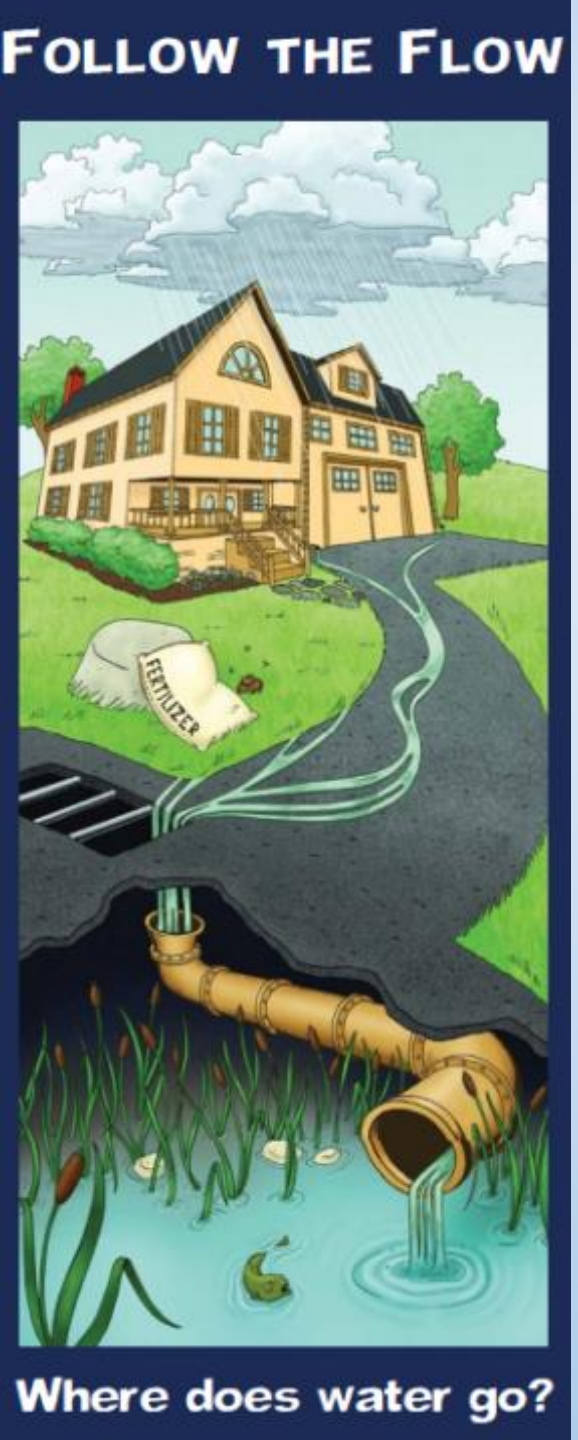


STORM WATER IN BERKS COUNTY

BERKS COUNTY CONSERVATION DISTRICT

DISCUSSION GOALS

- **BRIEF** overview of Stormwater & the MS4 Program
- How your municipality and residents can be involved

WHAT IS STORMWATER?



Stormwater occurs when precipitation from rain or snowmelt flows over the ground

WHAT ARE THE IMPACTS OF INCREASED STORMWATER RUNOFF?





