



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Waterways Engineering and Wetlands

Implementation of Act 162 of 2014 Riparian Buffer or Riparian Forest Buffer Offsetting

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Tom Wolf, Governor

John Quigley, Acting Secretary

Overview

- Overview of Act 162
- Impact and scope of Act 162
- When is offsetting required?
- Riparian Buffer or Riparian Forest Buffer Offsetting Policy
- Application Process for Offsetting
- Implementation

What is Act 162 of 2014?

- Introduced as HB 1565
- Amended Clean Streams Law (CSL) with new Section 402(c)
 - National Pollutant Discharge Elimination System (NPDES) stormwater construction permit applicants may choose either to implement riparian buffers OR to implement equivalent best management practices (BMPs)
 - Requires offsetting
- Does not eliminate use of riparian buffers as a BMP

Scope of Act 162

- Proposed Individual NPDES projects located within 150 feet of certain special protection (High Quality or Exceptional Value) waters
- Does not apply to, nor change process in 25 Pa. Code § 102.14, for non-NPDES permits
- Does not affect voluntary riparian buffer programs such as the Conservation Reserve Enhancement Program (CREP)

Impacts on NPDES Permitting

- New § 402(c)(1) of CSL provides an alternative to mandatory riparian buffer
- New § 402(c)(2) of CSL provides that when a riparian buffer is not used with earth disturbance proposed within 100 feet of the surface water, offsetting is required

Equivalency Demonstration Policy

- New § 402(c)(1)(ii)
- Applicants choosing not to implement a riparian buffer must demonstrate that the BMPs they will implement will be equivalent to the type of buffer required in 102.14(a)(1) and (2)
- Demonstration is both quantitative and qualitative
- See *Riparian Buffer or Riparian Forest Buffer Equivalency Demonstration* (DEP # 310-2135-002)

Offsetting Policy

- New § 402(c)(2) triggered when applicant proceeds under § 402(c)(1)(ii)
- New § 402(c)(2) requires offsetting if a riparian buffer is not used as BMP and earth disturbance will occur within 100 feet of surface waters
- See *Riparian Buffer or Riparian Forest Buffer Offsetting* (DEP #310-2135-003)

Policy Coordination

- Policy documents are independent but related
 - Riparian Buffer or Riparian Forest Buffer Equivalency Demonstration (310-2135-002)\
 - Riparian Buffer or Riparian Forest Buffer Offsetting (310-2135-003)
- Equivalency may be required when offsetting is not
- Offset requirements apply to any earth disturbance activities within 100' of surface waters

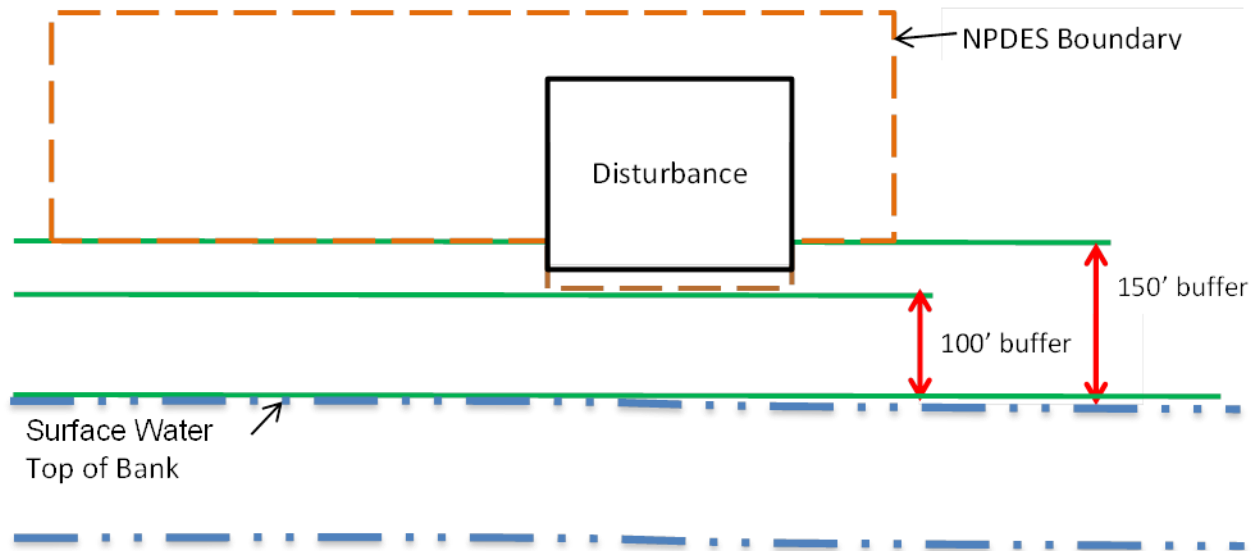
Offsetting Policy and Guidance

- Definitions
- Step by Step Guidance and Application Requirements
- Templates for planning, maintaining, monitoring and reporting on the replacement riparian forest buffer

Applicability – Figure 1

Equivalency demonstration required but offsetting not required

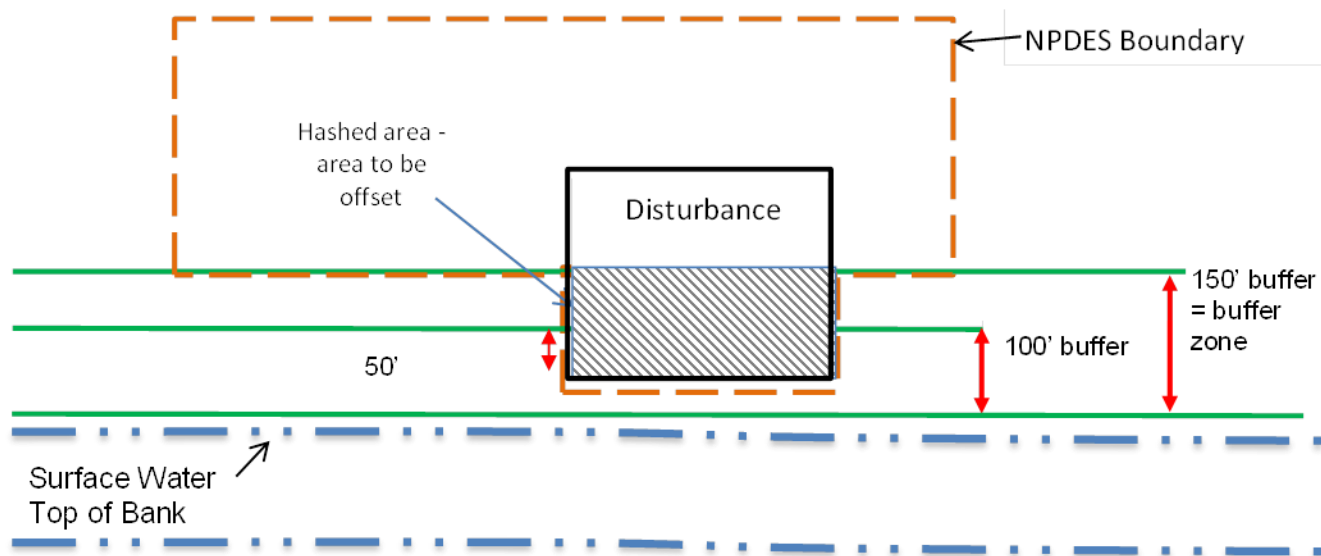
- The project involves one acre or more of earth disturbance and requires an NPDES stormwater construction permit.
- All earth disturbance activities are between 100 feet and 150 feet from the surface waters.



Applicability – Figure 2

Both equivalency demonstration and offsetting required

- The project involves a one acre or more of earth disturbance and requires an NPDES stormwater construction permit.
- Earth disturbance activities extend 50 feet into the 100 foot buffer area.
- Per Section 402(c)(2) of Act 162, offsetting is required and the replacement buffer is to be installed at a ratio of 1 to 1, with the minimum replacement buffer width being 100 feet.



