

Montgomery County NPDES MS4 Permit

Presentation to WRTC

November 13, 2008



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Presentation Overview *Municipal Separate Storm Sewer System (MS4) Permit*

- MS4 Permit Background and Process
- Thrid-round Permit Requirements
- Cost Implications

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Montgomery County, MD

- 500 sq. miles
- 940,000 people
- about 12% impervious overall
- Second only to Baltimore City within Maryland in average people per square mile



Need to Address Urban Water Quality Impacts



Untreated oily runoff from a parking lot



Illegal dumping



Threats to infrastructure



Background and Process

- Issued by Maryland Department of the Environment for 5 year term
- Control discharges through the County's storm drain system
- Applies to entire County, except the cities of Gaithersburg, Rockville, and Takoma Park, and lands under the control of State (including M-NCPPC and WSSC) or Federal agencies
- Expect third generation Final Permit January 2009
 - Tentative Determination issued Sept 2, 2008
 - Public Hearing scheduled for November 19, 2008

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Accomplishments

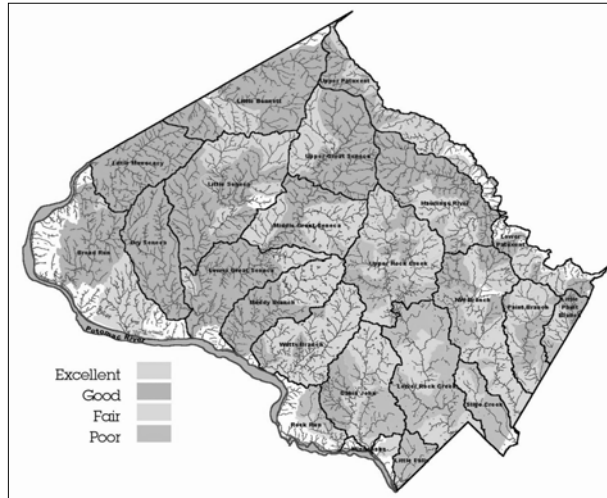
Permit cycles 1996-present

- Source Identification inventories and GIS mapping
- Discharge Characterization
 - Chemical, biological, and physical stream responses
 - Maryland Stormwater Design Manual
- Management Programs
 - Sediment and erosion control and stormwater management
 - Pollution Prevention at County facilities
 - Public Education and Stewardship
 - Illicit Discharge and Illegal Connections
- Watershed Restoration
 - Assessments, inventories, enhanced and new stormwater management, stream restoration
- Funding-establishment of Water Quality Protection Charge

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Stream Resource Conditions



There are over 1,500 miles of streams in Montgomery County

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Public Outreach

- Rainscapes (voluntary LID practices)
 - workshops, pilot projects, web site
- Public retrofit and restoration Projects
 - public meetings, field visits, fact sheets
- Water Quality Advisory Group-DEP
- Enforcement
 - *Hotline, illegal dumping* signs, fact sheets
- Solid Waste
 - *recycling, grasscycling, composting*
- Keep Montgomery County Beautiful Task Force-Public Works
 - Grants for local site beautification, Adopt-A-Road, Storm Drain Marking

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Significant New Permit Requirements

- **Watershed Restoration:** Implement runoff management on 20% of impervious surfaces not currently controlled to the maximum extent practicable (MEP) and complete restoration projects to meet last permit requirements
- **Water Quality:** Make progress toward achieving wasteload allocations for EPA-approved TMDLs
- **Trash and Litter Reduction:** Meet commitments of Trash Free Potomac Treaty
- **Accountability:** Track progress toward meeting wasteload allocations and watershed restoration

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New Permit Other Agencies

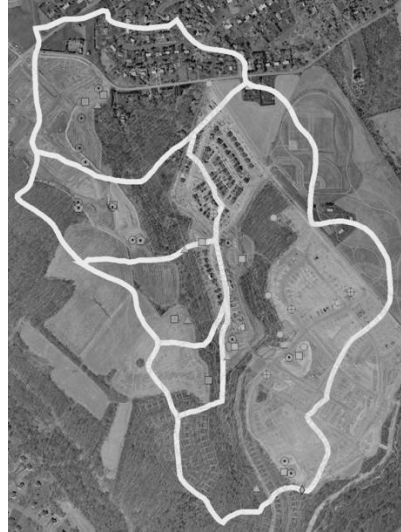
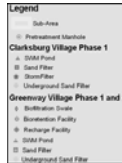
- Montgomery County Public Schools added as co-permittee
 - Must report annually on meeting permit requirements
- County must comply with changes in Maryland Stormwater Design Manual
 - Promoting environmental site design (ESD) and low impact design (LID) techniques
 - Department of Permitting Services is the lead
 - All County projects (DOT, DGS, DEP) must meet the new requirements

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Stormwater Management: Increase LID

- This example from recent concentrated urban development
- Increased use of non-structural approaches including runoff disconnect, grassed swales, and bioretention
- Significant increase in number of facilities that need to be maintained



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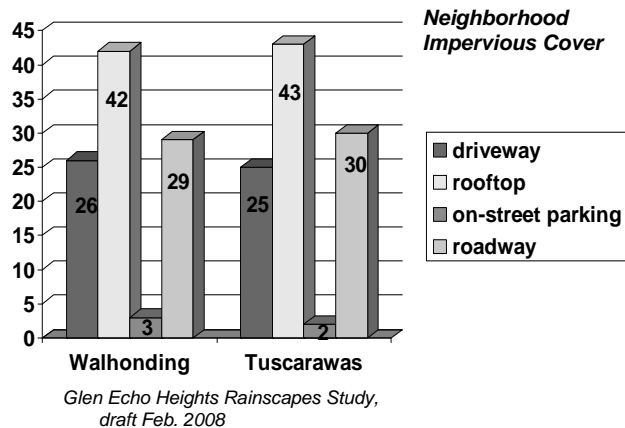
Watershed Restoration Requirements and Cost Implications

- Complete Previous Permit Requirement
 - Turkey Branch Restoration Project (Rock Creek)
 - Hollywood Branch Restoration Project (Anacostia)
- Increase Watershed Restoration by 20%
 - Restore an additional 5,500 acres of impervious with runoff not currently controlled to the Maximum Extent Practicable
 - Controls will include structural, non-structural, source control, and streambank restoration projects
- Cost Implications - Rough Estimates
 - Current CIP Program funding is \$30M FY09-14
 - Rough estimate of 5 year additional need -\$108M

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Need to retrofit residential neighborhoods



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Trash and Litter Reduction New Requirements

- Complete trash and litter reduction strategy to meet Potomac Trash Free Treaty goals
- Focus on the Anacostia watershed first—regulatory limits being developed by State
- Develop implementation plan one year after permit issuance
- Provide public comment period before submission to MDE
- Cost Implications:
 - Currently spend about \$4.4M/yr for recycling, household hazardous waste program, illegal dumping, right-of-way clean up
 - Increase funding will be required
 - Enhance public outreach for improved source control

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Water Quality Requirements and Cost Implications

- Make progress toward Wasteload Allocations (WLAs)
 - Regulatory Limit (pounds, tons, # of bacteria) on amount of pollutants in runoff
 - Currently, six TMDLs have been approved by EPA
 - Bacteria (3); sediment and nutrients in Anacostia; phosphorus in Clopper Lake
- