

NAVIGATING REGULATORY WATERS LAWS IMPACTING SEPTIC SYSTEM INSTALLATION BEYOND ACT 537



CHESTER COUNTY
CONSERVATION DISTRICT

Agenda

- Conservation District Overview
- NPDES Permit
- PNDI
- Erosion and Sediment Controls
- PA Code and 537
- Post Construction Stormwater Management
- Questions/Open Discussion



Conservation District Overview

- Urban Team
- Agriculture Team
- Engineering Team
- Watershed Coordinator
- Grants Coordinator
- Outreach Coordinator
- Admin Team



NPDES Permit



National Pollutant Discharge Elimination System



Required for all sites with larger than 1 acre of total earth disturbance



Will be a General or Individual Permit



All sites that connect to public sewer will need to provide an ACT 537 Plan, or provide waiver from DEP



The NPDES permit can not be issued until the 537 has been approved by DEP. This includes any earth disturbance activities



NPDES Permit Process

General NPDES Permit

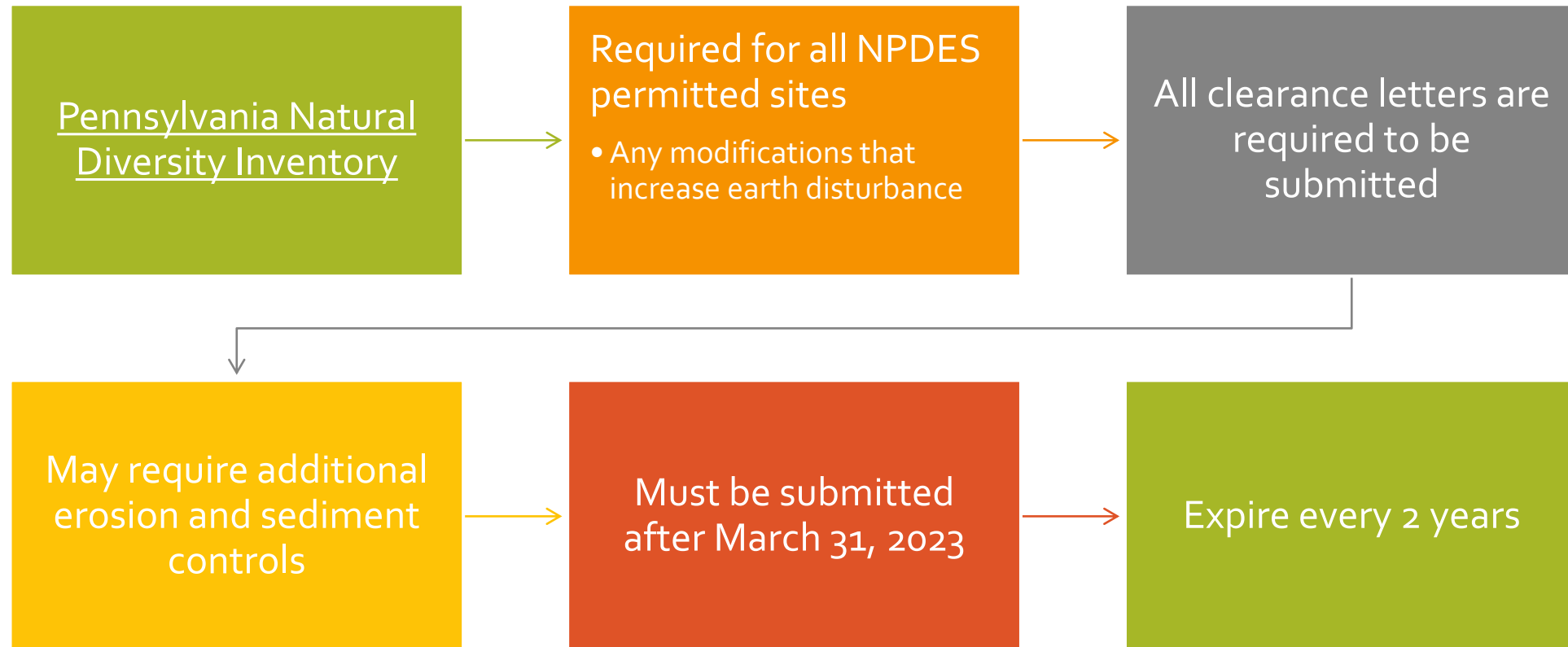
- Generally, will take 2-3 months for permit issuance
- Timeline- Submission- 5 days processing time- 15 business days for review-60 calendar days for response- Moves to technical review- 22 business days for review- 30 calendar days to respond- 17 business days to review response- permit issued by Conservation District
- Will expire December 7, 2024

