

# Attachment # 1

Commonwealth of Pennsylvania

## Pennsylvania Code

### Title 25. Environmental Protection

Department of Environmental Protection

#### Chapter 102.4

DRAFT  
6-1-07



#### § 102.4. Erosion and sediment control requirements.

(a) For agricultural plowing or tilling activities, the following erosion and sediment control requirements apply:

(1) The implementation and maintenance of erosion and sediment control BMPs are required to minimize the potential for accelerated erosion and sedimentation, including for those activities which disturb less than 5,000 square feet (464.5 square meters).

(2) Written Erosion and Sediment Control Plans are required for agricultural plowing or tilling activities that disturb 5,000 square feet (464.5 square meters) or more of land.

(3) The landowner, and any lessee, renter, tenant or other land occupier, conducting or planning to conduct agricultural plowing or tilling activities are jointly and individually responsible for developing a written Erosion and Sediment Control Plan and implementing and maintaining BMPs, including those identified in the Erosion and Sediment Control Plan.

(4) The Erosion and Sediment Control Plan shall be designed to minimize the potential for accelerated erosion and sedimentation from agricultural plowing or tilling activities.

(5) The Erosion and Sediment Control Plan shall contain plan maps, soils maps, the location of waters of this Commonwealth, drainage patterns and a description of BMPs including tillage systems, schedules, and cost effective and technically practical conservation measures.

(6) The Erosion and Sediment Control Plan shall be available for review and inspection at the project site during each stage of the agricultural plowing or tilling activity.

(b) For earth disturbance activities other than agricultural plowing or tilling, the following erosion and sediment control requirements apply:

(1) The implementation and maintenance of erosion and sediment control BMPs are required to minimize the potential for accelerated erosion and sedimentation, including for those activities which disturb less than 5,000 square feet (464.5 square meters).

(2) A person proposing earth disturbance activities shall develop a written Erosion and Sediment Control Plan under this chapter if one or more of the following criteria apply:

(i) The earth disturbance activity will result in a total earth disturbance of 5,000 square feet (464.5 square meters) or more.

(ii) The person proposing the earth disturbance activities is required to develop an Erosion and Sediment Control Plan pursuant to this chapter under Department regulations other than those contained in this chapter.

(iii) The earth disturbance activity, because of its proximity to existing drainage features or patterns, has the potential to discharge to a water classified as a High Quality or Exceptional Value water pursuant to Chapter 93 (relating to water quality standards).

(3) The Erosion and Sediment Control Plan shall be prepared by a person trained and experienced in erosion and sediment control methods and techniques, and shall be designed to minimize the potential for accelerated erosion and sedimentation.

(4) Earth disturbance activities shall be planned and conducted to minimize the extent and duration of the disturbance.

(5) The Erosion and Sediment Control Plan shall contain the following:

(i) The existing topographic features of the project site and the immediate surrounding area.

(ii) The types, depth, slope, locations and limitations of the soils.

(iii) The characteristics of the earth disturbance activity, including the past, present and proposed land uses and the proposed alteration to the project site.

(iv) The amount of runoff from the project area and its upstream watershed area.

(v) The location of waters of this Commonwealth which may receive runoff within or from the project site and their classification pursuant to Chapter 93.

(vi) A written depiction of the location and type of perimeter and onsite BMPs used before, during and after the earth disturbance activity.

(vii) A sequence of BMP installation and removal in relation to the scheduling of earth disturbance activities, prior to, during and after earth disturbance activities.

(viii) Supporting calculations.

(ix) Plan drawings.

(x) A maintenance program which provides for inspection of BMPs on a weekly basis and after each measurable rainfall event, including the repair of the BMPs to ensure effective and efficient operation.

(xi) Procedures which ensure that the proper measures for the recycling or disposal of materials associated with or from the project site will be undertaken in accordance with this title.

