

Green Streets Manor Woods & Wheaton Woods

Environmentally Friendly Landscapes for Healthy Watersheds



Project Update/Presentation for the
Aspen Hill Civic Association

May 18, 2016



Working together for a cleaner, greener
economically vibrant community

www.montgomerycountymd.gov/watershedrestoration

Introductions

- **Christy Ciarametaro**

- DEP Watershed Planner, Wheaton Woods Green Streets

- **Ho-Ching Fong**

- DEP Watershed Planner, Manor Woods Green Streets

Today's Agenda

- Community Survey
- Why Aspen Hill Green Streets?
- How Green Streets Function
- Green Street Photos
- What's Next?



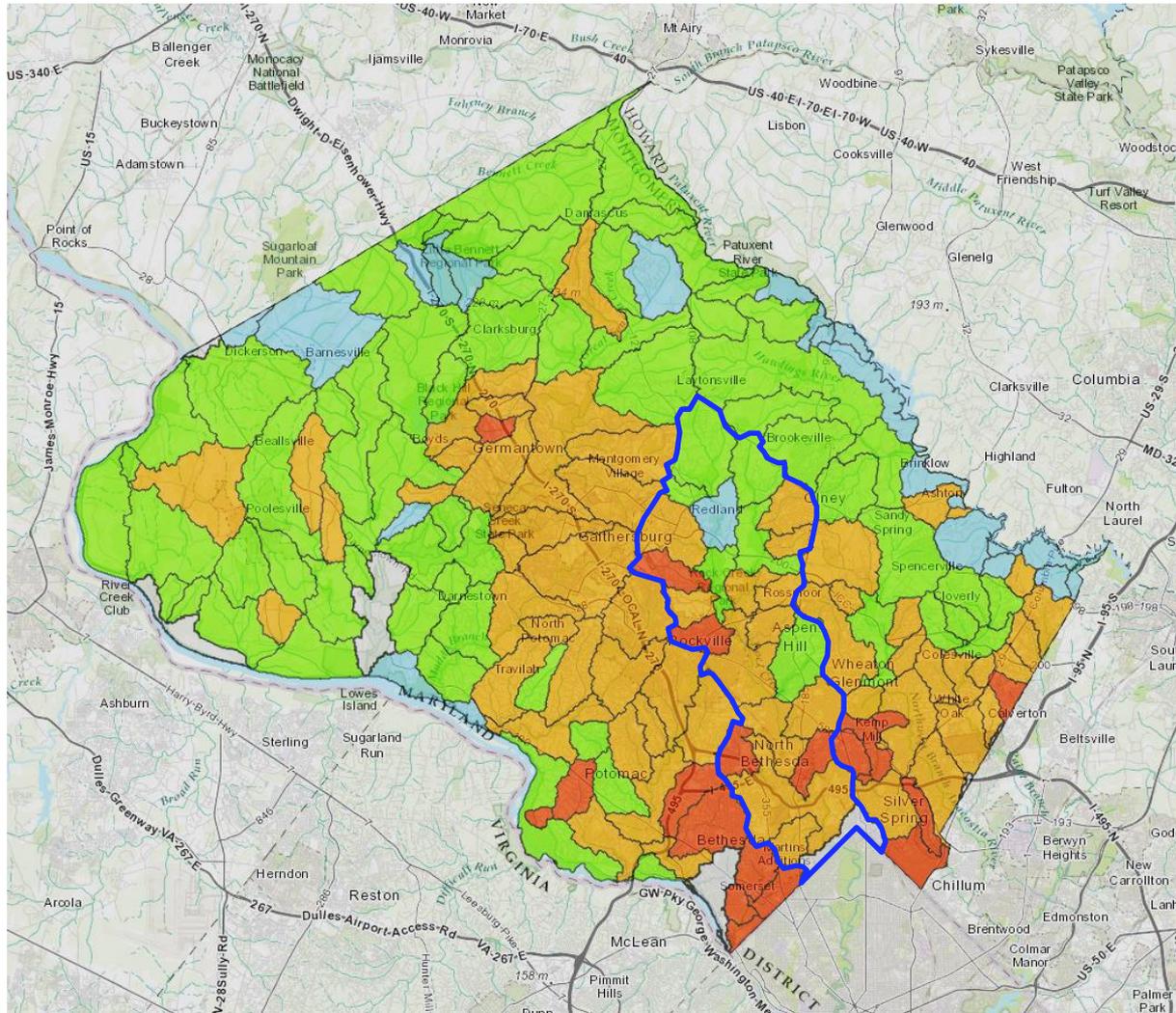
Watershed 101

What is a Watershed?