Individual NPDES Permit

- Anywhere between 4-8 months of permit issuance.
- Timeline- Completeness review is the same as the General Permit.
 - Technical review- 47 business days – 30 calendar days to respond- 22 business days to review response.
- Draft Permits Now available



PNDI



Erosion and Sediment Controls

- Perimeter Controls
- Impaired watersheds require ABACT BMPs
 - Compost sock, elongated RCEs, [approved alternative](#)
- Lot Grading
- Soil Amendments



537 and the Pennsylvania Code

- § 73.14. Site investigation
 - At least 1 examination area should be completed for any proposed absorption area.
 - The depth should be above the limiting zone, or max 7 feet.
 - Soil profile should be done within 10 feet of the proposed area.
- § 73.31. Standards for septic tanks (b) Construction.
 - (1) Tanks shall be watertight and constructed of sound and durable material not subject to excessive corrosion or decay.
 - (i) Precast concrete tanks shall have a minimum wall thickness of 2 1/2 inches and be adequately reinforced.
 - (ii) Precast slabs used as covers shall have a thickness of at least 3 inches and be adequately reinforced.
 - (iii) Tanks having a liquid capacity of 5,000 gallons or less may not be constructed of blocks, bricks or similar masonry construction.
 - (iv) Tanks having a capacity in excess of 5,000 gallons may be constructed onsite to meet the standards of the National Concrete Masonry Association for reinforcement and waterproofing as listed in the most recent edition of its publication "Concrete Masonry Foundation Walls," copyright 1957 NCMA.
 - (v) Steel tanks shall meet United States Department of Commerce Standards 177-62.

CHAPTER 73. STANDARDS FOR ONLOT SEWAGE TREATMENT FACILITIES

- 25 Pa. Code 73.13 (c) - minimum horizontal isolation distances shall be maintained between the features named and the perimeter of the aggregate in the absorption area:
 - (5) Streams, water courses, lakes, ponds or other surface water—50 feet (for the purposes of this chapter wetlands are not surface waters).
 - (12) Detention basins, retention basins and stormwater seepage beds—10 feet.



Post Construction Stormwater Management (PCSM)

USDA United States
Department of
Agriculture

Forest Service
Northeastern Area
State & Private Forestry

Natural Resources
Conservation Service

Cooperative State Research,
Education, and Extension
Service

NA-TP-02-97

Chesapeake Bay Riparian Handbook:

A Guide for Establishing and Maintaining Riparian Forest Buffers

Pennsylvania Stormwater Best Management Practices Manual

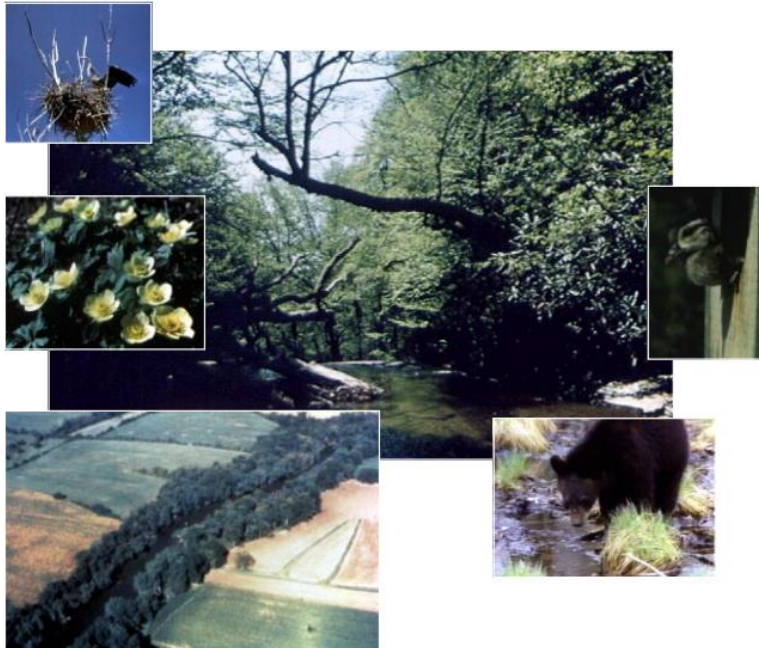
December 2006



Pennsylvania Post-Construction Stormwater Management (PCSM) Manual

Bureau of Clean Water
Pennsylvania Department of Environmental Protection
400 Market Street, P.O. Box 8774
Harrisburg, PA 17105-8774
www.dep.pa.gov

