MANAGEMENT PROGRAM'S ALLOWANCE OF IN-FIELD MANURE STACKING WILL SEND MANY POULTRY FARMERS, UNKNOWINGLY, INTO THE FEDERAL CAFO REGULATORY STRUCTURE.**

The practice of stacking manure in-field may present a conflict between the Nutrient Management regulations and the federal CAFO regulations. The proposed Nutrient Management regulations allow for dry manure to be stacked in-field if the manure is spread by the beginning of the next growing season. Proposed 25 Pa. Code § 83.294(h). However, the manure does not have to be covered when it is stacked in-field. Because the manure does not have to be covered, it takes on various amounts of moisture and presents the possibility of leaching contaminants into the ground. "Stockpiling litter uncovered on the soil can result in a fivefold reduction in the nitrogen content of the

manure. The nitrogen lost from the manure can be carried by water to surface streams or ditches and into the groundwater.” R. A. Bucklin et al., *Storage of Broiler Litter*, Dairy and Poultry Sciences Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Factsheet PS-15 (May 2004) <http://edis.ifas.ufl.edu/PS003>.

EPA has taken the position that manure should only be stacked in-field for less than 2 weeks if uncovered. EPA states that after this amount of time, the manure becomes liquid manure and is subject to different obligations under the CAFO regulations. Thus, a chicken facility that stacks manure in-field for more than 14 days would become a large CAFO under the federal regulations if it has more than 30,000 birds. Final Rule 40 C.F.R. § 122.23(b)(4)(ix). The facility would then have the obligation to obtain a CAFO permit within 90 days from being designated a CAFO. Final Rule 40 C.F.R. § 122.23(g)(5).

To prevent poultry operations from unknowingly making themselves subject to the CAFO regulatory scheme by engaging in a practice allowed by the Nutrient Management regulations, Section 83.294(h) should either require that manure be covered if it is to be stacked in the field for more than two weeks or alert operators that they may be classified as a large CAFO under 40 C.F.R. § 122.23(b)(4)(ix) for handling the litter as a liquid.

**V. ADEQUATE RECORD KEEPING AND A MEANINGFUL REVIEW OF RECORDS IS CRITICAL TO THE SUCCESS OF THE NUTRIENT MANAGEMENT PROGRAM BECAUSE IT IS THE ONLY WAY TO ENSURE THAT FARMERS ARE COMPLYING WITH THE APPLICATION RATES ESTABLISHED IN NUTRIENT MANAGEMENT PLANS.**

PennFuture recently completed a review of Nutrient Management Plans in the Octoraro/Pequea/Conowingo Watershed (Watershed 7-K of the State Water Plan). In this review, PennFuture found that NMPs were not being implemented at the majority of CAOs.

County Conservation District staffs have no authority to enforce the Nutrient Management Program or cite the operators for being in violation of nutrient management plans. Operators in chronic violation of their plans must be referred to the State Conservation Commission, which has only three employees to handle enforcement for the entire state and has taken only ten enforcement actions over the history of administering the program. In addition, the Commission is under the purview of both the Department of Agriculture and the Department of Environmental Protection, with the Chair switching between the two. Consistent enforcement of regulations is nearly impossible under this bifurcated system.

The role of the conservation districts is to provide assistance to livestock operators in an effort to bring them into full compliance with the

provisions of the nutrient management plans. Indeed, our review showed that there has been a significant effort on the part of the Lancaster County Conservation District to gain full implementation of the nutrient management plans. For instance, the conservation districts are charged with reviewing nutrient plans every three years to evaluate the implementation of the plan and to inspect the operation to see if it has changed enough to warrant revisions to the plan. The Lancaster County Conservation District conducted timely reviews on all 46 of the nutrient management plans that reached the three-year deadline. In Chester County, conservation district staff had reviewed only three of nine operations, but all but two of them were due for their three year review.

However, despite the significant effort to ensure implementation of the nutrient management plans, 38 of the 64 operations reviewed – 59 percent – had not fully implemented their nutrient management plans, or had not kept important records that would allow the conservation district staff to determine that manure was being properly handled. Of the operators that exported manure, 46 percent of them were missing the manure transfer sheets that would at least identify the fields or manure brokers who had received their manure. Therefore, approximately 23 percent of the liquid manure and 32 percent of the dry manure was largely unaccounted for.

Very often, manure disposal in this watershed is handled informally among neighbors and extended family networks. Many of the operators are members of plain sects, and record-keeping is not their forte. When records are available, they indicate that manure is frequently sent to farms not listed in the nutrient management plans. The notes in the review files indicate that conservation district staff provides ongoing assistance to livestock operators in an attempt to bring them into full compliance with their plans. As a result, many operations fall in and out of compliance during the course of the review cycle.

While record-keeping violations may seem trivial, the lack of complete records completely undermines the goals of the Nutrient Management Program – to ensure that no more nutrients are put on fields than crops can use and to reduce nutrient pollution of local streams and larger water bodies like the Chesapeake Bay. The heart of the program consists of planning and management, and record-keeping is the primary regulatory requirement.

Citizen for Pennsylvania's Future, *A Barrel Full of Holes*, p. 11-12.

- A. The SCC should require manure application records to be sent to the Conservation District where they should be available for public inspection.

The Proposed Regulations require CAOs to maintain manure application records and make them available for inspection by conservation district staff. Proposed 25 Pa. Code § 83.342(b)(3). These records are supposed to be reviewed at the scheduled

triennial evaluation of the farm by the conservation district staff. The records are the main mechanism for ensuring that manure is being applied in conformity with NMPs.

PennFuture's review of the NMPs in the Octoraro Watershed in Chester County showed that conservation district staff had reviewed less than half of the plans that were due for their three year review. The SCC must recognize that conservation districts are not adequately overseeing CAOs to ensure that manure is being applied at agronomic rates. Therefore, while maintaining the obligation for the conservation district staff to review the implementation of NMPs, the SCC must allow other interested parties to review documents and records that would reveal compliance with NMPs.

Requiring manure application records to be sent to the conservation district on a quarterly basis would allow the district staff the opportunity to carefully compare the manure application rates detailed in the NMP with the actual manure application rates listed in the records. If manure application rates were out of line with each other, then the district staff could take the time to correct this before the next growing season commenced, rather than as many as three years in the future. Opening these documents up for review by the public would also placate concerns of those that live in the vicinity of a CAO. It would reveal which CAOs are complying with their plans and which are not. The ones that are not complying with their plans would be faced with more frequent scrutiny and likely better enforcement. The end result would be more a more trusting relationship between farmers and the local community and a cleaner, safer environment.

PennFuture urges the SCC to add a sub-section (c) to Section 83.341 that reads, "[t]he operator of a CAO shall submit on a quarterly basis to the Commission or delegated conservation district accurate records of the land application of nutrients. Records of land application of nutrients are public records."

- B. The SCC should require alternative manure utilization records to be sent to the conservation district where they should be available for public inspection.

Many agricultural operations export manure to known landowners or through use of a manure broker. These alternative manure uses are allowed but must be detailed in the NMP.<sup>4</sup> The Proposed Regulations require alternative manure utilization records to be maintained, but not submitted to the conservation district. Proposed 25 Pa. Code § 83.343(a)(4). Under Proposed Section 83.343(a)(4)(ii), the exporting CAO must maintain the alternative manure utilization records if the CAO or its employee apply the manure to the land. If the manure is exported through a broker, Proposed Section 83.343(a)(4)(iii) requires the broker to maintain the alternative manure utilization records and supply the importing site with the information for their records.

PennFuture's review of the NMPs in the Octoraro Watershed revealed that 46% of the operators that exported manure failed to maintain manure transfer sheets. This

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<sup>4</sup> PennFuture supports the SCC's proposal to require signed agreements between a CAO and each operator agreeing to accept the manure from the exporting operation. Proposed 25 Pa. Code § 83.301(a)(1).

resulted in the nutrients from roughly one quarter to one third of the manure going unaccounted for. PennFuture's review of the NMPs also revealed that when records were available for manure transfers, the manure was often exported to farms not listed in the alternative manure utilization section of the NMP.

PennFuture recognizes that the information required in the Proposed Regulations on alternative manure utilization sheets is more detailed than is currently required. However, a large percentage of facilities are not maintaining the required records. The main opportunity to discover a lack of record keeping is the three-year review by conservation district staff. Alternative manure utilization records are the main vehicle for ensuring that manure is not over-applied to non-CAO fields. This is virtually the only check on the remaining farms that are supposed to follow the mandates of the Manure Management Manual.

Requiring alternative manure utilization records to be sent to the conservation district on a quarterly basis would allow the district staff the opportunity to examine whether manure is being properly utilized on non-CAO fields. If manure utilization was out of line with the mandates of the Manure Management Manual, the conservation district staff would have the opportunity to correct this improper manure use before the next growing season rather than three years in the future. It would also allow conservation districts an opportunity to calculate the amount of nutrients in various watersheds and to identify and assist farms needing better nutrient management in order to better meet the state's obligations under The Chesapeake 2000 Agreement. Opening these documents up for review by the public would show that CAO generated manure is being properly utilized for crop growth. Again, review by the public would placate concerns of those in the vicinity of CAOs and their importing farms by removing the mystery of how much manure is used where.

C. The SCC should retain the requirement for NMPs to be triennially reviewed by a certified nutrient management specialist.

At the October 13, 2004 public hearing on the proposed regulations, the Pennsylvania Association of Conservation Districts suggested that NMPs should not be subject to a triennial review by a certified nutrient management specialist under Section 83.362(c). This suggestion is completely devoid of reason. As detailed above, CAOs are out of compliance with their NMPs at an alarming rate. Review of farm management practices with a certified nutrient management specialist will provide an opportunity for evaluation of current practices. Additionally, it will provide an opportunity for the nutrient management specialist to review any farm management concerns or address problem areas directly. PennFuture is opposed to the elimination of the requirement that plans be reviewed triennially by a certified nutrient management specialist.

- D. The SCC must require landowners to sign NMPs because best management practices are utilized in the plan and the landowner is responsible for some BMPs because of their permanent nature.

A landowner is not required to sign a NMP under the Proposed Regulations. Proposed 25 Pa. Code §§ 83.261(7) and 83.281(a)(3). However, NMPs rely heavily on best management practices (“BMPs”) to address nutrient management concerns. These BMPs are construction based and farm management based. Construction based BMPs are permanent in nature, in the sense that they will remain until a barn or manure storage facility is removed from the agricultural operation. Thus, the BMPs offered in an NMP could presumably outlast an operator or specialist who originally signed the plan. Ultimately, the landowner is left with the responsibility for maintaining the construction based BMP. Requiring a landowner to sign an NMP also serves the purpose of confirming that the operator is aware of and has consented to the installation of the BMP on his land. This would help ensure that disputes will not arise that might interfere with the use or effectiveness of a BMP. Because the landowner is the one with ultimate responsibility for the BMP, the landowner should be required to sign the NMP to remain accountable for it.

**VI. THE FEDERAL CAFO REGULATIONS REQUIRE NUTRIENT MANAGEMENT PLANS TO DETAIL CERTAIN PRACTICES THAT ARE NOT CURRENTLY REQUIRED IN THE PROPOSED REGULATIONS.**

The federal regulations require CAFOs to develop and implement a nutrient management plan. 40 C.F.R. § 122.42(e)(1). Pennsylvania’s NPDES CAFO program, which is under revision itself, already contained this requirement. PennFuture’s comments on the proposed regulatory revisions to the NPDES CAFO program are attached hereto. However, the federal regulations require NMPs to contain certain elements that are not included in the pre-existing or proposed Nutrient Management Program, such as mortality management, chemical handling, and testing of litter and process waste water. *Id.* The state CAFO program does not detail what must be contained in a NMP, but rather states that plans must comply with the requirements of Chapter 83. Proposed 25 Pa. Code § 92.5a(d)(1).

PennFuture recognizes that the SCC may be reluctant to include these provisions for CAFOs as mandatory elements for CAOs. However, the Proposed Regulations should include, at a minimum, a section that details these requirements for CAFOs only. This will aid in decreasing confusion among agricultural operators and those drafting the plans for them. To satisfy the minimum federal requirements for issuing a CAFO permit, the Department must require NMPs to contain the required elements as detailed in the federal regulations. However, the existing and proposed state CAFO regulations do not detail these requirements and only reference compliance with the Nutrient Management Regulations which, as proposed, do not include the three specific elements mentioned above.

NMPs are given a secondary review when an agricultural operation applies for an NPDES CAFO permit with the Department of Environmental Protection. To maintain state delegation, the state CAFO program must be approved by the federal Environmental Protection Agency (“EPA”). For EPA to delegate the CAFO program to Pennsylvania, the program must integrate the federal requirements while sufficiently dealing with any state nuances. Since the state CAFO regulations merely reference the Proposed Regulations with respect to the requirements of an NMP, the Proposed Regulations must contain a section requiring all of the federally-mandated NMP elements for CAFOs.

- A. The federal regulations require NMPs to include mortality management; however, the Proposed Regulations do not require CAOs to include mortality management in their plans.

The federal CAFO regulations state that a nutrient management plan must “[e]nsure proper management of mortalities (i.e. dead animals) to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities.” 40 C.F.R. § 122.42(e)(1)(ii). Nothing in the Proposed Regulations details how mortalities shall be handled. Therefore, NMPs under the Proposed Regulations fail to meet the requirements of NMPs as detailed in the federal regulations.

The SCC must add a section to the Proposed Regulations applicable to CAFOs. The added section must require the NMPs of CAFOs to detail mortality management to ensure isolation from liquid manure, storm water or process wastewater storage or treatment. PennFuture suggests that Section 83.271, which details the contents of plans, would be a logical place to make this addition.

- B. The federal regulations require NMPs to include proper chemical handling procedures; however, the Proposed Regulations do not require information regarding chemical handling procedures.

Under the federal CAFO regulations, an NMP must “[e]nsure that chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants.” 40 C.F.R. § 122.42(e)(1)(v). The Proposed Regulations do not require chemical handling procedures to be detailed. NMPs under the Proposed Regulations therefore fail to meet the requirements of the federal CAFO regulations.

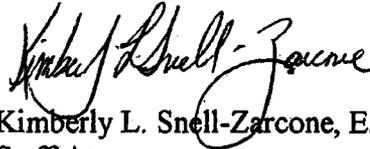
As recommended above, the SCC must add a section to the Proposed Regulations applicable to CAFOs. The added section must require the NMPs of CAFOs to detail chemical handling procedures to ensure isolation from liquid manure, storm water or process wastewater storage or treatment. PennFuture suggests that Section 83.271, which details the contents of plans, would be a logical place to make this addition.

C. The Proposed Regulations do not require testing of litter and process wastewater in NMPs as mandated under the federal CAFO regulations.

The Proposed Regulations do not require the testing of litter and process wastewater. The federal CAFO regulations require a NMP to “[i]dentify protocols for appropriate testing of . . . litter [and] process wastewater. . . .” 40 C.F.R. § 122.42(e)(1)(vii). Therefore, NMPs under the Proposed Regulations fail to meet the requirements for NMPs under the federal CAFO regulations.

The SCC must add a section to the Proposed Regulations applicable to CAFOs, as recommended above. The added section must require the NMPs of CAFOs to detail litter and process wastewater testing. PennFuture suggests that Section 83.271, which details the contents of plans, would be a logical place to make this addition. Further details would be appropriate under Section 83.291(b)(3), which regulates manure nutrient content.

Respectfully submitted,



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Staff Attorney

Attachment

# Attachment D

PERMITTED AND PENDING CONCENTRATED ANIMAL FEEDING OPERATIONS IN PENNSYLVANIA

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
County	Township	Farm Name	DEP ID#s/Permits	Farm Location	NPDES Permit Issued To	Inspector	Proposed ABUs	Approved ABUs	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total SWP Manure Storage Capacity (cows)	Manure Storage Characteristics	Waterways Affected	Permit Type	Permit Number	No. Violations	Permit Expiration Dates	Violation Description
1	Adams	Combs and Freedom	Meen Dean Farms, Inc. Chart ID: 4568 Site ID: 255729 Facility ID: 521167-57622	1750 Meen Dean Road Gettysburg, PA 17325	Meen Dean Farms, Inc. 1750 Meen Dean Road Gettysburg, PA 17325		1,208,000	1,208,500	4,208	2,500 dairy cows; 600 replacement heifers; 600 dry heifers; 200 young stock; 200 calves	70,000,000		manure produced on this operation is run through a manure digester and then into a manure separator. Solids are then stored in an existing primary storage structure and then go into an existing secondary storage structure. From the secondary structure, manure is either stored in 1 of 2 existing water storage structures, either are either used applied or sold to a fertilizer company. Trough 1 - 3 million gallons Trough 2 - 10 million gallons Trough 3 - 25 million gallons Trough 4 - 25 million gallons Digester barn - 8 million gallons (WCA Permit for operation of an 800,000 gallon concrete manure storage tank)	Rack Creek which is classified as warm water stream and Mack Creek which is classified as Cold Water Stream, both are located in watershed 13-D	General NPDES WCA Part II	PAG 125309 WCA 0101201	31 Pa. B. 2780 31 Pa. B. 2850 31 Pa. B. 2828	March 31, 2004; April 2, 2002; February 26, 2003; January 6, 2003; April 17, 2002; November 15, 2001; November 20, 2001; March 14, 2001; April 26, 1999	Failure to respond to manure containment level violation, exceeding total carbon monthly maximum containment level, failure to monitor chemical containment system, unpermitted collection, discharge poultry waters (3)
2	Huntingdon	The Honey Locust	Chart ID: 100625 Site ID: 090763	041 Huntingdon Road York Springs, PA	Tom Broad IV Huntingdon Farm 2416 Honey Locust Road East Berlin, PA 17316		622,400	622,4 (of which says permit withdrawn on 9/20/03)	1,842	1,216 gestating sows, 100 sows with litters, 540 finishing sows, and 2 boars	1,700,000		manure will be temporarily stored in underground storage pits beneath the finishing and nursery building (capacity of 100,000 gallons) and grower and breeder building (capacity 14,000 gallons). Long term storage will be in a 6-foot deep underground concrete pit beneath the gestation building (capacity of 1.5 million gallons).	Warmed tributary to Susquehanna Creek, which is classified as Warm Water Stream and located in watershed 7-F	Individual NPDES	PA 024871	31 Pa. B. 8703 32 Pa. B. 6427	no violations	
3	M. Pleasant	The Bruce Pottman & Son Hay Farm	Chart ID: 984277 Site ID: 090763 Facility ID: 827816, 749925, 749926, 749927, 749928, 749929, 750527	1635 Barterfield Road New Oxford, PA 17350	Bruce Pottman & Son Hay Farm 2416 Honey Locust Road East Berlin, PA 17316	Pleasant Valley Foods	888,000	888,000	2,348	2,200 finishing pigs; 100 beef cows; 15 head calves; and 15 head steers	765,000		3 indoor buildings and 1 beef barn; one barn 1 has an under barn 9 foot deep concrete manure storage structure with a capacity of 400,000 gallons; main barn 2 has an under barn 8 foot deep concrete manure storage structure with a capacity of 200,000 gallons; main barn 3 has an existing above concrete manure storage with a diameter of 40 feet and an estimated capacity (this storage is being phased out of the operation); and, the best operation generates 437 tons of manure which is used on the farm.	Warmed tributary of Conowingo Creek, which is classified as Warm Water Stream and located in watershed 7-F	General NPDES	PAG 125652	32 Pa. B. 6410 32 Pa. B. 6409	no violations	
4	Shrewsbury	Hershey/Prime Time Farm	Chart ID: 30502 Site ID: 019980	Five Tree Road Gettysburg, PA 17325	5143 Granite Station Rd Gettysburg, PA 17325								commercial farming operation with design flow of approximately 1,200 gal/minute to steel line treatment facility with spray application of the treated effluent		Storage Module WCA Part II	WCA 0101202	32 Pa. B. 6880 32 Pa. B. 2621	July 28, 2000	administrative
5	York	Halsbro Gettysburg, L.P.	Chart ID: 725347 Site ID: 498775	270 Stoner Road Gettysburg, PA 17325									manure is stored in an existing lagoon with a capacity of 1,400 million gallons		Public Water Supply	MS071	34 Pa. B. 3082	December 11, 2005; July 30, 2003; April 15, 2001; April 12, 2001; April 11, 2001; May 18, 2000; April 21, 1998	Manure was improperly stored or improperly land applied. Adequate impoundment treatment not constructed
6	Bedford	Blount	Chart ID: 168889	Murray Farm Puffer farm	Murray Blount (Pleasant View Farms, Inc.) R.D. 1, Box 126 Middletown, PA 17057		500 South Woodbury Top facility for feed ABUs	500 North Woodbury Top facility for feed ABUs	775	775 layer hens	1,452,000		manure is stored in an existing lagoon with a capacity of 1,452 million gallons	Warmed tributary to Ladder Creek which is in watershed 11-A and is classified as Warm Water Stream	Individual NPDES	PA 0245719	32 Pa. B. 4482 32 Pa. B. 5289	June 30, 2003 and violation at North Woodbury treatment facility	regulation and compliance schedule violation
7	Hempden	Healing Farm	Chart ID: 158490 Site ID: 060064, Facility ID: 588884, 589240, 589241, 589242, 726153	Beards Cove Road Colesburg, PA 16805	Healing Farm (John W. Healing) 1620 Beards Cove Road Colesburg, PA 16805		525,000	425,000	3,115	3,100 finishing pigs and 15 beef steers	1,019,870		sewage under farm facility with capacity of 442,570 gallons. Structure under facility with capacity of 576,100 gallons	Lost Run, which is classified as High Quality - Cold Water Stream and located in watershed 13-A	Individual NPDES	PA 0248527	31 Pa. B. 4971 31 Pa. B. 6239	no violation (9/14/04)	
8	Morris	Wide Awake Farm	Chart ID: 220203 Site ID: 546514 Facility ID: 642116, 642068, 642067, 642069, 726153	499 Jay Road Chandlers, PA 17825	Hendler Management (Wide Awake Farm) P.O. Box 628 Clyburn, PA 17522	Country View Family Farms	1,389,000	676,81, operations pending	3,821	308 sows with litters, 2,800 gestating sows, 62 boars, 520 nursery pigs and 420 finishing pigs	5,620,000		manure is stored in 2 existing and 2 proposed lagoons under the barn storage and flow by gravity to existing HCFE final lagoon (capacity of 3,200,000 gallons) and a proposed HCFE final lagoon (capacity of 2,200,000 gallons). manure from the finishing barn is stored beneath the building in a concrete storage pit (capacity of 30,000 gallons)	West Branch of Little Kill Creek, which is classified as Exceptional Value Waters and located in watershed 12-B	Individual NPDES WCA Part II	PA 0248205 WCA 0243201	31 Pa. B. 478 31 Pa. B. 6428 32 Pa. B. 676 32 Pa. B. 2687 32 Pa. B. 2684	no violation (9/20/02)	
9	South Woodbury	Sideranger Brothers	Chart ID: 163537 Site ID: 585577 Facility ID: 625289	620 Sideranger Road New Galilee, PA 16864	Harvey J. and Jack J. Sideranger (Sideranger Brothers) 620 Sideranger Road New Galilee, PA 16864		750,000	750,000	3,110	275 sows, 25 pigs, 25 boars, 750 nursery pigs, 2,250 finishing pigs, 240 head Jersey cows, 30 Jersey heifers and 90 Jersey calves	1,162,500		manure is stored every day and temporarily stored on a nonconcrete pad when conditions are not amenable for spreading; hog manure is stored in a concrete lagoon and an HCFE final lagoon	Beaver Creek in watershed 11-C, which is classified High Quality - Cold Water Stream	Individual NPDES	PA 0246701	32 Pa. B. 4185 32 Pa. B. 5261	no violation (7/17/02)	
10	Woodbury	Freely Yellow Farm	Chart ID: 194448 Site ID: 546335	Freely Yellow Road Reading Springs, PA 19679	Douglas Beth (Freely Yellow Farm) 831 Freely Yellow Road Reading Springs, PA 19679		704,000	704,000	612	514 milking cows, 126 dry cows and heifers	2,225,000		two stall barn two gravity flow facility to a concrete structure with a capacity of 1,875,000 gallons; heater and dry cow barns are covered and transported to address structure with a capacity of 300,000 gallons	Yellow Creek, which is located in watershed 11-D and classified as High Quality - Cold Water Stream	Individual NPDES	PA 0246603	31 Pa. B. 5128 31 Pa. B. 6056	no violation	

PERMITTED AND PENDING CONCENTRATED ANIMAL FEEDING OPERATIONS IN PENNSYLVANIA

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
County	Township	Farm Name	DEP Module # Site ID	Farm Location	NPDES Permit Issued To	Integrator	Proposed AGLs	Approved AGLs	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total DNP Manure Storage Capacity (gallons)	Manure Storage Characteristics	Watersheds Affected	Permit Type	Permit Number	PA Bulletin Date	Permit Expiration Date	Violation Description
1	Berks	General	Client ID: 143132 Site ID: 538531	Phyton Road Phyton, PA 17067	Franklin Family Farm 416 West High Street Elizabethport, PA 17022 (Farm owned by George Christman)	Wagner (Franklin Family Farm)	997,000	997,000	1,700	1,700 wean to finish pigs	2,368,000		two-stage NPDES-level manure storage facility; stage one has capacity of 700,000 gallons; stage two has capacity of 1,668,000 gallons	unimpaired tributary of Little Switzer Creek, which is classified for Cold Water Fishes and located in watershed 7-D	Individual NPDES	PA 008901	30 Pa. B. 4961 31 Pa. B. 5590 31 Pa. B. 5710 31 Pa. B. 6705	September 26, 2001 August 16, 2002 July 21, 2002 September 17, 2002 October 21, 2001	DAF was incomplete, facility was not monitored properly, operation and maintenance violations, manure improperly stored or applied, discharge (TMDL) not submitted
12		Meatman Meat Farms No. 2	Client ID: 143822 Site ID: 538531	Phyton Road Phyton, PA 17067	Franklin Family Farm 416 West High Street Elizabethport, PA 17022 (Farm owned by Leon Houser)	Wagner (Franklin Family Farm)	829,500	829,500	6,800	6,800 breeding sows	2,490,000		two-stage NPDES-level manure storage facility; stage one has capacity of 800,000 gallons; stage two has capacity of 1,690,000 gallons	unimpaired tributary of Little Switzer Creek, which is classified for Cold Water Fishes and located in watershed 7-D	Individual NPDES	PA 009901 VCM Part II VCM 0001291	31 Pa. B. 5989 31 Pa. B. 6219 31 Pa. B. 6705	September 26, 2001 August 16, 2002 July 21, 2002 September 17, 2002 October 21, 2001	DAF was incomplete, facility was not monitored properly, operation and maintenance violations, manure improperly stored or applied, discharge (TMDL) not submitted
13		Meatman Farm	Client ID: 200982 Site ID: 609982	900 Little Meadon Road Myerstown, PA 17067	John Smith 900 Little Meadon Road Myerstown, PA 17067		422,800	422,800	4,426	2,200 sows, 1,200 breeding sows, and 26 beef cattle	664,500		existing barn has a concrete under barn manure storage facility with a capacity of 600,000 gallons; existing facility has a temporary concrete under barn storage facility and excess manure flows to a small earthen basin that has a capacity of 94,500 gallons before it discharges to ground and slurry manure from year operation to finishing barn; manure generated by the beef cattle is stored on the pasture land; of the manure produced 945,172 gallons is used on the farm and 661,277 gallons is exported. All the manure that is exported.	Crossed Creek which is classified as warm water fishery and Little Switzer Creek which is classified as cold water fishery; both are located in watershed 7-D	General NPDES	PA 023501	32 Pa. B. 6412 32 Pa. B. 6285	no inspections	
14	Greene	Plunkett Farms Inc	Client ID: 249792 Site ID: 618041	382 Rain Road Hudson, PA 15850	Charles Plunkett Plunkett Farms Inc 382 Rain Road Hudson, PA 15850		690,000	690,000	548	846 dairy cows	880,000		106 feet by 18 feet concrete manure storage facility	unimpaired tributary to Muddy Creek which is classified as trout stocking stream and located in watershed 3-D	General NPDES	PA 022675	32 Pa. B. 2000 32 Pa. B. 4090	no inspections	
16	Jefferson	Hickok Farms	Client ID: 208851 Site ID: 608851	88 Hester Drive Berwick, PA 16808	Joe Hester Hickok Farms 88 Hester Drive Berwick, PA 16808								refinement and separation of an existing manure storage facility, including the installation of an NPDES line with the manure storage capacity of 3.2 million gallons; existing manure storage facility with a capacity of 140,000 gallons and a clay lined manure storage facility with a capacity of 71,000 gallons; proposed construction of a new manure system will consist of a solid separator and a two stage NPDES level manure storage facility with a capacity of 6,200,000 gallons. All of the 6,200,000 gallons and 6,000 tons of manure generated on the farm at used at the facility.	unimpaired tributary to Muddy Creek which is located in watershed 3-C and classified as Trout Stocking Stream	WQM Part II WQM Individual NPDES	WQM 000402	34 Pa. B. 2029		
18	North Huntingdon	Goldens Farms	Client ID: 165044 Site ID: 605044	482 Meade Hill Road Reboursville, PA 15851	Erica Colinger Goldens Farms 482 Meade Hill Road Reboursville, PA 15851		1,528,500	Pending	1,484	628 milking cows, 103 dry cows, 380 heifers, 300 calves and 4 sows	6,417,000		existing manure storage facility with a capacity of 1,000,000 gallons; proposed construction of a new manure system will consist of a solid separator and a two stage NPDES level manure storage facility with a capacity of 6,200,000 gallons. All of the 6,200,000 gallons and 6,000 tons of manure generated on the farm at used at the facility.	unimpaired tributary to Muddy Creek which is located in watershed 3-C and classified as Trout Stocking Stream	WQM Part II WQM Individual NPDES	WQM 000204 PA 024883	32 Pa. B. 1783 32 Pa. B. 4245	permit pending	
17	Perry	Good Hope Farm LLC	Client ID: 149258 Site ID: 509922	1211 Meadon Spring Road Huntingdon, PA 16768	Courty View Family Farm, Inc (Good Hope Farm) 1201 Parkside Rd Bala 1700 Huntingdon, PA 17097	Heldrich/Hub (Courty View Farm)	1,379,840	Pending	1,828 pigs	2,800 sows, 204 sows with litters, four boars, and 698 pig breeders	3,832,256		existing manure storage under the building with total storage capacity of 2,370,720 gallons and the existing barn has a two-stage reinforced concrete storage under the building with storage volume of 140,000 gallons. The manure from the finishing barn flows via gravity to the large storage under the existing barn. Of the 2,570,800 gallons of manure generated on the farm, 1,885,870 gallons will be used on the farm and 684,930 gallons exported from the farm.	unimpaired tributary to Muddy Creek, which is located in watershed 3-B and classified as warm water fishery	Individual NPDES	WQM 000203 PA 024876	32 Pa. B. 1782 32 Pa. B. 4245 32 Pa. B. 4401	permit pending	
18	Tulare	The Clair H. Wenger Farm	Client ID: 146914 Site ID: 551311	67 West Schwanerstown Rd Berwick, PA 16808	Clair H. Wenger 67 West Schwanerstown Road Berwick, PA 16808		497,000	497,000	7,300 pigs	2,300 breeding pigs and sows sows	1,960,000		two 440,000 gallon under house storage facilities and a 1 million gallon clay lined manure storage facility	unimpaired tributary to Muddy Creek, which is classified as Cold Water Fishes and located in watershed 3-C	General NPDES	PA 023626	31 Pa. B. 7028 32 Pa. B. 1090	no inspections	
19	Tulare	Hickok Farms and Johnson	Client ID: 208851 Site ID: 608851	88 Hester Drive Berwick, PA 16808	Hickok Farms 88 Hester Drive Berwick, PA 16808		1,762,000	Pending	1,800	1,700 cows, 100 heifers, 300 calves	6,400,000		2 stage NPDES level manure storage system; first stage has 2 million gallons of storage and second stage has approximately 4 million gallons of storage capacity	Muddy Creek which is classified as Trout Stocking Stream and located in watershed 3-C	Individual NPDES WQM Part II WQM 000204	PA 024767 WQM 000204	32 Pa. B. 630	permit pending	
20	Upper Merion	Farm Valley Park, Inc	Client ID: 218194 Site ID: 609117	Phibes Lane Meherrin, PA 15908	Courty View Family Farm, Inc Farm Valley Park 130 Lane Street, PO Box 629 Berwick, PA 17022	Courty View Family Farm	778,000	778,000	5,820	1,170 gestating sows, 224 sows with litters, 18 boars, 3,850 nursery pigs, and 500 replacement gilts	2,000,000		NPDES level system	Leather Run, which is classified as Warm Water Fishery and located in watershed 3-B	General NPDES	PA 023503	31 Pa. B. 5990 31 Pa. B. 6412 31 Pa. B. 7030 32 Pa. B. 1320 34 Pa. B. 3405	no data available	
21	Upper Tulare	Farm Valley Park, Inc	Client ID: 157002 Site ID: 487321	Berwick, PA 15908	Farm Valley Park & Beef Farms, Inc P.O. Box 320 Berwick, PA 15908		577,000	Pending	1,061	500 cattle, 1,000 sows, etc. 101 pigs	515,000		190,000 gallon concrete pit and a 365,000 gallon concrete pit. All manure is currently stored in the concrete pits before any application.	Jackson Creek and Little Switzer Creek which are located in watersheds 3-C and 7-D respectively and classified as Cold Water Fishes	General NPDES	PA 023908	32 Pa. B. 5298	November 10, 2001 April 10, 2002 May 5, 2002 January 15, 2002 October 11, 2001 June 28, 2001	violation of Act 87, Paragraph 1 containing a violation, operators allowed facility without a permit, violation of Act 81, surface runoff
22	West	Colverns	Client ID: 204243 Site ID: 609117	R.D. 1 Williamsburg, PA 16868	Fred and Cindy England Colverns Farm R.D. 1, Box 162 Williamsburg, PA 16868		1,444,000	1,444,000	1,325	1,310 dairy cows and 15 sows	3,500,000		the manure treatment facility is a two stage system. Stage 1 is a 2.5 million gallon and 3.0 million gallons of active sludge. The system is designed to store manure for 600 manure holding tanks for 180 days. All of the 6,000,017 gallons and 2,883 tons of manure generated on the farm is used on the farm.	Protestant Branch of the Justice River, which is located in watershed 11-A and classified as warm water fishery	General NPDES	PA 023906	32 Pa. B. 5865 32 Pa. B. 792	no violation	

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**PERMITTED AND PENDING CONCENTRATED ANIMAL FEEDING OPERATIONS IN PENNSYLVANIA**

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
County	Township	Farm Name	DBP Identifier	Farm Location	NPDES Permit Issued To	Inspector	Proposed ADUs	Approved ADUs	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total Dry Manure Storage Capacity (tons)	Manure Storage Characteristics	Watershed Structure	Permit Type	Permit Number	Pa Bulletin Code	Permit Violation Dates	Violation Description
	North Woodbury	Ronald B Hartman	Client ID: 140508 Site ID: 537811	Oliver Creek Road Marlborough, PA 16992	Ronald B and Nancy L. Hartman R.R. 2, Box 161 Marlborough, PA 16992		679,130	679,000	573	500 dairy cows and 75 heifers	2,403,000		Manure generated at milking dairy operation is pumped and transported to an existing earthen structure containing a capacity of 1,300,000 gallons, manure generated at the new dairy operation collected by gravity flow to new 1,017,000 gallon reinforced concrete manure storage tank.	Oliver Creek, which is classified as High Quality Waters-Cold Water Fishes and located in watershed 11-A	Individual NPDES	PA 008644	30 Pa. B. 6225 31 Pa. B. 2393	no inspections	
24		Hub Family Dairy LLC	Client ID: 149536 Site ID: 538538	Millerton Road Marlborough, PA 16992	Hub Family Dairy LLC (Philly Hub) R.D. 2, Box 1020 Marlborough, PA 16992		1,988,750	1,988,750	1,920	1,438 cows, 135 large heifers, and 275 small heifers	6,735,000		Manure generated at milking dairy operation is scraped and transported to an existing earthen structure with a capacity of 675,000 gallons and an earthen silted dam storage for solid manure. The new dairy consists of a gravity flow leading to two new earthen structures containing approx. 1,114,585 gallons and 2,885,920 gallons.	Oliver Creek, which is classified as High Quality Waters-Cold Water Fishes and located in watershed 11-A	Individual NPDES	PA 008454	31 Pa. B. 15 31 Pa. B. 1969	March 17, 2003	COA compliance schedule violated
25		Pleasant View Farms	Client ID: 146598 Site ID: 580017	Home Farm (milking farm)	Rehney Heister (Pleasant View Farms, Inc.) R.D. 1, Box 124 Marlborough, PA 16992		2,888,250	2,888,250	2,802	1866 cows, 776 large heifers, 102 small heifers, 65 steers and 2 horses	4,637,000		manure is stored under an underdrain silted floor for the milking facility with a capacity of 4.27 million gallons and an earthen silted dam for the heifer treatment barns with a capacity of 392 million gallons, also 2 wet concrete dry manure above ground structures.	Unimproved tributary to Plum Creek which is in watershed 11-A and is classified as Warm Water Fishery	Individual NPDES	PA 024716	22 Pa. B. 4182 33 Pa. B. 5398	June 30, 2005; 10/12/2002	failure to submit an NPDES permit application for the facility by 5/18/01, COA compliance schedule violated
26		Pleasant View Farms	Client ID: 146598 Site ID: 580017	Heister Farm (milking farm)	Rehney Heister (Pleasant View Farms, Inc.) R.D. 1, Box 124 Marlborough, PA 16992		see above	see above	see above	see above	512,000		manure is stored in an earthen silted floor with a capacity of 516 million gallons.	Unimproved tributary to Cove Creek which is in watershed 11-A and is classified as Warm Water Fishery	see above	see above	see above	no inspections	
27	Marlborough Borough	Pleasant View Farms	Client ID: 146598 Site ID: 580017	Ferry Farm (milking farm)	Rehney Heister (Pleasant View Farms, Inc.) R.D. 1, Box 124 Marlborough, PA 16992		see above	see above	see above	see above			manure is stored and perched	Unimproved tributary to Cove Creek which is in watershed 11-A and is classified as Warm Water Fishery	see above	see above	see above	no data available	
28	Oriskany	Hillsdale Oakburg	Client ID: 125184 Site ID: 480273	Box 4 Pine Tree Road	Daniel E. Hershey Hillsdale Oakburg, L.P. 376 Upper Road Oriskany, PA 17235	Hershey Ag							manure is stored and perched	Unimproved tributary to Plum Creek which is in watershed 11-A and is classified as Warm Water Fishery	WQM Part 5	WQM 016362	34 Pa. B. 3021		
29	Taylor	Pleasant View Farms	Client ID: 146598 Site ID: 580017	Star Farm Lester Mountain Road Box R, 161 Marlborough, PA 16992	Rehney Heister (Pleasant View Farms, Inc.) R.D. 1, Box 124 Marlborough, PA 16992		see above	see above	see above	see above			manure is stored and perched	Unimproved tributary to Plum Creek which is in watershed 11-A and is classified as Warm Water Fishery	see above	see above	see above	no data available	
30	Bradford	Grande	Facility ID: 370156	Grande Summit Farm R.R. 1 Grande Summit, PA 16928	Matthew L. McClellan R.R. 1, Box 161 Grande Summit, PA 16928	Pleasant Valley Foods Heister	498,000	498,000 but actually runs 600,00 in 09	4,274	4,200 finishing swine, 38 sows, 8 sows heifers, 3 sows sows, 28 sows calves	1,150,432		2 under barn concrete manure storage tanks, each with a capacity of approximately 575,000 gallons	North Branch Tomoka Creek which is classified as Cold Water Fishes and located in watershed 4-C	General NPDES	PA 024811	32 Pa. B. 634 32 Pa. B. 1416	no violations	
31	Terry	Patrick & Melba Star	Client ID: 160262 Site ID: 623671	Val Hill Road Towanda, PA 16949	Patrick & Melba Star R.R. 2, Box 281 Towanda, PA 16949	Pleasant Valley Foods Heister	600,000	597,000	4,289	4,280 finishing swine	1,624,872		under barn concrete manure storage	unimproved tributary to the Susquehanna River which is classified as Warm Water Fishery and located in watershed 4-C	General NPDES	PA 024809	31 Pa. B. 5719 31 Pa. B. 6703 32 Pa. B. 1908 32 Pa. B. 265	no violations	
32		Gerald & Libby Vargason	Client ID: 160421 Site ID: 623691	R.R. 2 Wyalusing, PA 16959	Gerald & Libby Vargason R.R. 2, P.O. Box 77 Wyalusing, PA 16959	Pleasant Valley Foods Heister	600,000	600,000	4,286	4280 finishing swine, 6 finishing sows	1,287,224		two under finishing barns with concrete manure storage vaults, each with a capacity of 651,612 gallons	Unimproved tributary to Sugar Run, which is classified as Cold Water Fishes and located in watershed 4-D	General NPDES	PA 024810	31 Pa. B. 6252 32 Pa. B. 1906	no violations	
33	Wells	Pine Hill Farms	Client ID: 250052	RR 65, Box 40 Caledonia Crossroads, PA 16814	Heister Management Company 120 Lake Street P.O. Box 1346 Stewart, PA 17222 10 Copperfield Drive LITZ, PA 17230	Heister	1,804,000	1,804,000	11,742	2,800 sows, 32 sows, 1,510 pigs and 7,400 piglets	8,800,000		4 sows houses with under house manure pits that flow to a 2 stage NPDES final lagoon with a total storage capacity of 6 million gallons	Sugar Creek, which is classified as Trout Stocked Fishery and located in watershed 4-A	Individual NPDES	PA 022907	31 Pa. B. 3963 32 Pa. B. 564	November 18, 2005; November 13, 2005; November 5, 2005; June 4, 2005	sewage discharge, poultry manure discharge to waters of the Conowingo
34	Clear	Wheatington	Client ID: 309045 Site ID: 610004	2536 Orinda Valley Road North Wyalusing, PA 16949-0095	Orinda Valley Farms P.O. Box 65 North Wyalusing, PA 16949-0095		2,537,008	2,537,008	2,495	1,208 cows, 380 dry cows, 640 heifers, 100 steers and 25 cows and calves on pasture	1,888,000		concrete manure storage which is 140 feet by 16 feet	Unimproved tributary to Christy Run which is in watershed 17-C and classified as cold water fishes and an unimproved tributary to Silver Creek in watershed 20-C and classified as exceptional value	Individual NPDES	PA 020919	33 Pa. B. 1481 33 Pa. B. 2392	no inspections	