(6) Where an earth disturbance activity may result in a discharge to a water of this Commonwealth classified as High Quality or Exceptional Value pursuant to Chapter 93, the person proposing the activity shall, as applicable, use the following Special Protection BMPs to maintain and protect the water from degradation:

(i) Special sediment basin requirements.

(A) Principal spillways shall be designed to skim water from the top 6 inches (15 centimeters) of the dewatering zone, or shall have permanent pools greater than or equal to 18 inches (46 centimeters) deep.

(B) The basin shall be designed with a flow length to basin width ratio of 4:1 or greater.

(C) The basin shall be designed so that it dewateres in at least 4 days and no more than 7 days when at full capacity.

(ii) Channels, collectors and diversions shall be lined with permanent vegetation, rock, geotextile or other nonerosive materials.

(iii) BMPs that divert or carry surface water shall be designed to have a minimum capacity to convey the peak discharge from a 5-year frequency storm.

(iv) Upon completion or temporary cessation of the earth disturbance activity, or any stage thereof, the project site shall be immediately stabilized.

(v) The Department or county conservation district may approve alternative BMPs which will maintain and protect existing water quality and existing and designated uses.

(7) The Erosion and Sediment Control Plan shall be available for review and inspection by the Department or the county conservation district at the project site during all stages of the earth disturbance activity.

(8) Upon complaint or site inspection, the Department or county conservation district may require that the Plan be submitted for review and approval to ensure compliance with this chapter.

(c) The Department or county conservation district may require other information necessary to adequately review a plan, or may require additional BMPs, on a case-by-case basis, when necessary to ensure the maintenance and protection of water quality and existing and designated uses.

#### Authority

The provisions of this § 102.4 amended under sections 5 and 402 of The Clean Streams Law (35 P. S. §§ 691.5 and 691.402); section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20); and section 11(2) of the Conservation District Law (3 P. S. § 859(2)).

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**Source**

The provisions of this § 102.4 adopted September 29, 1972, effective October 30, 1972, 2 Pa.B. 1796; amended June 3, 1977, effective June 20, 1977, 7 Pa.B. 1478; amended February 3, 1978, effective February 20, 1978, 8 Pa.B. 288; amended December 30, 1999, effective January 1, 2000, 30 Pa.B. 111. Immediately preceding text appears at serial pages (234603) to (234604).

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## Attachment # 2

Commonwealth of Pennsylvania

# Pennsylvania Code

## Title 25. Environmental Protection

Department of Environmental Protection

### Chapter 91.36



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6-1-07

#### § 91.36. Pollution control and prevention at agricultural operations.

(a) *Animal manure storage facilities.*

(1) Except when more stringent requirements are contained in paragraphs (2)—(5), a manure storage facility shall be designed, constructed, operated and maintained in accordance with current engineering and agronomic practices to ensure that the facility is structurally sound, water-tight, and located and sized properly, to prevent pollution of surface water and groundwater, including design to prevent discharges to surface waters during a storm up to and including a 25-year/24-hour storm.

(i) The Manure Management Manual and the Pennsylvania Technical Guide contain current engineering and agronomic practices which can be used to comply with the requirements in paragraph (1).

(ii) If the criteria in the Manure Management Manual and the Pennsylvania Technical Guide are not followed, the owner or operator shall obtain a water quality management permit or other approval from the Department for the manure storage facility.

(2) For liquid or semisolid manure storage facilities constructed after January 29, 2000, the owner or operator shall obtain a water quality management permit from the Department for the manure storage facility unless the design and construction of the facility are certified to meet the “Manure Management Manual” and “Pennsylvania Technical Guide” by a registered professional engineer. The owner or operator shall retain a copy of the certification at the operation and provide a copy to the Department upon request.

(3) In the case of a new or expanded liquid or semisolid manure storage facility located at an animal operation with over 1,000 AEUs for the first time after January 29, 2000, a water quality management permit is required.

