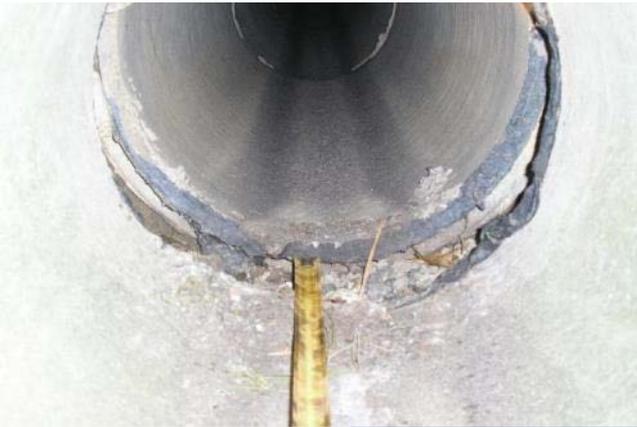


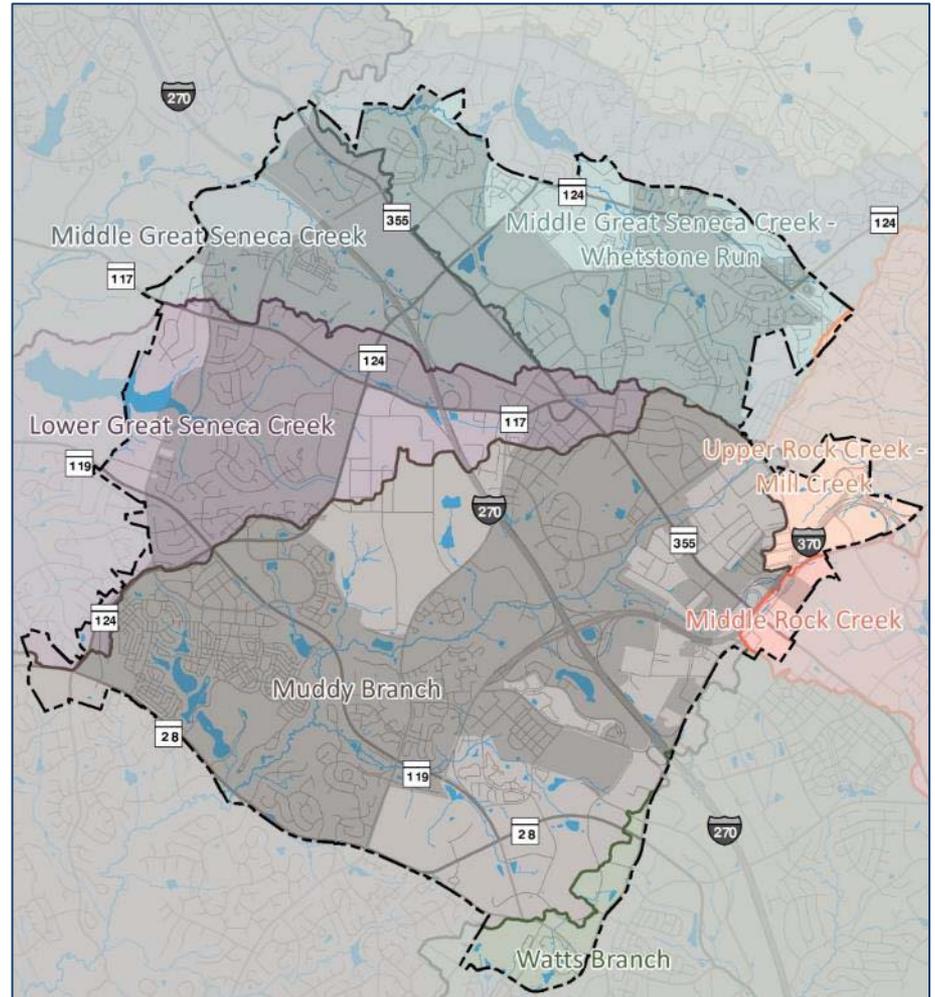
City of Gaithersburg – Building and Funding a Stormwater Program to Meet Future Needs