**PERMITTED AND PENDING CONCENTRATED ANIMAL FEEDING OPERATIONS IN PENNSYLVANIA**

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
County	Township	Farm Name	DEP Reference	Farm Location	NPDES Permit Issued To	Integrator	Proposed ABLs	Approved ABLs	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total 2017 Manure Storage Capacity (gallons)	Manure Storage Characteristics	Waterbody Affected	Permit Type	Permit Number	PA Subtitle Code	Permit Violation Dates	Violation Description
1	Carew	Brammer, College, Fargason, Paxon and State College Borough	Penn State University Campus ID: 155558 Site ID: 017008 Facility ID: 282254, 547195	University Park, PA 16802	Penn State University State Ag Administrative Building University Park, PA 16802		1,642,000	1,642,000	23,388	22 mil; 20 calves; 42 old dairy cows; 110 milking heifers; 90 yearling heifers; 20 bulls; 108 steers on hand; 118 calves; 250 heifers cows; 203 heifers; 95 calves; 90 milking heifers; 20 yearling heifers; 11 yr. old; 18 heifers 1 1/2 yr. old; 203 steers 1 1/2 yr. old; 240 weaned calves; 300 heifers in wean; 2 heifers; 24 cows with their 64 gestating pigs; 344 gestating sows; 248 nursery pigs; 40 calves; 16 calves; 2,500 gallons; 4,660 liquid; 1,232 barleys; 7,272 broilers; 700 broiler chickens; 1,000 turkey broilers; 20 mature sows (total); 96 mature pigs (total); 10 mature sows (total); 10 mature pigs (total); 10 calves HAC; 12 calves HAC	751,365	12,000 gallons used to store dairy waste; 649,225 gallons used to store dairy waste; 8,820 gallons used to store milks waste; 67,140 gallons used to store waste water	Animal and animal products of Spring Creek, which is classified for High Quality Cold Water Fishes and located in the State Eagle Creek watershed (B-C); Buffalo Run - which is classified as High Quality Cold Water Fishes and located in watershed B-C; Big Hollow Creek is classified as Cold Water Fishes and located in watershed B-C; Thompson Run which is classified as High Quality Cold Water Fishes and located in watershed B-C; State College Run which is classified as Cold Water Fishes and located in watershed B-C	Individual NPDES	PA 022637	31 Pa. B. 501 31 Pa. B. 4462		no violations	
26	Chester	East Nottingham	Holroyd Hollow Farm Camp ID: 168779 Site ID: 54496	4000 Barnhart Avenue Rd Oxford, PA 19353	Holroyd Hollow Farm 14 Barnhart Avenue 4000 Barnhart Avenue Rd Oxford, PA 19353		626,000	626,000	4,200	4,200 pigs	1,800,000	See buried in earth (HDFPE) collected through settled sludge in reinforced concrete manure storage facilities beneath each barn	Wolf Run Creek, which is classified for Warm Water Fishes and located in watershed 1-4	General NPDES	PA0 125002	31 Pa. B. 2031		no inspections	
27	Lancaster	Walmers Holdings, Inc Farm	Camp ID: 185229 Site ID: 547289 Facility ID: 572719	Unit 2, Site 1 2198 Gap-Hempstead Pike Chatham, PA	Walmers Holdings, Inc (Walter T. Moore) 1629 Hempstead Road Chatham, PA 19320		1,114,000	1,114,000	1,961	600 dairy cows; 210 heifers; 250 calves; and 4 bulls	1,900,000	gravity flow collection system in a concrete holding tank from barns manure is separated and liquid flow into the stage of two-stage storage facility concrete lined bottom over 12 rows of dry with HDPE lined sides and a capacity of 700,000 gallons; sludge bay is lined with HDPE with concrete sludge collection system and 2.8 million gallons capacity.	located in Watershed Watershed which is classified as Cold Water Fishery and located in watershed 3-4	General NPDES	PA0 120006	31 Pa. B. 3771		no violations	
28		Walmers Holdings, Inc Farm	Camp ID: 185230 Site ID: 547290	Unit 2, Site 2 2198 Gap-Hempstead Pike Chatham, PA	Walmers Holdings, Inc (Walter T. Moore) 1629 Hempstead Road Chatham, PA 19320		see above	see above	see above	see above	see above	two stage storage system where liquids are separated using a slotted dam	located in Watershed Watershed which is classified as Cold Water Fishery and located in watershed 3-4	General NPDES	PA0 120005	31 Pa. B. 3771		no violations	
29		Walmers Holdings, Inc Farm	Camp ID: 185232 Site ID: 547288	Unit 3 345 East London Green Rd Chatham, PA	Walmers Holdings, Inc (Walter T. Moore) 1629 Hempstead Road Chatham, PA 19320		see above	see above	see above	see above	99,250	two stage storage system where liquid is separated off by using a slotted dam	located in Watershed Watershed which is classified as Cold Water Fishery and located in watershed 3-1	General NPDES	PA0 120003	31 Pa. B. 3771		no data available	
40		Walmers Holdings, Inc Farm	Camp ID: 185235 Site ID: 547288	Unit 4 2268 Gap-Hempstead Pike Chatham, PA	Walmers Holdings, Inc (Walter T. Moore) 1629 Hempstead Road Chatham, PA 19320		see above	see above	see above	see above	see above	manure stored in concrete facility with concrete bottom and settled sludge with treated/clarified receiving well	located in Watershed Watershed which is classified as Cold Water Fishery and located in watershed 3-1	General NPDES	PA0 120005	31 Pa. B. 3771		no data available	
41	Lower Oxford	Van Halbeek	Camp ID: 123308 Site ID: 514975	701 Street Road Oxford, PA 19353	701 Street Road Oxford, PA 19353		approved 225000	approved 225000	approved 225000	approved 225000	approved 225000	approved 225000	approved 225000	Stream Creek which is classified as Trout Stocking Fish and Migratory Fish and located in the watershed 1-4 (Oxford)	General NPDES	PA0 120001	30 Pa. B. 5768		no violations
42		Ashe Farm	Camp ID: 204979 Site ID: 609890	580 Lancaster Avenue Oxford, PA 19353	Ashe Farm 580 Lancaster Avenue Oxford, PA 19353		891,000	891,000	301,000	when in fresh water	1,800,000	ten new 600,000 gallon concrete manure storage facilities located under each of the entire barns, had detached system ground manure	Leech Run which is located in watershed 7B (Oxford Creek) and classified as a Trout Stocking Fishery	General NPDES	PA0 120005	33 Pa. B. 2148 33 Pa. B. 2366		no inspections	
43	West Fairford	Chamble Farms	Camp ID: 236523 Site ID: 013516	2281 Chamble Road Cochranville, PA 19320	Andrew Loney (Shirley Farm) 2281 Chamble Road Cochranville, PA 19320		2,154,000	currently permitted for 1,190,000	1,949	1,000 dairy cows; 400 dry cows; 475 heifers	9,178,000	manure will be contained through a grassland pasture solid separator, mechanical solids separator, solid separator and handling pad and a two stage HDPE-lined manure storage which will hold approx. 6.8 million gallons; existing manure system will remain in place and will be used for dry cows and heifers (two storage is an HDPE-lined manure storage with a capacity of 1.08 million gallons); two additional manure storage facilities will be installed at the end of 2020 (one is located at 2291 Chamble Rd and has a capacity of 1.2 million gallons, the other is located at 609 Gum Tree Road and has a capacity of 0.39 million gallons)	located in High Watershed (2-4) which is classified as Trout Stocking Fishery and Migratory Fish	Individual NPDES WCA Part II	PA0 120001 (replaced by) PA0 120004 WCA 1003007	32 Pa. B. 516 32 Pa. B. 654 33 Pa. B. 2280 33 Pa. B. 5133		no inspections	
44	Clinton	Greene	Schryver Farms Camp ID: 122705 Site ID: 541168	800 West Valley Road Logansport, PA 17147	Schryver Farms Partnership 800 West Valley Road Logansport, PA 17147		1,271,000	1,271,000	1,676	610 milking cows and 468 replacement heifers	2,150,000	rotary barn manure goes to 1,200,000 gallon storage manure lagoon with 2 facilities; sludge present and cooling barn manure goes to 450,000 gallon above-ground, above slurry storage; rotary barn manure goes to 160,000 gallon concrete above-ground tank	Farming Creek, which is classified as High Quality Cold Water Fishes and located in the watershed B-C	Individual NPDES	PA 0226401	31 Pa. B. 3418 31 Pa. B. 5274	February 26, 2003	manure release from rotary manure storage	
45		Polar	Polar Dairy & Sows Inc Camp ID: 224297 Site ID: 015116	6765 Military Valley Road Mill Hill, PA 17181	Polar Dairy & Sows Inc 6765 Military Valley Road Mill Hill, PA 17181		1,141,700	1,141,700	1,085	700 dairy cows; 200 heifers; 43 young stock; 33 young heifers; and 104 calves	8,989,492	2,500,000 gallon HDPE lined storage; 1,220,000 gallon concrete lagoon; 64,540 cubic foot (330,000 lbs) concrete solids manure area; 165,000 gallon rotary tank; 4,800 cubic foot liquid tank	Cedar Run, which is classified as High Quality Cold Water Fishes and located in watershed B-C	Individual NPDES	PA 0226443	31 Pa. B. 3418 31 Pa. B. 5120		no inspections	

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County	Township	Farm Name	DEP Module	Farm Location	NPDES Permit Issued To	Integrator	Proposed ABLs	Approved ABLs	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total Dry Manure Storage Capacity (Tons)	Manure Storage Characteristics	Watersheds Affected	Permit Type	Permit Number	Permit Dates	Permit Violation Dates	Violation Description	
1	Columbia	Cleveland	Jim Hunt farm	Ches ID: 157967		Hendler Management Company P.O. Box 528 Eggsburg, PA 17822	Hendler	302,900	Pending	some with dairy, nursery pigs and boars	750,000		liquid manure temporarily collected in shallow pits below the milking barns and periodically removed to an outside, NPDES-level manure storage with a capacity of 750,000 gallons	unpermitted tributary to South Branch Rosing Creek which is located in watershed 6-B and classified as High Quality - Cold Water Fishes	Individual NPDES	PA 0229720	33 Pa. B. 2394 33 Pa. B. 2794		permit pending	
47	Crawford	East Forkford	Sperry Farms, Inc.	Ches ID: 208611 Site ID: 810274		Sperry Farms, Inc. Atglen, PA 18113-7238				chickens				watersheds 16-D and 23-A	Individual NPDES	PA 6220127	33 Pa. B. 4090		no violations	
48	Cumberland	Hopewell	Eggs Henburg, LLC	Ches ID: 210644 Site ID: 816087	301 Three Square Hollow Road Henburg, PA 17240	Eggs Henburg, LLC 301 Three Square Hollow Road Henburg, PA 17240		743,600	743,600	189,580			closed eagle bay system with 1,500 liquid manure storage area with 8-foot high 6-inch iron blast resistant concrete walls, high flow trap float system with manure stored in basement; all manure is substrate	unpermitted tributary to Henning Run, which is classified as Warm Water Fishes and located in watershed 7-B	General NPDES	PAG 123575	33 Pa. B. 3628 34 Pa. B. 348		no inspections	
49	Dauphin	Jackson	Schwinn Farms	Ches ID: 161428 Site ID: 816138	351 Beaman Road Holtz, PA 17032	Janice Schwinn 351 Beaman Road Holtz, PA 17032		725,000	725,000	4,470	1280 swine and 180 beef cattle	1,600,000	holding milking barn with under the barn storage facility; proposed construction of two 800,000 gallon under the barn manure storage facilities	Armstrong Creek, which is classified as Cold Water Fishes and located in watershed 9-C	General NPDES	PAG 122332	32 Pa. B. 854 32 Pa. B. 1753		no inspections	
50		Wayne	Louden Farms	Ches ID: 202418 Site ID: 804159 Facility ID: 811136	2348 Beck Road Holtz, PA 17032	Louden Farms 2348 Beck Road Holtz, PA 17032		1,490,300	1,490,300	1,278	850 Holstein heifers, cows, 150 15-month old heifers, 125 9-15 month old calves, and 150 calves	3,581,900	holding milking barn with two below house pits of 48 ft x 288 ft x 8 ft with area with 8-foot high 6-inch iron blast resistant concrete walls, high flow trap float system with manure stored in basement; all manure is substrate	Powell Creek which is in watershed 6-C and is classified as trout stocking fishery	Individual NPDES WCM Part II	PA 0246005 WCM 2202291	32 Pa. B. 4812 32 Pa. B. 2880		no violations	
51			Cornara Farm	Ches ID: 114728 Site ID: 804159 Facility ID: 812139	2731 Pennels Valley Road Holtz, PA 17032-8723	Joseph F. Cornara Cornara Farm 2731 Pennels Valley Road Holtz, PA 17032-8723							manure application	Hart's Fork Powell Creek which is located in watershed 6-C and classified as Cold Water Fishes	General NPDES	PAG 123471	33 Pa. B. 2383		no inspections	
52	Franklin	Ferryville	Longacre Farm	Ches ID: 145134 Site ID: 838057 Facility ID: 820151	18225 Fish Valley Road Dry Run, PA 17220	Longacre Farm (Mark Wagner) 6207 High Street East Petersburg, PA 17015	Wagner	577,000	577,000	4,468	4,480 swine to finish swine	1,500,000	two barns in which manure is collected through installed floors in reinforced concrete manure storage facilities beneath each barn	unpermitted tributary to Dry Run, which is classified for Cold Water Fishes and located in watershed 13-C	Individual NPDES	PA 0089731	30 Pa. B. 4861 31 Pa. B. 2380 31 Pa. B. 1241		no violations	
53			The Path Valley Farm	Ches ID: 161638 Site ID: 871830 Facility ID: 824646	1272 Ash Lane Luzerne, PA 17842	Path Valley Farm, LLC 1272 Ash Lane Luzerne, PA 17842		768,580	768,000	6,904	1,180 gestating sows; 72 sows with litters; 8 boars; 49 gilts; 4,692 piglets/year	2,150,000	manure storage facilities with capacities of 1.6 million gallons and 650,000 gallons	Dayleburg Stream which is classified as Warm Water Fishes and located in watershed 13-B	General NPDES	PAG 122603	32 Pa. B. 1415 32 Pa. B. 3402		no inspections	
54		Greene	The Hoge Farm	Ches ID: 282146 Site ID: 804095	3388 Pure Road Chambersburg, PA 17201	James L. and Lucy L. Hoge 3388 Pure Road Chambersburg, PA 17201	Purina Mills P.O. Box 98912 St. Louis, MO 63198-1812	473,800	473,800	1,820	126 Holsteins, 75 heifers, 30 calves and 1,700 finishing pigs	1,180,000	All dairy waste is directed into an unpermitted pit with a capacity of 600,000 gallons and the manure building is operating on using this pit also. All hog waste is directed to a pit that is continuously cleaned and has a capacity of 400,000 gallons. The area surrounding the dairy pit is underlain with 10 inches multiple by 6-inch gravel. Of the 1,023,558 gallons of liquid dairy manure generated on the farm, 332,700 gallons is used on the farm and 705,000 gallons are exported from the farm. All of the 802 tons of heifer and calf solids and 1,021,828 gallons of liquid dairy manure generated on the farm is used on the farm.	Rosely Spring Creek which is in watershed 13-C and classified as Trout Stocked Fishes	General NPDES	PAG 122645	32 Pa. B. 4375 32 Pa. B. 3824		no violations	
55			Luzan	Ches ID: 153322 Facility ID: 806495, 84681	13605 Dream Highway Henburg, PA	Agway Agricultural Products 812 West King Street Shippensburg, PA 17257		2,295,000	2,282,000	3,800	3,800 heifers ranging from 100 to 1,200 pounds	8,100,000	2 dairy feed impoundments	Conocoquegan Creek Watershed which is classified as Warm Water Fishes and located in watershed 7-B	Individual NPDES WCM Part II	PA 0087580 WCM 2008201	29 Pa. B. 4000 34 Pa. B. 311	August 26, 2002; May 7, 2007; November 20, 2007	NPDES permit violation; inadequate or untreated sewage discharge; CDDA compliance schedule status	
56			Acorn Farms	Ches ID: 196028 Site ID: 824124 Facility ID: 836425	14027 Luzan Road Orndorff, PA 17244	Franklin Family Farms, Inc. 418 West High Street Elizabethtown, PA 17022	Wagner (Franklin Family Farms)	1,303,000	1,303,000	2,800	2,800 sows to finish operation	2,470,000	low-dose NPDES lagoons system	Whiskey to Peasen Run, which is classified as a Warm Water Fishery and located in watershed 7-B	Individual NPDES	PA 8008234	33 Pa. B. 8125 33 Pa. B. 2917		no violations	
57			New Hope Farm	Ches ID: 249704 Site ID: 847288	Concord, PA	Courty View Family Farms, Inc. New Hope Farm 436 South Angle Street North Jay, PA 17852	Courty View Family Farm	1,319,000	1,318,000	3,888	2,344 gestating sows, 391 sows with litters, 20 boars; 180 gilts, 800 non-pregnant gilts	2,248,000	the new facility (2 barns) manure is temporarily stored in 2-foot deep storage pits under the barn and manure is released to a 1.8 million gallon concrete storage lagoon; the old operation (2 barns) has a 4-foot and 8-foot deep pits with a total capacity of 1,000,000 gallons	unpermitted tributary to Dryden Run Stream which is classified as Cold Water Fishes and located in watershed 12-B	General NPDES	PAG 122618	31 Pa. B. 2830 31 Pa. B. 3718 34 Pa. B. 308 34 Pa. B. 861		no data available	
58			The McClary Mill Farm	Ches ID: 216494 Site ID: 851364	Henburg, PA	McClary Farm Country View Family Farms, Inc. 130 Lanes Street Shippensburg, PA 17257	Courty View Family Farm	885,888	885,880	1,200	1,200 farrows to feeder sow operation	2,860,000	manure collected in shallow pits beneath barns and released to a NPDES final lagoon	unpermitted tributary to Peasen Run which is classified as Warm Water Fishes and located in watershed 7-B	General NPDES	PAG 122642	33 Pa. B. 318 33 Pa. B. 1908 34 Pa. B. 386 34 Pa. B. 1781		no data available	
59			Blue Mountain Feeding Farm	Ches ID: 225776 Facility ID: 828611	10361 Glenburn Church Henburg, PA 17240	Blue Mountain Feeding Farm 10361 Glenburn Church Road Henburg, PA 17240	Wagner (T)	379,600	378,000	4,634	4,600 finishing sows; 50 beef cows and 15 beef calves	7,300,000	two deep NPDES-level manure storage facility; total capacity of storage pits is 1,190,000 gallons and total capacity of storage tanks is 3,700,000 gallons	unpermitted tributary to Clapham's Run which is classified as Cold Water Fishes and located in watershed 7-B	Individual NPDES	PA 0246376	31 Pa. B. 2808 32 Pa. B. 3828 32 Pa. B. 1100 34 Pa. B. 1340 34 Pa. B. 2172		no inspections	

PERMITTED AND PENDING CONCENTRATED ANIMAL FEEDING OPERATIONS IN PENNSYLVANIA

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
County	Township	Farm Name	DEP Application No.	Farm Location	NPDES Permit Issued To	Registrant	Proposed ABLs	Approved ABLs	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (tonnes)	Total DDT Manure Storage Capacity (tonnes)	Manure Storage Characteristics	Waterbody Affected	Permit Type	Permit Number	PA Bulletin Date	Permit Validity Dates	Violation Description	
	West	Wilbur Hill Breeding Farm, Inc	Client ID: 213168 Site ID: 204383	Farmington, PA 17211	Country View Family Farms, Inc Wilbur Hill Breeding Farm, Inc 436 South Angle Street Middletown, PA 17222	Country View Family Farms	1,448,500	1,448,000	7,362	2,484 gestating sows, 389 sows with litters, 3,878 nursery pigs, 805 pig growers, and 180 replacement pigs, 4 horses	1,800,000		under the barn storage and 2 HDPE lined manure storage ponds, manure will first flow to the new storage pond and then to the existing storage	West Branch Conococheague Creek, which is classified for warm water fishes and located in watershed 13-C	Individual NPDES WQCA Part II	PA 0041760 WQCA 2862261	32 Pa. B. 319 33 Pa. B. 3510 33 Pa. B. 2889 33 Pa. B. 2819 33 Pa. B. 4889 34 Pa. B. 811	no violations		
01		Kucarcera Farms	Client ID: 213757 Site ID: 491828	Dry Run, PA 17229	Henry and Jacob Wilhelm Kucarcera Farms Box 145 Dry Run, PA 17229		576,800	576,800	4,400	4,400 finishing swine			under the barn storage (2 barns with 4 feed 4 boxes of usable storage)	Millcreek to the West Branch of the Conococheague which is re-watershed 13-C and classified as Warm Water Fishes	General NPDES	PAG 122977	33 Pa. B. 4762 33 Pa. B. 6128	no inspections		
02	Montgomery	Manor WJ Farms, Inc	Client ID: 181658 Site ID: 406137	12250 Karper Road Harrisburg, PA 17238	Manor WJ Farms, Inc 12250 Karper Road Harrisburg, PA 17238		1,254,500	1,254,500	882	820 cows and dry cows, and 72 large heifers and calves	8,500,000		manure stored in concrete manure storage structure, proposed construction of HDPE-lined manure storage facility with capacity of 2.8 million gallons	Johnston Run, which is classified as Warm Water Fishery and located in watershed 13-C	Individual NPDES WQCA Part II	PA 0246881 WQCA 2862261	32 Pa. B. 1010 32 Pa. B. 624 33 Pa. B. 4261	February 23, 2004	N&P violation	
03	Montgomery and Peters	Hessing Dairy Farm	Client ID: 148254 Site ID: 543894 Facility ID: 063492	5602 Buchanan Trail West Greencastle, PA 17225	Hessing Farmstead, Inc Hessing Dairy Farm 5602 Buchanan Trail West Greencastle, PA 17225	Country View Family Farms	1,334,000	1,334,000	1,276	720 adult dairy cows, 220 heifers aged 1 to 2 years, 280 heifers aged 6 to 1 year, and 4 bulls	8,600,000		dairy barn manure and animal parlor waste is collected, treated through a semi separator system to recover sand bedding and returned to a solid separator building. Slurry from the solids separator is discharged into a three-phase settling cell and then overflow into a two-stage clarifier. Clarifier effluent is pumped to a total capacity of approximately 2.5 million gallons; manure is transported into concrete reception pits, which also receive runoff from feedlots. In some cases, liquid manure is collected with bedding and stacked outside; an additional 1.3 million gallons of storage capacity is available onsite. Liquid manure is spray irrigated and milk manure is land applied in accordance with MAP	West Branch Conococheague Creek, which is classified as warm water fishery and located in watershed 13-C	Individual NPDES	PA 0266667	34 Pa. B. 1261 34 Pa. B. 7172	June - September 2007; March 2, 2008, October 26, 1999, September - October 1999	Unauthorized manure storage facilities, not providing DEP with accurate information, discharge pollutants into waters of the Commonwealth	
04	Peters	Dry Run Farm	Client ID: 189172 Site ID: 465725	Dry Run Road Harrisburg, PA 17238	Franklin Hog Farm Dry Run Farm 312 Hummer Place Sawyer Springs, MD 20694	Chris Weigler Farms	1,310,000	1,310,000	10,675	25 boars, 2,884 gestating sows, 418 sows with litters, 7,350 nursery pigs, 280 lactating sows	8,213,000		two HDPE lined lagoons; stage 1 has a capacity of 1,000,000 gallons, stage 2 has a capacity of 5,197,000 gallons, the lagoons have a drain system and perimeter drain outlets, all of the manure is reported	Dry Run, which is classified as Cold Water Fishes and located in watershed 13-C	General NPDES	PAG 122813	31 Pa. B. 2614 32 Pa. B. 76	March 6, 2003	currently exceeding ABLs allowed on site and do not have letter agreements with some exporters	
05	Warren	Lyle Cove Partner-99	Client ID: 219748 Site ID: 364101	Polje Road Harrisburg, PA 17238	Country View Family Farms, Inc Lyle Cove Farm 426 South Angle Street Middletown, PA 17222	Country View Family Farms	626,520	626,520	5,776	1,180 gestating sows, 240 sows with litters, 676 finishing pigs, 3,800 nursery pigs, and 200 replacement pigs	2,608,000		HDPE lined lagoons	Lyle Cove Creek, which is classified as Cold Water Fishes and located in watershed 13-B	General NPDES	PAG 122628	31 Pa. B. 7028 32 Pa. B. 599 33 Pa. B. 461	no violations		
06	Fulton	Timber Ridge Farm	Client ID: 186177 Site ID: 445702 Facility ID: 070480	8888 Timber Ridge Road Big Cove Township	Franklin Hog Farm Timber Ridge Farm 312 Hummer Place Sawyer Springs, MD 20694	Chris Weigler Farms	1,276,000	1,276,000	8,800	8,800 finishing swine	4,308,000		2 lagoons with capacities of 2,002,000 gallons and 2,147,000 gallons	Timberway Creek, which is classified as Warm Water Fishes and located in watershed 13-B	General NPDES	PAG 122554	31 Pa. B. 2614 32 Pa. B. 76	December 3, 2009; April 17, 2002	operation and maintenance violations	
07		Hickory Lane Farm II	Client ID: 181454 Site ID: 558226 Facility ID: 073388	1160 Whitehall Road Harrisburg, PA 17238	Steve A. Lantz Hickory Lane Farm II 1160 Whitehall Road Harrisburg, PA 17238	Peters Valley Farms	324,200	324,200	2,176	2,176 finishing swine, 36 boar cows, and 25 castrs	824,000		concrete manure storage facility located under manure facility (19' deep and 67' x 224'), liquid manure is stored	Barnetts Run, which is classified as Trout Stocked Fishes and located in watershed 13-B	General NPDES	PAG 122654	32 Pa. B. 624 32 Pa. B. 7178	no inspections		
08	Bethel	Misty Mountain Farms	Client ID: 161088 Facility ID: 051323	843 Spring Road Harrisburg, PA 17287	C. Sherman Isaacson, Jr. Misty Mountain Farms 5287 Pleasant Grove Road Harrisburg, PA 17287		841,375	841,375	988	dairy operation	2,600,000		There are two manure storage structures on the site with a combined storage capacity of 2.9 million gallons. Of the 2,948,715 gallons of liquid manure on the farm, 1,800,000 gallons is used on the farm and 898,865 is reported. All of the 516,133 gallons of liquid manure from the dry cows and heifers is reported to neighboring farms. The remaining 1,481 tons of manure is used on the farm	Barnetts Run and Roundbush Creek, which is located in watershed 13-B and classified as warm water fishes	General NPDES	PAG 122665	32 Pa. B. 2260 32 Pa. B. 8140	no inspections		
09	Blacks Creek	Power Farm, Inc.	Client ID: 201923 Site ID: 002590	1388 Harris Road Crystal Spring, PA	Power Farm, Inc 1388 Harris Road Crystal Spring, PA 16238		no NPDES permit issued for this farm	no NPDES permit issued for this farm	2,017	2,000 swine and 17 beef cattle	500,000		reinforced concrete under barn manure storage with leak detection system under the barn	Blacks Creek which is classified as high quality - cold water fishes and located in watershed 13-C	WQCA Part II	WQCA 2860040	32 Pa. B. 4166 32 Pa. B. 6286	April 1, 2002, March 29, 2003	currently not in compliance with COQA	
10	Taylor	Hudson Hollow Farm	Client ID: 222588 Site ID: 624454 Facility ID: 052758	2884 South Station Road Harrisburg, PA 17238	Country View Family Farms Hudson Hollow Farm 426 South Angle Street Middletown, PA 17222	Country View Family Farms	1,268,000	1,268,000	3,506	2,428 gestating sows, 602 pig growers, 418 sows with litters, and 10 boars	2,846,000		concrete and compacted clay double liner with a leak detection system having a total capacity of 1.3 million gallons; underground concrete collection with capacity of 1.3 million gallons and 340,000 gallons	Wooden Bridge Creek which is a High Quality-Cold Water Fishery and located in watershed 13-C	Individual NPDES WQCA Part II	PA 0382632 WQCA 1480201	28 Pa. B. 1967 30 Pa. B. 2917 31 Pa. B. 1281	April 2, 2002	facility not monitored properly	
11	Township	Big Cove Farm	Client ID: 160434 Site ID: 851190 Facility ID: 088994	NCR Rt. 60m 208 Cove Val Road Big Cove Township, PA 17212	Ben Lewis Big Cove Farm 21022 Copeland Way Gettysburg, MD 20891		874,000	874,000	2,076	1,216 gestating sows, 186 sows with litters, 20 boars, and 800 pig finishing pigs	1,476,000		The facilities will have reinforced concrete underlayment manure storage. There will not be any outside manure storage facility. The concrete collection building will have approximately 1,200,000 gallons of storage and the finishing and breeding buildings will have approximately 170,000 gallons of temporary manure storage in a shallow pit located under the facility. Storm manure storage pit will have a self contained leak detection system	Timberway Creek, which is located in watershed 13-B and classified as Warm Water Fishes	General NPDES	PAG 122622	32 Pa. B. 624 31 Pa. B. 5466	no inspections		
12	Huntingdon	Crossed	Client ID: 152278 Site ID: 648887	R.R. 1 Shrewsbury, PA 17268	M & M Farms Dennis Eighon R.R. 1, Box 42 Shrewsbury, PA 17268		578,800	578,800	4,480	2,300 swine finishing operation, proposed to construct a second 2.8M manure storage	1,400,000		each barn has a 700,000 concrete manure storage structure under the facility	Cold Water Run Creek, which is classified as a Cold Water Fishery and located in watershed 13-C	General NPDES	PAG 122616	31 Pa. B. 4568 31 Pa. B. 5082	no violations		