Stream Bank Erosion



Excess nutrients/algae



Sedimentation of our water

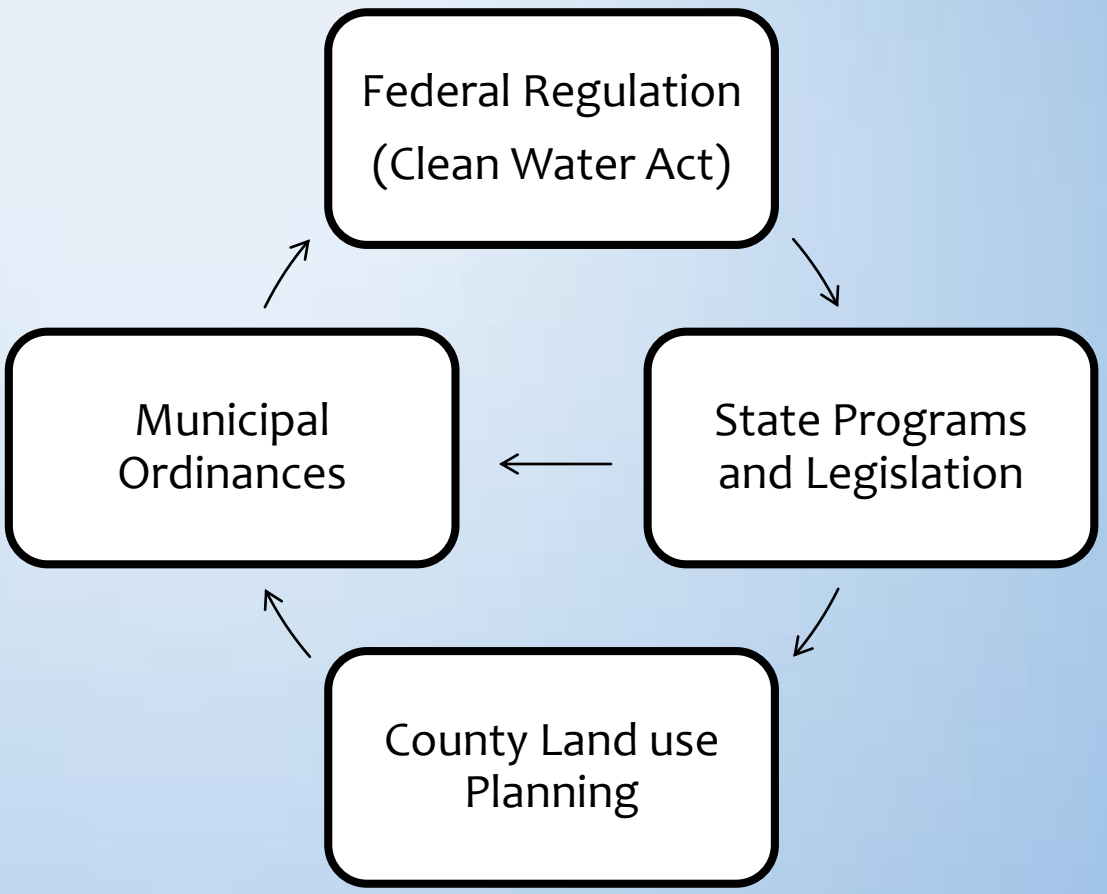
PENNSYLVANIA FISH CONSUMPTION ADVISORIES

WHAT IS A MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

Federal regulations (Clean Water Act) established a permit program for discharges to surface waters = National Pollutant Discharge Elimination System

Phase I – Urbanized Areas > 100,000 people (1990's)

Phase II – Urbanized Areas < 100,000 people (2003)



MS4'S INCLUDE...