Maryland Association of Floodplain and Stormwater Managers
Annual Conference

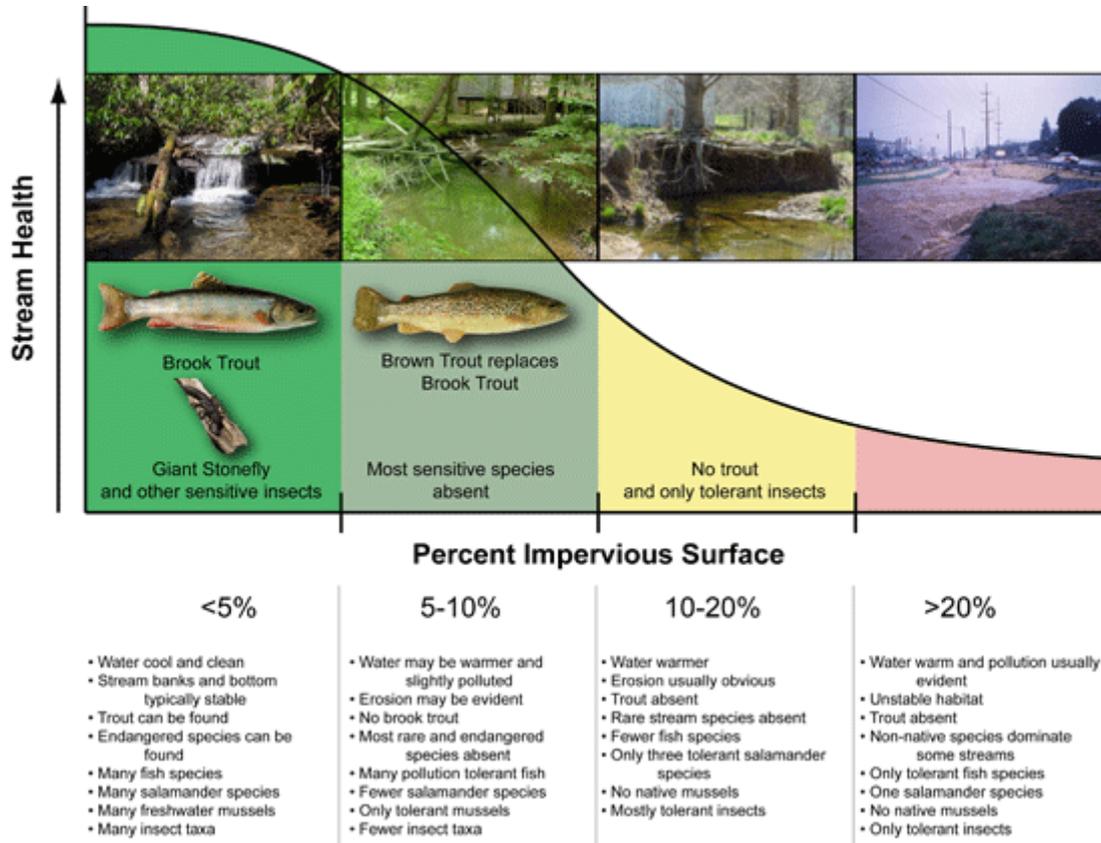


Meredith Strider, City of Gaithersburg
David Bulova, Amec Foster Wheeler

Overview of Gaithersburg



Gaithersburg's Water Resources



Gaithersburg Watershed Imperviousness

Watershed	Impervious Surface	
	Acres	%
Middle Great Seneca Creek	332	40
Middle Great Seneca Creek - Whetstone Run	581	43
Lower Great Seneca Creek	550	44
Muddy Branch	1182	37
Middle Rock Creek	14	75
Total Citywide	2650	40

Water Quality Protection Charge

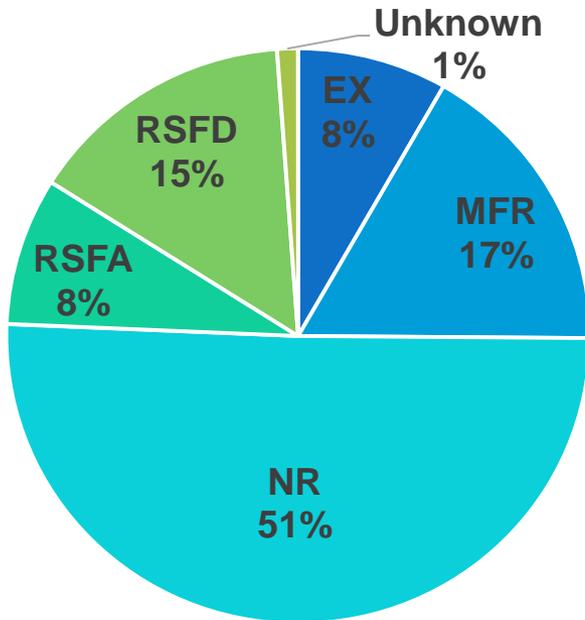
Established in 2002 by Montgomery County

- ▶ Flat rates for residential
 - ▶ Single family home = \$92.60 a year
 - ▶ Townhome = \$30.56 a year
- ▶ Others based on amount of impervious cover draining to residential basins

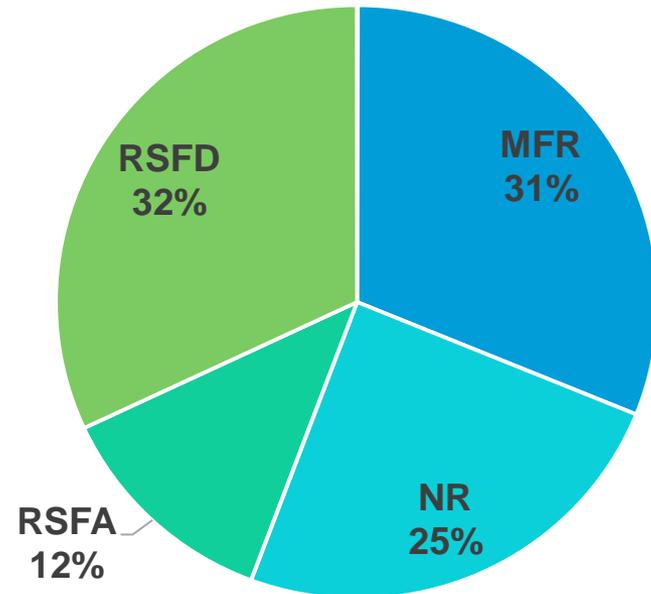
Created Inequities

- ▶ Imbalance of “who pays” versus “services delivered”
 - ▶ 19,240 parcels in Gaithersburg
 - ▶ 16,027 parcels charged a fee with amount highly variable
 - ▶ New challenges likely to magnify imbalance
-

Impervious Area Distribution



2013 WQPF Charge Distribution



RSFD: Residential Single Family Detached
 RSFA: Residential Single Family Attached
 MFR: Multi-family Residential
 EX: Tax exempt
 NR: Non-residential

Land Use	% of WQPF	% of IA
Residential	80.9%	40%
Other Uses	19.1%	60%

Primary Decision Drivers

New Challenges

- ▶ Chesapeake Bay TMDL
- ▶ Infrastructure needs
- ▶ Heightened resident expectations
- ▶ Additional demands on limited resources

Changes at State and County

- ▶ General Assembly action
- ▶ Changes to Montgomery County Water Quality Protection Charge

Opportunity to Set Own Agenda

- ▶ Changes gave political impetus for starting with a clean slate



Process Goals

Long-Term Program Sustainability

- ▶ Establish services that meet community expectations and regulatory requirements
- ▶ Account for the City's pay-as-you-go status

Technically Sound

- ▶ Validate City's GIS data

Equitable Distribution of Program Costs

- ▶ Link fee to City services
- ▶ Cost allocation must be defensible

Achieve Public Buy-In

Developing the City's New Water Quality Protection Fee

How do we meet the City's goals?

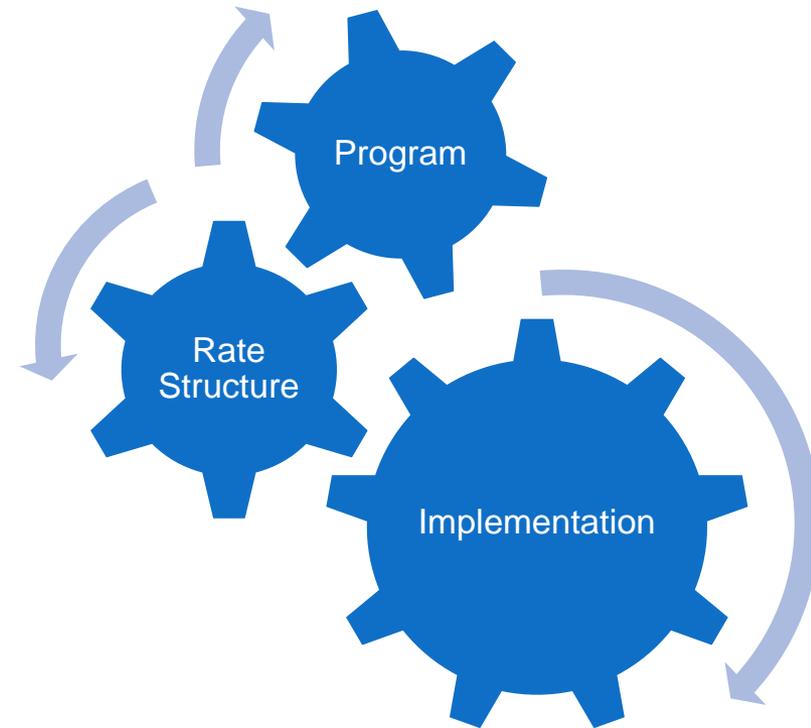
Build a program that meets existing and future needs.

Design a fee structure that:

- ▶ Generates sufficient revenue
- ▶ Establishes a link between who pays and services provided
- ▶ Is easy to administer

Develop implementation tools to facilitate long-term success.

- ▶ Credit and hardship policies
- ▶ Straight forward appeals process



Program Development

Conducted in-depth staff interviews.

Key areas of need:

- ▶ Coordinated program leadership
 - ▶ Integrated asset management system
 - ▶ Storm sewer inspection (entire system over five years)
 - ▶ Systematic infrastructure rehabilitation
 - ▶ CMP a primary short-term concern (rehabilitate 120,000LF over 10 years)
 - ▶ TMDL compliance
-