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PERMITTED AND PENDING CONCENTRATED ANIMAL FEEDING OPERATIONS IN PENNSYLVANIA

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
County	Township	Farm Name	DEP Identifiers	Farm Location	NPDES Permit Issued To	Integrator	Proposed ABUs	Approved ABUs	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total DRY Manure Storage Capacity (Tons)	Manure Storage Characteristics	Waterways Affected	Permit Type	Permit Number	PA Bulletin Date	Permit Expiration Date	Violation Description
1	Fredon	Evergreen Farms, Inc.	Chart ID: 105813 Site ID: 630608 Facility ID: 631734	PA Route 46 Spruce Creek, PA 16860	Evergreen Farms Inc. (R. Wayne Hestorfer) HCR-1, Box 112 Spruce Creek, PA 16860		3,744,000	3,744,000	3,881	1,610 milking cows, 200 small heifers, 883 large heifers, 353 dry cows and 350 calves	7,597,344		Two full finished manure and wastewater from roller and dry cow barn with a capacity of 121,398, two full finished manure and wastewater from roller and dry cow barn and concrete bedding and bedding area and feed capacity of 800,000 gallons, manure and bedding from roller and bedding area and feed capacity of 800,000 gallons, manure and bedding from roller and bedding area and feed capacity of 800,000 gallons, manure and bedding from roller and bedding area and feed capacity of 800,000 gallons	Service Creek Watershed which is classified as High Quality - Cold Water Flumes and located in watershed 11-A.	Individual NPDES WQM Part B	PA 0206091 WQM 3101202	31 Pa. B. 4168 31 Pa. B. 5168 31 Pa. B. 5565 31 Pa. B. 7029	March 13, 2003 January 31, 2009	existing violations allowed to discharge to waters of the Commonwealth; manure improperly stored or land applied. COA
24	Lincoln	Hess Bros Farm	Chart ID: 201206 Site ID: 602271 Facility ID: 631734	Route 31 Juniata Creek, PA	Tim and Kathy Hess Hess Bros Farm R.R. 1, Box 124 Juniata Creek, PA 15887	Purina (Nursery Farms)	503,000	307,000	2,140	2180 breeding sows	602,067		6-foot deep reinforced concrete manure storage under the barn	unpermitted tributary to Reynolds Branch, which is in watershed 11-D and classified as Trout Stocking Run	General NPDES	PAQ 123507	33 Pa. B. 6268 33 Pa. B. 6265		no violations
71	Shifery	Murphy Farm	Chart ID: 116092 Site ID: 506251 Facility ID: 632631	R.R. 1 Shiferyburg, PA 17260	Loretta M. Murphy Tasmanian Downs R.R. 1, Box 14-A Shiferyburg, PA 17260		629,000	635,500	3,140	40 pasture raised beef cattle and 2,700 mixed cowboys	1,666,625		beef cattle manure falls directly upon pasture and is not collected; manure from mixed cowboys operation falls into pits beneath the barn and is transferred to 1,666,625 gallon capacity unpermitted polyethylene-lined earthen manure storage facility	tributary to Aughwick Creek, which is classified as Trout Stocking Run and located in watershed 12-C	General NPDES	PAQ 123547	32 Pa. B. 9410 32 Pa. B. 6245		no inspections
78	Juniata	Foyde	Chart ID: 084117 Site ID: 651175	McAdamsville, PA 17046	Brent Hershey Horsley Ag 156 Airport Road, Box 89 McAdamsville, PA 17641	Hershey Ag	892,000	886,500	2,400	2,200 gestating sows and 400 sows with litters	3,500,000		NPDES feed manure storage facility	Little Lost Creek which is classified as Cold Water Flume and located in watershed 12-A.	Individual NPDES	PA 024798	31 Pa. B. 5198 31 Pa. B. 6553		no violations
77		The Finkler Farm	Chart ID: 161753 Site ID: 506257	R.R. 1 McAdamsville, PA 17046	Jay C. Finkler R.R. 1, Box 2075 McAdamsville, PA 17046		618,100	618,100	6,718	110 dairy cows and 6,600 mixed	2,300,000		dairy operation transfers manure from reception pit to an existing dairy dairy manure operation utilizes both a 500,000 and 1,300 million gallon under building storage facility with a leak detection system	Little Lost Creek which is classified as Trout Stocking Run and located in watershed 12-A.	Individual NPDES	PA 024798	32 Pa. B. 9418		no inspections
78		The Lily Hog	Chart ID: 181661 Site ID: 506251	R.D. 3 McAdamsville, PA 17046	Chris and Debrah Hollman R.D. 3, Box 1610 McAdamsville, PA 17046		734,800	725,000	5,948	5948 sows	1,948,000		two storage pits a circular PVC tank with a capacity of 280,000 gallons, second facility is unpermitted, concrete storage of gestation barn with capacity of 800,000; third storage facility is unpermitted, concrete storage of gestation barn with capacity of 61,000 gallons; fourth is unpermitted storage of 600,000 gallons at nursery barn	unpermitted tributary to Little Lost Creek which is located in watershed 12-A and classified as High Quality - Cold Water Flume	Individual NPDES	PA 036800	32 Pa. B. 564 32 Pa. B. 3763		no violations
79	Monroe	The Stremann Farm	Chart ID: 161594 Site ID: 507195	Robbett, PA 17088	Scott Stremann R.R. 1, Box 608 Robbett, PA 17088		440,600	440,600	3,348	2,200 sows to finish hog operation, 1,100 finishing sows to finish operation, one 40 beef cattle	800,000		an engineer designed concrete manure storage facility located under the existing manure barn with a capacity of 800,000 gallons; new sows barn in three under barn concrete storage with a capacity of 600,000 gallons and a leak detection system; feed area to be converted to pasture	Sherry Run which is classified as Trout Stocking Run and Conestoga Creek which is classified as Trout Stocked Run, both are located in watershed 12-B	General NPDES	PAQ 123504	32 Pa. B. 3988 32 Pa. B. 3989		no inspections
80	Lancaster	Chy	Chart ID: 228919 Site ID: 632883	69 East Church Road Stevens, PA 17578	Jared Redmond 69 East Church Road Stevens, PA 17578		395,000	pending	4,460	breeding sows operation	1,072,830		two sows barns with under barn storage (19.5 feet x 22 feet x 8 feet) each with a storage of approximately 530,000 gallons of manure, storage tanks	Indian Run, which is located in watershed 7-A and classified as Trout Stocked Run	General NPDES	PAQ 123580	34 Pa. B. 2581		permit pending
81	Conoy	Jay Deller Farm	Chart ID: 161514 Site ID: 504305 Facility ID: 573023	2040 River Road Baltimore, PA 17502	Jay Deller Farm 2040 River Road Baltimore, PA 17502		568,800	568,800	110	500 dairy cows and 10 dry cows, 1,000 mixed finishing operation	1,306,908		manure from dairy operation stored in dairy store structure with capacity of 400,000 gallons - manure from mixed operation stored under facility in concrete manure storage facility with a capacity of 900,000 gallons	unpermitted tributary to the Susquehanna River, which is classified as Warm Water Flume and located in watershed 7-D	General NPDES	PAQ 123528	32 Pa. B. 319 32 Pa. B. 888		no inspections
87		The Ziegler and Sons Farm	Chart ID: 101428 Site ID: 505679 Facility ID: 166884	150 Yelder Road Baltimore, PA 17502	Harriet L. Ziegler Ziegler & Sons, Inc 150 Yelder Road Baltimore, PA 17502	Hollister	703,700	703,700	3,610	1,800 finishing pigs, 120 dairy cows, 80 replacement heifers, 10 calves, proposing additional mixed finishing operation with 2,400 hogs	1,781,000		two under the barn storage facilities (existing facility capacity unknown, proposed facility capacity 384,000 gallons), that can gravity flow to an existing NPDES feed storage lagoons with a capacity of 1.2 million gallons	Shick Creek and Conoy Creek, which are classified as Warm Water Flumes and located in watershed 7-D	General NPDES	PAQ 123531	32 Pa. B. 654 32 Pa. B. 3729	January 13, 2004 January 28, 1999 September 10, 1998	inadequate waste discharge versus permit, failure to prevent sediment or other pollutants from discharging into waters of the Commonwealth; manure improperly stored or land applied
93		Shady Brook Farms, Inc.	Chart ID: 088796 Site ID: 377808 Facility ID: 632833	30 Engle Road Harrisburg, PA 17547	Theresa Esperanza (Shady Brook Farms) 30 Engle Road Harrisburg, PA 17547		2,125,600	2,125,000	575,000	575,000 finishing pigs			finishing barn; manure is deposited and stored on the ground level beneath the barns	unpermitted tributary to the Susquehanna River, which is classified as Warm Water Flume and located in watershed 7-D	Individual NPDES	PA 0247130	33 Pa. B. 1995 33 Pa. B. 2768 33 Pa. B. 2768		no violations
94		Shenker Ranch	Chart ID: 310787 Site ID: 618292 Facility ID: 641312	110 West Springs Road Baltimore, PA 17502	Paul Shenker Shenker Ranch 110 West Springs Road Baltimore, PA 17502		348,450	348,450	2,900	2,900 finishing pigs	600,000		feeding barn with under the barn manure storage and a volume of _____ and manure from mixed finishing operation stored under the barn manure storage with a volume of 600,000 gallons	unpermitted tributary to Conoy Creek, which is classified as Cold Water Flume and located in watershed 7-D	General NPDES	PAQ 123584	33 Pa. B. 3880 33 Pa. B. 3880		no inspections
95	Conestoga	Bacon Acres	Chart ID: 312543 Site ID: 623731	2818 Main Street Conestoga, PA 17516	Jay L. Hess Bacon Acres 2818 Main Street Conestoga, PA 17516		pending	pending		3,200 finishing hogs and an unknown number of beef cowboys	1,530,000		finishing barn 1 that is a gutter manure storage that flows into a 1.3 million gallon sump, finishing barn 2 that is a 750,000 gallon sump, all under the barn	unpermitted tributary to Pequea Creek, which is located in watershed 7-A and classified as Cold Water Flume	General NPDES	PAQ 123578	33 Pa. B. 6233		permit pending



PERMITTED AND PENDING CONCENTRATED ANIMAL FEEDING OPERATIONS IN PENNSYLVANIA

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
County	Township	Farm Name	DEP Identifiers	Farm Location	NPDES Permit Issued To	Integrator	Proposed ABM	Approved ABM	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total On-Farm Manure Storage Capacity (gallons)	Manure Storage Characteristics	Waterbodies Affected	Permit Type	Permit Number	PA Bulletin Case	Permit Expiration Dates	Violation Description
		Donald M. Edman Farm	Client ID: 202492 Site ID: 004827	307 Black Barren Road Peach Bottom, PA 17661	Donald M. Edman Donald M. Edman Farm 307 Black Barren Road Peach Bottom, PA 17661		619,350	619,350	3,200	3,200 cows, 50 dairy cows, and 30 heifers/calves	7,000,000		swine manure storage was built in 1987-1988 by King Construction, the farm extensions are 30' x 200' ft with a 6' tall manure storage vault beneath the barn with a capacity of 1,200,000 gallons. There is no high containment system around the manure storage. There is no storage for dairy manure. Of the 1,362 million gallons of swine manure produced on the farm, 585,000 gallons are used on the farm with 687,000 gallons applied. All of the 2,244 tons of dairy manure produced are used on the farm, clean will have storage approximating 2 million gallons.	Conewago Creek and Little Conewago Creek which are in watershed 7-K and classified as High Quality cold water fishery	Individual NPDES	PA 0249948	32 Pa. B. 4812 33 Pa. B. 2455 33 Pa. B. 2091	no inspections	
		Red Hawk Farm	Client ID: 20847 Site ID: 458462	Peach Bottom, PA 17665	Clifford W. Holloway, Jr. Red Hawk Farm 3051 Steel Road Peach Bottom, PA 17665						461,000		12 feet by 80 feet diameter concrete manure storage facility for later operation at the farm		WQM Part II	WQM 3803386	33 Pa. B. 4883 33 Pa. B. 5629	no violations	
		Libb Brian	Client ID: 157083 Site ID: 547308	2671 Hesse Road Quarryville, PA 17066	Jeremiah O. Senewitz 2671 Hesse Road Quarryville, PA 17066		328,160	328,000	2,075	2,000 broiler pens and 75 beef steer	501,804		concrete manure storage facility located under manure facility	West Branch of Octoraro Creek, which is classified for High Quality-Cold Water Fishes-Migratory Fishes and located in watershed 7-J	Individual NPDES	PA 0289802	31 Pa. B. 3211 31 Pa. B. 5801 31 Pa. B. 7036	no violations	
		Jeremiah and James Senewitz Farm	Client ID: 159128 Site ID: 547377	1600 Green Road Quarryville, PA 17066	Jeremiah and James Senewitz 2671 Hesse Road Quarryville, PA 17066		378,800	378,000	2,194	2,100 broiler pens, 50 dairy cows, and 34 dairy heifers	868,000		swine manure stored in 600,000 gallons under building in concrete lot, while dairy manure is stored in 184,000 gallon storage facility.	Little Conewago Creek, which is classified for High Quality-Cold Water Fishes and located in watershed 7-K	Individual NPDES	PA 0289804	31 Pa. B. 3211 31 Pa. B. 5801 31 Pa. B. 7036	no data available	
		Clair Hurd Farm	Client ID: 181181 Site ID: 500565 Facility ID: 409414	788 Hagon Road Horseshoe, PA 17838	Clair Hurd (Clair Hurd Farm) 788 Hagon Road Horseshoe, PA 17838		507,468	507,400	3,895	50 dairy cows and 2,800 broiler pens	1,726,008		dairy operation relies on gravity fed carbon liquid with a capacity of approximately 335,000 gallons of manure, the manure storage is located under the barn (107 x 200 x 8 ft) and has a capacity of 1.4 million gallons.	West Branch Octoraro, which is located in watershed 7-K and classified as High Quality, Cold Water Fishes and Migratory Fishes	Individual NPDES	PA 0249824	32 Pa. B. 3080 33 Pa. B. 1728 33 Pa. B. 2758	no inspections	
		Red Hawk Farm	Client ID: 205111 Site ID: 900884	422 Salinas Meeting Road Peach Bottom, PA 17665	Andy Young Red Hawk Farm 322 Salinas Meeting Road Peach Bottom, PA 17665		1,394,609	1,294,800	1,340	810 cows; 488 heifers	9,198,000		manure solids separator system, two manure storage ponds with capacities of 3,250,000 gallons and 5,948,000 gallons and buried irrigation lines that feed herd house brooding pens and low carbon gas irrigation systems, additional liquid separator capacity.	Little Conewago Creek, which is located in watershed 7-K and is classified as High Quality - cold water fishery	Individual NPDES	PA 0217601	32 Pa. B. 380 33 Pa. B. 2818 33 Pa. B. 8023 33 Pa. B. 8235	no inspections	
		Heiser (Star Rock also in Conoy Township)	Client ID: 113771 Site ID: 335953	37 Chestnut Grove Road Conowingo, PA 17816	Star Rock Farm, L.L.C. (Robert Barley) 37 Chestnut Grove Road Conowingo, PA 17816		2,180,000	2,180,000	2,200	800 steer, 500 dairy cows, 40 heifer/calves, 400 heifers, 400 calves and 3400 swine	10,700,000		manure generated by steer collected into one 2 million gallon liquid storage liquid, manure generated by heifers and dairy cows is collected and stored in an existing 500,000 gallon concrete tank, manure generated by swine is dry packed and loaded to fields as needed, operation of dairy operation with new manure handling system consisting of an aches and 180 pound solid separator system prior to a three stage liquid system with a combined storage capacity of 3.3 million gallons.	near Fisherman Run, which is in Warm Water Fishery, also near Warmers Run, Conewago River and Little Conewago River, all are listed in watershed 7-J	Individual NPDES WQM Part I	PA 0271111 WQM 3803281	30 Pa. B. 4811 30 Pa. B. 4442 30 Pa. B. 8229 30 Pa. B. 4450 33 Pa. B. 1373 33 Pa. B. 2283 33 Pa. B. 3518	no violations	
		Prey Dairy Farm	Client ID: 155087 Site ID: 323556	3848 River Road Conowingo, PA 17816	Prey Dairy Farms, Inc. 3848 River Road Conowingo, PA 17816 9020		2,480,000	2,480,000	2,200	2,200 dairy cows	7,800,000		manure storage liquid, collecting new manure storage liquid	Waters Run, which is classified as a Warm Water Fishery and located in watershed 7-J	Individual NPDES WQM Part I	PA 0268802 WQM 3803258	31 Pa. B. 3619 31 Pa. B. 3553 31 Pa. B. 7038 33 Pa. B. 3414	December 5, 2001; September 2003	polluting substance discharged in excess of the Commonwealth's pollution standards in waters of the Commonwealth - trace 510.000 mg ZPP COA violated
		The Freshman Farms	Client ID: 170280 Site ID: 568712	2232 Franklin Road Columbia, PA 17512	James Brewsman Freshman Farms 2232 Franklin Road Columbia, PA 17512		1,073,400	1,903,400	34,993	500 milking cows, 50 dry cows, 250 heifers, 120 calves, 4 bulls, and 34,000 broiler chickens	3,730,000		concrete underground concrete storage tank	Snyder Run which is classified as Warm Water Fishes and located in watershed 7-G	Individual NPDES WQM Part II	PA 0248832 WQM 3802201	32 Pa. B. 1416 32 Pa. B. 2606 32 Pa. B. 3408	October 24, 2002; September 11, 2003	
		Rehr Dairy Farm LLC	Client ID: 209204 Site ID: 602885	124 Charleston Road Washington Boro, PA 17862	Rehr Dairy Farm LLC 124 Charleston Road Washington Boro, PA 17862		1,597,900	pending	2,785	750 milking cows, 150 dry cows, 345 heifers, 1400 calves and 1300 swine	4,308,000		14x12 dairy manure stored in two pits 432 ft x 47 ft x 8 deep with a usable storage of 7.5 million gallons; dairy manure also stored in a slurry store that is 62 ft x 23 ft with storage of 498,000 gallons; dairy manure also stored in three liquid concrete manure structures that are 33 ft x 28 ft with a combined usable storage of 216,000 gallons; manure storage for the manure operation is a liquid roughly 0.34 acres x 12 feet with a usable storage of 1.2 million gallons. All of the manure is used on the facility.	Starnes Run, which is in watershed 7-J and classified as Warm Water Fishes	General NPDES	PA 025000	32 Pa. B. 4345	permit pending	
		The Martin Herrish Farm	Client ID: 161568 Site ID: 559393	3121 Blue Rock Road Lancaster, PA 17602	Maria S. Herrish 3121 Blue Rock Road Lancaster, PA 17602		501,400	501,400	3,610	currently a 16 head beef cattle, with proposed construction of 3,600 head in broiler and/or goats	500,000		concrete manure storage facility located under manure facility	West Branch Little Conewago Creek which is classified as Warm Water Fishery and located in watershed 7-J	General NPDES	PA 025043	32 Pa. B. 1730	no violations	
		Mount Joy Township	Client ID: 220224	Rehr Mill Road Mount Joy, PA 17662	Bill Aggar Herrish's Farm, Inc. 181 West Hanbury Ave Shenandoah, PA 17670	Wenger's Feed	1,508,000	1,505,000	432,000	432,000 broiler chickens			approximately 4,700 tons of manure are produced a year and stored in barns (40 x 150 x 12 deep) and then transferred by trucks to a broiler.	Little Chickies Creek, which is classified for Trout Stocked Fishery and located in watershed 7-O	Individual NPDES	PA 0248408	31 Pa. B. 8058 32 Pa. B. 1546 32 Pa. B. 804	no violations	

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A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
County	Township	Farm Name	DEP Identifier	Farm Location	NPDES Permit Issued To	Integrator	Proposed ABUs	Approved ABUs	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total Dry Manure Storage Capacity (tons)	Manure Storage Characteristics	Waterbody Situated	Permit Type	Permit Number	PS Bulletin Class	Permit Violation Dates	Violation Description
		Hidden Valley Farms	Client ID: 002611 Site ID: 00114 Facility ID: 026009	1988 Conover Road Mount Joy, PA 17552	Jay Hill Hidden Valley Farms 3828 Conover Road Mount Joy, PA 17552		714,000	pending	32,200	28,000 layer chickens; 30 sow farrow; 50 water swine; 1,200 head swine (capped separately)	680,000		the layer operation consists of a 100-ton layer house; the sows are pastured for approximately 6 months of the year and then confined in two water barns for the remaining months; the entire operation will have a below-house manure storage structure with a usable storage of approximately 600,000 gallons, which will provide slightly more than 6 months storage	Linn Crooked Creek which is classified as Warm Water Fishes and located in watershed T-0	General NPDES	PAG 123550	32 Pa. B. 2770 32 Pa. B. 2800 34 Pa. B. 3187	no violations	
110		Gruba View Farms	Client ID: 022590 Site ID: 004001	2308 North Calloway Road Marbleton, PA 17548	Gruba View Farms 3700 North Calloway Road Marbleton, PA 17548		658,000	295,000	130,000	130,000 layer chickens and 400 sows	548,000	2,100	sow barn area has under-barn storage with capacity of 274,000 gallons and sows barn has two round concrete manure storage with usable storage of 252,000 gallons; poultry manure is handled as a solid and stored below the high-bay layer house; poultry excretion generates 2,100 tons of manure	Linn Crooked Creek, which is in watershed T-0 and classified as Trout Stocking Fishes	Individual NPDES	PA 024754	32 Pa. B. 4730 34 Pa. B. 5207	no inspections	
111		The Ridge View Farm	Client ID: 000228 Site ID: 000002	188 Ridge View Road South Elizabethtown, PA 17022	David W. Smigert, Jr. Ridge View Farm 188 Ridge View Road South Elizabethtown, PA 17022		1,319,000	1,151,000	6,975	300 dry cows; 50 dry cows; 100 9-15 month heifers; 25 1-1 month heifers; 6,200 wean to fresh cows	1,048,000		all manure production buildings with underground concrete manure storage structures (1,118,400 gallons) and the dairy excretion enters an above ground steel dryer (20,000 lbs/day) (720,000)	Conroy Creek, which is in watershed T-0 and classified as Trout Stocking Fishery	Individual NPDES	PA 024702	23 Pa. B. 284 33 Pa. B. 2073	no inspections	
112		Shewey Farms	Client ID: 215753 Site ID: 023751	412 Ridge View Road South Elizabethtown, PA 17022	James Shewey Shewey Farms C/O 412 Ridge View Road South Elizabethtown, PA 17022		408,000	408,000		sow operation with proposed to add 2,000 head to fresh cows				Conroy Creek, which is in watershed T-0 and classified as Trout Stocking Fishery	General NPDES	PAG 123570	33 Pa. B. 4020 33 Pa. B. 5055	no inspections	
113		Starbuck Farms - North Farm	Client ID: 121174 Site ID: 021002; 077844	North Farm	Green Starbuck Farms (Starbuck Farms) 230 Ely Cheape Road Mount Joy, PA 17552 see also Starbuck Farms in Ridge Township because 3 farms facilities permitted under one permit		7,548,000	between 3 farms	pending	layers			manure falls directly from the cages to the floor and accumulates in wetlands	Linn Crooked Creek, which is classified as Trout Stocking Fishes and located in watershed T-0	Individual NPDES	PA 024725	34 Pa. B. 2630	permit pending	
114	Penn	Hoader Dairy Farm	Client ID: 130602 Facility ID: 001070	928 Indian Village Road Marbleton, PA 17548	Hoader Farms (Hoader Farms, Jean W. Hoader and Sons) 1481 Lonsdale Road Marbleton, PA 17548		6,343,000	6,343,000	800,140	1,975 milking cows; 250 dry cows; 1,275 replacement heifers and 600,000 layers	10,400,000		manure is separated, solid manure composted and sold or stored; liquid manure is separated through a three-stage storage system and 600,000 gallon reinforced concrete storage tanks and low earth impoundments with a combined capacity of 9.5 million gallons; impoundings to hold synthetic leachate with low earth manure impoundments with a total capacity of 9.5 million gallons	Shiloh in Chickies Creek, which is located in watershed T-0 and classified as Warm Water Fishes	Individual NPDES NORM Part II	PA 008090 WOM 302202	30 Pa. B. 2001 30 Pa. B. 3182 32 Pa. B. 4482 33 Pa. B. 5055 34 Pa. B. 2600	October 20, 2009; January 3, 2010; November 20, 2010; January 22, 2011; January 11, 2011; October 3, 2009	polluting discharge to waters (2) discharge monitoring report not submitted; operation violations; pollution incident not reported
115		Warm Run Farm	Client ID: 227861 Site ID: 003007	202 Elm Road Linn, PA 17542	Carl F Meyer and John G Meyer Warm Run Farm 202 Elm Road Linn, PA 17542		1,202,000	pending	1,100	600 manure heifers; 600 heifers and 90 calves combined 60% of the site	1,170,000		liquid manure of the milking house is handled as a liquid stored in a round, concrete manure storage facility 120 feet by 22 feet with a usable storage of approximately 300,000 gallons) and a steel dairy store 103 feet by 14 feet with a usable storage of approximately 250,000 gallons)	Linn in Chickies Creek, which is located in watershed T-0 and classified as Warm Water Fishes	Individual or General NPDES	PAG 123684 OR PA 024701	34 Pa. B. 2630	permit pending	
116	Penn and Warwick	Bethel Farms, LLC	Client ID: 214288 Site ID: Facility ID:	782 West Lantigen Road Linn, PA 17543	Bethel Farms, LLC and Country View Family Farms 782 West Lantigen Road Linn, PA 17543	Country View Family Farms	1,608,300	1,608,300	171,800	2,000 sows; 10 boars; 4,000 nursery pigs and 165,000 pullets	3,000,000		manure is stored in lagoons, except for the pullet lot which is collected on dry beds	Linn Run Creek, which is classified as Warm Water Fishes and located in watershed T-1	Individual NPDES	PA 024724	33 Pa. B. 0880 34 Pa. B. 080	no inspections	
117	Rush	The Bridge Valley Farms	Client ID: 004334 Site ID: 003702	670 Bridge Valley Road Columbia, PA 17511	Wenger's Feed Mill, Inc. 101 West Main Street Rheims, PA 17570	Wenger's Feed	2,673,000	2,673,000	708,000	708,000 layer hens		11,800	seven ten-dairy buildings with the manure stored beneath the layer cages and is removed for crop application; all of the 11,800 tons of manure generated on the farm are stored on-site	Chickies Creek, which is classified as Warm Water Fishes and located in watershed T-0	General NPDES	PAG 123570	33 Pa. B. 204 33 Pa. B. 5428	no inspections	
118		Esperanza Farms - Home Farm	Client ID: 131210 Site ID: 021040	Home Farm 230 Ely Cheape Road Mount Joy, PA 17552	Green Starbuck Farms (Esperanza Farms) 230 Ely Cheape Road Mount Joy, Pa 17552 this site is located in Mount Joy Township and East Dauphin Township because 3 farms facilities permitted under one permit		7,545,000	between 3 farms	pending	layers			manure falls directly from the cages to the floor and accumulates in wetlands	Chickies Creek, which is classified as Warm Water Fishes and located in watershed T-0	Individual NPDES	PA 024725	34 Pa. B. 2630	permit pending	
119		Lester Weaver	Client ID: 216182 Site ID: 027807 Facility ID: 042028	2600 Burnside Road Marbleton, PA 17545	Lester Weaver 2600 Burnside Road Marbleton, PA 17545		450,500	450,500		existing dairy operation; 2,000 lactating cows			dairy operation utilizes a 50 foot by 8 foot earthen manure storage; entire operation must utilize a new 80 foot by 210 foot by 4 foot concrete under the barn storage; heater and cog manure is stored as a bed pack and collected to open fields approximately once a month	Shiloh Run, which is classified as Trout Stocking Fish and located in watershed T- 0	General NPDES	PAG 123560	34 Pa. B. 230 34 Pa. B. 2007		

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A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
County	Township	Farm Name	DEP Identifier	Permit Location	NPDES Permit Issued To	Regulator	Proposed ABAs	Approved ABAs	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total On-Farm Manure Storage Capacity (gallons)	Manure Storage Characteristics	Watercourse Situated	Permit Type	Permit Number	PA Bulletin Case	Permit Expiration Date	Violation Description
		Apple and Wood Harvest	Client ID: 125048 Site ID: 021183	2178 Rehner Road Northampton, PA 17854	Jay Mann Rehner Haddon Acres Farms 2115 Rehner Road Northampton, PA 17854		613,420	pending	3,010	3,500 finishing hogs and 170 steer	600,000		Two manure holding tanks from shallow pit manure storages. Existing two big tanks outside manure storages (upper western) have a capacity of 600,000 gallons and the lower eastern tank has a capacity of 300,000 gallons. Used other manure is collected in a dry pen-pool and is contained in the steel tank until cleaned out	Cochran Creek, which is classified as Warm Water Fishery and located in watershed T-Q	General NPDES	PAG 122670	33 Pa. B. 3680		permitted pending
121	Salzburg	Warner's Pkba-4-Jay Farm	Client ID: 207480 Site ID: 012343	5880 Wynner Road Harvon, PA 17888	Warner's Pkba-4-Jay Farm 8800 Wynner Road Harvon, PA 17888		1,385,450	WQM approved					Two stage, double lined HDPE and clay manure storage ponds		WQM Part II	WQM 300220	33 Pa. B. 2588 33 Pa. B. 3751		permitted pending
122	Strasburg	Larry E. Brumman	Client ID: 227468 Site ID: 033519	774 Burkholder Road Strasburg, PA 17579	Larry E. Brumman 774 Burkholder Road Strasburg, PA 17579		378,000	378,000	3,200	3,200 wean to finish swine			17% 294 x 6 foot under barn manure storage, of 1,500,000 gallons of manure generated on the farm, 800,000 gallons are used on the farm and 670,000 gallons are marketed	Linn Beaver Creek, located in watershed T-I and classified as Trout Stocked Fishery	General NPDES	PAG 122665	34 Pa. B. 2928		permitted pending
123	Warren	John M. Hira Family Farm	Client ID: 181610 Site ID: 050651, 066880	803 West Lincoln Avenue Luzerne, PA 17845	John M. Hira 803 West Lincoln Avenue Luzerne, PA 17845		315,000	315,000	1,088	628 sows and 460 steer	450,000		17% 294 x 6 foot under barn manure storage, of 1,500,000 gallons of manure generated on the farm, 800,000 gallons are used on the farm and 670,000 gallons are marketed	Linn Run Creek, which is classified as Warm Water Fishery and located in watershed T-J	General NPDES	PAG 122664	32 Pa. B. 1280 33 Pa. B. 3073		no violations
124	West Cocalico	Meadowview Farms, LLC	Client ID: 918551 Site ID: 045794 Facility ID: 999995	810 Galen Hill Road Rehoboth, PA 17888	Meadowview Farms, LLC (David D. Brumman) 810 Galen Hill Road Rehoboth, PA 17888		180,000	180,000	800	800 dairy cows	2,182,500		existing barn - manure is collected by gravity into a 70 foot diameter by 12 foot deep concrete manure storage structure with a capacity of 150,000 gallons, proposed barn - better manure storage that is 320 ft x 112 ft x 8 ft deep and has a capacity of 1,720,000 gallons	Linn Cocalico Creek, which is classified for Trout Stocked Fishery and located in watershed T-J	General NPDES	PAG 122560	31 Pa. B. 2284 31 Pa. B. 2888 31 Pa. B. 3055		no violations
125	Rehoboth	Rehoboth Farm		Doner, PA 17817	Rehoboth Family Rehoboth Farm 1640 Quaker Highway Rehoboth, PA 17822-8833		985,000	985,000	8,900	swine finishing operation	3,146,000		HDPE lined manure storage facility	unimproved tributary to Cocalico Creek, which is located in watershed T-J and classified as Warm Water Fishery	Individual NPDES	PA 034892	32 Pa. B. 3102 32 Pa. B. 3208		no violations
126	Hershey	Hershey Pig Company	Client ID: 218154 Site ID: 043916	410 Forest Road Denver, PA	Jessiter Road Country View Family Farms P.O. Box 528 Ephrata, PA 17522	Country View Family Farm	588,000	588,000	1,408	1,408 sows	3,800,000		clay-lined lagoons	unimproved tributary of Cocalico Creek, which is classified for High Quality-Warm Water Fishery and located in watershed T-J	Individual NPDES	PA 028700	31 Pa. B. 3771 31 Pa. B. 4763 32 Pa. B. 4030 34 Pa. B. 1465		no violations
127	Middle Creek	Middle Creek Swine Farm	Client ID: 219104 Site ID: 049911	1225 West Route 687 Denver, PA	Jessiter Road Country View Family Farms PO Box 528 Ephrata, PA 17522	Country View Family Farm	679,800	679,800	2,500	2,500 sows and pigs	3,000,000		HDPE lined lagoon	unimproved tributary of Cocalico Creek, which is classified for High Quality-Warm Water Fishery and located in watershed T-J	Individual NPDES	PA 028714	31 Pa. B. 3771 31 Pa. B. 4763 32 Pa. B. 4030 34 Pa. B. 1465		no violations
128	Luzerne	Luzerne Ridge Farms		Ridge Road (R.D. 2) Jonestown, PA 17828	Luzerne Ridge Farm Country View Family Farms, Inc. 130 Lake Street P.O. Box 528 Ephrata, PA 17522	Country View Family Farm	791,410	791,410	3,940	1,178 gestating sows, 224 sows with pigs, 40 replacement pigs, 1,600 finishing pigs	2,800,000		2 manure lagoons: primary lagoon to HDPE lined with capacity of 1.8 million gallons and serves two swine barns and has ball detection system, secondary lagoon to HDPE lined with capacity of 1.3 million gallons and serves as the overflow for the first lagoon and serves one finishing barn but has no ball detection	Linn Cocalico Creek, which is classified for Trout Stocked Fishery and located in watershed T-J	General NPDES	PAG 122638	31 Pa. B. 7050 34 Pa. B. 308		no violations
129	West Lampeter	Andrew Saw Farm		1600 Sprigall Farm Weston, PA 17884	Jessiter Road Country View Family Farms, Inc. 438 B. Argo Street Middletown, PA 17057	Country View Family Farm	872,400	872,400	7,400	sow farrow operation	650,000		under facility storage	unimproved tributary to Pequot Creek which is classified as Warm Water Fishery and located in watershed T-I	General NPDES	PAG 122614	31 Pa. B. 3330 31 Pa. B. 3254 34 Pa. B. 308 34 Pa. B. 2172		no violations
130		Rockyford Farm	Client ID: 999930 Site ID: 030406	1288 Oyster Hill Road Lancaster, PA 17602	Joe Sweeney Rockyford Farm P.O. Box 674 Harrisburg, PA 17103		508,300	pending permit originally started in 2003	4,4	4,400 wean to finish swine operation	1,200,000		manure runs through a methane digester and then is stored in a 140' diameter x 12' deep concrete manure storage facility; the 5,900,000 gallons of manure generated on the farm, 650,000 gallons are used on the farm and 4,140,000 gallons are exported	Big Spring Run, which is in watershed T-J and classified as cold water fishery	General NPDES	PAG 122588	31 Pa. B. 4733 34 Pa. B. 2928		permitted pending
131	Lebanon	East Haven	MCHC Client ID: 119880 Site ID: 033238	Palmery, PA 17879	MCHC Country View Family Farms, Inc. 120 Lake Street P.O. Box 528 Ephrata, PA 17522	Country View Family Farm	707,700	707,700	5,088	1058 gestating sows, 882 sows with pigs, 23 hogs, 3130 nursery pigs, 720 finishing pigs, 20 head steer	2,008,000		liquid manure is stored in an HDPE lined lagoon with a capacity of 2,008,000 gallons	unimproved tributary of Switzer Creek, which is classified for Warm Water Fishery and located in watershed T-Q	General NPDES	PAG 122640	31 Pa. B. 6933 34 Pa. B. 308		no violations
132		Switzer Share Farm	Client ID: 220054 Site ID: 041241	Beale Bridge Road Arvonia, PA 17603	Switzer Farms Country View Family Farms, Inc. 128 Lake Street Ephrata, PA 17522	Country View Family Farm, Inc.	608,300	608,300	5,740	1,178 gestating sows, 224 sows with pigs, 60 hogs, 3,850 nursery pigs, and 600 replacement pigs	2,900,000		HDPE lined lagoon	Switzer Creek, which is classified as Warm Water Fishery and located in watershed T-Q	General NPDES	PAG 122630	31 Pa. B. 7050 32 Pa. B. 696 32 Pa. B. 1250 34 Pa. B. 308	February 4, 2003	polluting substances allowed to discharge to waters of the Commonwealth
133	Hershey	Old Creek Farms		Abright Road Newmansport, PA	Old Creek Farms Country View Family Farms, Inc. 120 Lake Street Ephrata, PA 17522	Country View Family Farm, Inc.	382,000	382,000	3,872	628 gestating sows, 112 sows with pigs, 7 hogs, 2,852 nursery pigs and 10 replacement pigs	2,005,000		HDPE lined lagoon	unimproved tributary to Mt. Creek, which is classified as Trout Stocking Fishery and located in watershed S-C	General NPDES	PAG122534	31 Pa. B. 5580 31 Pa. B. 4941 31 Pa. B. 7058 32 Pa. B. 1229 34 Pa. B. 308		no violations

PERMITTED AND PENDING CONCENTRATED ANIMAL FEEDING OPERATIONS IN PENNSYLVANIA

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
County	Township	Farm Name	DBP Identifiers	Farm Location	NPDES Permit Issued To	Regulator	Proposed ABUs	Approved ABUs	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total DBP Manure Storage Capacity (Gallons)	Manure Storage Characteristics	Waterbody Situated	Permit Type	Permit Number	PA Bulletin Case	Permit Violation Date	Violation Description
		The North Meritt Farm	Chart ID: 110973	Box #11C, R.D. 2, Aylesbury, PA 17007	Meritt North Farm Meritt North Farm, Inc. manages manure, former manages public and cows	County West Family Farms, Inc. manages manure, former manages public and cows	521,650	521,650	25,610	680 gestating sows, 100 sows with litters, 2,400 nursery pigs, 580 replacement pigs, 20 boars, 52,500 public, 190 calves	1,200,000		HDPE lined septic	Tubetoshon Creek Basin which is classified as Trout Stocking Fishes and located in watershed 3-C	General NPDES	PAG 123556	32 Pa. B. 519 33 Pa. B. 2716 34 Pa. B. 369 34 Pa. B. 2112	no violations	
13	Julesburg	Water Farm 1	Chart ID: 161753 Site ID: 506029	Myerstown, PA 17067	Wills L. Water Water Farm Partnership Water Farm 1 380 East 188 Avenue Myerstown, PA 17067		558,000	558,000	4,000	swine operation	2,027,500		concrete manure storage facility located under swine facility (97' x 200' x 4')	Tubetoshon Creek which is classified as Trout Stocking Fishes and located in watershed 3-C	General NPDES	PAG 122550	32 Pa. B. 1418 34 Pa. B. 66	no violations	
136		Hugh Sauter J. Farm	Chart ID: 302304 Site ID: 602686	491 Elm Drive Myerstown, PA 17067	Hugh Sauter J. 491 Elm Drive Myerstown, PA 17067		330,000	330,000	4,000	4,000 swine	1,200,000		two barns, each with a storage capacity of 962,000 gallons; a back-up concrete tank with a capacity of 176,000 gallons.	unimproved tributary to Tubetoshon Creek, which is classified as warm water fishes and located in watershed 3-C	General NPDES	PAG 123550	32 Pa. B. 4676 34 Pa. B. 1261	no violations	
137		Paiker Farm	Chart ID: 308914 Site ID: 611234	401 Wheeler Road Myerstown, PA 17067	Paul J. Wheeler Paiker Farm 401 Wheeler Road Myerstown, PA 17067		438,918	438,918	2,840	2,700 gestating sows, 65 Jersey cows, 12 dry cows, 25 heifers, 40 calves	1,250,000		unimproved tributary to Little Shotters Creek, which is classified as warm water fishes and located in watershed 7-D	General NPDES	PAG 123571	32 Pa. B. 2673	no violations		
138		Wheeler CAFO			Paul J. Wheeler Wheeler CAFO 401 Wheeler Road Myerstown, PA 17067				pending				Little Shotters Creek which is classified as warm water fishes and located in watershed 7-D	General NPDES	PAG 123571	32 Pa. B. 2680	permit pending		
141	Amherst	Earl Hat	Chart ID: 219558 Site ID: 627790	10 Barbara Road Rockland, PA 17067	Sherrill 10 Barbara Road Rockland, PA 17067		752,800	752,800	53,045	2,800 sows, 145 heifers and 44,000 public	1,661,000		addition of two swine barns with under floor manure storage (each with capacity of 662,429 gal)	Tubetoshon Creek, which is classified by Trout Stocking Fishes and located in watershed 3-C	General NPDES	PAG 122581	32 Pa. B. 6233 34 Pa. B. 1697	permit pending	
142	South Fayette	MA Pleasant Farm	Chart ID: 375823 Site ID: 636206	1481 Lancaster Road Martinsburg, PA 17540	Mark Windsor & Sons 1481 Lancaster Road Martinsburg, PA 17540		7,550,000	pending	pending	raising laying hens for the production of eggs			manure generated will be temporarily stored in existing areas of the animal housing units; largest percentage of the manure will be applied as needed to the adjacent farm grazing	Outcrops Creek, which is in watershed 7-D and classified as trout stream habitat	Individual NPDES	PA 624741	34 Pa. B. 1697	permit pending	
143	South Londonderry	Water Farm 2	Chart ID: 161756 Site ID: 627790	Pittsboro, PA 17078	Wills L. Water Water Farm Partnership Water Farm 2 380 East 188 Avenue Myerstown, PA 17067		698,100	698,100	6,000	swine operation	2,465,561		concrete manure storage facility located under swine facility (97' x 200' x 4')	Little Shotters Creek, which is classified for Trout Stocking Fishes and located in watershed 7-D	General NPDES	PAG 123551	32 Pa. B. 1418 34 Pa. B. 66	no violations	
147		The Meadow Run Farm	Chart ID: 158117 Site ID: 506032	Martinsburg, PA 17540	Harvey Ag 538 Harvest Road Martinsburg, PA 17647-0886	Harvey Ag	612,300	612,300	1,600	horses to brooder swine operation	3,050,000		two large HDPE lined manure storage structures, 1st stage has approximately 170,000 gallons of storage and empties into the second stage which has 2.5 million gallons of storage	Little Shotters Creek, which is classified for Warm Water Fishes and located in watershed 7-G	General NPDES	PAG 122543	32 Pa. B. 1255 33 Pa. B. 1233	no violations	
148	Union	Water Farm Partnership	Chart ID: 161756	Jonestown, PA 17038	Water Farm Partnership 380 East 188 Avenue Myerstown, PA 17067		617,200	pending	8,800	swine to finish swine	2,469,000		trials under the barn water-tight concrete manure storage structures with dimensions of 202' x 80' x 4'	Trout Run, which is in watershed 7-D and classified as high quality - Cold Water Fishes	Individual NPDES	PA 624697	32 Pa. B. 6066	permit pending	
149		Water Farm No. 3	Chart ID: 161756 Site ID: 606598	Box 449 Ridge Road Jonestown, PA 17038	Water Farm Partnership (Water Farm No. 3) 380 East 188 Avenue Myerstown, PA 17067		617,200	pending	8,800	swine to finish swine	1,846,000		five under barn manure storage pits	Trout Run, which is in watershed 7-D and classified as high quality - Cold Water Fishes	Individual NPDES	PA 624697	32 Pa. B. 1739 33 Pa. B. 1685	permit pending	
155	Lycopering	Lindstone	Chart ID: 165360 Site ID: 606010	1393 Pine Wood Road Jersey Shore, PA 17740	Charles and Michelle L. Deagerty 1393 Pine Wood Road Jersey Shore, PA 17740		564,000	processed but never maintained	4,200	swine finishing operation	662,429		two swine finishing barns, each 62 feet by 216 feet with a 6 foot deep concrete manure storage area under each barn (1 foot reserved to be maintained); storage capacity for 7 months; manure will be separated to neighboring farms (composting 595 acres) and land applied to 85 acres of the Deagerty operation	Artesian Creek, which is located in watershed 16-A and classified for cold water fishes	General NPDES	PAG 124812	32 Pa. B. 3693 33 Pa. B. 2489 33 Pa. B. 4245	NA	
160		Lehman Farm	Chart ID: 165360 Site ID: 606017	636 Pine Wood Road Jersey Shore, PA 17740	Michael V. and Dorothy A. Lehman 636 Pine Wood Road Jersey Shore, PA 17740		690,000	application pulled by applicant	4,200	4200 swine finishing operation and other unknown animals on site	662,429		two swine finishing barns, each 62 feet by 216 feet with a 6 foot deep concrete manure storage area under each barn (1 foot reserved to be maintained); storage capacity for 7 months; manure will be separated to neighboring farms (composting 498 acres) and land applied to 76.6 acres of the Lehman farm	Artesian Creek, which is located in watershed 16-A and classified for cold water fishes	General NPDES	PAG 124813	32 Pa. B. 3693 33 Pa. B. 2489 33 Pa. B. 4245	NA	
167	Perry and Franklin	Robert C. Boyles, Sr Farm	Chart ID: 148114 Site ID: 527961	234 Mountain Road Murry Valley, PA 17756	Robert C. Boyles, Sr 234 Mountain Road Murry Valley, PA 17756	Resident	607,400	permit pending	625.0 ABUs finishing swine and 79.5 beef cattle	1,500,000		HDPE lined manure storage septic	Little Shotters Run which is located in watershed 16-D and classified as Cold Water Fishes	General NPDES	PAG 124818	32 Pa. B. 6046 32 Pa. B. 4285 34 Pa. B. 1261	October 25, 1998 July 5, 2001	1990 - discharge of swine manure to unimproved tributary of Little Shotters Creek; CDA entered March 7, 2000 with conditions and \$2195 and penalty 2001 - manure storage overflow with discharge to earth surface and surface waters, June 18, 2002 CDA entered requiring conditions and \$1,650 and penalty	
168	Millen	Decker	Chart ID: 148922 Site ID: 545103 Facility ID: 664444	290 Road Apple Drive McLure, PA 17841	Rosemary K & Troy M Lent 290 Road Apple Drive McLure, PA 17841	Resident	470,000	470,000	3,210	3,200 finishing pigs and 10 beef steer	677,150		2 swine barns with 8 deep concrete manure storage under the barn with capacities of 271,200 gallons and 558,200 gallons	Jacks Creek, which is classified for Cold Water Fishes and located in watershed 12-A	General NPDES	PAG 122567	31 Pa. B. 1403 34 Pa. B. 2814	no violations	
169		Goss Family Farm	Chart ID: 148144 Site ID: 545275	129 Decatur Road McLure, PA 17841	Ronald E. & Timothy R. Goss 129 Decatur Road McLure, PA 17841	Resident	606,650	606,650	4,225	4,200 swine, 25 beef cattle	1,848,000		two swine finishing barns with 8 deep concrete manure storage under	Jacks Creek, which is classified for Cold Water Fishes and located in watershed 12-A	General NPDES	PAG 125511	31 Pa. B. 2294 31 Pa. B. 3211	no violations	not completing self-inspection reports (Form B)

**PERMITTED AND PENDING CONCENTRATED ANIMAL FEEDING OPERATIONS IN PENNSYLVANIA**

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
County	Township	Farm Name	DEP Identifier	Farm Location	APCS Permit Issue To	Regulator	Proposed Acre	Approved Acre	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total Dry Manure Storage Capacity (gallons)	Manure Storage Description	Waterbody Name	Permit Type	Permit Number	PA Statute Cites	Permit Violation Dates	Violation Description
	Deerfield and Derry	The John Lindsay Dairy Farm	Client ID: 161746 Site ID: 802098	Peasant Valley Road Lewistown, PA 17044	John E. Lindsey 365 Leaning Lane Lewistown, PA 17044	Wagner (Water Control)	543,300	513,300	4,080	currently a dairy and dairy operation, but planning on phasing out dairy operation and converting units operation to 4,000 head of cattle	1,348,213		2 main barns with 8 ft deep concrete manure storage under the barns with a capacity of 852,480 gallons and 680,713 gallons	untreated tributary to Muddy Run, which is classified as Cold Water Fishery and located in watershed 13-A	General NPDES	PAG 12548	32 Pa. B. 1418 32 Pa. B. 2040		no violations
181	Grande	Wagner Green Farm	Client ID: 160377 Site ID: 802099	Lewistown, PA 17044	Deer Stone Ag (Water Control) 10048 Ferguson Valley Road Lewistown, PA 17044	Peasant Valley Food (Purina also involved)	765,000	745,000	4,007	1,540 cows with 200, 23 heifers, and 3,480 nursery pigs	2,167,100		each barn has temporary manure storage under the building, all of the collection from concrete basins release to a two stage H-DFE liquid system, stage 1 is a solids pond with a H-DFE tank and has a capacity of 802,000 gallons, stage 2 is a H-DFE liquid system with a capacity of 1,545,100 gallons, has groundwater monitoring and leak detection system	untreated tributary to Muddy Run, which is classified as high quality - cold water fishery	Individual NPDES	PA 620441	32 Pa. B. 3720 32 Pa. B. 3988		no inspections
182	Monroeville	Dairy	Client ID: 201713 Site ID: 802342	201 Carlisle Blvd Derry, PA 17821	Don W. Beuchel 199 Carlisle Blvd Derry, PA 17821	Shelburne Derry, PA 17821	696,200		pending	4,300	1,386,030		two barns, each with dimensions of 82 x 220 with under barn manure storage	Chickering Creek which is located in watershed 10-D and classified as Warm Water Fishery	General NPDES WCM Part II	PA6 12416 WCM 4703201	32 Pa. B. 1196 32 Pa. B. 2081		permit pending
183	Perry	Greenwood	The Hight, Inc.	Client ID: 47428	710 Peaslee Valley Road Lewistown, PA 17044	Hight, Inc. 21 Hightland Drive York, PA 17306	568,550		pending	2,050	1,200,000		existing H-DFE system liquid manure storage structure with a completed dry lot and 1 H-DFE liquid under construction, a leak detection system is located around the structure	Jordan River, which is located in watershed 13-D and classified as warm water fishery	General NPDES	PAG 12549	32 Pa. B. 2889		permit pending
184	Hemp	The Shepherds Farms	Client ID: 168113 Site ID: 809115, 547289	Har-Buller, PA 17058	Hendley Ag. 130 Airport Road, Box 68 Hemp, PA 17341-0068	Hendley Ag	702,000	702,000	1,008	1,800 heifers to linear dairy operation	3,000,000		3 stage H-DFE manure storage system, 800,000 gallons of manure storage and second stage has approximately 2.5 million gallons of storage capacity, system has leak detection system	Steel Run and Jordan River, which are classified as Warm Water Fishery and located in watershed 13-D	General NPDES	PAG 12644	32 Pa. B. 1340 32 Pa. B. 2480		no inspections
185	Jackson	Perry Meadows Farm	Client ID: 220591 Site ID: 805551 Facility ID: 809584	R.D. 1, Box 10-A Shipp, PA 17058	Country View Family Farms Perry Meadows Farm 120 Lefebvre, P.O. Box 520 Shipp, PA 17322	Country View Family Farms	1,377,000	1,377,000	6,334	2,000 cows, 3,800 pigs and 54 heifers	4,000,000		1 lined impoundment with a leak detection system	untreated tributary to Shomers Creek, which is classified as High Quality - Cold Water Fishery and located in watershed 7-A	Individual NPDES NPDES Stormwater	PA 620606 PA6 12 9118	28 Pa. B. 3034 29 Pa. B. 6516 32 Pa. B. 225 34 Pa. B. 383 34 Pa. B. 3821 34 Pa. B. 3822		no violations
186		Holly Lane Farm	Client ID: 172643 Site ID: 802380 Facility ID: 807791	Holly Lane Shipp, PA 17058	Ames Lynn Heiser (Holly Lane Farm) R.D. 1, Box 700 Shipp, PA 17058		1,162,000	1,135,000	7,716	472 gestating sows, 38 sows with litters, 33 boars, 1,800 nursery pigs, 4,750 grower/finishing pigs, 77 gil replacements, 184 gil weaners and 110 feeder calves	4,070,682		4,280,000 gallons of manure storage and 474,000 gallons of manure storage in a 4,070,682 gallon carbon covered manure storage structure	Shomers Creek/Williams Run which is classified as high quality cold water fishery and located in watershed 7-A	Individual NPDES	PA 620608	32 Pa. B. 3030 32 Pa. B. 4243 32 Pa. B. 4246		no violations
187		The Beaver Ridge Farm	Client ID: 160587 Site ID: 802390	R. R. 1 Shipp, PA 17058	Virgil Quinlan, Jr. Beaver Ridge Farm, Inc. R.R. 1, Box 802 Shipp, PA 17058		412,550	413,000	5,003	3,000 finishing pigs, 3 beef cattle	677,200		manure from pig grower to underhouse manure storage, 2 concrete storage tanks in which manure flows directly from tank 1 (capacity 445,000 gallons) into tank 2 (capacity 200,000 gallons), granulator commingling and leak detection system, 1,241,000 gallons of manure generated on the farm, 853,000 gallons used on the farm	Shomers Creek, which is classified as High Quality - Cold Water Fishery and located in watershed 7-A	Individual NPDES	PA 620448	31 Pa. B. 6533 32 Pa. B. 3768		no inspections
188	Westwood Meadows	The Taylor "Tom" E. Miller, III Hay Farm	Client ID: 160581 Site ID: 802094	R.R. 1 Meadow, PA 17067	Taylor E. Miller R.R. 1, Box 164C Meadow, PA 17067	Hendler	941,020	541,000	3,080	3,080 finishing sows operation, unknown number of dairy	618,676		4 concrete under barn manure storage for pigs, 2 are deep pits measuring 8 ft and 9 ft deep; 2 are shallow pits measuring 3 ft deep and 10 ft long	untreated tributary to Bear Run, which is classified as Cold Water Fishery and located in watershed 7-A	General NPDES (Amendment 1)	PAG 12637	31 Pa. B. 9238 32 Pa. B. 1028 32 Pa. B. 4887		no inspections
189		Huber's View Farm	Client ID: 204688 Site ID: 802073	R.D. 1, Box 298 Lewistown, PA 17044	John Huber 22 West Hill Road Lewistown, PA 17044		688,769	749,000	7,000	existing 3,000 sows finishing operation with plans to add another 4,000 finishing pigs	1,980,000		the manure collection facility will be to be larger enclosed concrete manure storage structure located under the two barns. The existing structure has approximately 650,000 gallons of storage capacity and the proposed new will have approximately 800,000 gallons of storage capacity. Each barn will contain 8 inches of finished concrete.	Bear Run which is classified as Cold Water Fishery and located in watershed 7-A	General NPDES	PAG 12689	32 Pa. B. 6288 32 Pa. B. 1129		no inspections
190	Clear	Aspen-Perry Farm	Client ID: 161117 Site ID: 547380	Hemp, PA 17376	Hendley Ag. Aspen-Perry Farm 136 Airport Road Hemp, PA 17341-0068	Hendley Ag.	1,128,000	1,128,000	10,800	4,800 sows and 6,000 nursery pigs	7,260,000		High density polyethylene linedagoon	Gulfon Creek, which is classified as High Quality-Cold Water Fishery and located in watershed 13-B	Individual NPDES	PA 620844	31 Pa. B. 6754 32 Pa. B. 2070	June 26, 2021	untreated or inadequately treated sewage discharged
191	Southeast Madison	The Windsor Why Farm	Client ID: 161482	R. D. 1 Lewistown, PA 17047	Hendley Brothers R. D. 1, Box 194A Lewistown, PA 17047		545,000	application withdrawn on 7/28/21	28,200	4,100 sows, 500 beef cattle, 22,600 barn horses	443,586		agoon	Bear Run which is classified as Cold Water Fishery and located in watershed 13-A	General NPDES	PA6 12683	32 Pa. B. 454		N/A
192	York	Mark Leishman Farm	Client ID: 14841 Site ID: 343085	105 Hoover Lane Lewistown, PA 17047	Mark Leishman Farm 105 Hoover Lane Lewistown, PA 17047	Peasant Valley Foods	790,100	permit pending	6,010	5,800 finishing pigs and 150 Jersey heifers	3,000,000		3 under barn storage pits that flow into an H-DFE lined aagoon	untreated tributary to Muddy Run, a tributary to Shomers Creek which is classified as Warm Water Fishery and located in watershed 13-B	General NPDES	PA6 12556	31 Pa. B. 1890 31 Pa. B. 1895 34 Pa. B. 1340		no violations
193	Polar	Hebron	Client ID: 162441 Site ID: 802544	58 South Road 243 Coudersport, PA 16816	Top View Farms 58 South Road Coudersport, PA 16816		1,180,000	1,180,000	1,050	800 Holstein cows, 100 Jersey cows, and 150 calves	1,727,340		concrete manure storage pits, 140 feet in diameter by 16 feet high	Shomers Creek, which is classified as Cold Water Fishery and located in watershed 10-C	WCM Part II Individual NPDES	WCM 3307201 PA 622920	27 Pa. B. 4165 32 Pa. B. 4612 32 Pa. B. 288 32 Pa. B. 289	September 14, 2021; September 11, 2022; September 3, 2023; August 26, 2023; August 20, 2023; January 19, 2024; February 29, 2024; March 13, 2024	untreated or inadequately treated sewage not discharged; necessary manure was not taken to correct pollution evidenced from receiving waters of the Commonwealth; manure was not properly stored or properly land applied; manure storage guidelines not being met; less than one year discharge; and dry matter

