

Breewood Tributary Restoration Tour

Chesapeake Bay Policy Committee

May 19, 2017

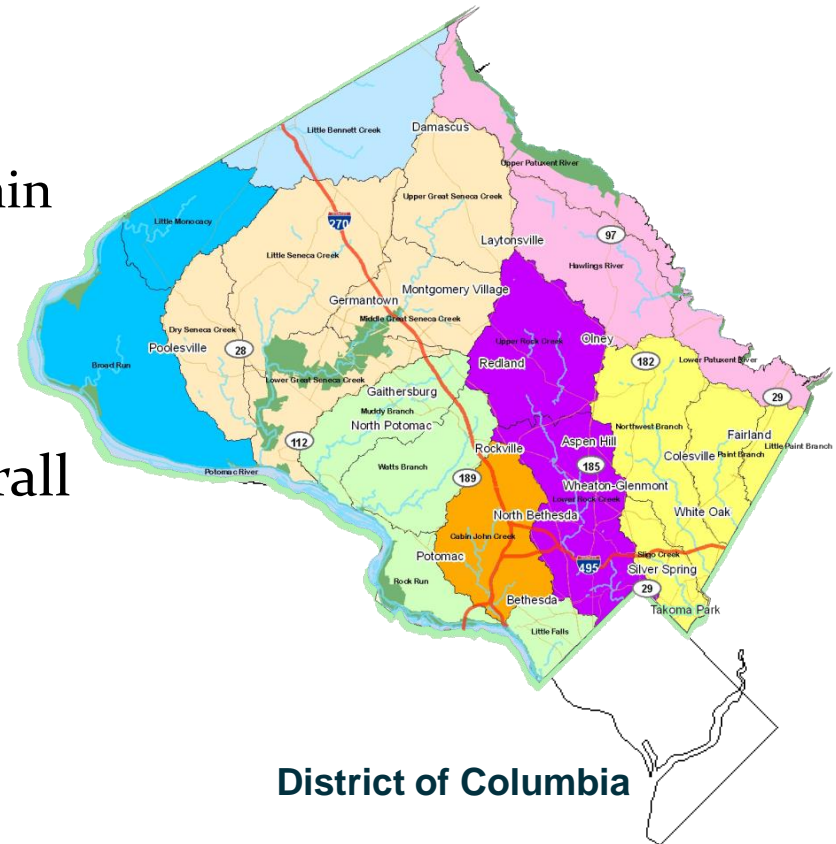


Today's Agenda

- Montgomery County's Watershed Management Program
- Breewood Tributary Restoration

Montgomery County, MD

- 500 sq. miles
- More than 1 Million people
 - Second only to Baltimore City within Maryland in average people per square mile
 - 184 languages spoken
- About 12% impervious surface overall
 - About the size of Washington DC
- Over 1,500 miles of streams
- Two major river basins:
 - Potomac
 - Patuxent
- Eight local *watersheds*