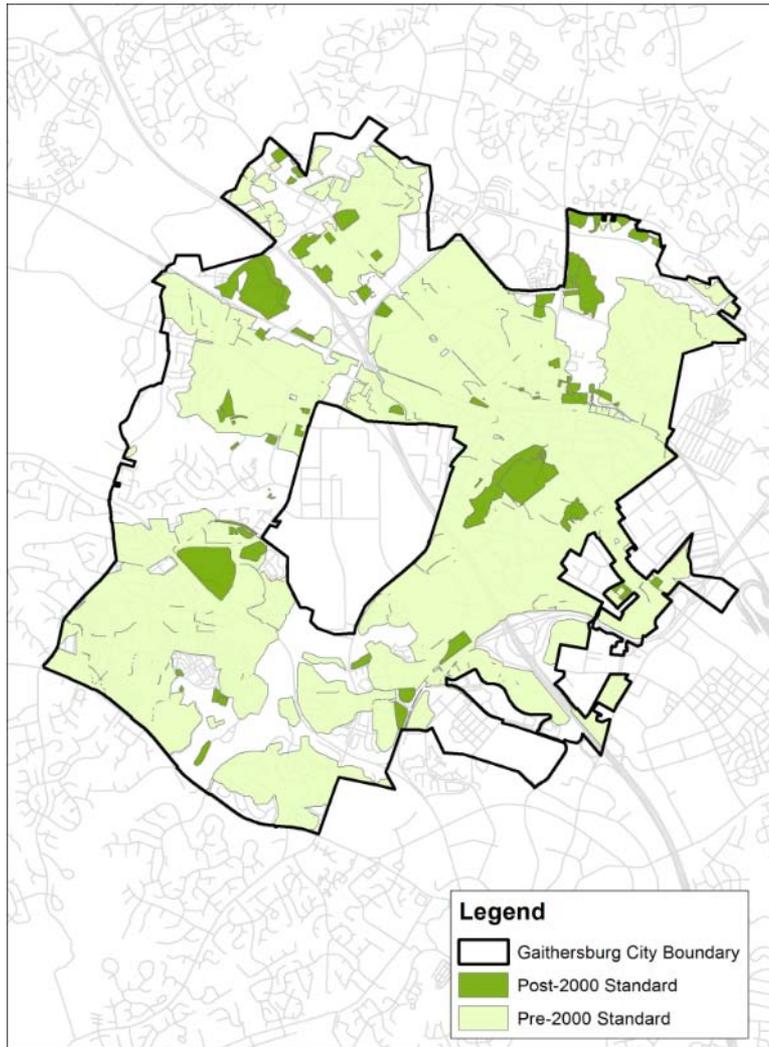
TMDL Cost Analysis

Assumed 20% retrofit of untreated impervious areas.

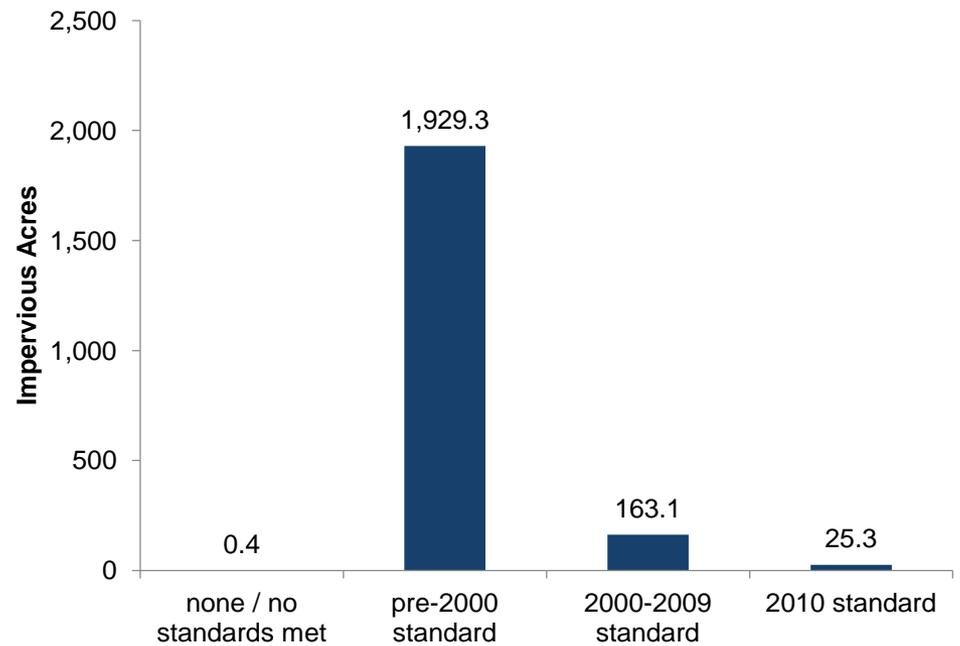
Used MDE's "Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated" guidance:

- ▶ Impervious area considered treated if it met 2000 Maryland Stormwater Design Manual.
 - ▶ Credit for pre-2000 standards based on MDE guidance.
-

TMDL Cost Analysis



Impervious Treatment from Existing BMPs



TMDL Cost Analysis

	Estimated Acres
Total Impervious Area	2,651
Treated Impervious Area (Post 2000 Design Standard)	-166
Adjusted Impervious Treated Area (Pre 2000 Design Standard)	-483
Impervious Acres with “Little or No Treatment”	2,002
Required Treatment Area (20%)	400

TMDL Cost Analysis

Evaluated options in GIS using Amec Foster Wheeler's ALERT tool.