(4) For a new or expanded liquid or semisolid manure storage facility after October 22, 2005:

(i) Where the manure storage capacity is between 1 million and 2.5 million gallons, a water quality management permit is required for any manure storage facility that is a pond and one of the following applies:

(A) The nearest downgradient stream is classified as a High Quality or Exceptional Value water under Chapter 93 (relating to water quality standards).

(B) The nearest downgradient stream has been determined by the Department to be impaired from nutrients from agricultural activities.

(ii) Where the manure storage capacity is 2.5 million gallons or more, a water quality management permit is required.

(5) For new or expanded CAFOs that commenced operations after April 13, 2003, and that include swine, poultry or veal calves, the CAFO shall prevent discharges to surface waters during a storm event up to and including a 100-year/24-hour storm from manure storage facilities that contain manure from those swine, poultry or veal calves.

(6) For a liquid or semisolid manure storage facility, the following minimum freeboard requirements apply and shall be maintained:

(i) For an agricultural operation with over 1,000 AEUs that was a new or expanded operation after January 29, 2000, a minimum 24-inch freeboard, except for enclosed facilities that are not exposed to rainfall, which must have a minimum freeboard of 6 inches.

(ii) For all other facilities, a minimum 12-inch freeboard for manure storage facilities that are ponds, and a minimum 6-inch freeboard for all other manure storage facilities.

(7) The requirements in this section are in addition to and do not replace any more stringent requirements in Chapter 83, Subchapter D (relating to nutrient management).

(b) *Land application of animal manure and agricultural process wastewater; setbacks and buffers.*

(1) The land application of animal manures and agricultural process wastewater requires a permit or approval from the Department unless the operator can demonstrate that the land application meets one of the following:

(i) The land application follows current standards for development and implementation of a plan to manage nutrients for water quality protection, including soil and manure testing and calculation of proper levels and methods of nitrogen and phosphorus application. The Manure Management Manual contains current standards for development and implementation of a plan to manage nutrients for water quality protection which can be used to comply with the requirements in paragraph (1).

(ii) For CAOs, the land application is in accordance with an approved nutrient management plan under Chapter 83, Subchapter D.

(iii) For CAFOs, the land application is in accordance with a CAFO permit as described in § 92.5a (relating to CAFOs).

(2) Unless more stringent requirements are established by statute or regulation, the following agricultural operations may not mechanically land apply

manure within 100 feet of surface water, unless a vegetated buffer of at least 35 feet in width is used, to prevent manure runoff into surface water:

- (i) A CAO.
  - (ii) An agricultural operation receiving manure from a CAO directly, or indirectly through a broker or other person.
  - (iii) An agricultural operation receiving manure from a CAFO directly, or indirectly through a broker or other person.
  - (3) CAFOs shall meet the setback requirements in § 92.5a(e)(1)(i).
  - (4) For purposes of paragraph (2) only, “surface water” means a perennial or intermittent stream with a defined bed and bank, a lake or a pond.
- (c) *Discharge of pollutants.*

(1) It is unlawful for agricultural operations to discharge pollutants to waters of this Commonwealth except as allowed by regulations or a permit administered by the Department. The Department is authorized to take an enforcement action against any agricultural operation in violation of this requirement.

(2) An operation that has a discharge that is not authorized under the act and that meets the definition of either a medium or small CAFO under 40 CFR 122.23 (relating to concentrated animal feeding operations (applicable to State NPDES programs, see 123.25)) is considered to have an illegal discharge and is subject to enforcement action under the act.

(3) When an agricultural operation is found to be in violation of the act, the Department may require the agricultural operation to develop and implement a nutrient management plan under Chapter 83, Subchapter D, for abatement or prevention of the pollution.

#### Authority

The provisions of this § 91.36 issued under sections 5(b)(1) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b)(1) and 691.402); and section 1920-A of The Administrative Code of 1929 (71 P. S. § 510-20).