- A *watershed* is an area from which the water above and below ground drains to the same place.
- Different scales of watersheds:
 - Chesapeake Bay
 - Eight local watersheds
 - Neighborhood (to a storm drain)



Stormwater 101: County Stream Health

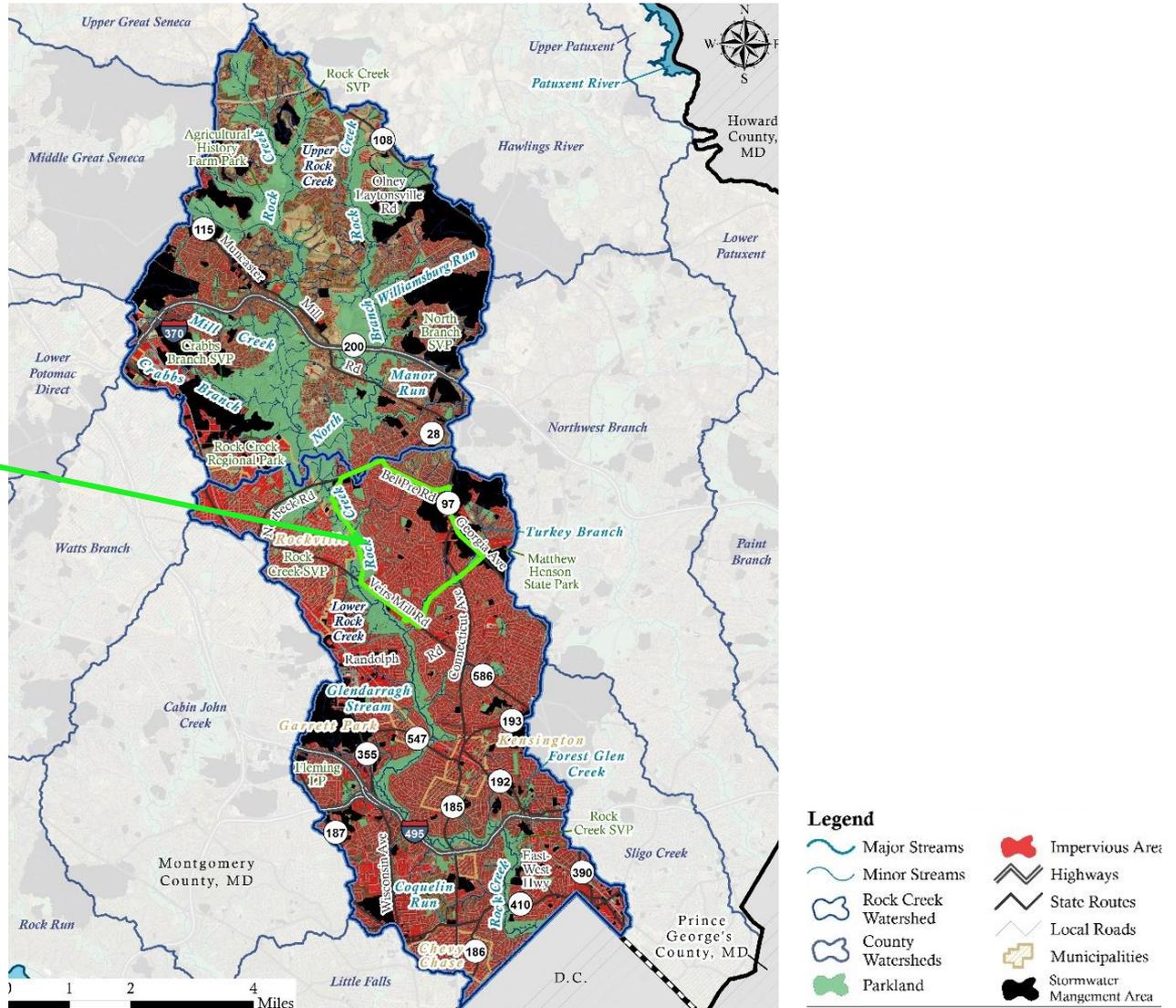


Stormwater 101: Runoff Impacts



Rock Creek & Aspen Hill Civic Association

Aspen Hill Civic Association

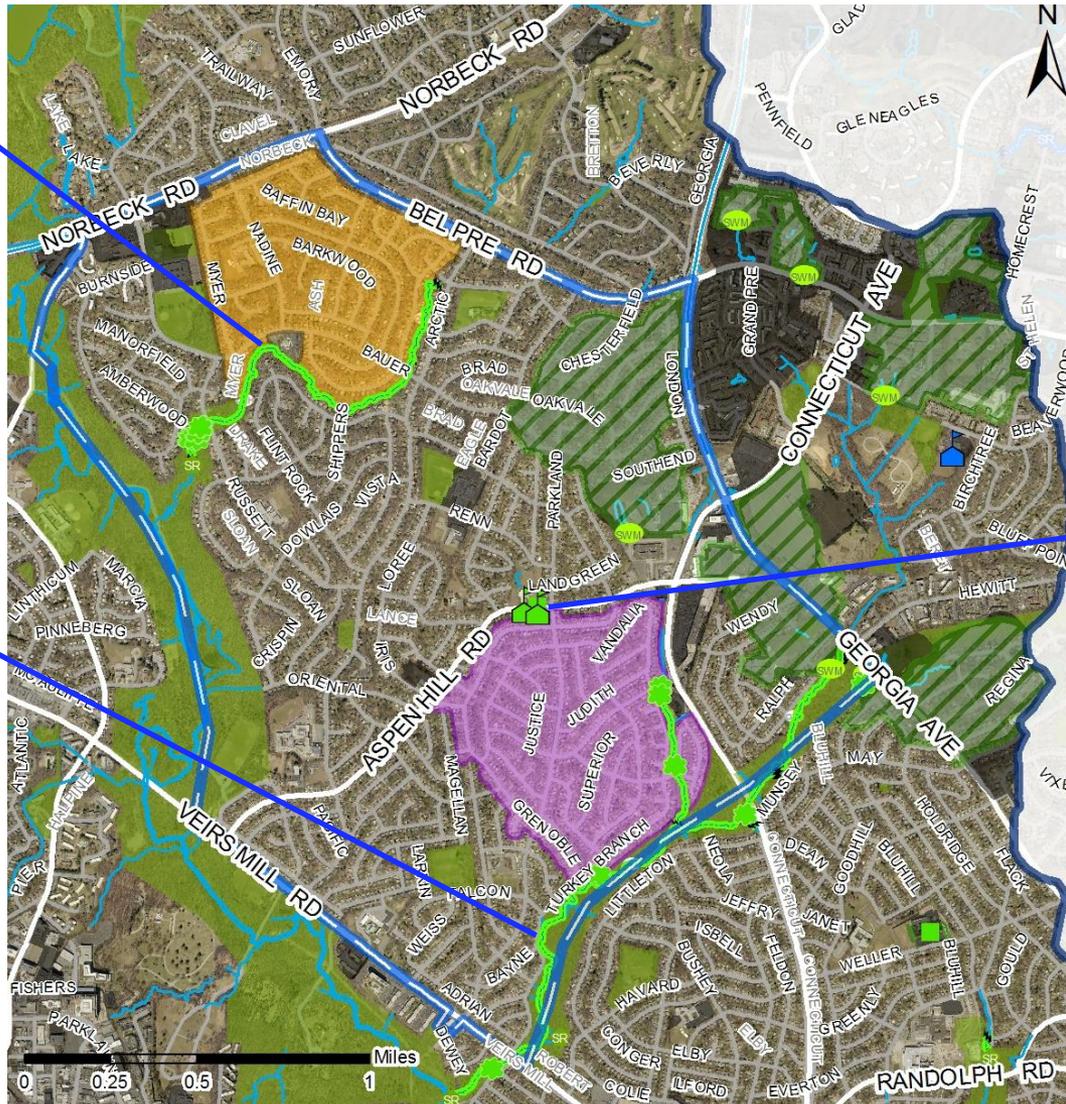


Rock Creek & Aspen Hill Civic Association

Sycamore Creek Stream Restoration

Turkey Branch Stream Restoration

Aspen Hill Library



- | | |
|------------------------------|----------------------------------|
| Aspen Hill Civic Association | School and Government Facilities |
| Streams | Complete |
| Minor Roads | In construction |
| Major Roads | In design |
| Parks | |
| Stormwater Management Area | |
| Stormwater Pond Locations | Stormwater Pond DA |
| Complete | Complete |
| In construction | In construction |
| In design | In design |
| Stream Restoration | Complete |
| In construction | In construction |
| In design | In design |
| Reforestation | |
- Green Streets Projects**
- Manor Woods Green Streets
 - Wheaton Woods Green Streets

What are Green Streets?

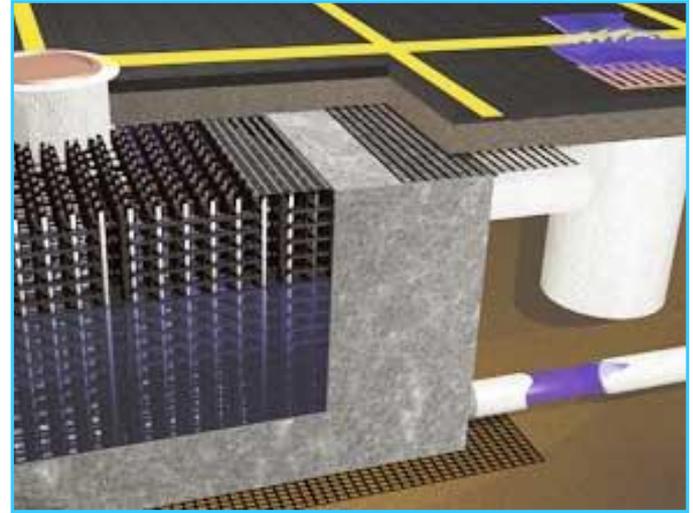
Green Streets Practices



**RAIN GARDEN,
BIORETENTION,
BIOSWALE**



TREE BOX



**INFILTRATION STRUCTURE IN
CURB INLET,
RAINSTORE[®] INFILTRATION**

Source: <http://invisiblestructures.com/rainstore3.html>

During the Rain



Tenbrook Dr, May 14th 2016

Dry 48 hrs later



Tenbrook Dr, May 16th 2016



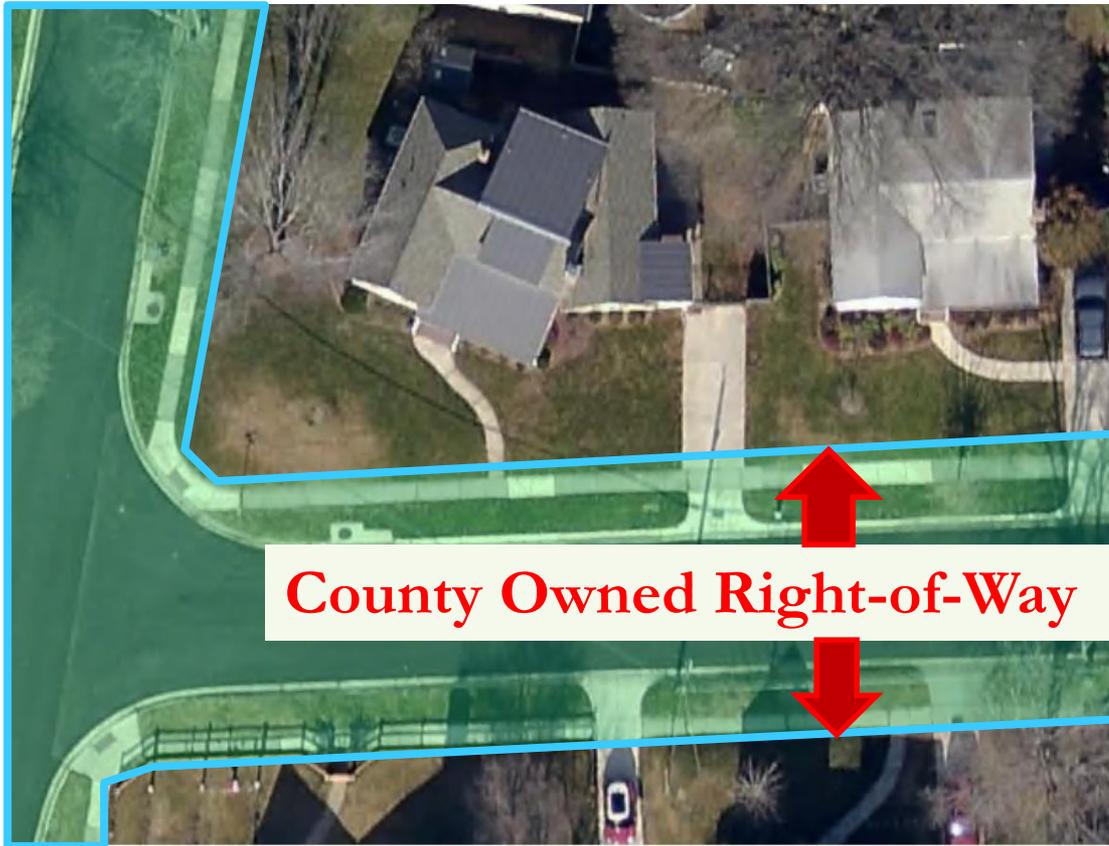
Dennis Ave, May 14th 2016



Dennis Ave, May 16th 2016

Where will Green Streets be?

- Selected areas within the County Right-of-Way (ROW)



With Sidewalk



Without Sidewalk

Where will Green Streets be?



