



City of
Rockville
Get Into It

City of Rockville Stormwater Management Program and the NPDES MS4 Permit

November 2, 2019



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Presentation Overview

- Overview General National Pollution Discharge Elimination System (NPDES), Municipal Storm Sewer System (MS4) Phase II Permit
- Rockville Background
- Rockville Program/Changes needed to respond to New Permit
- Project Highlights



National Pollution Discharge Elimination System (NPDES)



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- Permitting program established by amendments to Federal Clean Water Act in 1972
- Purpose: Improve, protect, and maintain the nation's surface waters
- Under NPDES, all facilities which discharge pollutants from any point source into waters of the United States are required to obtain a permit.
- EPA can authorize states, territories, or tribes to implement program



Evolution of the NPDES Program

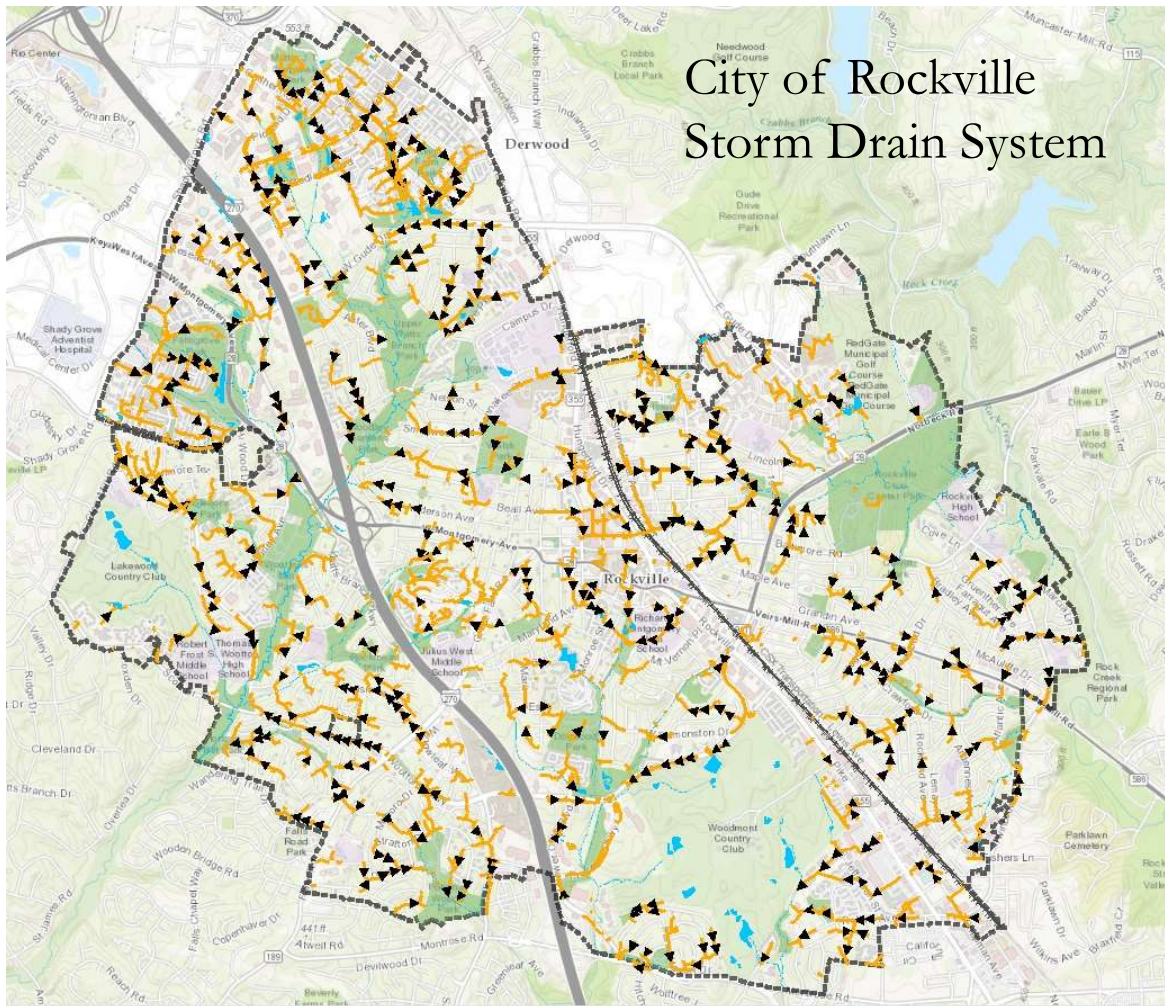


- 1972 focused on end of pipe industries
- 1990 Municipal Separate Storm Sewer System (MS4) Phase I – 100,000 or Greater
- 1999 NPDES MS4 Phase II – 10,000 – 100,000



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Rockville Background

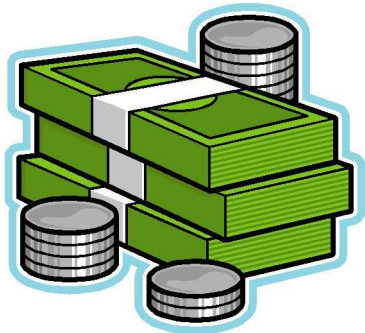


- City of Rockville Stormwater Program Started in late 1970's
- Stormwater Utility Fee Implemented in 2008
- Second generation of NPDES Phase II Permit, 2018 - 2022

Rockville Background



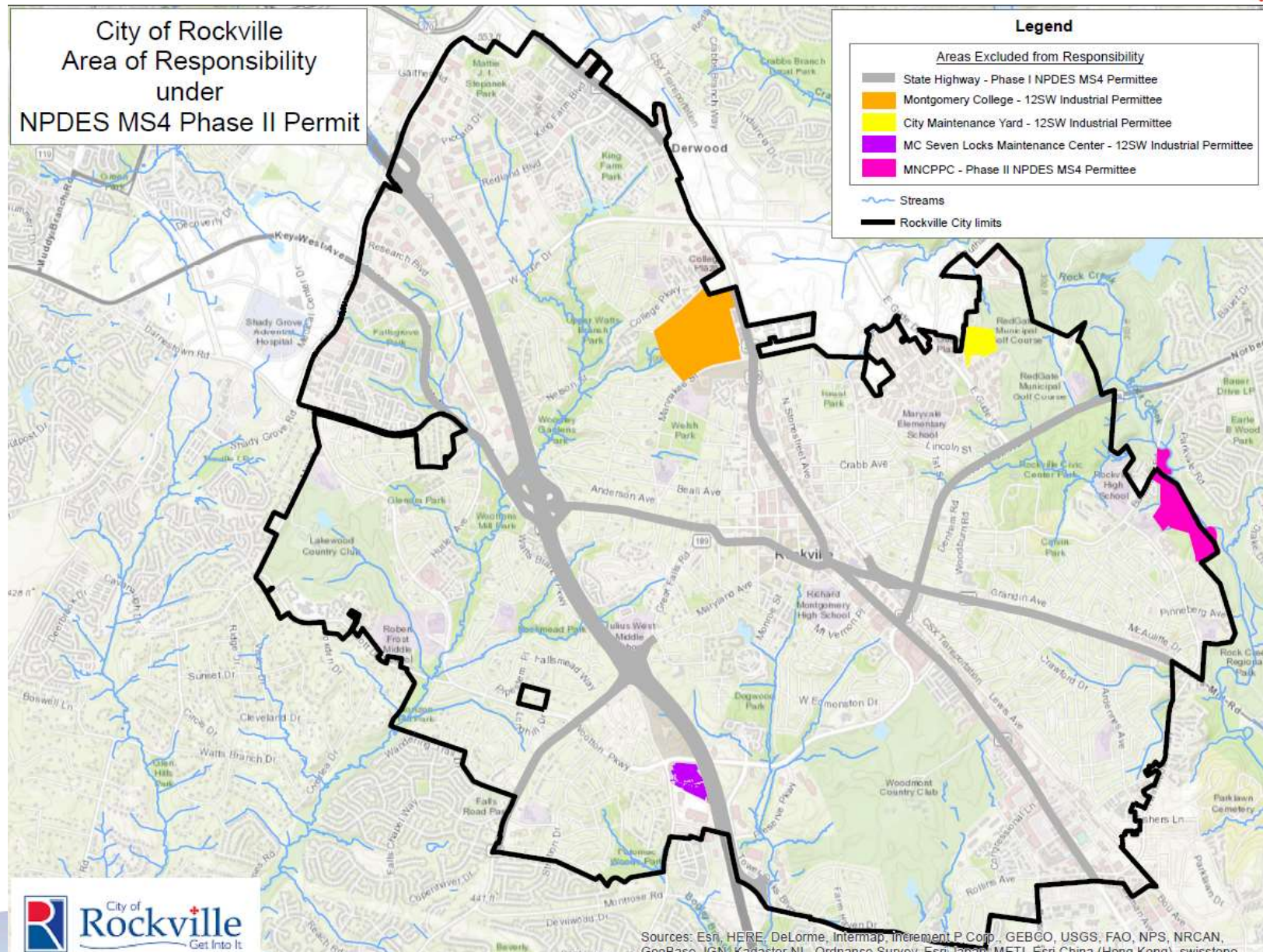
Stormwater Utility Fee (Implemented in 2008)



- Charge for service assessed to all property owners, including homeowners businesses, government, schools, and places of worship
- Based on impervious area for each property
- Used to:
 - Maintain, improve, expand and, when necessary, replace the City's stormwater and storm drainage infrastructure.
 - Comply with federal requirements
 - Outreach, education, volunteer programs, rebate programs, inspections, spill response, water quality monitoring



2018 NPDES MS4 Phase II Permit





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Requirements of New Permit



Minimum Control Measures (MCM)	City of Rockville Program Changes Needed Due to Changes in Permit
Construction Site Stormwater Runoff	None
Public Outreach and Education	More complex tracking/reporting
Public Involvement and Participation	More complex tracking/reporting
Illicit Discharge Detection and Elimination (IDDE)	New emphasis on controlling pollution at its source. Develop commercial inspection program to ensure “good-housekeeping”
Post Construction Stormwater Management	More complex tracking and reporting requirements. Validation requirement
Pollution Prevention	More extensive staff training. Site-specific pollution prevention plan at WTP



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Treat 20% of Untreated Impervious Surfaces

Description	Area (acres)
Total City of Rockville Area	8,646
A. 2006 Total Impervious Area	2,862
B. Impervious Area Credit for SWM Treatment as of 2006	583
C. Impervious Area untreated by SWM as of 2006 (A – B)	2279
D. NPDES Permit Requirement – Treat 20% of Uncontrolled Impervious Area (20% x C)	456
E. Total Impervious Area Treatment Credit towards City's 20% Requirement	594
City has met 20% Requirement. Impervious Area Treatment In Excess of 20% Target (E - D)	138