Source: Pennsylvania Bulletin and DEP eFacts  
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A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
County	Township	Farm Name	DEP Identifier	Farm Location	NPDES Permit Issued To	Integrator	Proposed ADUs	Approved ADUs	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total Dry Manure Storage Capacity (tons)	Manure Storage Characteristics	Waterbody Situated	Permit Type	Permit Number	PA Bulletin Date	Permit Violation Dates	Violation Description	
	Snyder	Adams & Syring	Hutchins Farms	Client ID: 222263 151 Abnethel Road Hershey, PA 17037	Hutchins Farms BHM Partnership 151 Abnethel Road Hershey, PA 17037		897,200	897,200	4,374	480 gestating sows, 54 sows with litters, 2,880 finishing pigs, 1,300 nursery pigs, 40 replacement sows	2,148,001	high density polyethylene synthetic lined lagoon with a leak detection system, another under barn storage	unreviewed tributary of Middle Creek which is classified as Cold Water Fishes and located in watershed 8-A	General NPDES	PAG 134827	31 Pa. B. 2663 31 Pa. B. 5719		no violations		
162		Beaver	Swanton Pig Company/Dreyer Mountain Farms	Client ID: 151987 RR1, Box 2648 Swanton, PA 17879	Swanton Pig Company 128 Lake Street P.O. Box 538 Swanton, PA 17879	PeaceValley Foods Hosteler	1,800,800	1,588,000	14,100	10,200 finishing pigs and 3,900 piglets	5,000,000	2 HSPB lined lagoons with capacities of 1.8 million gallons and 1.9 million gallons	Wetland Run, which is classified for Cold Water Fishery and located in watershed 8-A	Individual NPDES	PA 823818	31 Pa. B. 2663 32 Pa. B. 204		no violations		
163		Swanton Pig Company - Bone Operation	Client ID: 167987 Site ID: 894269	RR1, Box 2648 Swanton, PA 17879	Hosteler Management Company 128 Lake Street P.O. Box 538 Swanton, PA 17879	PeaceValley Foods Hosteler	788,000	788,000	2,788	1340 gestating sows, 180 sows with litters, 399 nursery pigs, 180 replacement pigs, 800 finishing pigs	1,738,925	1.9 million gallon NPDES lined lagoon, 238,500 gallon holding pit under barn addition	Ham Run which is classified as Cold Water Fishes and located in watershed 8-A	Individual NPDES	PA 023844	31 Pa. B. 824 32 Pa. B. 1737		no violations		
164		Franklin	Steele Farm	Client ID: 162010 Site ID: 801848	487 Parkersville Road Middleburg, PA 17042		488,000	488,000	2,100	3,000 head hog finishing operation, 100 hogs	880,000	swine manure storage volume is 880,000 gallons and the hogs manure storage is intended for piglets or sows	unreviewed tributary of Middle Creek, which is in watershed 8-A and classified for cold water fishes	General NPDES	PAG 134814	32 Pa. B. 3703 32 Pa. B. 4482		no violations		
165		West Beaver	Berry Partnership	Client ID: 150949 Site ID: 541329	R. D. 2 McClure, PA 17061	PeaceValley Foods	1,915,000	1,915,000	144,425	500 dairy cows, 50 dry cows, 100 heifers, 75 young heifers, 50 calves, 9,000 finishing sows, 81,500 broilers, 53,350 chickens	2,587,500	if the Black Mountain Road Farm there are 4 solid floor swine finishing barns with capacities of 888,700 gallons; 500,750 gallons; 888,750 gallons, and 389,750 gallons; the Laurel Road Farm has two solid floor swine finishing barns with a capacity of 293,500 gallons	East Branch of Berry Fork Creek, which is classified for High Quality - Cold Water Fishes and located in watershed 8-A; Berry Creek which is classified as cold water fishes and located in watershed 8-A; Hungry Run which is classified as high quality - cold water fishes and located in watershed 8-A; Krebs Gap Run which is classified as high quality - cold water fishes and located in watershed 8-A; Beaver Creek which is classified as cold water fishes and located in watershed 8-A; Middle Creek which is classified as trout stocking fishes and located in watershed 8-A; Wetland Creek which is classified as cold water fishes and located in watershed 8-A	Individual NPDES	PA 023841	31 Pa. B. 4891 32 Pa. B. 248	October 28, 2003 November 16, 2003 September 24, 2003	inadequately or untreated sewage discharged		
166		Keeg	Daher	Client ID: 148261 Site ID: 540243	Fishner Road Wellersburg, PA 16021		528,000	528,000	4,200	4,200 wean to finish pigs	1,140,000	manure collected through slatted floors in two barns with reinforced concrete manure storage facilities beneath each barn	East Branch of Berry Fork Creek, which is classified for Cold Water Fishes and located in watershed 8-A	General NPDES	PAG 124882	30 Pa. B. 5925 31 Pa. B. 808		no inspections		
170		Liberty	Blairford Farm, LP	Client ID: 304196 Site ID: 804049	R.R. 1, Box 88 Reading Branch, PA 17388		2,138,800	2,138,800	phase 1: 1,000 phase 2: 2,110	phase 1: 850 milking cows, 128 dry cows, 828 finishing sows, 81,500 broilers, 53,350 chickens; phase 2: 1,000 milking cows, 100 dry cows, 828 finishing sows	4,400,000	both manure management systems are a double lined HSPB lined lagoon	Lille Run, which is classified as High Quality-Cold Water Fishes and located in watershed 10-A	Individual NPDES WQM Part II	PA 023870 WQM 060501	31 Pa. B. 8288 32 Pa. B. 3239 34 Pa. B. 1348				
171		Sublet	Sublet Farm (formerly Sugar Valley Farm)	Client ID: 150949 Site ID: 541329	Middleburg (18852) or Abnethel (18853), PA	Hosteler Management Company 10 Copperfield Circle Luzerne, PA 17843	PeaceValley Foods Hosteler	1,804,000	1,804,000	11,742.08	2,300 gestating sows, 52 sows, 1,200 pigs, 228 replacement pigs and 1,400 nursery pigs	8,916,000	1.7 million gallon primary manure storage pond-in-ground and a 1.5 million gallon secondary manure pond-in-ground with elevated transfer structure	unreviewed tributary of Conroy Creek and Conroy Creek which are both classified for the following uses: warm water fishery and double brook, water supply and recreation; both are located in watershed 8-A	NPDES Permit WQM Part II	PA 023878 WQM 060501	30 Pa. B. 1099 30 Pa. B. 4288	July 17, 2003	failure to prevent sediment to other adjacent discharge via waters of the Commonwealth	
172		Union	Sublet	Client ID: 011804 Site ID: 380345	R. R. 2 Leadsburg, PA 17837	Homestead/Union Farm R.R. 2, Box 234 Leadsburg, PA 17837		387,300	387,300	2,588.08	2,280 finishing hogs, 58 dairy cows and 49 dairy heifers	1,139,280	hog barn with a capacity of 382,888 gallons and an aerobic lagoon used to store dairy manure with a capacity of 340,410 gallons	Little Run, which is classified as High Quality - Cold Water Fishes and located in watershed 10-C	Individual NPDES	PA 023852	32 Pa. B. 8210 31 Pa. B. 230		no violations	
173		Kelly	Gary A. Plesigl Farm	Client ID: 150949 Site ID: 541329	Goodman Road Leadsburg, PA 17837	Gary A. and Sandra L. Plesigl R.D. 2, Box 628 Leadsburg, PA 17837		534,000	534,000	4,180	4,180 farm swine	1,670,080	manure collected through slatted floors in two barns into reinforced concrete manure storage facilities beneath each barn	Little Buffalo Creek, which is classified for Cold Water Fishes and located in watershed 10-C	General NPDES	PAG 124881	30 Pa. B. 5925 31 Pa. B. 808		no violations	
174		York	Chancelor	Client ID: 162843 Site ID: 849553	Brogan, PA 17268	H.E. Haines & Sons (Jeffrey Haines) Haines Family Farms P.O. Box 7 Brogan, PA 17268		2,081,500	2,081,500	3,041	528 dairy cows, 3009 finishing steers and 15 finishing pigs	4,308,000	dairy has a 12 ft deep HSPB liner under concrete manure storage facility with a capacity of 816,000 gallons; feed operation has 12 ft deep below barn manure storage with capacity of 288,000 gallons; large lower level has below house storage with capacity of 3,000,000 gallons	Trout Run, which is classified as Trout Stocking Fishes and located in watershed 7-A	General NPDES	PAG 122512	31 Pa. B. 2668 31 Pa. B. 5488	June 4, 2003; November 28, 2001	Necessary measures were not taken to prevent polluting substances from reaching waters of the Commonwealth; polluting substances allowed to discharge into waters of the Commonwealth and may result in a spill.	
175		Fulton Pig Farm (Old Dog Farm)	Client ID: 162850 Site ID: 891108	1068 Main Street Fulton, PA 17322	Michael J. Jastrow Fulton Pig Farm 1068 Main Street Fulton, PA 17322	County View Family Farms	394,800	394,800	841	736 sows, 120 sows with litters, 15 heifers, 78 pigs, 2 boar culicidators	1,170,648	there are four confinement barns located on the sow farm; all manure is stored under the barn in slatted pits and flushed to outside storage lagoons; manure is first transported to a concrete storage structure that has a capacity of 700,510 gallons; when the concrete storage reaches a certain level the manure is transported to an aerobic lagoon with a capacity of 874,688 gallons	unreviewed tributary of Center Creek which is in watershed 1-1 and classified as Cold Water Fishes	General NPDES	PAG 122551	32 Pa. B. 2770 33 Pa. B. 2274		permit pending		
176		North Coburn	Brown Valley Farm	Client ID: 214288 Site ID: 824143	2288 Junction Road Seven Valleys, PA 17389	County View Family Farms, LLC (Brown Valley Farm) 630 South Angel Street Mount Joy, PA 17832	County View Family Farms	1,862,000	1,862,000	6,254	1,488 gestating sows, 130 replacement pigs, 24 sows, 560 nursery pigs and 1440 finishing sows	3,700,000	manure stored and slatted pits beneath each barn and is conveyed by gravity to a concrete reception pit and from concrete manure storage facilities	East Branch Conroy Creek, which is classified for Warm Water Fishes and located in watershed 7-A	Individual NPDES WQM Part II	PA 023858 WQM 070302	31 Pa. B. 2284 31 Pa. B. 2565 32 Pa. B. 1349 32 Pa. B. 4812 34 Pa. B. 2172 34 Pa. B. 3187	November 5, 2002; October 31, 2003	polluting substances allowed to discharge into waters of the Commonwealth; there is a permit for polluting substances reaching waters of the Commonwealth and may result in a spill.	

**PERMITTED AND PENDING CONCENTRATED ANIMAL FEEDING OPERATIONS IN PENNSYLVANIA**

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
County	Township	Farm Name	DEP Identifier	Farm Location	NPDES Permit Issued To	Integrator	Proposed ABUs	Approved ABUs	Total # of Animals	Animal Characteristics	Total Manure Storage Capacity (gallons)	Total DRY Manure Storage Capacity (cows)	Manure Storage Characteristics	Waterbody Effected	Permit Type	Permit Number	Pg Bulletin Case	Permit Violation Dates	Violation Description
	Peach Bottom	Master Swine Farm	Case ID 213229	Adair Road Dale, PA 17314	Craig Miller (Master Swine Farm) 41 Adair Road Dale, PA 17314	Smithfield	900 600	pending	4,400	4,400 breeding sows in 2 barns	2,000,000		under barn concrete manure storage	unimproved tributary to Mill Run which is classified as _____ and located in watershed T-1 and unimproved tributary to Fishing Creek which is classified as Trout Stocked Fishery and located in watershed T-8	Individual NPDES	PA 0247299	31 Pa. B. 4390	permit pending	
172	Warren	Cedar Hill Farm	Site ID 547524	120 Harford-Alford Road Weavertown, PA 17385	Hollister Management Company - Cedar Hill 120 Harford-Alford Road Weavertown, PA 17385	Hollister	1,434 700	1,434 700	64,300	60,000 layers; 750 sows with sows; 3,100 nursery pigs; 600 growing pigs; 50 beef calves; 550 mature beef steers; 50 beef cows	1,054,484		swine manure is stored in a 910,000 gallon circular concrete tank and in a 150' x 150' x 7' deep concrete pit beneath the poultry barn; dry manure from the poultry operation is composted then spread on fields; 2000 gallons from the beef operation is scraped and hauled to fields and swine manure runoff is collected in an underground storage tank with a capacity of 12,000 gallons	viol Run/Doe Run/Myers Branch Berntown Creek/Cornwage Creek, which are classified as Warm Water Fishes and located in watershed T-F	Individual NPDES	PA 058843	31 Pa. B. 2839 32 Pa. B. 3103 32 Pa. B. 2938	September 4, 2001; March 30, 2005 November 6, 2002; August 28, 2003	operation and maintenance violations (7); facility not properly maintained; CDA; nutrient limits for conventional pollutants were violated; nutrient limits for total coliform bacteria were violated

Original: 2412 186

Original: 2413 130  
Flanagan, Joann

RECEIVED

From: amos [amos@jdweb.com]  
Sent: Monday, November 01, 2004 8:57 AM  
To: ag-scc@state.pa.us  
Subject: Fw: Nutrient Management,CAFO/ALL Farms

2004 NOV 15 PM 3:44

REGULATORY  
REVIEW COMMISSION

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

From: amos  
To: regcomments@state.pa.us  
Sent: Monday, November 01, 2004 8:55 AM  
Subject: Nutrient Management,CAFO/ALL Farms

Hello

This letter is from: Amos Newswanger  
158 Miller Rd. e-mail: amos@jdweb.com  
Lewisburg Pa. 17837 Phone (570) 966 9205

Please help use farmers out, if these new PH regulations are passed the way it was proposed it will place server financial hard ship on me, and very possibly put me out of business  
I just recently purchased this farm from my parents my first property purchase it has a 2000 head hog finishing barn, I have a total of 74 acres but (only about 18 tillable ) so I depend on local cash croppers to take the manure.

If these Regulations will impose on the importers tough record keeping or other regulations they will tell me they don't need any manure because they can buy chemical fertilizer for a little more money then the cost of hauling manure and have a lot less hassle no Government regulations

Also I'm renting a 2100 head hog barn from my neighbor where I depend on other farmers to take the manure. I believe that the Nutrient Management plan the way it is we do less polluting then there was .before there were any big hog finishing barns it has made most farmers aware of better land management practices.

Also I believe we are being discriminated just because we have large animal numbers all animals produce manure if manure is so bad for the environment What about all the small farmers where the barn yarn washes down the stream each time it rains they have absolutely no regulations

What about chemical fertilizer use and golf courses and lawn care company's ????

Way pick on me and other farmers ??

Don't you know were your cheap food comes from Maybe you think imported food is better were you don't have much control how things are done.??

**Just because you don't get much response from Farmers doesn't mean that we are in favor of this**

**Most Farmers are already over worked and under paid**

**Most people pushing for these new Regulations Don't have a clue about farming or where there food comes from**

**Hopefully this will help law makers to understand where I'm coming from**

attached is a letter comments by union county farmers concerns

Thank you

Amos Newswanger

**Comments provided by Union County farmers concerning proposed revisions to Pennsylvania's Nutrient Management Act regulations and CAFO regulations:**

Nutrient Management Act regulations:

- We do not necessarily disagree with the State Conservation Commission's decision to more directly address phosphorus loss in nutrient management plans, nor the choice of the Phosphorus Index as an effective and flexible tool in which to address this phosphorus loss, but we are very concerned about the financial impact this initiative will have on our industry. Therefore, we are recommending that the Commission allow for EITHER phosphorus indexing OR phosphorus balancing to be used in nutrient management plans called for under the Act and the CAFO program. This will provide additional flexibility to the agricultural community in its efforts to address phosphorus loss. We are defining "phosphorus balancing" as limiting 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. Also, for situations where the one-year allowable phosphorus application rate is so low (and/or the nutrient content of the manure is so high) that it cannot be practically applied with manure (such as maybe needing less than 2 tons of poultry manure per acre), the Commission should allow a farmer to apply a one time application that will meet the crop needs for up to the next 3 years.
  - If the Commission is not agreeable to also allowing phosphorus balancing for all CAOs and CAFOs, we would recommend that the addition of phosphorus balancing be allowed for existing CAOs and CAFOs only, and not for new operations.
  - Also, we are 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.
  - As a footnote,; we feel that the Phosphorus Index will space out operations in Pennsylvania due to the increased land base needed to address the index and the inability to economically transport manure long distances. This will address a number of the watershed carrying capacity concerns that the environmental groups have relating to the placement of agricultural operations.
- Possibly require manure exporters to purchase manure application easements from those farms that will be importing their manure. This is ensure that the importing operator will not be able to back out of the arrangement to receive imported manure.
- Fund the transportation of manure from existing farms that are required to, due to the NMA or CAFO programs, export manure from their sites. Do not fund the transportation of manure from new facilities. In this way all required farms have the same requirements but there would be support provided to existing operations in recognition that they developed their business plan based on the old regulations, and not assist proposed new or expanding operations who can determine if a new facility can be cash flowed given the new requirements.

- The Hatfield company representative stated that he would not look to build new facilities in Pennsylvania given the new requirements (both CAO and CAFO requirements combined), and they were looking to build 34 new facilities in Pa.
- Also the Commission should fund community alternative manure treatment facilities or community manure distribution facilities.
- The Commission should house a manure distribution specialist at the conservation district who's responsibility is to find importing sites or distribution centers for excess manure produced on existing CAOs or CAFOs.

CAFO regulations:

- The 100' setback, or 35' buffer for all CAFO manure is extreme and difficult for existing farms to address. Farmers have purchased farm land in order to apply manure to these lands, and to now disallow these applications for existing operations, without due compensation, could put a significant number of farmers into further financial distress.
  - As an overall comment on this requirement, we do not see how CAFO manure is any different from the manure produced on non-CAFO operations so we do not see why these requirements are valid for a CAFO but not other farms. An application of CAFO manure on near-stream areas is no more environmentally sensitive than non-CAFO manure in these same areas so we feel that targeting this requirement on CAFOs is ill conceived.
  - We are concerned about what areas will be identified as requiring this setback. Would this include roadside ditches, waterways, diversions, intermittent streams, wetlands, natural swales, etc? These areas can be very hard to define (open to interpretation), and as this setback area is defined liberally, there could be a very significant amount of land falling within this requirement and therefore a significant impact on the industry's access to land for manure application.
  - We would recommend that this requirement be eliminated because of the extreme financial hardship it is expected to impose on existing operations.
  - We can see how the 100'/35' requirement may be able to be accommodated by new operations, but we do not see how an existing operation, formatted to maintain their operation with their given acreage, could handle this requirement without possible significant financial hardship. Therefore we would recommend as one alternative that the 100'/35' requirement be required of new operations, but not existing operations.
  - Also, as another alternative, we would recommend that this requirement be eliminated for near-stream manure applications that are incorporated within 24 hours of application.
  - As a final alternative, if the DEP insists on imposing this requirement in Pa, we would suggest that it be imposed on all farms in Pa and not just

CAFOs since there is no scientific reason why CAFO manure is more damaging in near-stream areas than is non-CAFO manure.

- Who is proposed to be designated as a CAFO in Pa is problematic. Pa established an industry-accepted definition of a CAFO in Pa several years ago, given the program requirements at that time. Given the proposed revised requirements of CAFOs, the state needs to reevaluate who is relevant to be considered a CAFO. Based on the proposal, DEP is proposing to continue to address the types of operations defined as a CAFO in Pa in the past, as well as include the operations EPA is newly requiring to be a CAFO. We would suggest that if EPA is firmly defining a CAFO under its new regulations, and EPA is firmly requiring DEP to accept this definition of a CAFO for Pa, we would say the DEP should use the EPA CAFO definition and should not add additional farms to that definition, as they had done in the past. We believe that revising the CAFO definition as proposed will impose an unnecessary increased financial hardship on our state's already financially burdened agricultural industry, seeing that EPA is not requiring these other operations (those greater than 1,000 AEUs due to combined animal types, and 301-1,000 AEU CAOs) to be defined as a CAFO requiring an NPDES permit. If DEP could retain the current reasonable program standards that the industry has agreed to follow, than the industry could accept the expanded CAFO definition, but if this new setback/buffer requirement will be imposed on CAFOs (as well as phosphorus planning and new exported manure requirements), we recommend that DEP limit its CAFO definition to only what EPA requires.

As a final note, I want to express that the farm industry does not have the time to attend meetings and hearings to provide comments due to the high workload nature of this occupation. Our lack of attendance at these meetings should not be translated into acceptance of these new program criteria, but should be understood as relating to the lack of time farmers have to attend these meetings.

11-1-04

Original: 2412 193  
Original: 2413 137

Hello,

I am sending a copy of the comments made by Union Co. farmers to you, because I believe they are very reasonable + true. I couldn't say it any better.

The only other thing I can say is, if you are going to keep on making new rules + regulations, then be prepared to finance all the costs that will be incurred by the farmer.

Also it appears to me you don't much care where your quality food comes from and you want to stop economic growth and you want to create loss of jobs, because I know there are farmers that will be forced out of business.

Remember agriculture is Pa.'s # 1 industry and we as farmers are the last ones that want to pollute streams.

Sincerely,  
Ray K. Copenhaver

RECEIVED  
NOV - 5 2004

RECEIVED  
2004 NOV 15 PM 3:44  
REGULATORY  
REVIEW COMMISSION



**Comments provided by Union County farmers concerning proposed revisions to Pennsylvania's Nutrient Management Act regulations and CAFO regulations:**

**Nutrient Management Act regulations:**

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  - Also, we are 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. As a way to define exactly what a water body consists of we feel that it is important to count only named streams as "water bodies". If this is not accepted it is almost impossible to determine where application of manure is allowed. This is especially difficult in this state where we have so many miles of waterways.
  - As a footnote, we feel that the Phosphorus Index will space out operations in Pennsylvania due to the increased land base needed to address the index and the inability to economically transport manure long distances. This will address a number of the watershed carrying capacity concerns that the environmental groups have relating to the placement of agricultural operations.
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  - We would recommend that this requirement be eliminated because of the extreme financial hardship it is expected to impose on existing operations.
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  - Also, as another alternative, we would recommend that this requirement be eliminated for near-stream manure applications that are incorporated within 24 hours of application.

- As a final alternative, if the DEP insists on imposing this requirement in Pa, we would suggest that it be imposed on all farms in Pa and not just CAFOs since there is no scientific reason why CAFO manure is more damaging in near-stream areas than is non-CAFO manure.
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As a final note, I want to express that the farm industry does not have the time to attend meetings and hearings to provide comments due to the high workload nature of this occupation. Our lack of attendance at these meetings should not be translated into acceptance of these new program criteria, but should be understood as relating to the lack of time farmers have to attend these meetings. In addition, if these proposed regulations are not changed to be much more farmer friendly, there will be operations in this area that will be forced out of business due to the costs of manure spreading and the lack of land in this area to spread on. Some of these operations not large operations, but simply lack many acres of owned land. Is the goal of these regulations to put farmers out of business?

Ray Espenshade  
1128 Hill School Rd.  
Lewisburg, PA 17837-7556



State Conservation Comm.  
2301 N. Cameron St.  
Suite 405  
Harrisburg, Pa. 17110-9408

17110+9408

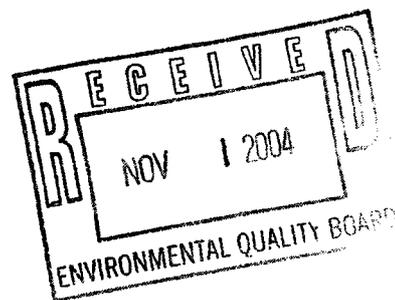


58 Lee Lynn Lane  
Huntingdon Valley, PA 19006  
October 26, 2004

RECEIVED

2004 NOV 12 PM 3:42

REGULATORY  
REVIEW COMMISSION



Environmental Quality Board  
P.O. Box 8477  
Harrisburg, PA 17105-8477

Re: CAFO Regulations

Why should factory farms be allowed to pollute our air and our water??? Typical family farms produce manure that can be used on fields minimizing pollution. Factory farms are so gigantic that there is no way the manure can all be used. Instead the manure runs into our streams and rivers resulting in dangerous levels of dangerous bacteria and nutrients to encourage the growth of that bacteria. The manure/ bacteria seeps into our ground water contaminating our drinking water. The methane from all these animals degrades our air.

State agricultural policies should be working to decrease the pollution from existing factory farms. They should be supporting sustainable agriculture. Our policies should NOT be supporting the spread of factory farms.

Please let me know what actions you are taking to support sustainable farms and to eliminate pollution from factory farms.

Sincerely,

Handwritten signature of Karen Eble.

Karen Eble

Original: 2412

Thirteenth & Bern Streets Telephone 610-921-2381  
P.O. Box 15234 Fax 610-921-7536  
Reading, PA 19612-5234 www.albright.edu

109

**Albright**  
COLLEGE

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2004 NOV 12 PM 3:41

INDEPENDENT REGULATORY  
REVIEW COMMISSION



November 1, 2004

Mr. Robert Gibson  
PA Department of Environmental Protection

Dear Mr. Gibson:

I hope the DEP will reconsider the new CAFO regulations that have been proposed. The proposal seems to me to be mistaken on two grounds. First, the idea that an exception could be made to the authority of the township zoning sounds dangerous. Second, as an ecologist with a lot of experience in dealing with the effect of added nutrients in aquatic ecosystems, it seems to me that you should be reducing the size of hog farms and placing much stricter limits on the nutrient outflows. Our watersheds need very careful protection, and the local authorities are likely to protect their own water quality since they and their families are the ones who are drinking the local water.

If the DEP is actually planning to go ahead with these new regulations, then there should be a longer comment period and more public meetings to allow people to be informed and to present their ideas to the DEP.

Sincerely,

*Susan Munch*  
Susan Munch, Ph.D.

Original: 2412

RECEIVED

**AGRICULTURAL ADVISORY BOARD**

2004 NOV 12 PM 3:41

**To the Department of Environmental Protection**

November 1, 2004

IN THE ENVIRONMENTAL QUALITY BOARD  
REVIEW COMMISSION



Environmental Quality Board  
Rachel Carson State Office Building  
15<sup>th</sup> Floor  
400 Market Street  
Harrisburg, PA 17105-2301

**Subject: Proposed Rulemaking, Environmental Quality Board, 25 PA Code, Chapters 91 and 92, Concentrated Animal Feeding Operations and Other Agricultural Operations**

**To Whom It May Concern:**

The DEP Agricultural Advisory Board has reviewed the proposed rulemaking to amend sections of 25 PA Code, Chapters 91 and 92 for Concentrated Animal Feeding Operations (CAFOs.) The proposed rulemaking also makes some substantive and organizational changes to existing regulations regarding agricultural operations in the Commonwealth. The Agricultural Advisory Board unanimously approved the following comments regarding the proposed rulemaking at the Board's October 20, 2004 meeting.