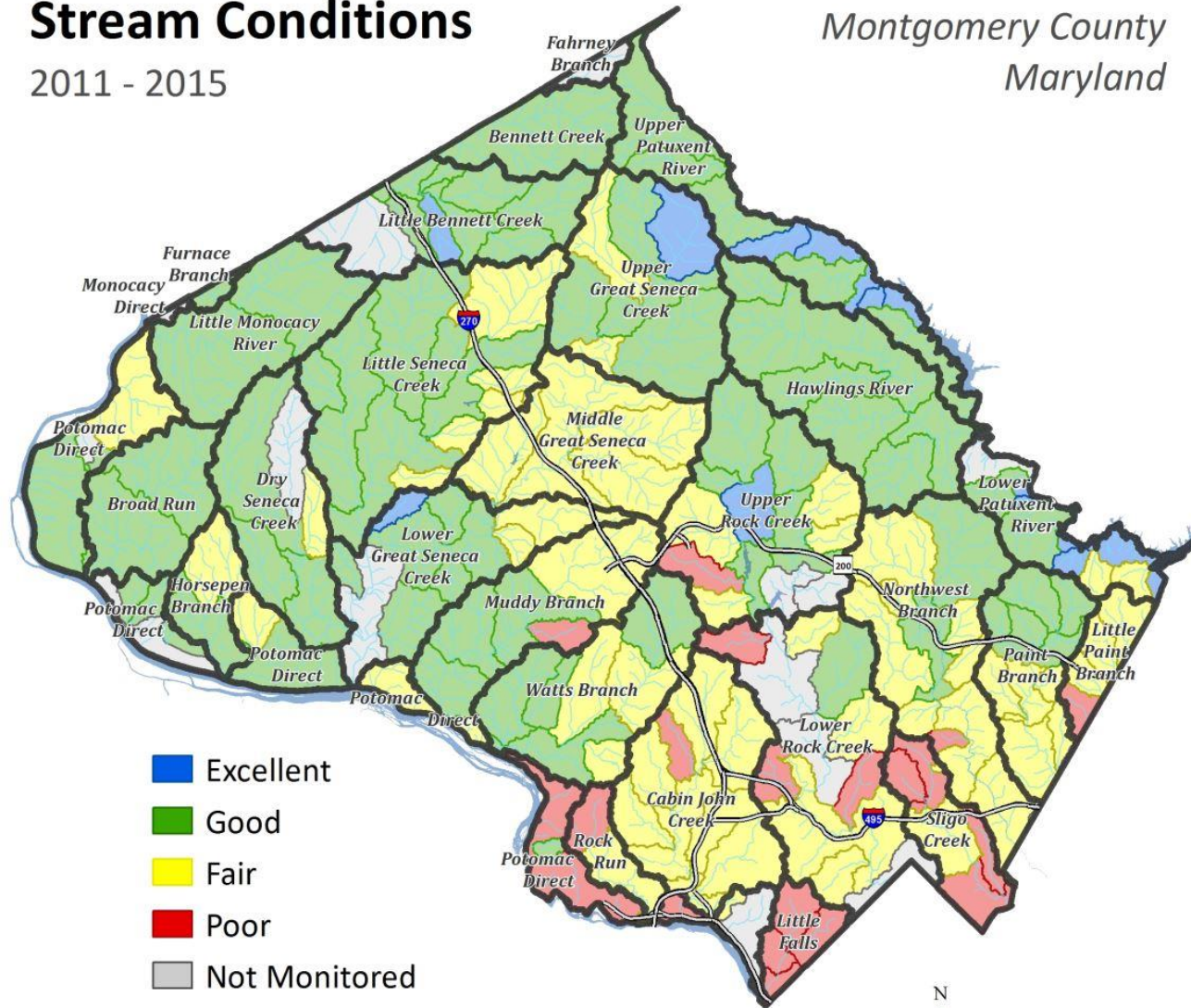


Impervious: Not allowing water to soak through the ground.

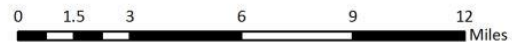
Stream Conditions

2011 - 2015

Montgomery County
Maryland



- Excellent
- Good
- Fair
- Poor
- Not Monitored



Watershed Management

- Watershed Management Operations Division
 - Planning, Monitoring, And Permit Coordination Section
 - Reporting, Monitoring, and Watershed Outreach
 - Stormwater Facility Maintenance Section
 - Inspections and Maintenance
- Watershed Management Capital Projects Division
 - Watershed Restoration and Capital Projects Section
 - Planning and Design of Stormwater Retrofits and Stream Restoration
 - Construction Management
 - Oversees project construction
 - RainScapes



Breewood Tributary

- 1200 foot first order stream
- 63 acre drainage area
- 42% impervious
- Medium density residential
- 2009 MDE appoved Breewood Tributary for comprehensive watershed restoration effort





Breewood Tributary Restoration

- 10 green street practices
- 3 Rainscape practices
- 1,200 linear feet stream restoration
- Commercial/Faith Based restoration
- Multifamily Residential Restoration

Breewood Stream Restoration Project



Length = 1,280 Feet
Completed - 2015



Questions?

Continued Commitment to Green Infrastructure

Stormwater Management Pond Retrofits



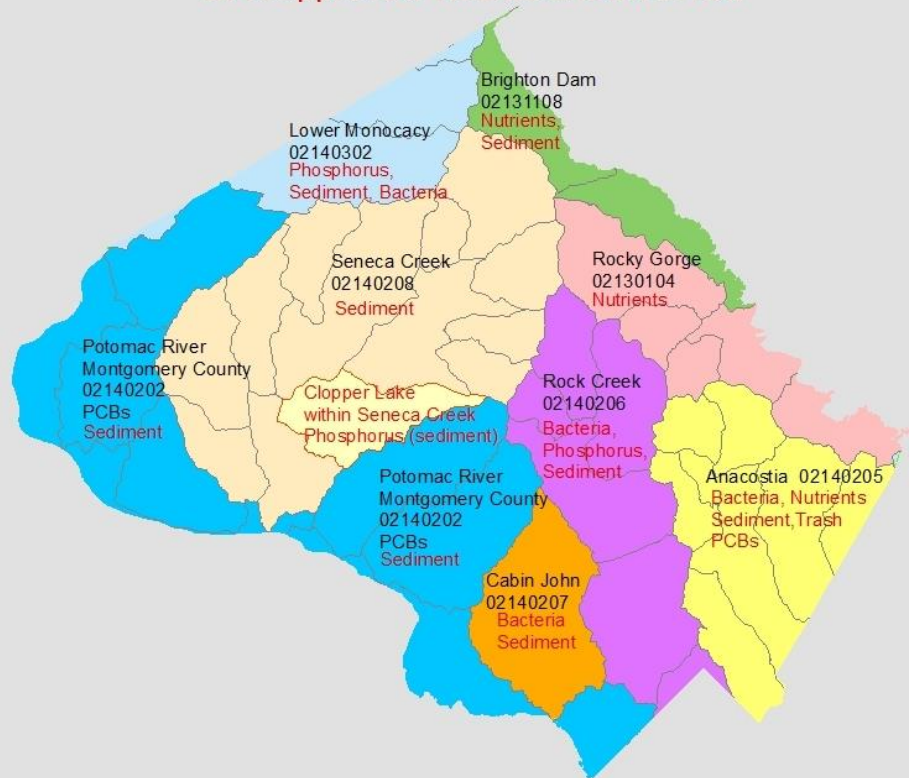
Fallsberry Stormwater Management Pond in Potomac, Maryland