Application Requirements for Offsetting

- Pre-application meeting strongly suggested
- If necessary, offsetting must be part of application to be considered complete.
- Elements of an Application Package
 - Riparian Forest Buffer Planting Plan
 - Riparian Forest Buffer Maintenance and Monitoring Plan
 - Riparian Forest Buffer Monitoring Form
 - PA Stream Buffer Tracking Form

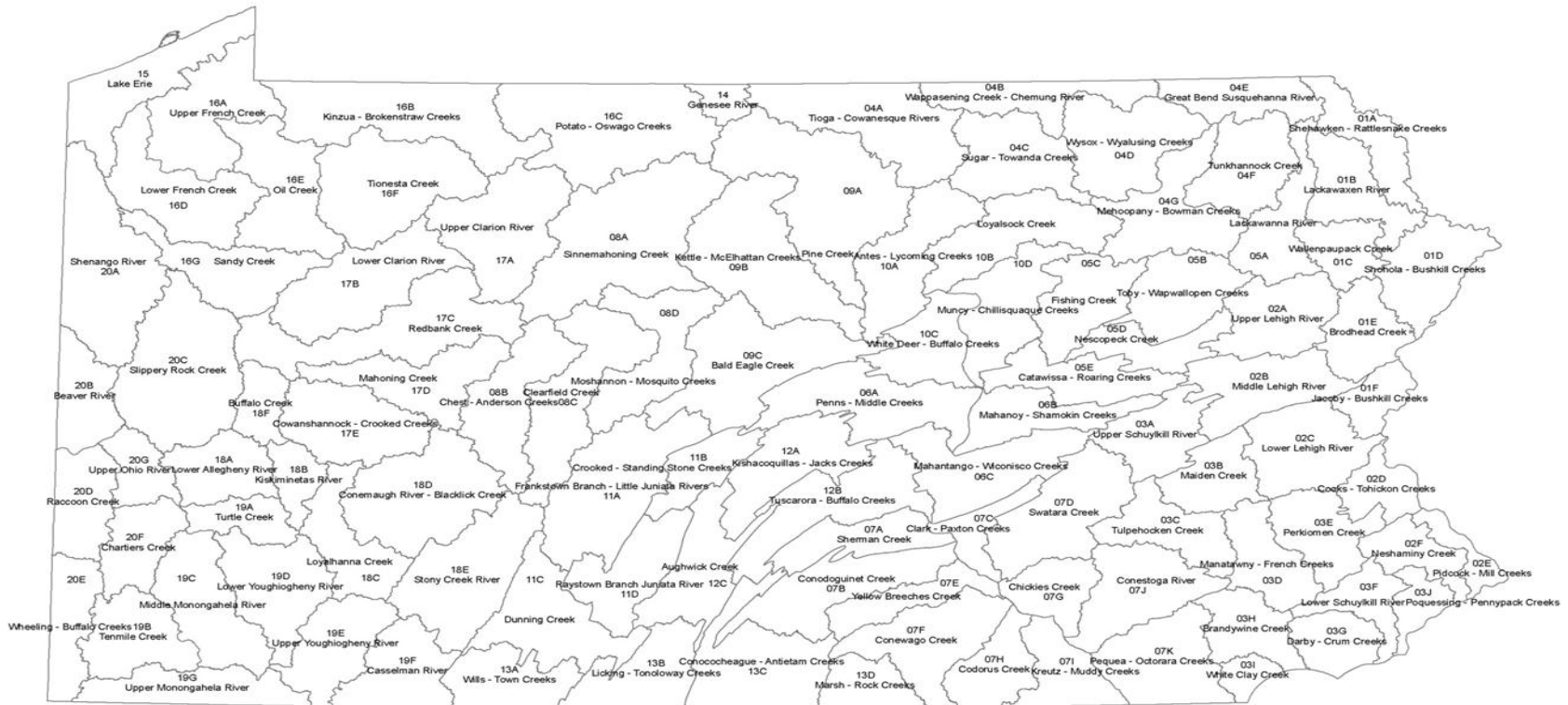
Offsetting Application Process

Step 1: Choose site for riparian forest buffer establishment

- Along special protection waters
 - Designated Use
www.pacode.com/secure/data/025/chapter93/s93.9.htm
 - Existing Use
www.portal.state.pa.us/portal/server.pt/community/existing_use/10557.
- On same stream segment as area of disturbance
- Along special protection waters
 - Riparian area where no riparian forest buffer exists
- For further guidance on site selection, see *Riparian Forest Buffer Guidance Document # 394-5600-001*

