## Stream Maintenance @ the Local Level

MUNICIPAL ROUNDTABLE MEETING

FEB. 19, 2021



## How to answer hard questions and what resources are available.

# 1. The creek behind my house used to be deeper. Can I remove all this built up dirt and debris that's accumulated over the years?

#### **Municipality Response:**

What kind of debris and how will it be removed?

Manmade material and woody debris (trees, logs, brush) can be removed by hand and heavy equipment must remain on the banks to "pick out" the material and not dig into the streambed. YES! NO PERMIT NEEDED.

To remove sediment gravel bar. Most <u>LIKELY</u> requires a permit. **STOP and contact Westmoreland Conservation District.** 

"Can I dredge the stream? It will eliminate flooding." – NO.

Why?

Dredging destabilizes the stream channel and alters how a stream flows in unpredictable ways. Dredging causes more damage and flooding immediately downstream, destroying streambanks and accelerating erosion and sedimentation.



#### Approved permit for gravel bar removal. GP-3

- Removal of a gravel bar shall be limited to periods of low flow; a gravel bar shall be removed only to a depth 6 inches above the water level at the time of the project.
- Gravel bar removal should not constrict or increase the normal channel width and should be combined with bank stabilization on the opposite side of the creek.

2. What can I do to the banks of the creek in my yard to keep it from eroding and moving deeper into my yard area?

#### **Municipality Response:**

Stop mowing the streambanks and/or plant native trees and shrubs to create a riparian buffer. Root systems hold soil in place and keep it from eroding. NO permit is needed.

Stabilize streambanks with rock (rip-rap). Most <u>LIKELY</u> requires a permit. STOP and contact Westmoreland Conservation District.

#### **Ceneral Permit 3: BANK REHABILITATION, BANK PROTECTION AND GRAVEL BAR REMOVAL**

\*Bank protection or removal of gravel bar should not constrict or increase the normal channel width.

Mowing as close as possible to stream banks prevents woody vegetation and roots from stabilizing the bank. The vertical bank on right will <u>never</u> become stabilized.

**BEFORE:** 



Notice the machine is working from the banks



Nine years later: Mowing as close as possible to stream banks prevents woody vegetation and roots from stabilizing the bank. Causing vertical banks to reform that are not stabilized.

2018

## Benefits of a healthy stream buffer:

- Protects streambanks from erosion
- Filters pollutants from stormwater runoff
- Reduces flood damage
- Creates wildlife habitat
- Provides shade to streams
- Improves aesthetic value of landscapes





Blue Heron enjoying the WCCC Riparian Buffer.





## 3. Can I build a small rock dam in the creek to have a pooled area for the kids to play in?

### Municipality Response:

**Kids playing in the creek:** Even though they are fun to build and often temporary, man-made dams for swimming can have destructive effects on fish migration and can cause erosion issues for your neighbors up or downstream.

### Machines making a dam:

Building dams in creeks may not be legal.

A dam may require a permit from DEP Contact Westmoreland Conservation District.

Chapter 105 allows a dam up to 3' high and 50' long for "fish and fishing purposes"

## 4. Can I build a bridge over the creek to get to the other side of my or to my neighbor's property?

#### Municipality Response:

Does the stream flow through your property?

YES, but most likely requires a permit. Contact Westmoreland Conservation District for assistance.

#### General Permit 7: MINOR ROAD CROSSINGS

Bridges and culverts shall be of sufficient width and size so as not to narrow the existing stream channel.

The crossing shall be designed to prevent the restriction of and to withstand expected high flows. Bridge and culvert crossings shall have a waterway opening sufficient to adequately discharge, at a minimum, the bank-full flow of the watercourse or stream. The waterway opening shall be large enough to minimize and confine any backwater to the owner's property.

### GP-11 where GP-7 doesn't apply.

GP-11: MAINTENANCE, TESTING, REPAIR REHABILITATION OR REPLACEMENT OF WATER OBSTRUCTIONS AND ENCROACHMENTS.

Drainage area is greater than 1.0 square miles.



Inadequate pipe



## GOOD

Adequate bridge



## 5.Can I just pipe the creek in where it passes through my yard?

**Municipality Response:** 

Short answer probably not, but it is very complicated!!!

Depends on drainage area and length and what kind of stream or watercourse it is!!!