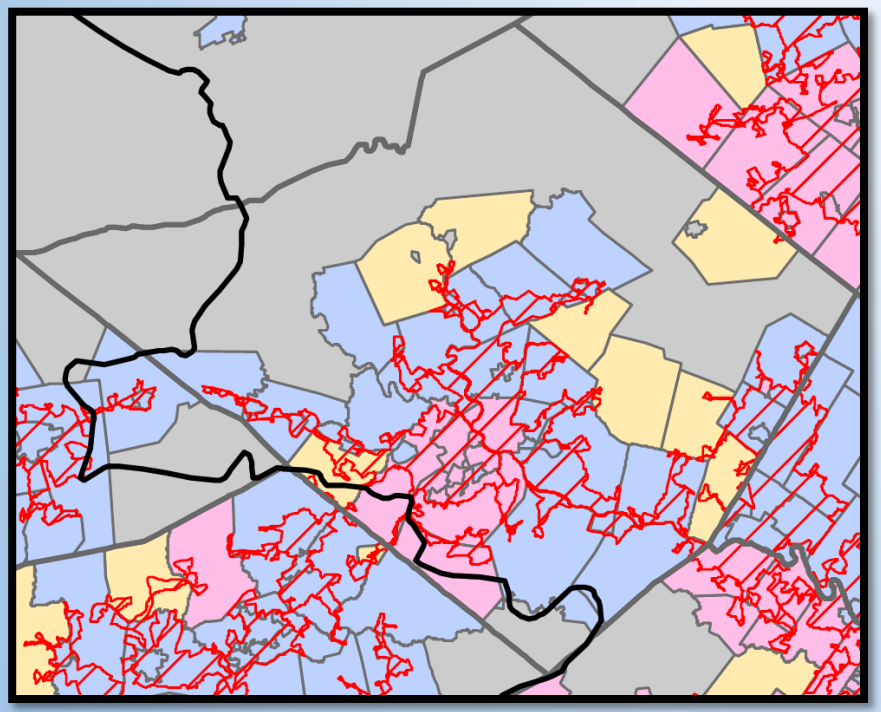
- "A state, city, town, borough, county, parish, district, association, or other public body"
- Any drainage system which conveys **only** storm water. (curbs, gutters, basins, storm pipes, ditches, swales, municipal streets etc..)
- **Does not include pipes that convey sanitary sewer.**



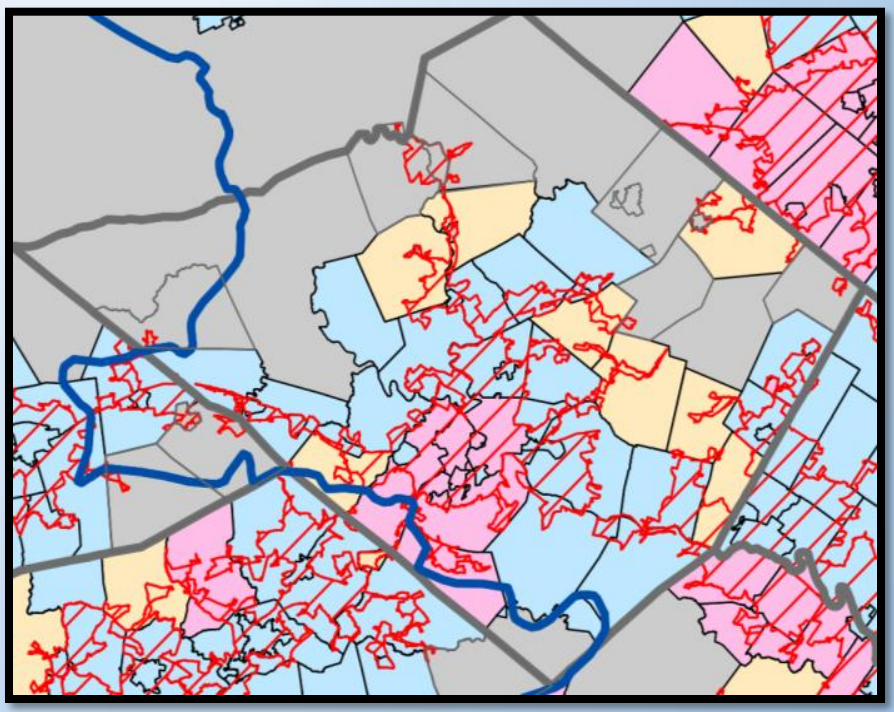
HOW ARE AREAS DETERMINED TO BE IN AN MS4?