Offsetting Application Process

Map of State Water Plan Watersheds



Offsetting Application Process

Additional location criteria – in decreasing order of preference:

- Site runoff characteristics similar to project area
- Pennsylvania Natural Heritage Program, Western Pennsylvania Conservancy

www.naturalheritage.state.pa.us/docs/aquatics/ACCUser'sManual-TitlePage,TOC,Ch.1-3.pdf

- On waters in need of a riparian forest buffer, regardless of runoff characteristics

Offsetting Application Process

Step 2: Determine size of replacement riparian forest buffer

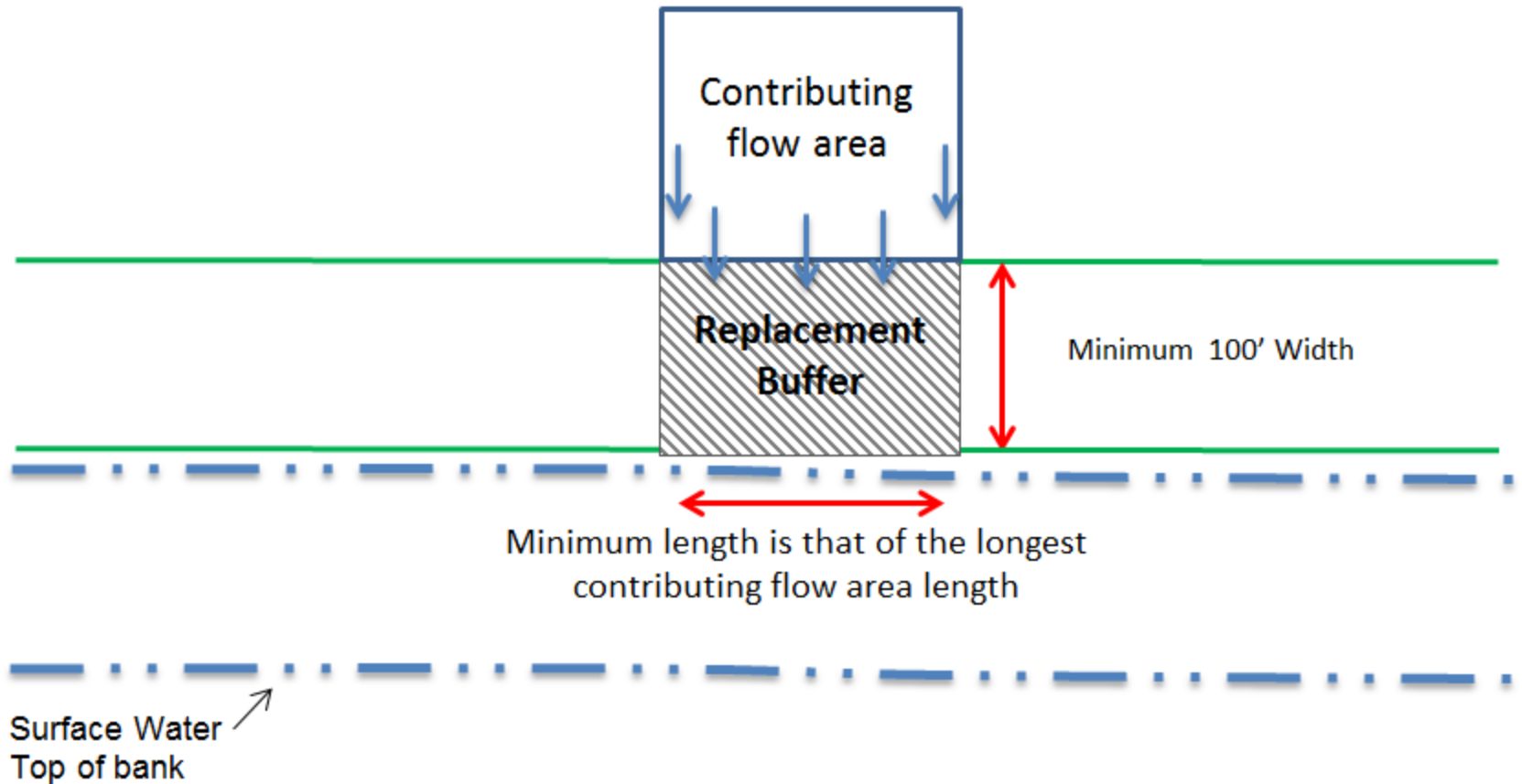
- Ratio of one to one per unit area (square foot) of buffer impact back to 150 feet from surface waters
- Replacement riparian forest buffer is at least 100 feet in width