Chapter 105 waives certain permitting requirements for Obstructions... here is Waiver 2:

(2) A water obstruction in a stream or floodway with a **drainage area of 100 acres or less.** This waiver does not apply to wetlands located in the floodway.

However, a pipe longer than 100 feet is considered a "stream enclosure" and these are <u>NOT</u> covered by waiver 2.

## 6. Who owns the creek/waterway that runs through my yard?

Municipality Response:

If the adjacent riparian landowner owns property on only one side of a **<u>non-navigable waterway</u>**, he or she owns to the middle. When a non-navigable waterway flows through someone's property, he or she owns the entire bed of the waterway.

Check your deed or property survey for more info.

Navigable waterways: Ohio, Monongahela, Youghiogheny, Allegheny, Susquehanna, and its north and west, branches, Juniata, Schuylkill, Lehigh and Delaware.

Several government agencies have jurisdictions over the creek. The water flowing through the individual properties and the unique habitat represented by the creek are protected by State and Federal laws. Waters of the Commonwealth- Clean Streams Law - regulated by DEP, Army Corps, PFBC, USFWS, EPA...

## 7. Who's responsible for maintenance of the creek that runs through my property?

### Municipality Response:

Most of the property bordering the creek is privately owned. Typically, property lines extend to the centerline of the creek. That means the primary responsibility for creek bank repair and maintenance falls to each individual property owner.

Often permits are required. When things are not done correctly, much bigger problems can manifest the next time there is a big storm – and not just for you, but for everyone downstream of you as well.

Property owners should seek advice before they attempt stream bank maintenance activities.

8. Why won't the municipality come out and make the creek deeper and wider or straighten the stream to stop all this flooding?

### Municipality Response:

Municipality is not responsible to work on private property and are not permitted by state and federal law to alter a stream channel.

The placement of fill higher than the elevation of the existing streambanks, the construction of levees, the realignment or relocation of the channel, dredging activities in water and excavation below existing water level are not authorized by the DEP General Permit -3: Bank Rehabilitation, Bank Protection and Gravel Bar Removal.

## 9. Municipal owned stream crossings: What is the municipality responsible to do?

*Municipality response:* We must follow the Standards for Channel Cleaning at Bridges and Culverts set by the DEP.

Work in the stream channel shall be limited to 50 feet upstream and 50 feet downstream from the culvert/ stream crossing. Work should be accomplished by working from the stream banks. If not possible, the operation of equipment in the water is to be minimized.

Channels may be excavated to a width **no greater** than the width of the normal low flow channel.

Inspection of stream crossings should occur <u>MULTIPLE</u> times a year, especially after large rain events where debris and blockages should be removed.

## 10. The stream used to be over there, so its where it belongs. The flood moved it. Can I put it back?

### Municipality Response:

Streams naturally move over time and will always seek to reconnect with their floodplains.

Meandering or braided is a nature stream shape. A stream that is straight and channelized will move faster, cause increased erosion/ damage, and will not stay that way in the long term.

A permit and extensive engineering work are required.

### Municipality: Lead by Example!

On municipally owned properties:

Establish no-mow zones along streams.... EASY as stop mowing!

Plant a riparian buffer... relatively inexpensive!

Install and <u>maintain</u> rain gardens or other stormwater control structures.

Clear debris from all culverts and bridges.

**EDUCATE** with signage!





### Resources to help:

Stormwater: Best Management Practices Tool Kit

https://westmorelandconservation.org/stormwater-best-management-practice-toolkit/

•Guidelines for Maintaining Stream in your Community

http://files.dep.state.pa.us/Water/FactSheets/StreamMaintenance/StreamMaintenanceBooklet\_forWeb.pdf

Standards for Channel Cleaning at Bridges and Culverts:

https://www.pawccd.org/uploads/3/4/8/2/34827270/standards\_for\_channel\_cleaning\_at\_bridges\_and\_culverts. pdf

General Permit 3: Bank Rehabilitation, Bank Protection and Gravel Bar Removal

http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4066

General Permit 7: Minor Road Crossings

http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4074

### Still unsure?

Contact us:



Phone: 724-837-5271

Website: westmorelandconservation.org

Chelsea Walker, Watershed Specialist

Chelsea@wcdpa.com