Answer: The United States Census categorizes areas as “urban areas” based on population

2000 Urbanized Areas



2010 Urbanized Areas



MS4 Requirements

Municipalities must:

- Implement a Stormwater Management Plan
  - Stormwater Ordinance (Act 167 or other)
  - 6 Minimum Control Measures
  - If the municipality's Urbanized Area discharges to an impaired stream with an approved TMDL, then an MS4 TMDL Plan is needed

MS4 PROGRAM MINIMUM CONTROL MEASURES

- *Public education and outreach*
- *Public participation and involvement*
- *Illicit discharge detection and elimination*
- *Construction site stormwater runoff control*
- *Post-construction stormwater management*
- *Pollution prevention & good housekeeping for Municipal Operations*

HOW CAN I HELP?

In my Community...

- Volunteer at municipal clean up days and tree planting days
- Consider volunteering with these local Berks County Watershed Associations!
  - Hay Creek Watershed Association
  - Maiden Creek Watershed Association
  - Pine Creek Watershed Association
  - Our local Tulpehocken Chapter of Trout Unlimited combines the love of recreational fishing with coldwater conservation!





HOW CAN I HELP?





Around my Home...

- Do not discard or dump any trash, oil, or chemicals into storm drains. Storm drains lead directly into our waterways.
- Use a broom instead of a hose to clean sidewalks.
- Be careful of watering your lawns in the summer months – Your grass needs only one inch of water every 5 to 7 days!
- Plant vegetation that is native. It will withstand drought conditions and require less watering than nonnative species.
- Consider using sand or regular kitty litter as a less toxic alternative to deicers in the winter

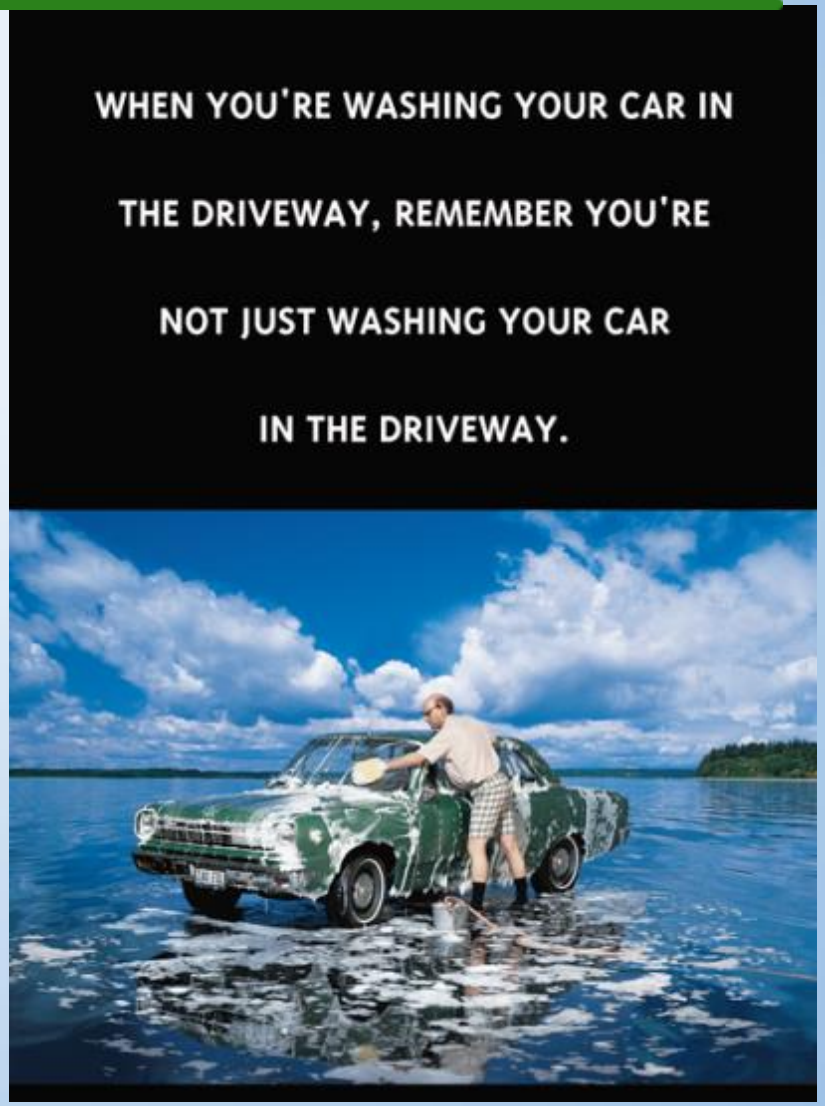




HOW CAN I HELP?