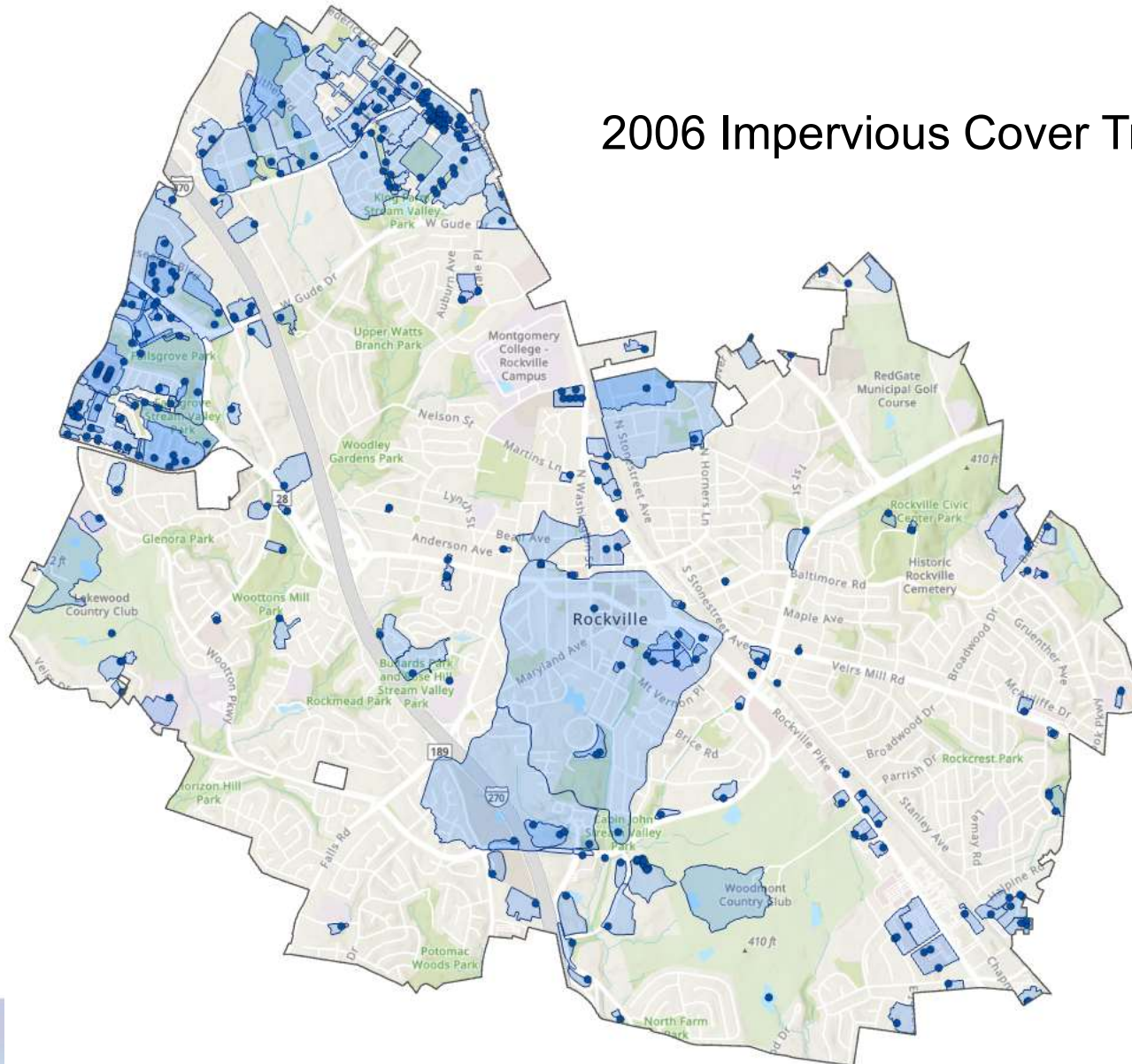


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Treat 20% of Untreated Impervious Surfaces