Avoiding
Utility

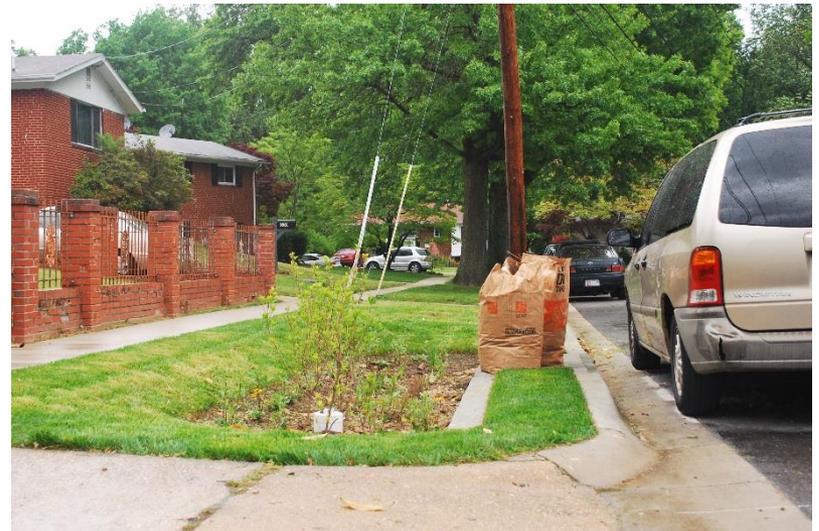
Avoiding
House Connections

Avoiding 22"
Norway Maple Tree

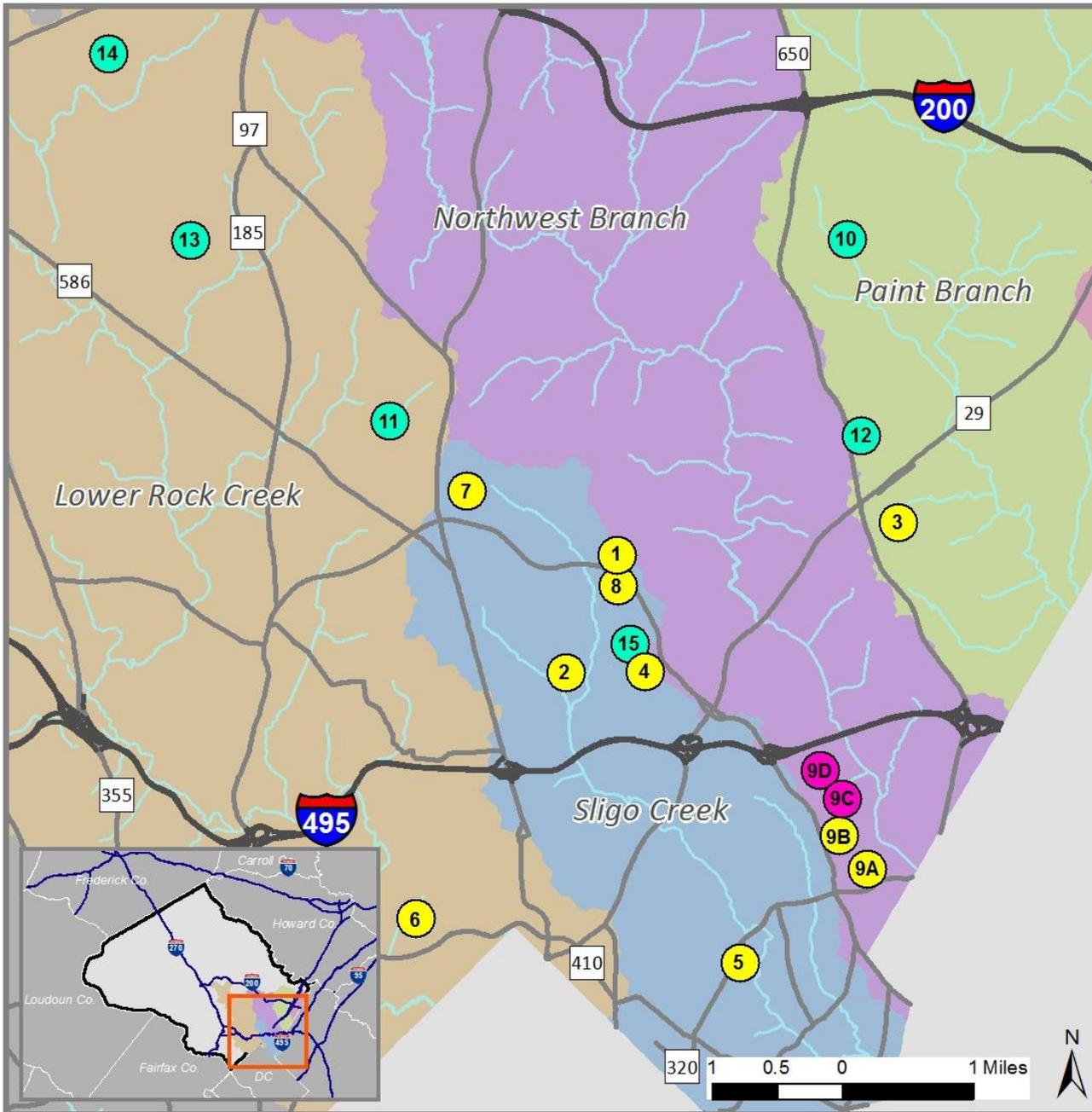
Possible Rain Garden

Buffer from Driveways

Where will Green Streets be?



Montgomery County Green Streets (March 2016)



	COMPLETE
1	Arcola Avenue
2	Forest Estates
3	White Oak
4	Dennis Avenue
5	Sligo Park Hills
6	Donnybrook
7	Amherst
8	Breewood
9A	Franklin Knolls - Phase 1
9B	Franklin Knolls - Phase 2
	IN CONSTRUCTION
9C	Franklin Knolls - Phase 3
9D	Franklin Knolls - Phase 4
	IN DESIGN
10	Cannon Road
11	Glenmont Forest
12	Springbrook \ Homestead Estate
13	Wheaton Woods
14	Manor Woods
15	McDonald Knolls \ Ballantrae \ Sligo Estates