#### Source

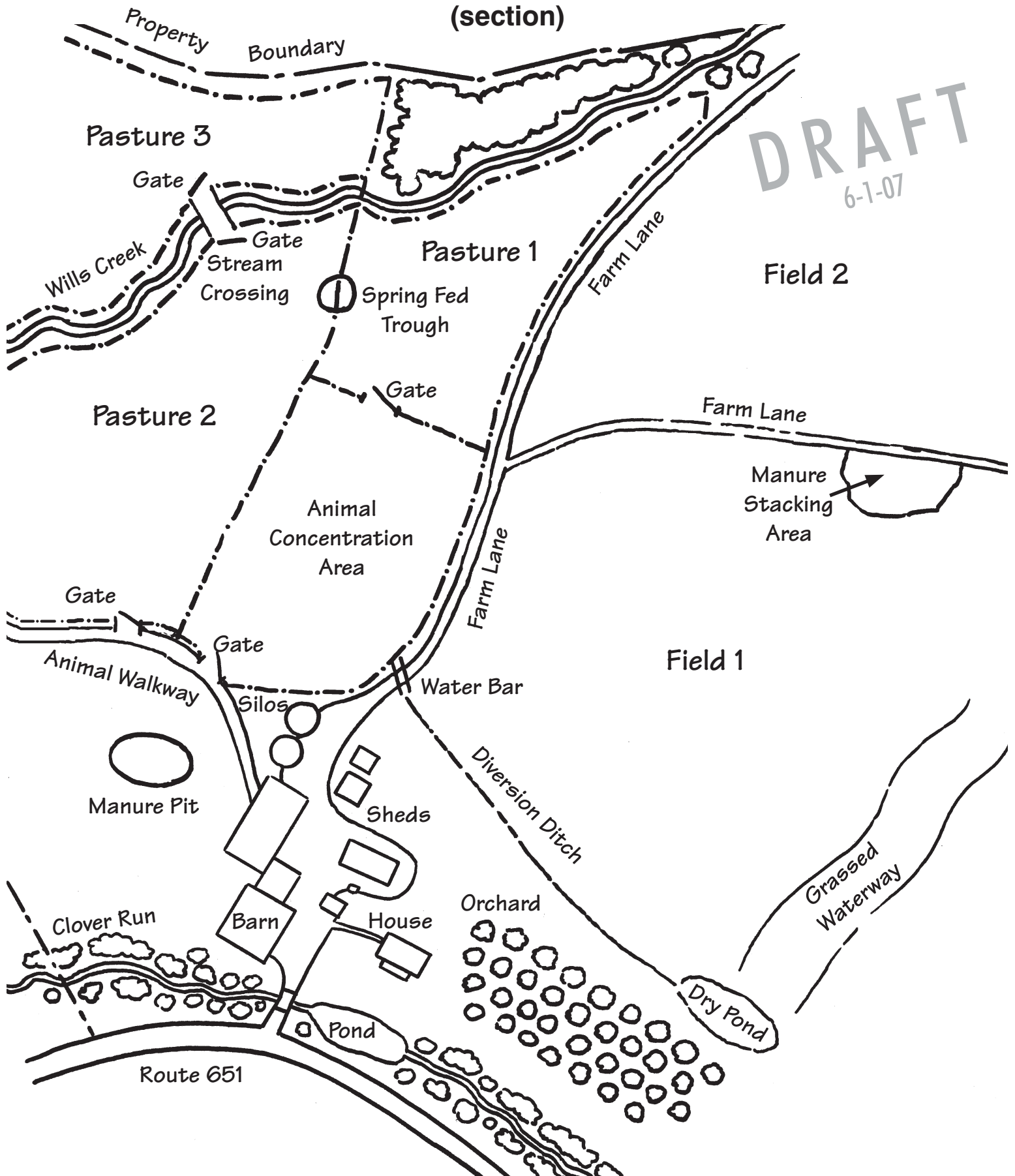
The provisions of this § 91.36 adopted January 28, 2000, effective January 29, 2000, 30 Pa.B. 521; amended October 21, 2005, effective October 22, 2005, 35 Pa.B. 5796. Section 91.36(b)(2)(i) and (ii) shall remain in effect until the effective date of regulations promulgated by the State Conservation Commission that establish requirements which provide, at a minimum, the same setback and buffer requirements for concentrated animal operations, and for agricultural operations that import manure from those operations, established in § 91.36(b)(2). The Department will publish notice in the *Pennsylvania Bulletin* if those regulations are promulgated. Nothing in this order is intended to affect the duty of any agricultural operation to comply with The Clean Streams Law or any other provision of Chapters 91 and 92. Immediately preceding text appears at serial pages (276356) and (271951).