Projects included:

- ▶ Proposed facilities from watershed plans
- ▶ Stream restoration
- ▶ Additional project scenarios to fill the compliance gap

LOWER GREAT SENECA CREEK
WATERSHED STUDY



Prepared for
City of Gaithersburg, Maryland
800 Rabbit Road
Gaithersburg, MD 20878
August 29, 2014

URS
URS Corporation
12420 Milestone Center Drive, Suite 150
Germentown, MD 20878

MIDDLE GREAT SENECA CREEK
WATERSHED STUDY



Prepared for
City of Gaithersburg, Maryland
800 Rabbit Road
Gaithersburg, MD 20878
June 28, 2013

URS
URS Corporation
12420 Milestone Center Drive, Suite 150
Germentown, MD 20878

MUDDY BRANCH
WATERSHED STUDY



Prepared for
City of Gaithersburg, Maryland
800 Rabbit Road
Gaithersburg, MD 20878
November 12, 2014

This project is funded in part through a grant from the Environmental Protection Agency (EPA) Chesapeake Bay Program Office. Funding partners include the Maryland Department of Natural Resources and the Chesapeake Bay Trust.



URS
URS Corporation
12420 Milestone Center Drive, Suite 150
Germentown, MD 20878

TMDL Cost Analysis

Projects	Scenario 1 Estimated Costs		Scenario 2 Estimated Costs		Scenario 3 Estimated Costs	
	Capital	*Ann. Maint.	Capital	*Ann. Maint.	Capital	*Ann. Maint.
Proposed Structural BMPs	\$ 2,863,655	\$ 32,339	\$ 2,863,655	\$ 32,339	\$ 2,863,655	\$ 32,339
Proposed Stream Restoration	\$ 5,414,741	\$ 61,148	\$ 5,414,741	\$ 61,148	\$ 5,414,741	\$ 61,148
Additional Projects	\$ 20,330,384	\$ 393,798	\$ 18,174,131	\$ 287,343	\$ 22,794,672	\$ 339,522
Total Costs	\$ 28,608,780	\$ 487,285	\$ 26,452,527	\$ 380,830	\$ 31,073,068	\$ 433,009

Breakdown of Additional Projects

Scenario 1:

- ▶ 50% Stream Restoration, 50% Pond Retrofits, 0% ESD/LID

Scenario 2:

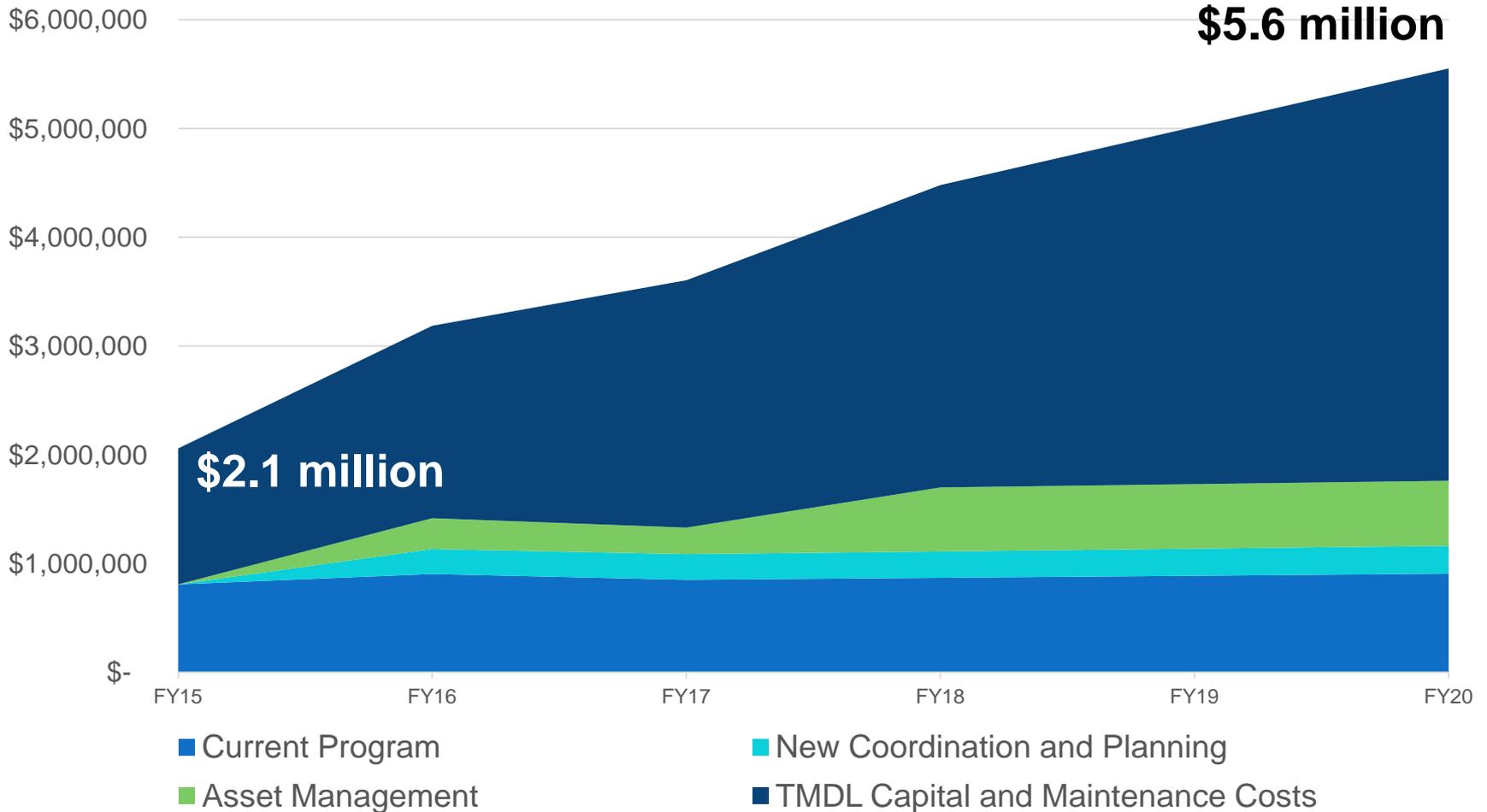
- ▶ 75% Stream Restoration, 25% Pond Retrofits, 0% ESD/LID

