

# **Martinsburg, WV**

## **Stormwater Program**

Martinsburg, an MS4 Community!

# Why the big deal about Stormwater?

- Pollution from streets, lawns, parking lots and sidewalks is collected by stormwater.
- The stormwater collects litter and debris and flows to our stormdrains untreated.
- That polluted stormwater then flows to our local waterways impairing our streams, rivers and drinking water.
- Fertilizer, pet waste and yard waste can also pollute stormwater.

# How does our Stormwater affect the Chesapeake Bay?

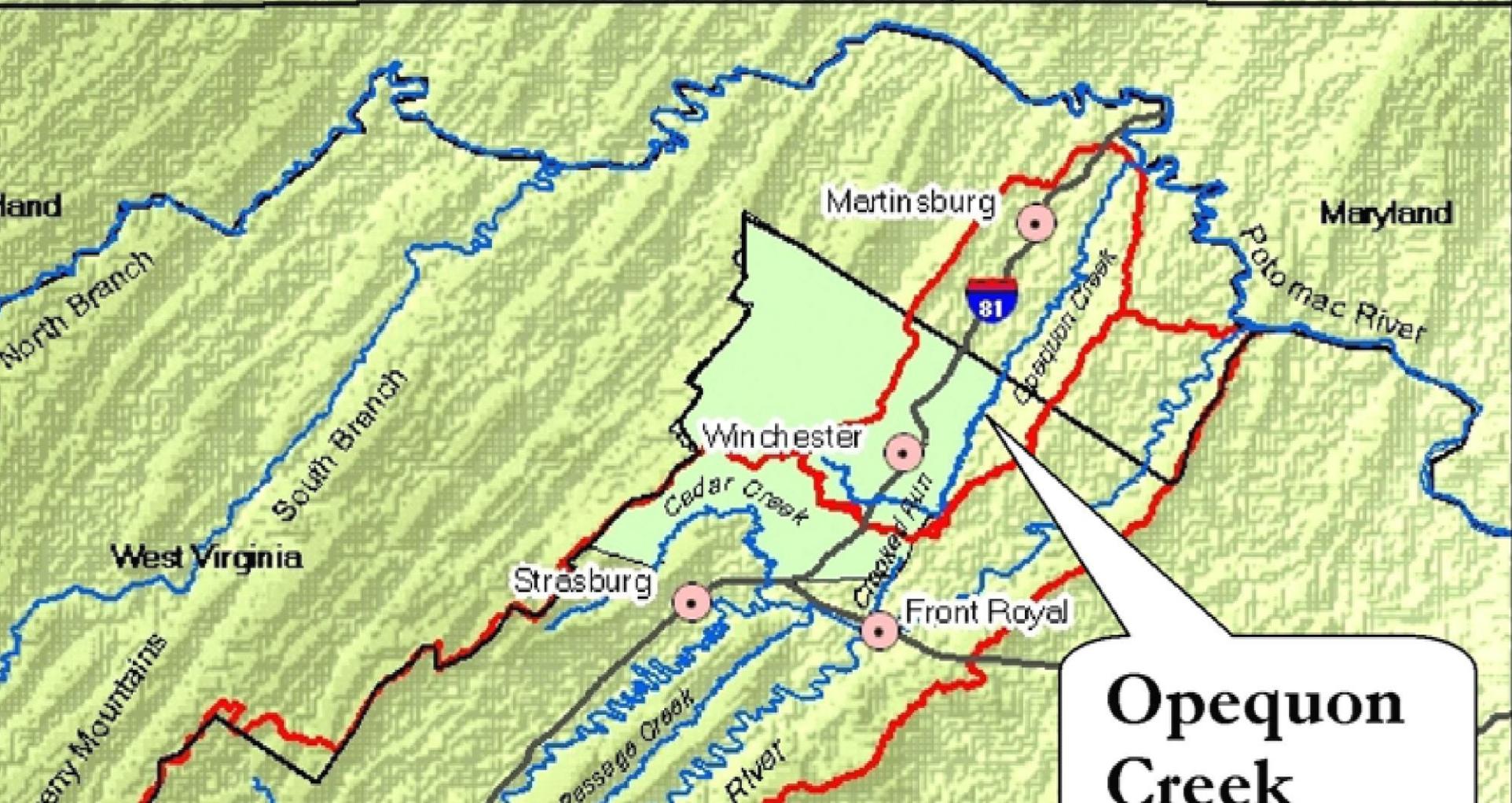
- The Eastern Panhandle of West Virginia is in the Chesapeake Bay Watershed.
- All of our local waterways all drain to the Chesapeake Bay.
- 2009-2010 President Obama issues executive order that allows EPA to restore the water quality for the Chesapeake Bay.
- Reduce Nitrogen, phosphorous and sediment in waterways.
- Our actions for this program are mandated for the Chesapeake Bay, but more importantly we are helping ourselves by cleaning our local waterways.