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## Attachment #3

# Farm Map Example

(section)





## Attachment #4

# Crop Rotation Systems to Help Meet the PA E&S Guidelines

**Note: Title is a proposal only until approved by NRCS**

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### **Guiding Principles for Soil Erosion Control The Following Assist in Reduction of Soil Erosion:**

- No-Till
- More years of hay in the rotation
- Corn Residue left
- Contour Strips with alternating close grown crops such as small grain and hay
- Fields may be split to apply a different system if two different mapping units with different slopes occur

### **For A slopes (0% to 3%) as an average across the field as shown on the County Soil Survey**

#### **Corn Silage (Typical for dairy)**

Corn silage and hay rotation, may include small grain.

Cover crop established before or immediately after corn silage harvest.

Cover crop must be 50% canopy or 4" before winter.

All grain crops planted using reduced tillage with 30% residue remaining on the surface at planting.

#### **Corn Grain (Typical for livestock operations other than dairy)**

Corn grain and hay rotation (may include small grain).

All grain crops planted and hay establishment using reduced tillage with 30% residue remaining on the surface at planting.

#### **Cash grain operations (Typical for operations without livestock)**

Corn grain, soybeans, small grain rotation.

All crops planted using reduced tillage with 30% residue remaining on the surface at planting.

**Need to insert county appropriate crop rotation for most extreme situation for "A" slope  
(i.e. Bradford = 4 years of corn followed by 4 years of hay)**

Conservation Systems to Meet the PA E&S Guidelines to be Used as and Item Guideline  
when a Plan Meeting Soil Loss (T) Cannot be Obtained - Page 2

**For B slopes (3%-8%) as an average across the field as shown on the County Soil Survey**

**Corn Silage (Typical for dairy)**

Corn silage and hay rotation, may include small grain.

Cover crop established immediately after corn silage harvest.

Cover crop must be 50% canopy or 4" high before winter.

All grain crops planted using reduced tillage with 30% residue remaining on the surface at planting.

**Corn Grain (Typical for livestock operations other than dairy)**

Corn and hay rotation (may include small grain).

All crops planted and hay establishment using reduced tillage with 30% residue remaining on the surface at planting.

**Cash grain operations (Typical for operations without livestock)**

Corn grain, soybeans, and small grain rotation.

All crops planted no-till

All crops planted leaving 30% residue after planting with rows on the contour.

Need to insert county appropriate crop rotation for  
most extreme situation for "B" slope  
(i.e. Bradford = 4 years of corn followed by 5 years of hay)

**For C slopes (8%-15%) as an average across the field as shown on the County Soil Survey**

**Corn Silage (Typical for dairy)**

Corn silage, small grain, and hay rotation.

Years of small grain and hay in the rotation must equal or exceed years of corn with residue removed.

Cover crop established before or immediately after corn silage harvest.

Cover crop must be 50% or 4" high before winter.

All crops planted in contour strips with alternating hay or close grown crop such as wheat.

All crops planted using no-till.

**Corn for Grain (Typical for livestock operations other than dairy)**

Corn, small grain, and hay rotation.