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PCSM – 2006 BMP Manual, Riparian Forest

- Chesapeake Bay Riparian Handbook, last revised June 1998
- The Outer Zone – It is the “buffer's buffer.” It is an additional 25-foot setback from the outward edge of the middle zone to the nearest permanent structure. In many urban situations, this area is a residential backyard. The vegetative character of the outer zone is usually turf or lawn, although the property owner is encouraged to plant trees and shrubs to increase the total width of the buffer. Use restriction in this zone is minimal. Indeed, gardening, compost piles, yard wastes, and other common residential actions occur within this zone, not all of which are promoted. **The only significant restrictions include septic systems and new permanent structures.**

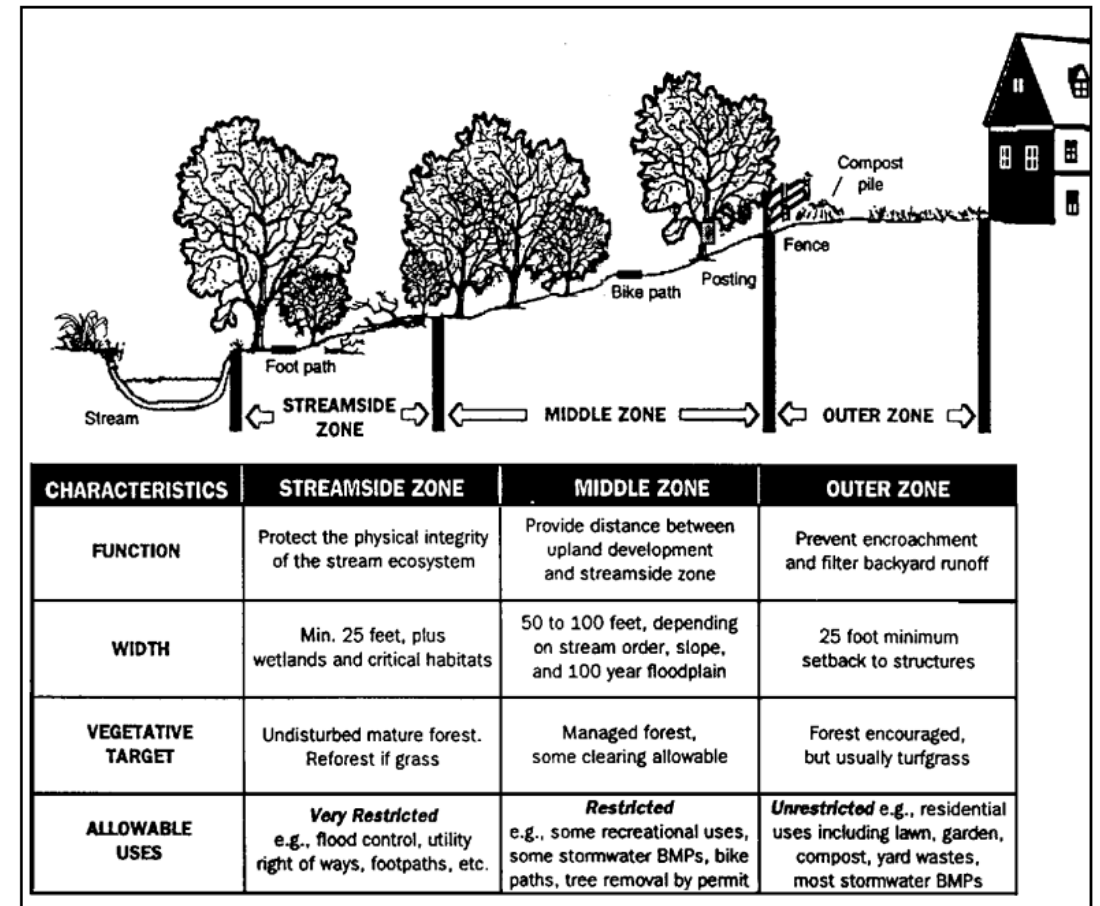


Figure 11 - 3. Three-Zone Urban Buffer System. Three lateral zones comprise the foundation of an effective urban stream buffer zone. The width, function, management and vegetative target vary by zone. (Sources: Schueler, 1995 and Metropolitan Washington COG, 1995)



PCSM – 2006 BMP Manual

- Appendix C, Protocol 2 – Infiltration Systems Design and Construction Guidelines

- e) **Infiltration BMPs should be sited so that they present no threat to sub-surface structures**, at least 10 feet down gradient or 100 feet up gradient from building basement foundations, and **50 feet from septic system drain fields unless** specific circumstances allow for reduced separation distances.