Scenario 3:

- ▶ 50% Stream Restoration, 25% Pond Retrofits, 25% ESD/LID

Total Program Cost Estimate

Gaithersburg Stormwater Program FY15-FY20



Fee Structure Development

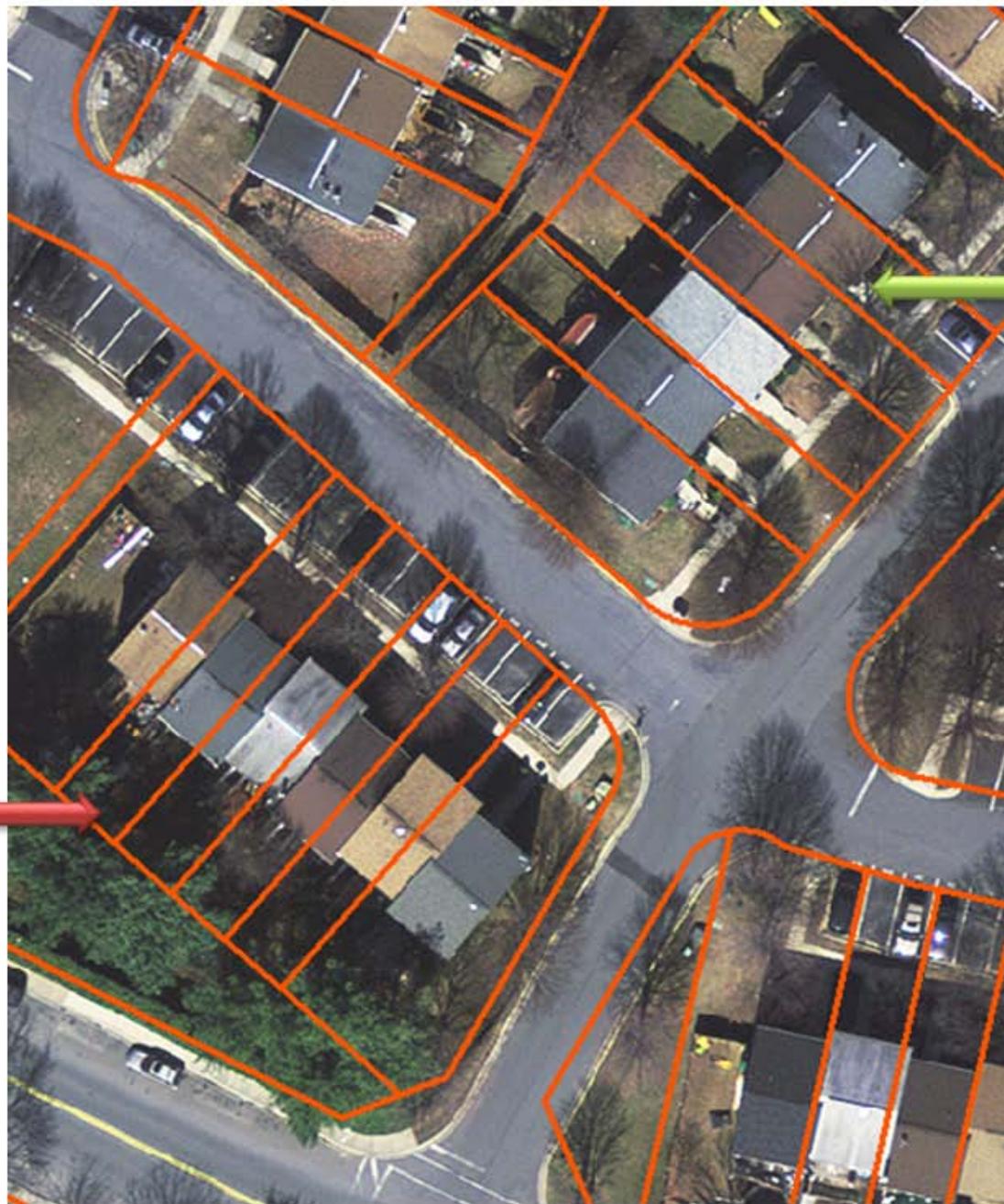
Options depend on the supporting data and community goals.