All crops planted in contour strips with alternating hay or close grown crop

Conservation Systems to Meet the PA E&S Guidelines to be Used as and Iterem Guideline  
when a Plan Meeting Soil Loss (T) Cannot be Obtained - Page 3

such as wheat.

All crops planted and hay establishment using no-till.

**Cash grain operations (Typical for operations without livestock)**

Corn, soybeans and small grain rotation.

Cover crop may be established after soybean harvest.

All crops planted in contour strips with alternating close grown crop such as wheat.

All crops planted using no-till.

**Need to insert county appropriate crop rotation for  
most extreme situation for “C” slope  
(i.e. Bradfore = permanent hay)**

*Well designed and constructed diversions and terraces to reduce the slope length, may sometimes be supplemented for agronomic practices. Where concentrated flows of water during storms cause soil erosion plow skips with good sod must be used in small*

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## Attachment #6

# Guidance Documents

- DEP Manure Management Manual for manure storage and land application practices (web link)  
<http://www.dep.state.pa.us/eps/docs/cab200149b1126000/fdr200149e0051190dr200149e32221af/doc20026sb4948013/361-0300-001.pdf>  
<http://www.dep.state.pa.us/eps/docs/cab200149b1126000/fdr200149e0051190/fdr200149e32221af/doc20033fa5358002/361-0300-002.pdf>
- DEP Erosion and Sedimentation Pollution Control Manual for E&S practices and standards and county specific rainfall information (web link) (couldn't find it!)
- Penn State *Agronomy Guide* practices for land application of manure – (web link) <http://agguide.agronomy.psu.edu/cm/default.cfm>
- NRCS Conservation Catalog for guidelines for E & S and manure storage and land application guidelines (web link) <http://www.pa.nrcs.usda.gov/news/FTPPublications/conscatalog.pdf>
- *Pennsylvania Technical Guide* for agricultural water quality protection practices and standards (web link) <http://efotg.nrcs.usda.gov/treemenuFS.aspx?Fips=42027&MenuName=menuPA.zip>
  - o (The list would be more than a page, and is continually being updated. The standards are listed in eFOTG section IV.)
- The PennState Fact Sheets 254 through 257 and the *NRAES-89 Liquid Manure Application System Design Manual* for manure application provide recommended application rates.
- The NRCS National Irrigation Guide for other types of irrigation (web link) <http://www.wcc.nrcs.usda.gov/nrcsirrig/irrig-handbooks.html>

## Sources of Technical Assistance

- a. Conservation districts [www.pacd.org/](http://www.pacd.org/)
- b. Cooperative Extension [www.extension.psu.edu/](http://www.extension.psu.edu/)
- c. Certified Nutrient Management Specialists [http://panutrientmgmt.cas.psu.edu/pdf/cert\\_county\\_listing.pdf](http://panutrientmgmt.cas.psu.edu/pdf/cert_county_listing.pdf)
- d. Certified Crop Advisors [http://www.agronomy.org/cca/search\\_cca.html](http://www.agronomy.org/cca/search_cca.html), other qualified consultants Phone book, newspapers
- e. Farm organizations
- f. SCC <http://www.agriculture.state.pa.us/agriculture/cwp/view.asp?a=3&q=127144>
- g. Natural Resources Conservation Service <http://www.pa.nrcs.usda.gov>
- h. Soil Survey <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

## **Attachment #6**

# **Local Sources of Technical Assistance**

1. County Conservation District Name/Address/Phone/email/WEB
2. County NRCS Name/Address/Phone/email/WEB
3. County Extension Service Name/Address/Phone/email/WEB
4. DEP Regional Office Name/Address/Phone/email/WEB
5. PDA State Office Name/Address/Phone/email/WEB
6. SCC State Office Name/Address/Phone/email/WEB

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## **Attachment #7**

# **Glossary of Terms**