Offsetting Application Process

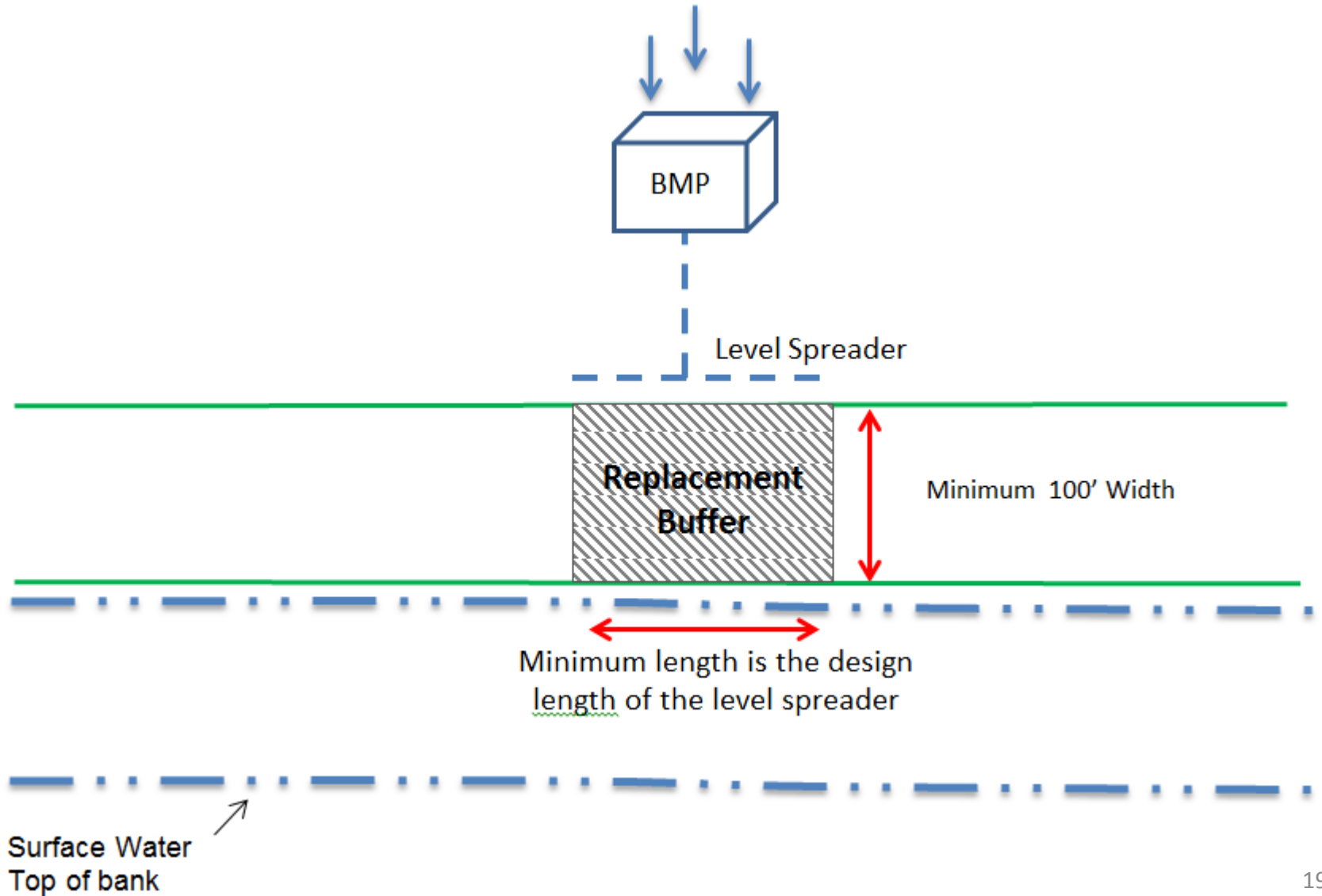
Additional sizing criteria include:

- For offsetting sites utilizing a level spreader
 - Length should be greater than or equal to the length of spreader
- For sites not utilizing a level spreader
 - Length should be greater than or equal to length of contributing flow area

Offsetting Application Process



Offsetting Application Process



Offsetting Application Process

Step 3: Create a riparian forest buffer planting plan

- Use diverse species of trees and shrubs
- Use native species of trees and shrubs
- Use larger (minimum caliper 2 inches for trees) more robust plantings to ensure success
- For further guidance on species composition, see *Riparian Forest Buffer Guidance Document* # 394-5600-001

Offsetting Application Process

Step 4: Prepare a replacement riparian forest buffer management plan as part of the post construction stormwater management plan:

- Planting plan
- Maintenance plan
- Monitoring plan
- PA Stream Buffer Tracking Form
- Long-term protection from future disturbance via an instrument (deed restriction, easement, etc.)

Appendix A - Sample Replacement Riparian Forest Buffer Planting Plan

See DEP's Riparian Forest Buffer Guidance for additional information on site assessment, native tree/shrub selection, planting, planting density, maintenance and protection (pages 28-101) at URL: www.elibrary.dep.state.pa.us/dsweb/Get/Document-82308/394-5600-001.pdf

Contact: _____

Phone Number: _____

Site Plan

Location: _____



Species	Latin Name	Size	Quantity	Pattern/Spacing

Equipment/Tools:	Site Preparation:
Maintenance Responsibilities:	Directions to site:

Appendix B - Sample Replacement Riparian Forest Buffer Maintenance and Monitoring Plan

The following is a sample maintenance schedule to optimize survival of a newly planted riparian forest buffer. Keep in mind tasks are the same for each riparian forest buffer but there may be site variations, therefore, add to the schedule additional tasks that are site specific. See DEP's Riparian Forest Buffer Guidance for additional information (pages 28-101) at URL:

<http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-82308/394-5600-001.pdf>

Maintenance Tasks for Riparian Forest Buffers	1	2	3	4	5
Year					
Check tree shelters (March-April) <u>Suggested activities:</u> straighten and re-drive any loose stakes, replace damaged/rotten stakes; check ties and tighten or replace if needed; remove large wasp nest (before they come active); remove bird nets if tree has reached the top of the shelter.	x	x	x	x	x
Remove shelters (Spring) It is recommended to remove when trees that are at least 2 inches in diameter at top of tube; leave stake in place to deter buck rub; if tree is droopy, secure to stake with biodegradable material.			x	x	x
Herbicide application (April-May) Apply broad-spectrum herbicide to protect trees from rodents and reduce competition by other plants (add a pre-emergent herbicide advisable); ideally spray 3' strips along shelters or 4' circle spots (if not mowing the site).	x	x	x	x	
Mowing (Summer and Fall) Mow between rows at least twice between June and late September to prevent weeds going to seed, and reduce existing vegetation competition. If rodent population is high, reduce habitat by mowing additional three years in the fall only (see herbicide application above). If not mowing, spot spraying for invasive plants if needed.	x	x			
Herbicide application (mid-August-early October) Apply broad-spectrum herbicide only to control perennial noxious or invasive weeds, reduce existing vegetation competition, and protect trees from rodents (ideally spray 3' strips along shelters, but could be 4' circles)	x	x	x	x	