Two options analyzed:

- ▶ Straight impervious cover for all land uses.
 - ▶ Flat rate (one billing unit) for single family detached residential, with other uses billed in equivalent residential units (ERUs).
-

GIS and Data Assessment

- ▶ Central GIS data repository managed in Enterprise ArcSDE databases.
- ▶ Relevant data includes imagery, impervious area, parcels, and stormwater system components.
- ▶ Aerial imagery provided by external agencies such as MNCPPC.

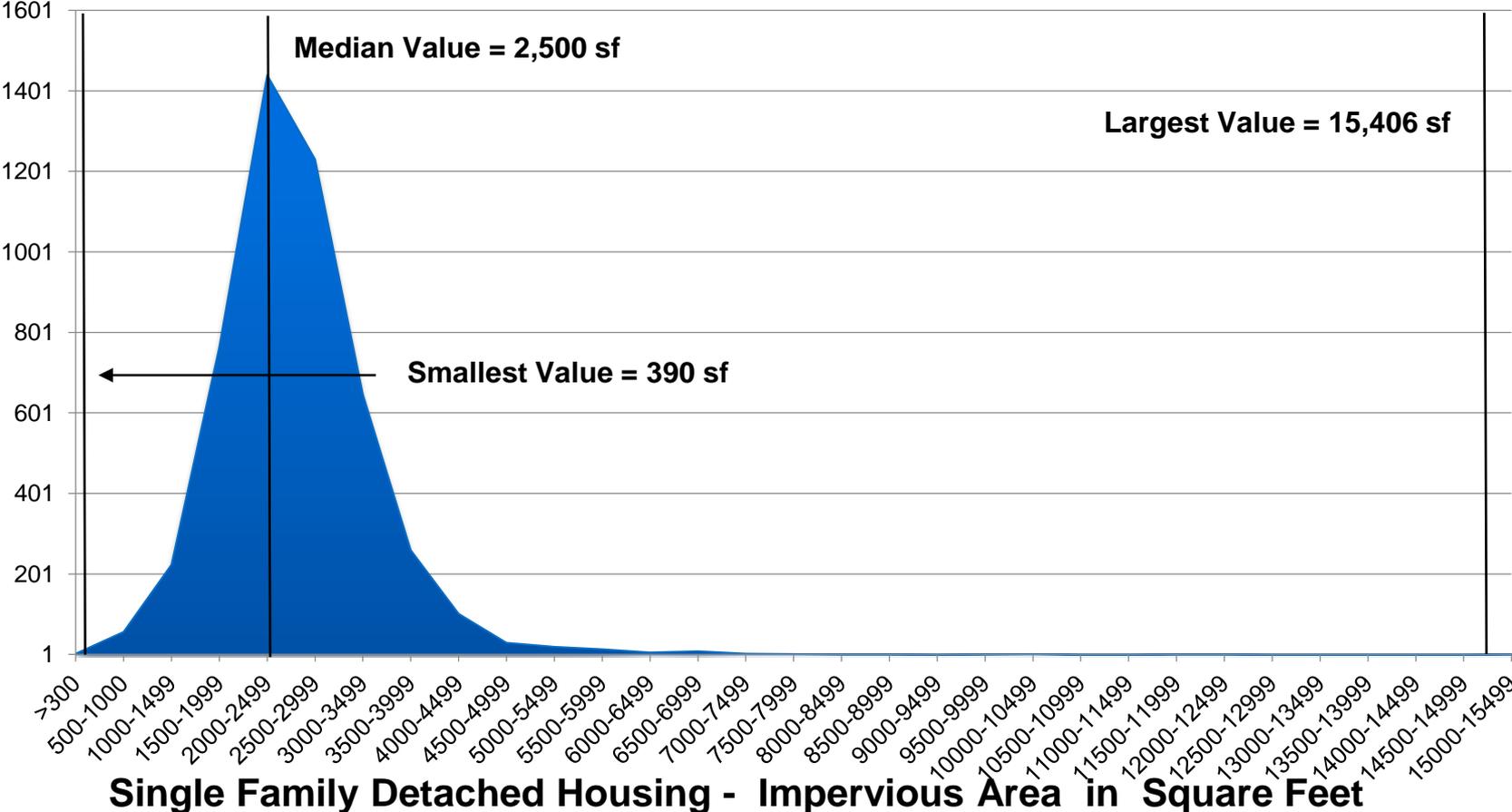


Poor alignment

Good alignment

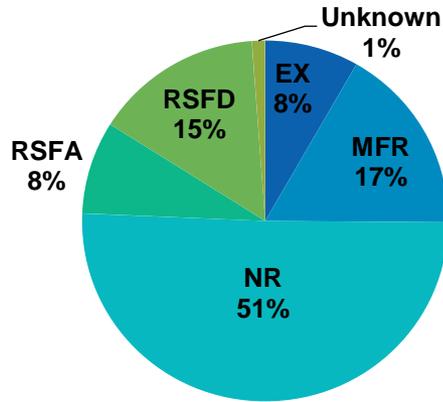


Distribution of Single Family Residential Detached

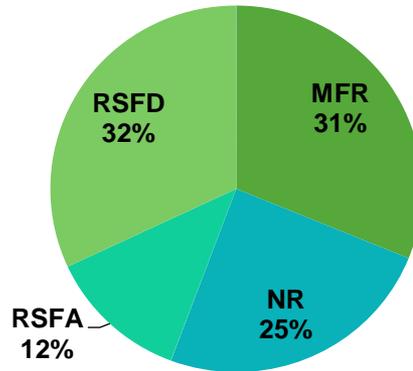


Shift in Funding Distribution

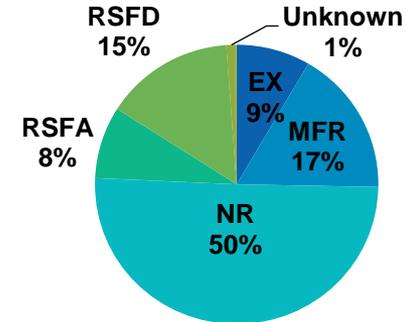
IA Distribution



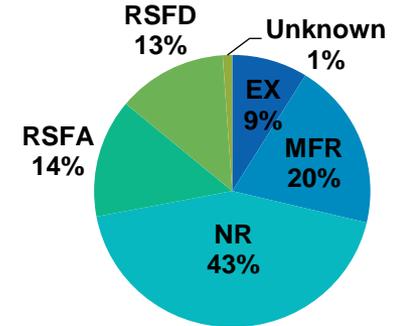
2013 WQPF Charge Distribution



500 sq ft BU



ERU 2,500 sq ft



RSFD: Residential Single Family Detached
RSFA: Residential Single Family Attached
MFR: Multi-family Residential
EX: Tax exempt
NR: Non-residential

Recommended Fee Structure

- ▶ In general, high level of confidence in GIS with additional QA/QC.
 - ▶ Desire to increase equity through a billing unit based on straight impervious area.
 - ▶ Recommended billing unit of 500SF of impervious surface area.
-

Policy Considerations

- ▶ Credit policy for stormwater facilities
 - ▶ Hardship policy
 - ▶ Operating and capital reserves
 - ▶ Delinquencies and bad debt
-

Credit Structure

Credits Available to Properties Providing Stormwater Treatment

Type of SWM Provided	Current Standards (2009 Manual)	Previous Standards (2000 Manual)
SWM Quantity Control (Meets Channel Protection Storage Volume, CPv Standard)	Up to 25%	Up to 10%
SWM Quality Control (Meets Water Quality Volume, WQv Standard)	Up to 25%	Up to 10%
Maximum Allowable Stormwater Program Fee Credit	Up to 50%	Up to 20%