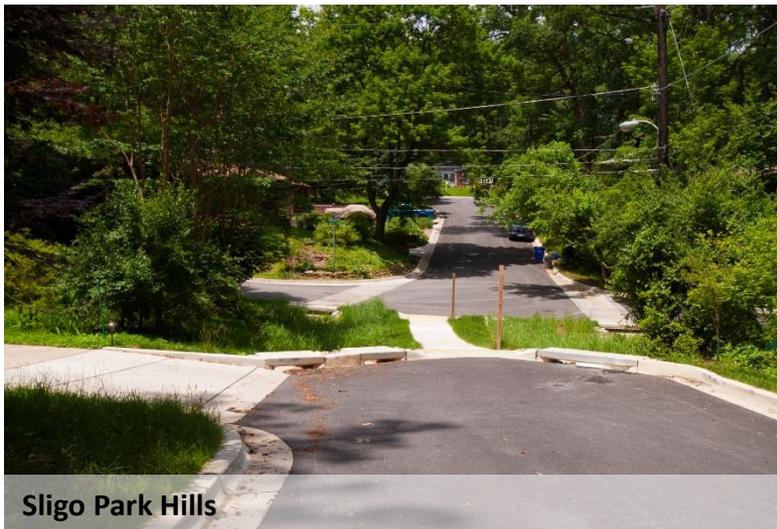
DEP Green Streets Around the County



White Oak



Forest Estates



Sligo Park Hills



Dennis Avenue

Green Streets Around the County



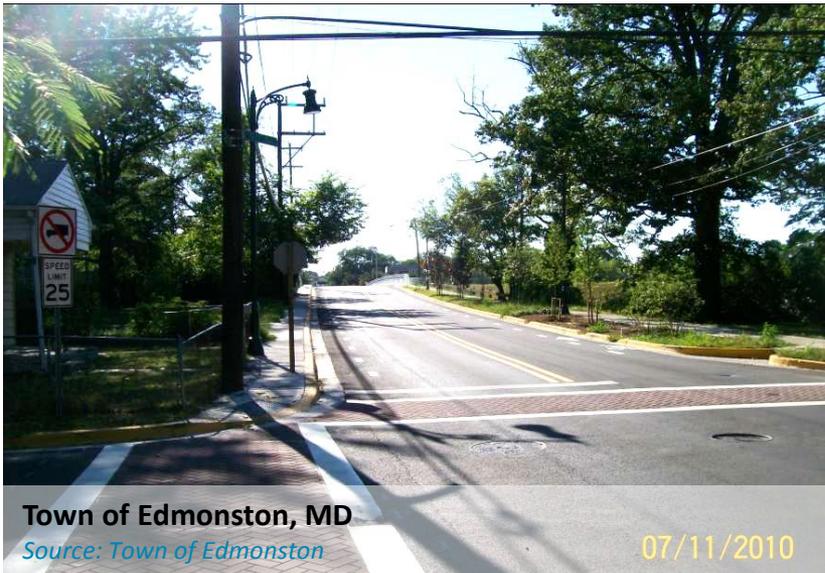
Rabbitt Rd, City of Gaithersburg

Source: City of Gaithersburg



Cedar Ave., City of Gaithersburg

Source: City of Gaithersburg



Town of Edmonston, MD

Source: Town of Edmonston

07/11/2010

Green Streets Around the County



Chick-fil-A, Rockville



Arora Hills, Clarksburg



Harris Teeter, Gaithersburg



Crown, Gaithersburg

Green Streets Around the Region



Pierce Park, Baltimore, MD

Source: baltimorewaterfront.com/healthy-harbor-ecotours



Patrick Henry Green Street, Arlington, VA

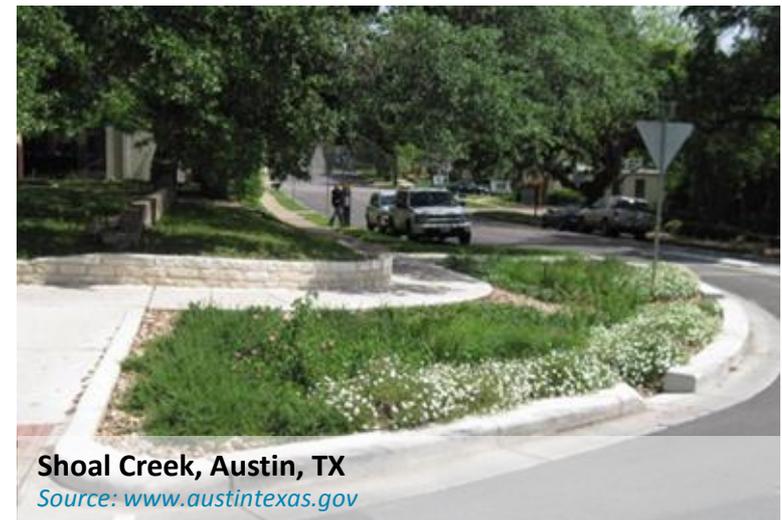
