

Types of Best Management Practices

Rip-Rap



- Affordability: ★★★★★
- Speed of Results: ★★★★★
- Ease of Maintenance: ★★★★★

Riparian Buffer



- Affordability: ★★★★★
- Speed of Results: ★★★★★
- Ease of Maintenance: ★★★★★

Definitions

Best Management Practice (BMP) - a practice or combination of practices found to be the most effective means of preventing or reducing the amount of pollution

Drainage Area - a low lying area of land where all the surface and groundwater flows to which is usually a body of water

Dredging - the process of removing debris and sediment from the bottom of a stream using excavating tools

Erosion - the removal and movement of soils from natural sources such as wind and water

Floodplain - low lying area near a body of water that is prone to flooding

Gravel Bar - soil and stone deposits in stream channels which obstruct and redirect stream flow and can lead to streambank erosion

Riparian Buffer - a vegetated area that separates a body of water from land and improves the quality of the surrounding ecosystem

Rip-Rap - a layer of large stone pieces selectively placed to prevent erosion of a streambank

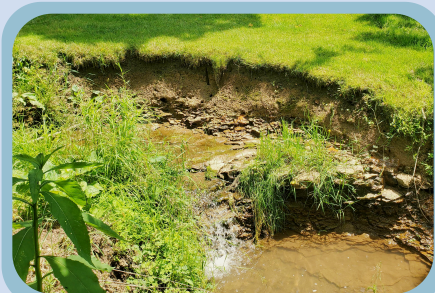
Sedimentation - a process caused by erosion in which solid materials are transported and deposited into a body of water

Watershed - an area of land that separates where water flows to based on geographical features like ridges and valleys

How to Detect Streambank Erosion



Exposed Roots



Undercut Soil



Slides



Murky Water

Gravel Bar Removal

With a General Permit 3:



You Can

- move unvegetated gravel bars to divert water away from the streambanks



You Can't

- remove vegetated gravel bars
- perform removal at times outside of low flow
- remove gravel bar more than 6 inches above water level at low flow
- change the stream channel width
- cross adjacent property without permission
- bulldoze gravel bar material into the stream

Things To Avoid



Dredging is commonly believed to help reduce streambank erosion. However, dredging can often make erosion worse.



Improper Fill Material laid on streambanks such as tires or loose soil can obstruct a stream, cause further pollution, and will not stabilize the streambank.



Work Without a Permit for extensive streambank changes is not allowed and can make repairing your stream a much longer process.

Additional Resources

Pennsylvania Department of Environmental Protection
Southwest Regional Office
400 Waterfront Dr, Pittsburgh, PA 15222

www.dep.pa.gov
(412) 442-4000

Pennsylvania Fish and Boat Commission
Southwest Region
236 Lake Road Somerset, PA 15501

www.pa.gov/agencies/fishandboat
(814) 445-8974

Pennsylvania Association of Conservation Districts
5925 Stevenson Avenue, Suite A, Harrisburg, PA 17112

www.pacd.org
(717) 238-7201

Westmoreland Conservation District
218 Donohoe Road, Greensburg, PA 15601

www.westmorelandconservation.org
(724) 837-5271

Taking Action



Trained staff can help you understand the issues happening with your stream. A staff member can come to your property and have a conversation with you about the conditions of your stream. They will survey the area of concern and take photos.



Following the survey, if your streambank shows signs of erosion and you need advice on what to do to protect your property, Westmoreland Conservation District (WCD) will send you a recommended plan that highlights problem areas and provides solutions.



WCD will assist you with filling out a General Permit 3 (GP-3) application. This application will be needed to acquire the permit and be legally allowed to work on the streambanks.



If your application was processed successfully and approved, you will receive your permit. Before starting construction, contact WCD. They can recommend contractors and assist with carrying out the BMP installation.



Once construction is complete, it is important to monitor the project to ensure BMPs are working effectively. Your permit does not expire and can be used for maintenance of the existing project area if needed.

To learn more about streambank stabilization resources, check out our video series linked [HERE](#).