In general, soils of Hydrologic Soil Group D will not be suitable for infiltration. Similarly, areas of floodplains and areas of close proximity to wetlands and streams will generally not be suitable

Pennsylvania Stormwater Best Management Practices Manual

Appendix C – Site Evaluation and Soil Testing



PCSM – 2006 BMP Manual

- Constructed wetland should not be constructed within 50 feet of a septic system

BMP 6.6.1: Constructed Wetland

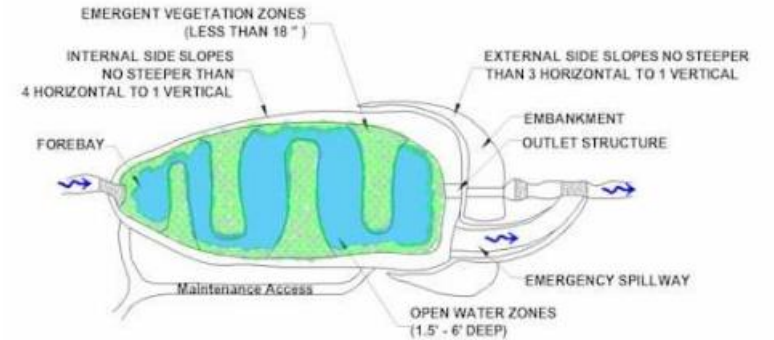


Constructed Wetlands are shallow marsh systems planted with emergent vegetation that are designed to treat stormwater runoff.

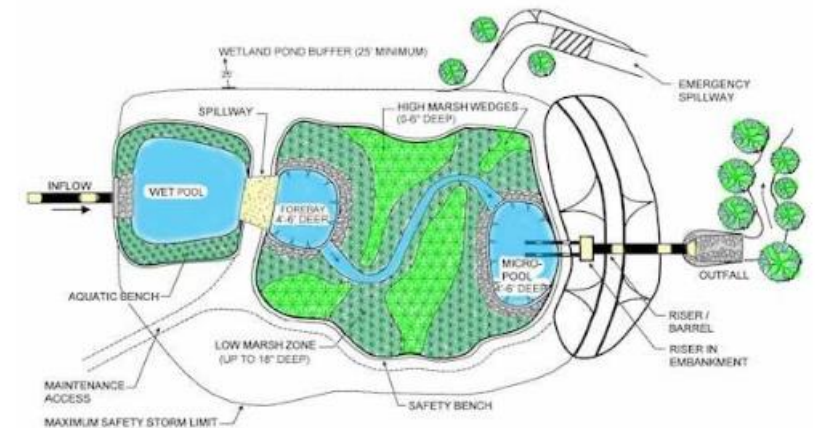


Applications

- Alternating bands of deeper water and shallow marsh.



- Wet Pond/Wetland System



PCSM – 2006 BMP Manual

- Wet Pond/Retention Basin should not be constructed within 50 feet of a septic system

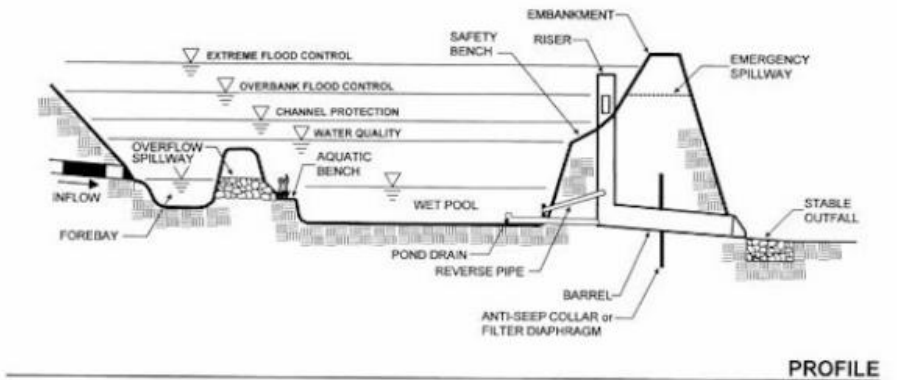
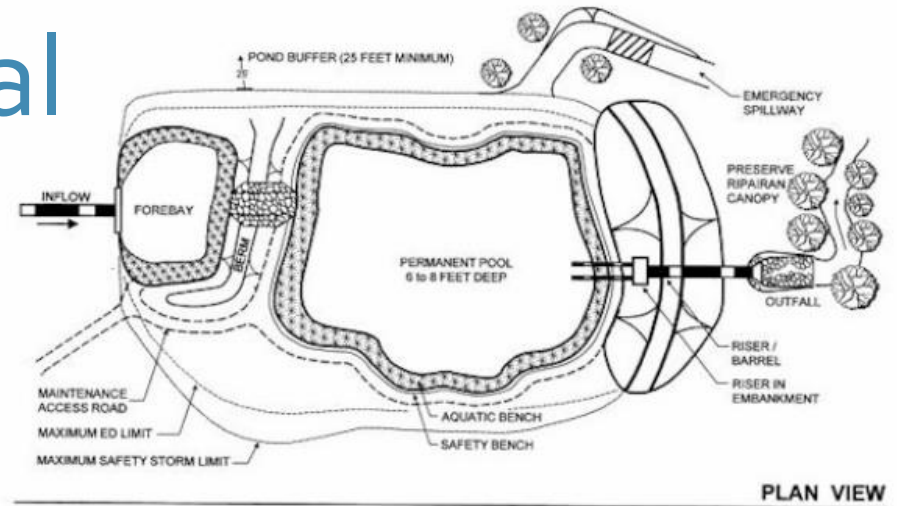
Pennsylvania Stormwater Best Management Practices Manual