2006 Impervious Cover Treated



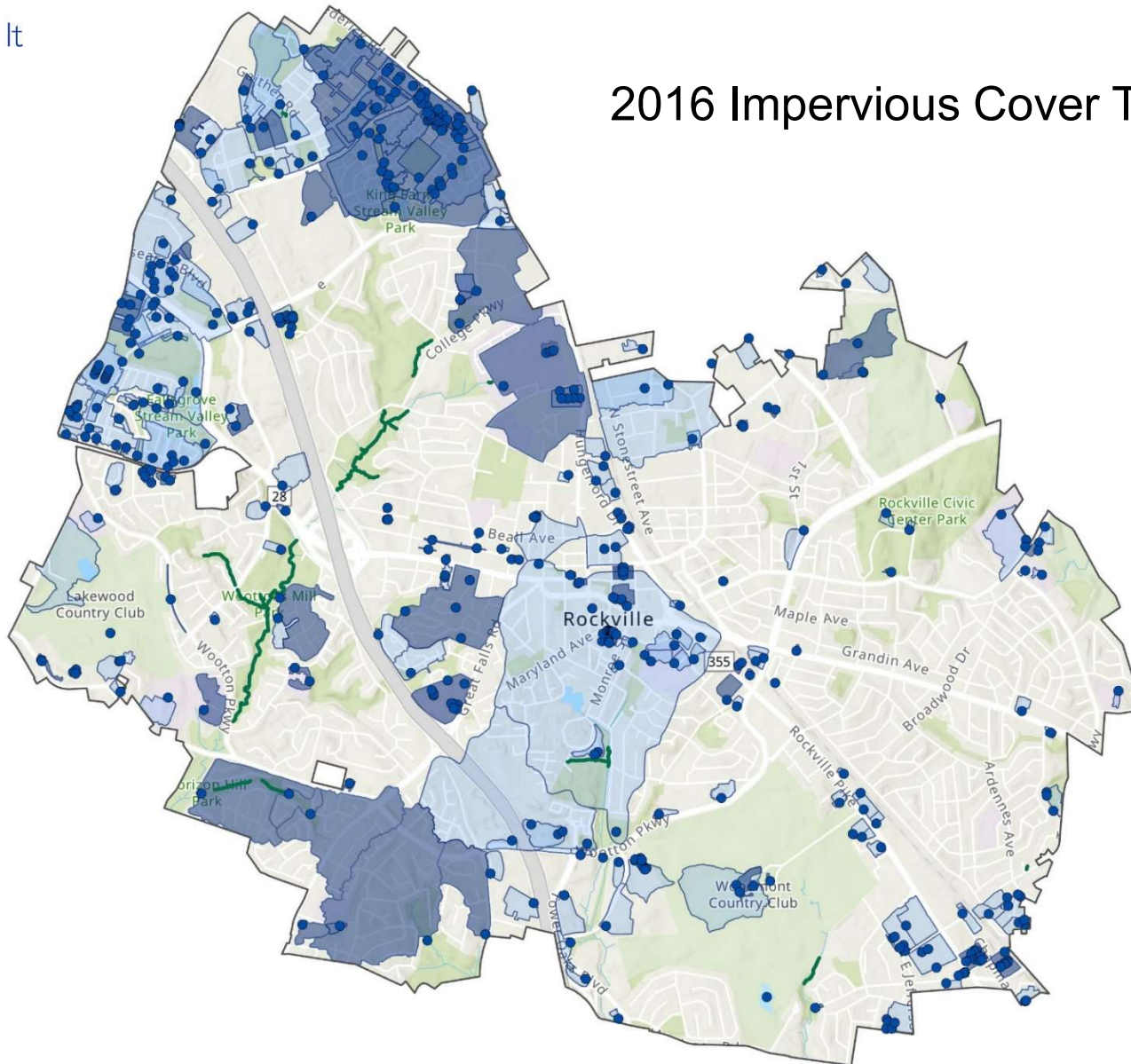


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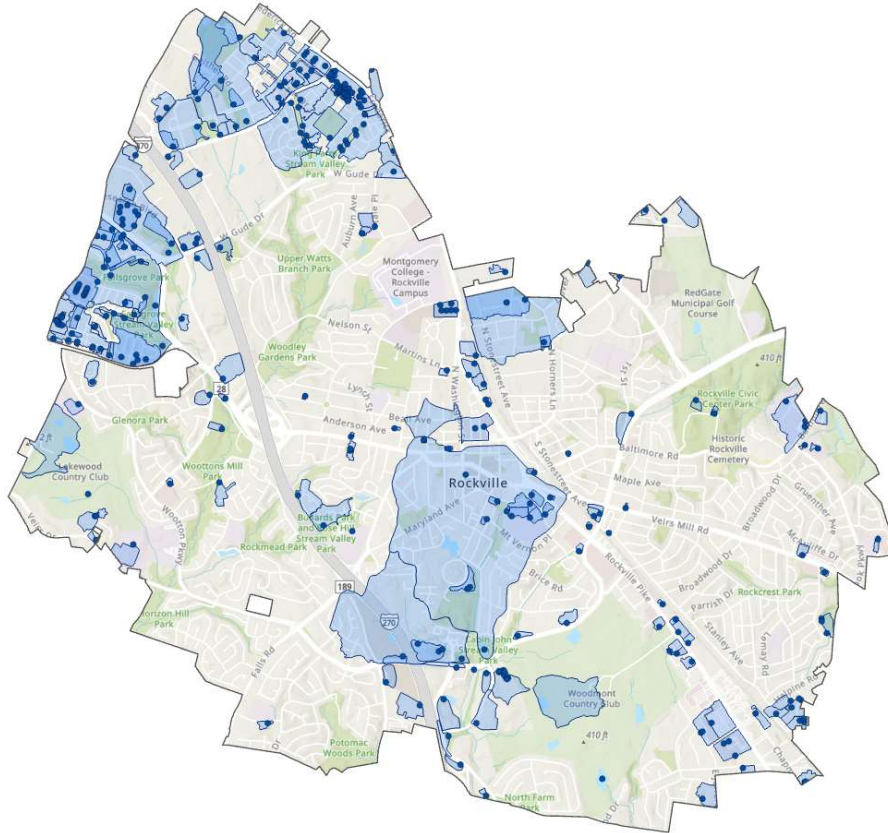
Treat 20% of Untreated Impervious Surfaces

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2016 Impervious Cover Treated