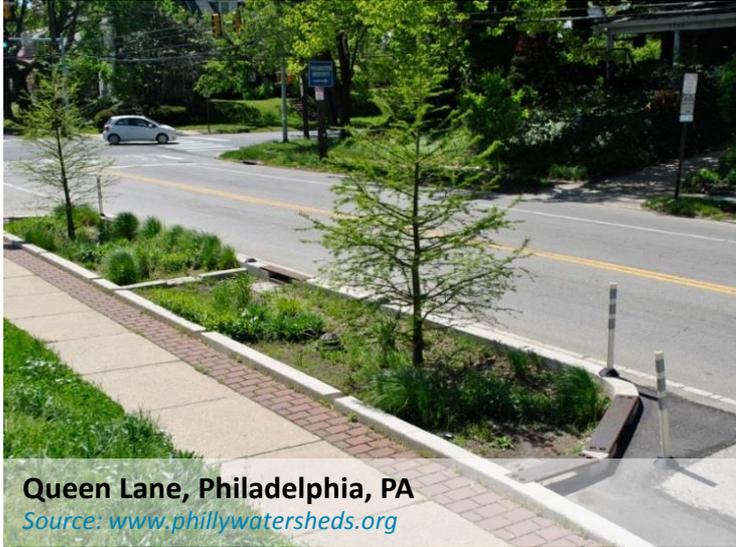
Source: City of Arlington, VA



33rd St, 32nd St, Quesada St, DC

Source: DDOT

Green Streets Around the Country



Project Implementation Process

Implementation Plan



Preliminary Assessment



Concept Design



Final Design



Construction



Maintenance

1st Public Meeting

Community Walk
(Est. Fall 2016)

Project Celebration

We are Here

Conducting:

- 1) Field Survey
- 2) Soil Boring
- 3) Community Survey

Concept Design to be completed in Fall 2016



Maintenance

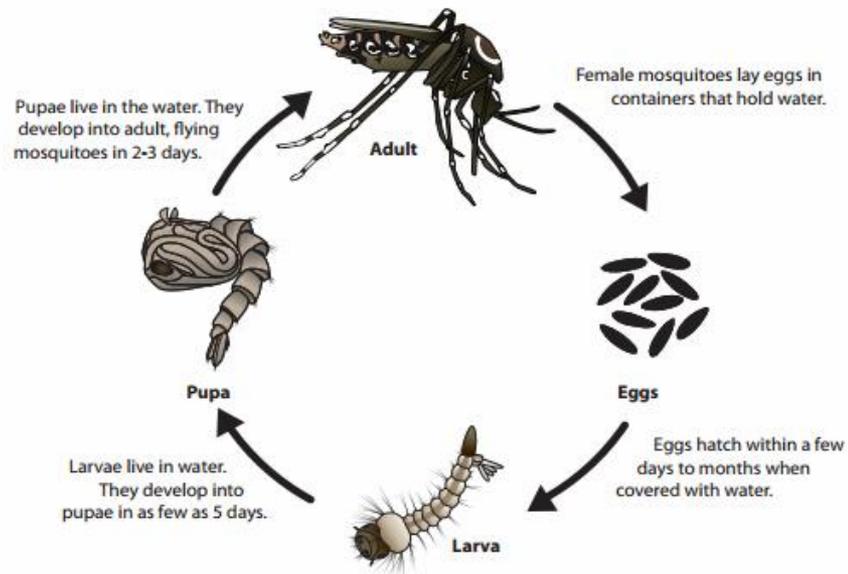
- MCDEP will visit **monthly** (on average)
- We will:
 - Water plants, if needed
 - Replace plants as needed
 - Replenish mulch
 - Remove weeds
 - Remove sediment & trash
- Factsheet



Mosquito life cycle

Aedes aegypti

It takes about 7-10 days for an egg to develop into an adult mosquito.



montgomerycountymd.gov/mosquito

Montgomery County MD.GOV
Montgomery County Government

Mosquito ▾ Services ▾ Residents ▾ Business ▾ Government ▾ County Executive ▾ County Council ▾

Protect yourself from mosquito bites

Daytime is most dangerous
Mosquitoes that spread chikungunya, dengue, and Zika are aggressive daytime biters. They can also bite at night.

Use insect repellent. It works!
Look for the following active ingredients:
• DEET • PICARIDIN • IR3535

Wear protective clothes
Wear long-sleeved shirts and long pants and use insect repellent. For extra protection, treat clothing with permethrin.

Mosquito-proof your home
Use screens on windows and doors. Use air conditioning when available. Keep mosquitoes from laying eggs in and near standing water.

<http://www.montgomerycountymd.gov/iss>

Help Control Mosquitoes that Spread Dengue, Chikungunya, and Zika Viruses

Bzzzz.

Aside from being itchy and annoying, the bite of an infected female mosquito (sheik jaggi or Aedes albopictus) can spread dengue, chikungunya, or Zika viruses. People become infected with dengue, chikungunya, or Zika after being bitten by an infected mosquito.

- Female mosquitoes lay several hundred eggs on the walls of water-filled containers. Eggs stick to containers like glue and remain attached until they are scrubbed off. When water covers the eggs, they hatch and become adults in about a week.
- Adult mosquitoes live inside and outside.
- They prefer to bite during the day.
- A few infected mosquitoes can go on communally and put your family at risk.

Mosquito Bite Prevention (United States)

Not all mosquitoes are the same. Different mosquitoes spread different viruses and bite at different times of the day.

Type of Mosquito	Viruses spread	Biting habits
Aedes jaggi, Aedes albopictus	Chikungunya, Dengue, Zika	Primarily daytime, but can also bite at night
Culex species	West Nile	Evening to morning

Protect yourself and your family from mosquito bites

Use insect repellent
Use an Environmental Protection Agency (EPA)-registered insect repellent with one of the following active ingredients. When used as directed, EPA-registered insect repellents are proven safe and effective, even for pregnant and breastfeeding women.

Active ingredients
Higher percentages of active ingredient provide longer protection

Active ingredient	Some brand name examples*
DEET	Off!, Cutter, Saaxer, Ultrathon
Picaridin, also known as ICR 3535	Cutter Advanced, Skin So Soft Bug Guard Plus, Avian (outside the United States)
	Repel
	Skin So Soft Bug Guard Plus Expedition, SkinSmart

*provided for your information only. The Centers for Disease Control and Prevention (CDC) and the U.S. Department of Health and Human Services do not endorse any brand products.

Don't Get Bitten! Avoid Breeding Mosquitoes in Your Backyard

Jeanine Dorothy
Entomologist
Maryland Department of Agriculture

Incentive Programs



- Rebates for single family residences:
 - \$2,500 per property with lifetime project caps
- Rebates for multi-family/commercial / institutional:
 - \$10,000 per property with lifetime project caps
- www.rainscapes.org



Tree Montgomery

- www.TreeMontgomery.org

Contact Us

Manor Woods:

(Ms.) Ho-Ching Fong

240-777-7718 ho-ching.fong@montgomerycountymd.gov

www.montgomerycountymd.gov/DEP/Restoration/manor-woods.html

Wheaton Woods:

Christy Ciarametaro

240-777-7720 CLC@montgomerycountymd.gov

www.montgomerycountymd.gov/DEP/Restoration/wheaton-woods-I.html

Please take our Community Survey!

Complete online by Wednesday, May 25th –

English: <https://www.surveymonkey.com/r/ZPSR726>

Espanol: <https://www.surveymonkey.com/r/2W9WZK9>