# Precipitation Gage Locations



- Modeled
- Precip G

# Shenandoah Valley Region, Virginia



# What is an MS4 Community?

- MS4 stands for Municipal Separate Storm Sewer Systems
- All municipalities in West Virginia over 10,000 in population are designated as a Phase II MS4.
- MS4 municipalities must apply for an MS4 permit every five years.
- These MS4 communities are required to retain and manage the first 1" of rainfall in a 24 hour storm event preceded by 48 hours of no measurable precipitation.
- Best Management Practices (BMP's) can used to capture this first one inch of runoff.

# BMP's

- West Virginia Stormwater Management and Design Guidance Manual includes examples of BMP's approved through WV DEP.
- Many examples of BMP's can be used to treat stormwater:
- Bioretention-a vegetated area used to remove pollution from stormwater before it infiltrates into the ground, such as a rain garden.
- Grass Swales are areas that promote the conveyance of stormwater at a slower, controlled rate and acts as a filter medium removing pollutants and allowing stormwater infiltration.

## Local BMP's

E King St at the town square has a Cambridge Brick filtration system.



## N Delaware Ave.

Bioretention area to  
filter stormwater from  
nuisance flooding.



# Local BMP's

- The City of Martinsburg also has a grass swale BMP on Central Ave. to help with stormwater flowing from Woodbury and Moler Ave.
- Several existing actions and events that also prevent stormwater pollution are: Daily Street Sweeping, weekly stormdrain cleaning, cleaning of the vault of the Center City Stormwater pump, Annual Take Pride in Your Community Day and others.
- Several tree plantings in 2013 through the Chesapeake Bay Community Grant Program and the WV Division of Forestry

# Tree Plantings

E John St Stream buffer



# Tree Plantings

E John St stream buffer



# City of Martinsburg

## Tree Plantings in 2013

- East John Street (30)
- Boyd Avenue (3)
- Oak Street Park (3)
- Charlotte Prather Park (5)
- Leeland Park (2)
- Martin Luther King Park (2)
- Ambrose Dog Park (8-12) planting this Fall

# Martinsburg Stormwater Management Team

- Plans, schedules and administers the MS4 program for the City of Martinsburg.
- Meets monthly to discuss current and future stormwater issues and projects throughout the City.
- This team includes: City Manager, Fire Chief, Police Chief, City Engineer, Utilities Director and Public Works Director.
- Working with Delta Consultants on stormwater ordinances.
- Currently planning two downtown projects that will include BMP's for stormwater management: East Burke Street parking lot and a stormwater collection system near W King St and Church St.

# Summary

- City of Martinsburg is an MS4 Community.
- MS4 Permit is a 5 year permit, Martinsburg is currently in the second year of their current permit.
- Train City employees about stormwater.
- Install BMP's whenever possible on public and private land.
- With more stormwater education the cleaner our waters will be.

Floatable debris that is collected weekly from the Tuscarora Creek.



# QUESTIONS?

Jeff Wilkerson

Public Works Director

City of Martinsburg

304-264-2126

[jwilkerson@cityofmartinsburg.org](mailto:jwilkerson@cityofmartinsburg.org)