Impact of Chod v. Board of Appeals for Montgomery County

I. The Water Quality Protection Charge is Per Se Invalid.

Petitioner contends that Montgomery County's Water Quality Protection Charge is per se invalid because it fails to adhere to the requirements set forth in the enabling statute, § 4-202.1 of the Environment Article. For the following reasons, this Court agrees.

The focus of this case is Section 4-202.1 of the Environment Article. It provides:

(e)(3)(i) If a county or municipality establishes a stormwater remediation fee under this section, a county or municipality shall set a stormwater remediation fee for property in an amount that is based on the share of stormwater management services related to the property and provided by the county or municipality.

(ii) A county or municipality may set a stormwater remediation fee under this paragraph based on:

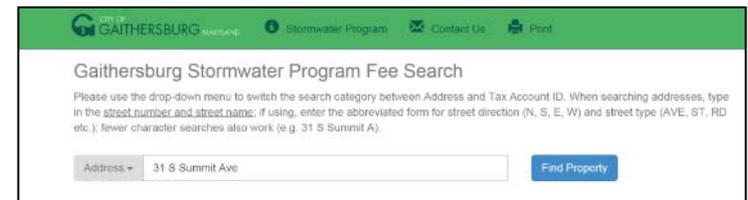
1. A flat rate;
2. An amount that is graduated, based on the amount of impervious surface on each property; or
3. Another method of calculation selected by the county or municipality.

Recommended Annualized Rate Per Billing Unit

Year 1	Year 2	Year 3	Year 4	Year 5
\$20.04	\$22.44	\$26.40	\$29.16	\$32.28

Public Input Process

- ▶ Stakeholder focus groups
- ▶ Public hearing process
- ▶ Implementation outreach:
 - ▶ Direct mailings to all property owners
 - ▶ InGaithersburg magazine article
 - ▶ Launched new program website
 - ▶ Web-based fee look-up tool



Lessons Learned

- ▶ Outreach: Early and often!!!
 - ▶ Repeat stakeholder meetings
 - ▶ Increased outreach to new ratepayers
 - ▶ Make it easy for ratepayers voice questions and concerns
 - ▶ Quality data is of utmost importance
 - ▶ Regulatory requirements: Good to know!
-

Question and Answer

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