1. In Section 91.36(a)(7) the DEP would be given virtually unlimited authority to require any farmer having a manure storage facility to obtain a water management permit based on "relevant criteria" that have yet to be established.
2. Section 91.36(b)(2) would give DEP authority to place any setback and/or buffer requirements on manure application from streams that DEP deems "appropriate." It would give DEP authority to impose statewide setback/buffer requirements on even the smallest non-CAFO farmers.
3. In Section 91.36, the Board suggests that the regulations differentiate between indoor (under barn) storage facilities and outdoor manure storage facilities. While the freeboard requirements as proposed are acceptable for outdoor facilities they are not appropriate for indoor facilities since they are not exposed to rain events.
4. In Section 91.1, the Board suggests that the definitions of the different types of storage facilities (Earthen Waste Storage Pond, Manure Storage Facility, Waste Storage Facility, Waste Water Impoundment) be combined into one definition, which includes all variations thereby simplifying the definitions.
5. In Section 91.1, the Board suggests the setbacks requirements include a reference that measurements will begin at the center of the stream rather than at the stream

bank since banks are not readily identifiable and vary depending on the volume of flow in the watercourse.

6. In Section 91.36 (a), the Board expressed its concern about applications for a Water Quality Management Permit, which is prepared by engineers, being reviewed by non-engineers. Only engineers should review and recommend changes on plans prepared by engineers, otherwise changes which are required, and subsequently made, could subject the engineer who prepared the plan to be liable in the event of plan failure.
7. In Section 92.5(b), the Board questions whether DEP will be able to keep up with the time frames provided in the application submission process? What will be done to ensure permit applications are reviewed in a timely fashion? What is an applicant's redress if DEP does not meet its proposed time frames?
8. The Board in a general comment related to implementation of the rulemaking package, suggests that following adoption, DEP publish a guidance document for use by the DEP Regional Offices and the Conservation Districts to provide consistency and uniformity among districts and regions.

The Agricultural Advisory Board appreciates the opportunity to offer these comments and recommendations on the proposed rulemaking package.

Sincerely,



Walt Peechatka  
Chairman  
Agricultural Advisory Board

100  
120

Original: 2412  
2413

Environmental Quality Board  
PO Box 8477  
Harrisburg, PA 17105-8477



October 29, 2004

To Whom It May Concern:

I would like to respond on the issue of CAFO regulations and the Pennsylvania Nutrient Management Act regulations.

The 100' setback or 35' buffer zone for all CAFO manure is difficult for existing farms to address. I do not understand how CAFO manure is different from non-CAFO manure. There are some farms that do not have manure storage facilities and they must spread everyday, 365 days a year, which means they are spreading on frozen, snow covered ground. Temperatures warm up and the snow melts. Where does that manure go? Some of these farms are near streams.

I would like to have a more detailed explanation as to what areas you consider for the setback. Does this include intermittent streams, natural swales, roadside ditches, waterways, diversions into streams, etc.?

This could have a major impact on the availability of land for manure application. For existing operations, the 100'/35' requirement may be a severe financial hardship. Is there a possibility that the 100'/35' requirement be eliminated for manure applications near streams if the manure is incorporated within 24 hours of application?

I am wondering when the revisions are finalized as to who will be considered a CAFO, will this impose an increased financial burden on our state's agricultural industry?

Pennsylvania, I feel, is one of the most regulated states for agriculture with the Nutrient Management Act which I think is a good thing and there are changes that may need to be made such as phosphorus management. I also wonder with some of these changes, how many farmers will still exist.

The importing and exporting of manure is becoming a more complex issue to deal with. I hope you keep in mind any proposed fees for manure permits put on farms be reasonable. There is already an added strain on the farm income due to rising fuel costs and insurances.

RECEIVED  
2004 NOV 10 PM 3:44  
PENNSYLVANIA  
REVENUE COMMISSION

The expenses for our agricultural industry have increased every year. I wonder with new regulations what the future holds for agriculture in Pennsylvania. I hope everyone keeps an open mind and there is give and take on both sides to benefit us all.

Sincerely,

A handwritten signature in cursive script that reads "Brenda Wagner". The signature is written in black ink and has a fluid, connected style.

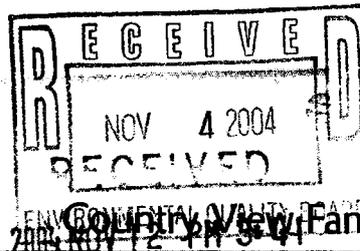
Brenda Wagner  
560 L. Bartlow Road  
Muncy, PA 17756



Original; 2412

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2004 NOV 12 PM 3:41



114

120 Lake Street  
P.O. Box 526  
Ephrata, PA 17522  
717-721-9127 Office  
717-721-9128 Fax

ENVIRONMENTAL QUALITY BOARD  
Country View Family Farms, Inc.

REVIEW COMMISSION

INDEPENDENT REGULATORY  
REVIEW COMMISSION

October 28, 2004

Environmental Quality Board  
P. O. Box 8477  
Harrisburg, PA 17105-8477

**RE: Proposed Changes to CAFO Regulations – 25 PA §91 & 92**

Dear Environmental Quality Board,

Country View Family Farms, Inc. (CVFF) operates over twenty sow CAO/CAFO operations in Pennsylvania and is very concerned how the proposed changes as well as suggested changes to the CAFO regulations will affect animal agriculture. CVFF appreciates the opportunity to comment on the proposed regulations.

There are several general comments that need to be made before moving on to the specific sections of the proposed regulations:

- Because CVFF operates farms in several DEP regions, we have discovered a wide variance on how the existing regulations are interpreted and applied. We feel there should be strong enforcement from the central office so the revised regulations, when finally promulgated, will be applied uniformly by all DEP regions.
- Too frequently there are long delays in the permit application review process. Sometimes additional requirements over and above those found in the regulations are put on applicants causing additional costs and delays. Our request is to issue the permit on a timely basis if the regulation requirements are met.
- In the permit review process for Water Quality Management Part II Permits, it has been noted that non-engineers are requesting changes in the design of manure storage facilities designed by registered professional engineers. In the future, only engineers should be allowed to request such changes.

**Chapter 91. General Provisions**

**§91.1 – Definitions**

- Clarification needs to be made in the definition of setback. Where does the measurement of the setback begin – from the bank, edge, or center of the water body? The definition needs to be clear enough that both the farmer and the DEP can look at a waterway and come up with the same measurement for a setback.
- The vegetated buffer definition needs to clarify if a vegetated buffer can be harvested.

§91.36 – Pollution control and prevention at agricultural operations

- (a)(5)(i) The 24 inch freeboard requirement should not apply to manure storage facilities that are not subject to rainwater events. A six or twelve inch freeboard is sufficient.
- (a)(7) The meaning of “risk of pollution” needs to be clearly defined.

**Chapter 92. NPDES Permitting, Monitoring and Compliance**

§92.1 – Definitions

- The definition of setback needs to be clarified. Where does the measurement of the setback begin – from the bank, edge or center of the water body? The definition needs to be clear enough that both the farmer and the DEP can look at a waterway and come up with the same measurement for a setback.
- The vegetated buffer definition needs to clarify if a vegetated buffer can be harvested.

§92.5a – CAFOs

- (b) (1-2) Will DEP be able to keep up with permit application submissions under the proposed time frame?
- (c) (1-2) What is the definition of “commence”? Does it mean “populated” or does it mean start of construction?
- (d)(1)(i) Instead of specifying setback distances in the regulations it would be better to reference the current NRCS Technical Guide. This would avoid having to change the regulations every time a change is made to the Technical Guide in order to keep the regulations and the guide consistent.
- (d)(1)(ii) This is an extremely vague statement and it leaves too much room for differences in interpretation.

Country View Family Farms, Inc., like the rest of the agricultural community believes that farming must be done in an environmentally responsible manner to protect our food supply, the water 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, 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.

Country View Family Farms, Inc. recognizes the effort that has gone in to revising the CAFO regulations and appreciates this opportunity to offer these comments.

Sincerely,



Robert M. “Bob” Ruth  
President

175

Original: 2412

**Hughes, Marjorie**

**From:** Georgia Sheckard [craftmaven@hotmail.com]  
**Sent:** Wednesday, October 27, 2004 8:39 PM  
**To:** RegComments@state.pa.us  
**Subject:** Water Quality at Risk: comments on proposed CAFO regulation

RECEIVED

2004 NOV 12 PM 3:44

REGULATORY REVIEW COMMISSION

October 27, 2004

Pennsylvania Department of Environmental Protection  
PA

Dear ,

Subject: Comments on proposed CAFO regulation

The proposed Concentrated Animal Feeding Operation (CAFO) regulation is seriously inadequate at minimizing nutrient pollution and protecting water quality. Pennsylvania already has an estimated 3,903 miles of streams impaired by agricultural impacts, and this regulation holds little potential for correcting this. As a resident of Lancaster County, I see first hand how farms are retaining old methods of farming thereby continuing to contribute to the nutrient pollution. We must take strong action now to make changes that will reduce the nutrients entering our watershed.

1. The proposed regulations fail to require a NPDES permit for medium CAFOs, as required by federal regulation. The proposed definition of CAFO in § 92.1 is legally problematic because it fails to include certain medium CAFOs, that are required by the federal regulations at 40 CFR § 122.23(a), (b)(2) and (b)(6) to obtain permits. Inexplicably, while the proposed definition in § 92.1 correctly cross-references those facilities that are classified as large CAFOs, it omits the medium-sized facilities that also must be classified as CAFOs.

The federal rule includes specific language regarding "discharges" in the definition of small and medium CAFOs at 40 CFR § 122.23(b)(6)(ii). This provides an opportunity to regulate and enforce operations currently not covered by the Nutrient Management Act, that contribute heavy nutrient loads to the Commonwealth's waters. This definition would include operations with livestock in streams, stormwater flowing from manure management facilities, and other sources of stream degradation. A definition that includes operations with 300 to 1,000 AEUs that must have a Nutrient Management Plan may include more operations than the definition at 40 CFR 122.23(b)(6)(ii), but not those operations with the most serious pollution problems.

In the Chesapeake Bay watershed in Pennsylvania, agricultural operations are the largest source of nitrogen and phosphorous pollution. While many large confined animal operations have been subject to CAFO permit and nutrient management planning requirements, many medium and small size agricultural operations have operated under the regulatory radar. In order to comply with the federal Clean Water Act, to maintain NPDES delegation, and to take a positive step to ensure that major sources of agricultural nutrient pollution in the watershed are addressed, DEP must, as EPA has done, amend the definition of CAFO to include the appropriate medium-sized animal operations into the regulation.

2. The definition of CAFO in § 92.1 is vague and ambiguous. In addition to not satisfying federal CWA requirements, the proposed definition of CAFO in § 92.1 is vague and ambiguous. It is unfair to both citizens, and the potentially regulated agriculture community, since the regulation fails to give adequate notice to both groups of who is covered by the regulation. This uncertainty will only lead to litigation and the need for the paperwork, expenses, and wasted time

of regulatory revisions in the future to correct the problematic language. Moreover, the regulation itself could be held by a court to be violative of due process since it is void for vagueness.

3. The proposed definition of CAFO at § 92.1 irrationally excuses unauthorized discharges from CAFO classification

The nonsensical definition includes one class of CAFOs that is: "any agricultural operation with a discharge to surface waters that is authorized by Department permit limits and conditions." It excludes from CAFO classification agricultural operations that are operating without necessary permits, or are otherwise not authorized by the Department. Thus, an agricultural operation could refuse to get a permit and by doing so avoid classification as a CAFO and the regulatory requirements that come with such a classification. In addition, the language does not specify which "Department permit limits and conditions" would result in a classification. In sum, the proposed language is completely irrational and must be amended to include agricultural operations with discharges regardless of whether they are authorized by any Department permits.

In order to eliminate irrational language, comply with the federal rule, and clarify the proposal, DEP needs to recraft the definition of CAFO in § 92.1 to read as follows:

CAFO--Concentrated animal feeding operation--A CAO with greater than 300 AEUs, any agricultural operation with greater than 1,000 AEUs, any agricultural operation defined as a large CAFO under 40 CFR § 122.23(b)(4) or a medium CAFO under 40 CFR § 122.23(b)(6) (relating to concentrated animal feeding operations (applicable to state NPDES programs, see 123.25)), or any other agricultural operation designated as a CAFO by the Department based on risk of pollution of surface waters using relevant criteria such as the size, location and management plan of the operation.

The proposed rule's calculation of Animal Equivalent Units to define CAFOs is appropriate for Pennsylvania's mixed operations. Many operations may not reach any of the species-specific thresholds to be considered a CAFO, but would have more than 300 AEUs and need to be included.

4. The Clean Streams Law must be enforced effectively. § 91.36 (c) should be rewritten to state: Discharge of Pollutants. It is unlawful for agricultural operations to discharge pollutants to waters of the Commonwealth except as allowed by regulations or a permit administered by the Department. The Department SHALL take an enforcement action against any agricultural operation in violation of this requirement. In addition, when an agricultural operation is found to be in violation of the Clean Streams Law, 35 P.S. § 691.1 et seq., the Department SHALL require the agricultural operation to develop and implement a nutrient management plan under Chapter 83, Subchapter D, for abatement or prevention of the pollution.

5. The provisions relating to buffers and setbacks are vague. The requirement for a 100-foot year round setback (or 35-foot vegetative buffer) from streams and other water bodies for land application of manure is a giant step in the right direction. However, a 50-foot buffer would capture much more pollution before it enters our streams and downstream waters. The language requiring "appropriate vegetated buffers and setbacks," is vague. The Pennsylvania Technical Guide standards for Riparian Forest Buffers (391) and Riparian Herbaceous Cover (390) would provide helpful guidance on how these buffers may be designed to capture pollution and protect water quality.

Thank you very much, and I look forward to a strengthened regulation and improved water quality.

Sincerely,

Mrs. Georgia Sheckard  
29 Delp Rd  
Lancaster, PA 17601-3945

Original: 2412  
2413

102  
122

Flanagan, Joann

RECEIVED

**From:** Goodlander, Douglas  
**Sent:** Tuesday, October 26, 2004 8:07 AM  
**To:** Flanagan, Joann  
**Subject:** FW: NM comments

2004 NOV 10 PM 3:44

INDIANA REGULATORY  
REVIEW COMMISSION

Joann,

here is another comment letter for the nm act comments. please file and send on to Marge.

dag

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

**From:** Doug Graybill [mailto:dgraybil@sosbbs.com]  
**Sent:** Monday, October 25, 2004 11:47 PM  
**To:** dwoff@state.pa.us; dgoodlande@state.pa.us; wpeechatka@pennag.com; bruth@cvff.com; gswan@pfb.com  
**Cc:** rmadigan@pasen.gov  
**Subject:** NM comments

TO: Dennis Wolfe, Pa Dept of Agriculture

Doug Goodlander, Pa State Conversation Commission

Walt Peechatka, PennAg Industries

Gary Swan, Pa Farm Bureau

Robert Ruth, Country View Family Farms

DATE: 10-25-2004

FROM: Keith Heimbach and Doug Graybill, Granville Summit, Pa

Comments on the proposed Nutrient Management (NM) rules.

We want to address three areas concerning the possible effects on farmers in the proposed NM changes.

Our farming enterprise is located in Bradford County, Northeast of Canton. The topography of our farm is gentle rolling with a few sharp slopes. Rivulets border most all of our fields and pastures. Two swamps border some of our fields and serve as a rivulet source. We have about 234 cultivated acres (80-100 acres of corn, the balance in hay) and 146 acres of pasture. Our animal agriculture is composed of a 30 cow dairy plus young stock, 90 bison cows plus young stock and two 2100 head hog finishers. All cultivated acres and 100 acres of pasture receive from 4-6000 gallons of hog manure/acre/year. Sixty acres of rented pasture are located on a neighbor's land and his hog finisher provides manure for that pastureland. Our surplus manure is exported to neighbor's corn or hay ground.

CAO/CAFO

I believe the proposed rules unfairly focus on CAO/CAFO's since they are the most visible and easiest target to convince critics, that Pennsylvania is serious about reducing the nutrient load in the Chesapeake Bay basin.

10/26/2004

1. A survey of the nutrient load data from 1985 to 2003 provides little evidence of increasing nutrient load on the Susquehanna River and only points to great nutrient variations based on wet or dry years.
2. Nutrient loading has occurred over many decades prior to the advent of CAO/CAFO's (a recent development in the history of Penn. animal agriculture). Consequently, other sources must have contributed to the nutrient load in prior years.
3. If animal manure is the cause then small animal operations (AO) dairies, poultry flocks, pig operations, steer feeders, etc) have and are contributing to the nutrient loads accumulating in the river and bay.
4. The agricultural share of the nutrient load will only be reduced when winter spreading of animal manure on frozen or snow covered ground is greatly restricted. Our experience is, we are making better use and exercising more care in spreading manure from the hog finishers that we ever did from the dairy. Our dairy manure was and is still spread on frozen or snow cover land during the winter months. I have seen our fields literally swept clean in a few hours during a spring thaw. Our CAFO manure is spread on hay ground in fall or spring (immediate absorption by the crop). CAFO manure on our corn ground is incorporated within 12-24 hours. The fact is, since hogs, we have never been more environmentally right in our farming operation.
5. The focus on more restrictions for CAO/CAFO's is mis-directed and the increasing cost of compliance will stop or force us out of business. Our production contracts do not generate enough cash flow to justify the cost of transporting manure.
6. I think the agenda of the animal rights groups (anti-factory farming) is driving the continuing revisions and increasing restrictions.
7. It is very obvious to the agricultural community that many contributors to the bay's nutrient load problems are being ignored or excused ( Milton, Pa = six million gallon dump of raw sewage, Baltimore, Md = six hundred million gallon dump of raw sewage, allowing municipalities to dump raw sewage during flood events (how many gallons of raw human sewage were released in the past two hurricane events by local municipalities?), golf courses, chemical fertilizing and herbicide treatment of residential lawns, residential, commercial and industrial runoff). In fact, we read that cleaning up the bay is a nearly impossible situation in light of the current expansion rate of urban/suburban development and population growth within the Chesapeake Bay drainage.

#### SET-BACKS AND BUFFERS

1. To comply with the proposed rules, we calculated that 40% of our rented acreage (40 acres) will be excluded from manure treatment. Therefore, just on the rented acreage, we will have to export 240,000 gallons. The financial impact is that we must pay (\$55/hr) for a certified hauler to spread manure on some distant acreage if we can find a farmer with a conservation plan (E&S) and a NM plan. Then, we will have to purchase chemical fertilizer (15-15-15=\$291/ton, Urea=\$345/ton, 2004 prices) if we want a crop yield from our rented acreage. A double expense to raise a crop of hay or corn. The implication is that CAFO manure is bad but animal operation (AO) manure or chemical fertilizer is ok, yet all deliver N-P-K. All are subject to runoff but CAFO manure is designated the problem. This situation leaves us with only a few choices. a) drop the rented land. b) compete with CREP to rent more distant acreage. c) call it quits. d) ignore the buffer restrictions. Obviously, we cannot afford any of these options. Farmers may be forced to go underground and ignore the restrictions in the name of survival.
2. If setback/buffers are the solutions than residential developments, etc should have established setback/buffers from agricultural lands. The buffer/setback monkey should not be totally on the back of CAFO's.
3. The broad definition of "stream or other water body" can mean anything to anybody. Setback/buffers should be restricted to named streams or impaired streams. We have no idea what to do with the diversions or sod waterways, temporary ponding, etc which occasionally carry excess water off our fields

#### EXPORTING OF MANURE

1. With the proposed manure spreading limitations on our present operation (owned and rented acreage), we will

be forced to find more distant acceptable acres for receiving animal manure.

2. The 150 foot rule setback for non NM acreage will remove more acreage from spreading and increase our acreage needs and expenses.
3. Our conservation district lacks the manpower to fast track E&S plans. Our present E&S plan is totally inaccurate and will have to be redone. It was created in an office by a technician based on inaccurate topo's with no farm visit and contains recommendations which have no practical validity for our operation. We have significant acreage mis-labeled HEL which in no way should have this designation.
4. Most of the neighboring farms now receiving our exported manure spread on less than forty acres, just a portion of their total acreage. They carefully choose the crop and acreage based on proximity in an effort to reduce hauling costs. Will they endure the process of developing an inaccurate E&S and the cost of developing a NM plan- a guaranteed **NO**? Even if our neighboring farmers survive the hoops, it could be years until the acreage would be available for exported manure. Can we convince them to go through all the hoops just to receive our manure? It will be easier for them to turn their land over to CREP.
5. A general reading of the proposed regulations addressing recording keeping for manure spreading is enough to scare people off. These regulations read as if we are the most distrustful people in existence.

#### SUMMARY IDEAS

1. Upon reading the 25 Pa Code, Chapter 83, Subchapter D. NUTRIENT MANAGEMENT,

my reaction is total frustration that it takes 137 pages to control all the possibilities in dealing with manure. We never realized that animal manure is such a dangerous material. Our reaction is **"WHY FARM !"** We certainly do not want our children or grandchildren to farm. There is not enough financial income to even come close to justify compliance to the proposed restricts. We might as well sell to a developer, or sign up our farmland in CREP.

2. No animals equal not manure handling problems -- sure is tempting.
3. We are being treated as if we are the criminals of the bay watershed.
4. A tremendous amount of money has been spent on BMP's and we notice little if any reduction in nutrient loads. The Mill Creek project, Mt. Pisgah, Bradford County is one example. The Bentley Creek, Bradford County stream bank project is a total disaster after a tremendous amount of money was spent to make this creek a model for other projects. The Towanda creek was literally gutted by hurricane Ivan in a few hours but the suspended sediment load will be charged to animal agriculture.
5. Best Management Practices are always done with a "Cadillac" mentality by the local conservation district personnel with a nice tax owed to IRS by us.
6. To install BMP's on our small dairy operation (30 cows), the price tag is approximately \$40,000. I (Doug) told my son-in-law ( Keith) that this is insanity, how can a small dairy justify even our share of the cost plus pay the tax burden created by the project. Better to shoot the cows and forget the whole mess. Somewhere, there has to be some common sense applied and these proposed NM rules are more of same illogical thinking.

Thank you for your time in hearing our response.

Keith Heimbach

Doug Graybill

C.C. to

Rodger Madagan

10/26/2004

Tina Pickett

Matt Baker

Jennifer Reed