Around my Home...

- Have routine maintenance of your car to prevent and identify potential leaks.
- Wash your car on your lawn instead of on your driveway. The water will drain into your lawn instead of flowing down a storm drains. Or take your car to a local car wash; they recycle the water that is used.



HOW CAN I HELP?



Around my Home...

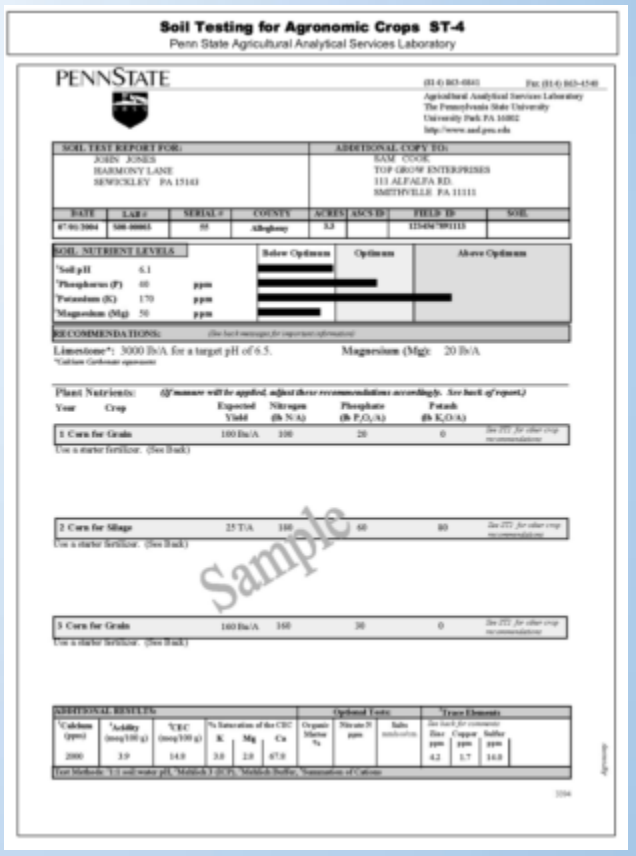
- Place a rain barrel underneath rain spouts. The water can then be used for gardening needs.
- Aim downspouts onto grassy areas of your yard that flow away from your house, not on driveways or walkways. This allows the ground to absorb the water instead of having the water be flushed into storm drains. A wooded or garden area absorbs more water than turf grass



HOW CAN I HELP?

Around my Home...

- Test your soil. Contact Penn State University's Cooperative Extension in Berks County to request a soil test at 610-378-1327 or visit http://berks.extension.psu.edu/
- If you do need to fertilize your lawn, never apply more than is recommended – too much can burn your lawn. Also, do not fertilize before a rain storm, and keep fertilizer off sidewalks and driveways where it can easily wash into storm drains



HOW CAN I HELP?

Around my Home...

Plant a rain garden. Rain gardens contain native plant species that retain stormwater runoff and allow the water to soak back into the ground at a natural rate. The native plants can withstand times of either drought or flood and offer an aesthetic quality to a yard as well as a much needed pollution prevention technique!







Thank you! Questions?

Berks County Planning Commission
610-478-6300
http://www.co.berks.pa.us/planning



Information/photos from this presentation came from the Environmental Protection Agency Website and PA Department of Environmental Protection