Chapter 6

BMP 6.6.2: Wet Pond/Retention Basin



Wet Ponds/Retention Basins are stormwater basins that include a substantial permanent pool for water quality treatment and additional capacity above the permanent pool for temporary runoff storage.



PCSM – Draft BMP Manual

- **DISCLAIMER – Any of this information is subject to change, as nothing has been officially released yet**



Table 3-89: SCM Setback Criteria

SCM	Setback Criteria
Bioinfiltration (3.5.1), Infiltration Trench (3.5.4)	<ul style="list-style-type: none"> • SCM should be a minimum of 20 feet from basements, foundations, septic tanks, other structures, or property lines unless designed to limit lateral movement of water.* • Setbacks can be reduced for foundations if groundwater flow is modeled to ensure the infiltration SCM will not impact any surrounding structural foundations.
Surface Infiltration (3.5.2), Underground Infiltration (3.5.5)	<ul style="list-style-type: none"> • SCM should be a minimum of 100 feet upgradient and 20 feet downgradient from basements, foundations, septic tanks, property lines or other structures. • Setbacks can be reduced for foundations if groundwater flow is modeled to ensure the infiltration SCM will not impact any surrounding structural foundations.
Bioretention (3.6.1)	<ul style="list-style-type: none"> • SCM should be a minimum of 20 feet from basements, foundations, septic tanks, wells or other structures, or property lines unless: <ul style="list-style-type: none"> ○ The SCM is lined; ○ Infiltration is limited (i.e., ≤ 0.25 inch/hour); or ○ The SCM is designed to limit lateral movement of water through the sides and that part of the bottom.
All infiltration-based SCMs	<ul style="list-style-type: none"> • All infiltration-based SCMs (in addition to SCM-specific criteria) should have the following setbacks: <ul style="list-style-type: none"> ○ Five feet from underground utility (can be reduced if designed to meet utility standards); ○ 50 feet from septic system drain fields; ○ 100 feet from individual and non-residential water supply wells; and ○ 300 feet from community or municipal water supply wells treating over 10,000 GPD for drinking purposes.

SCM	Setback Criteria
All non-infiltration-based storage SCMs	<ul style="list-style-type: none"> • Non-infiltrating SCMs (and if applicable storage devices for those SCMs) should have the following setbacks: <ul style="list-style-type: none"> ○ Five feet from underground utility; can be reduced if designed to meet utility standards; ○ 10 feet from a property line; and ○ 50 feet from a private well or septic system. • Subsurface SCMs should be installed a minimum distance from buildings, walls, poles, slopes, foundations, and substantial structures equal to the depth of the subsurface SCM. A minimum distance of 10 feet is common.

Chester County Watersheds 2045

- Adopted by Chesco Commissioners on Jan 25, 2024
 - Still to be accepted by PA DEP & PA DCNR
- Appendix F: Chester County 2022 County-wide Model Stormwater Ordinance
 - All Chester County municipalities are required to adopt stormwater ordinances consistent with the County's Model Ordinance by May 31, 2023.
- Section 312. Riparian Buffers
 - (G.) Septic drainfields and sewage disposal systems shall not be permitted within the Riparian Buffer Easement and shall comply with setback requirements established under 25 Pa. Code Chapter 73
 - The Riparian Buffer Easement shall be measured to be the greater of the limit of the 100-year floodplain or a minimum of 100 feet from the top of the streambank (on each side).



Questions?

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