Appendix C - Replacement Riparian Forest Buffer Site Monitoring Form

Site Name _____ Date Collected _____ Collected by _____

Total Area (acres) _____ Area Sampled _____ Number of Plots _____

Original Planting Density (Trees or Shrubs per Acre)

Original Planting Density _____

B&B/Containerized Saplings _____ Sheltered Seedlings _____

Seedlings w/o Shelters _____ Other _____

Trees and Shrubs Counted During Monitoring

Tree or Shrub Species	Number Counted	Number of Each Plant Type				Condition*		
		Planted Seedling	Sheltered Seedling	B&B/ Container	Natural Regen.	Other	1	2
TOTALS:								

*1=Healthy and free to grow, not significantly impaired or damaged. Likely to survive and grow.

*2=Damaged or impaired by some problem.

Number of Species Counted: _____

Plant Condition Summary: Percent Healthy _____% Percent Damaged _____%

Appendix D - PA Stream Buffer Tracking Form

3720-FM-BCR0100 2/2012



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CONSERVATION AND RESTORATION

PA STREAM BUFFER TRACKING FORM

Project Contact Person: _____	
Organization: _____	
Email: _____	Phone #: _____
PROJECT IDENTIFICATIONS	
Project Start Date: _____	
Project Name: _____	
Project Address: _____	
County: _____	
Stream Name: _____	
104 Watershed Code: _____	Center of Site Latitude: _____ Longitude: _____
Water Body: <input type="checkbox"/> Stream <input type="checkbox"/> Wetland <input type="checkbox"/> River <input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> Dam	
TMDL/Impairment Status of Waterbody: _____	
Water Use Designation: http://www.pacode.com/secure/data/025/chapter93/chap93toc.html	
BUFFER POTENTIAL TO BECOME A MATURE FOREST	
Reason for Buffer: _____	Buffer Permanently Protected: <input type="checkbox"/> Yes <input type="checkbox"/> No
Riparian Forest Buffer Protection Agreement: <input type="checkbox"/> Yes <input type="checkbox"/> No	Protection Status: _____
Condition of Stream Bank: <input type="checkbox"/> Laid Back <input type="checkbox"/> Undercut <input type="checkbox"/> Bare <input type="checkbox"/> Forested <input type="checkbox"/> Needs Work <input type="checkbox"/> Other	
Health of Buffer: <input type="checkbox"/> Poor <input type="checkbox"/> Average <input type="checkbox"/> Good <input type="checkbox"/> Excellent	
State After Project Completion: <input type="checkbox"/> New <input type="checkbox"/> Enhancement <input type="checkbox"/> Existing	
% Canopy Cover (Total Ground Area Shaded by Woody Vegetation): _____	
% of Ground Cover in Buffer – Total Area Covered by Non-Woody Vegetation: _____	
BUFFER CHARACTERISTICS	
Adjacent Land Use: <input type="checkbox"/> Herbaceous/Shrubs <input type="checkbox"/> Farm <input type="checkbox"/> Development <input type="checkbox"/> Forest	

Monitoring, Inspection, and Reporting

- Monitoring, inspection and reporting requirements remain as found in Chapter 102
- Monitoring, inspection and reporting requirements will also be found in the conditions of the approved NPDES Permit, Part A - Effluent Limitations, Monitoring, and Reporting Requirements and Part C - Other Conditions
- Reporting – Use PA Stream Buffer Tracking Form (#3720-FM-BCR0100)

Implementation

- Published as Interim Final in *PA Bulletin*
 - *Publication March 21st 2015*
- Department's website: www.dep.state.pa.us
 - Public Participation Center → Public Comments
→ Technical Guidance”
- *60-day public comment period*
 - *Opens March 21st 2015*
 - *Closes May 20th 2015*
- Potential Future Rulemaking



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Questions?
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