Treated = 13 impervious acres
Completed – October 2014

County Watersheds on Maryland's Impaired List January 2014

EPA approved TMDLs shown in red



Numbers represent 8-digit State Codes
Boundaries are for 12-digit watersheds
All County 8-digit watersheds show biological impairment

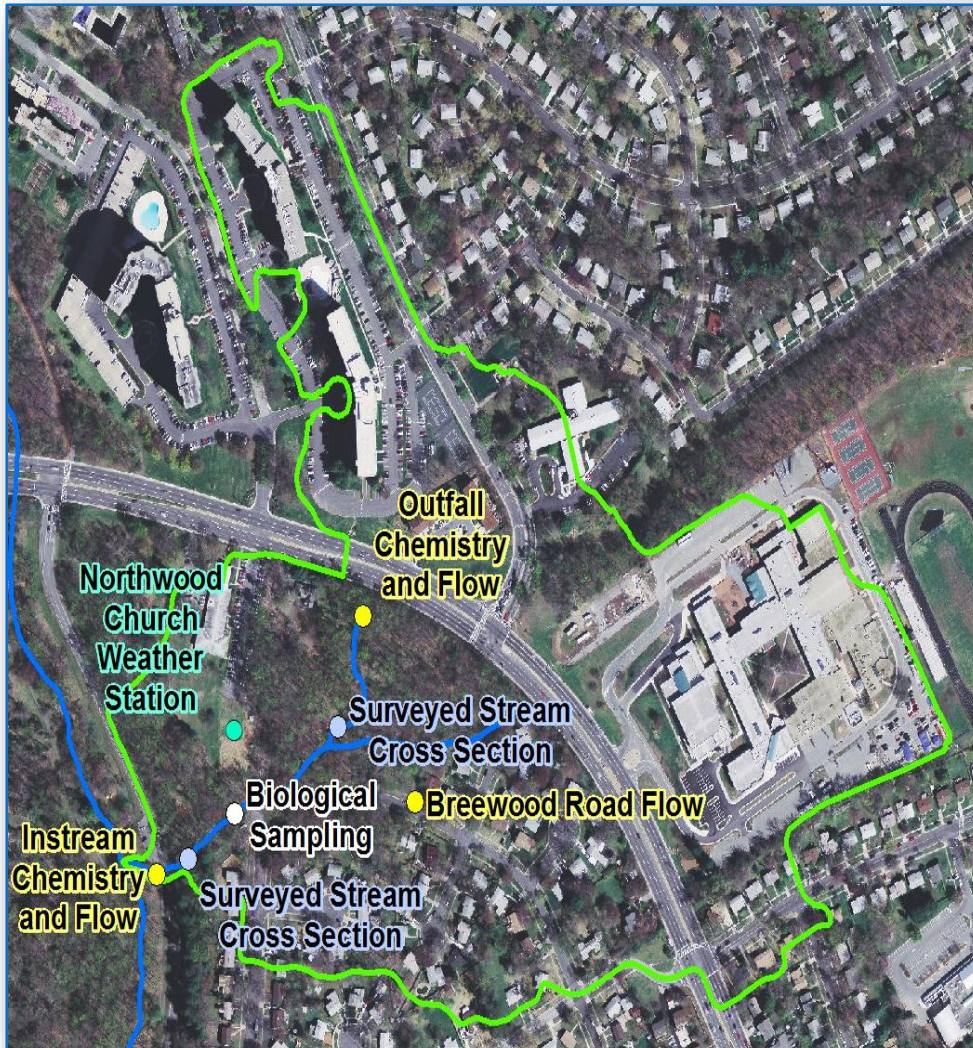


Preliminary Breewood Monitoring Results

- Breewood surface water generally has low to moderate levels of pollutants typical of non-point source urban runoff. This complicates our ability to clearly identify water quality improvements that can be attributed to BMP's.
- Installation of the stormwater conveyance channel has created enough storage in the channel to control many small storms. Future monitoring will better characterize the effectiveness of this BMP.
- Project BMP's that promote infiltration and evapotranspiration may reduce pollutant loadings in the watershed by decreasing total runoff. Some of those BMP's have been completed. The rest should be installed in 2017 or early 2018.

Water Quality Monitoring

Breewood Tributary Monitoring- Monitoring Plan



- ▶ One outfall and instream monitoring station- water chemistry and flow
- ▶ Two stream geomorphology stations
- ▶ One biological monitoring station
- ▶ Weather station (rainfall)
- ▶ Continuous physical water chemistry monitoring (new)
- ▶ Two additional stations to monitor pre and post retrofit (RainScapes Neighborhoods) water quality and flow.

Brewwood Tributary Monitoring