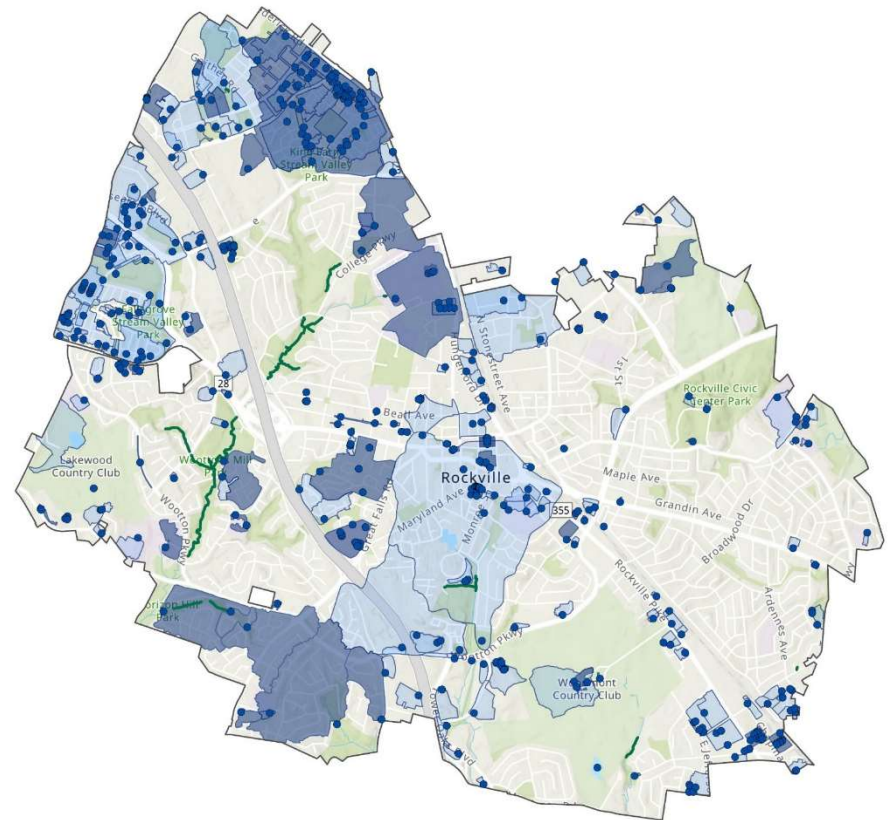


Treat 20% of Untreated Impervious Surfaces



2006 Impervious Cover
Treated

2016 Impervious Cover
Treated





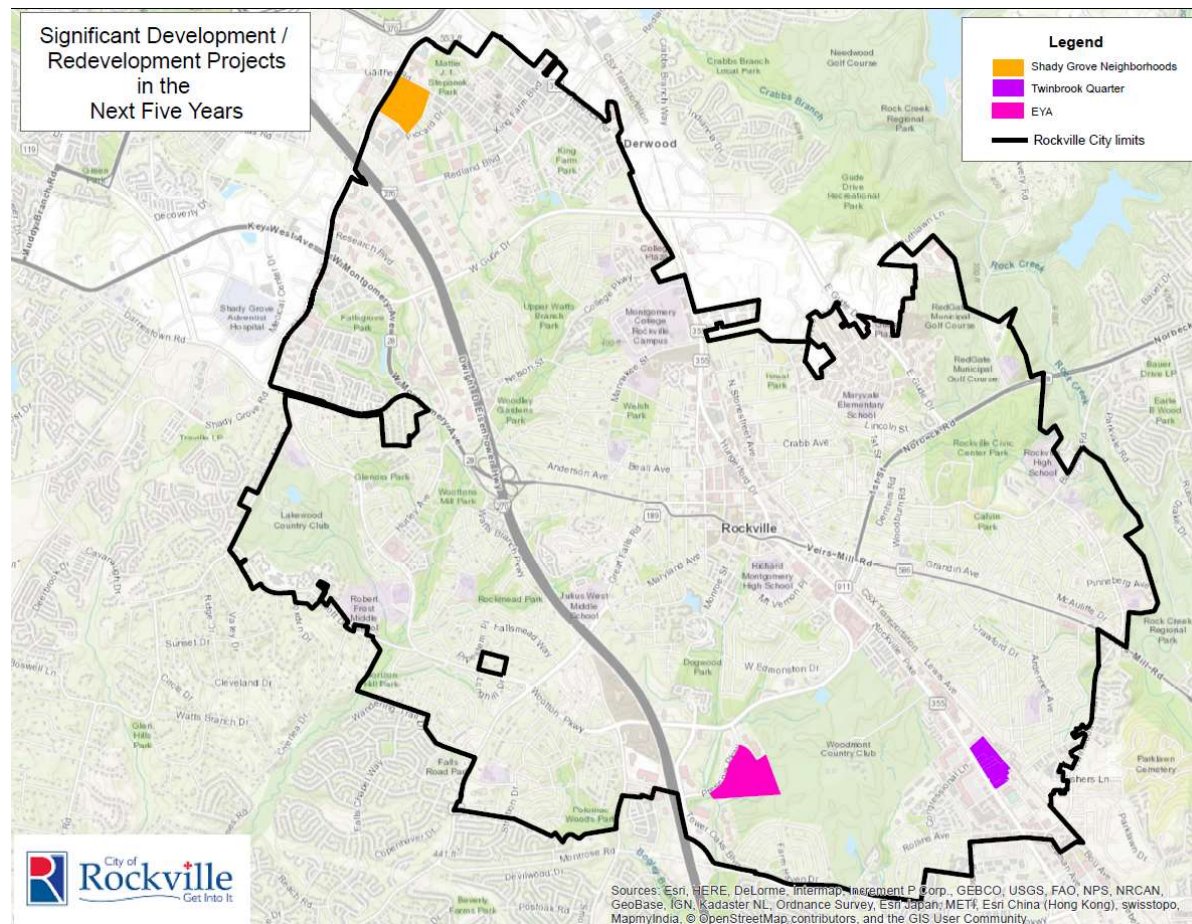
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Other Stormwater Program Elements

Element	Program Change
Development Review – review SWM plans during development; inspect construction of SWM facilities	Increase number of large development projects forecast; Many, small-scale SWM facilities constructed
Project manage CIP design and oversee construction – SWM facility retrofits, Stream Restoration, Storm Drain Rehab/Capacity	None
Storm drain maintenance - Operations level cleaning and maintenance	None

Future Development/Redevelopment In Rockville





Horizon Hill - Before



Horizon Hill - After



Upper Watts Branch
Forest Preserve - Before



Upper Watts Branch Forest Preserve - After





Volunteer and Get Involved



RainScapes Rebate Program



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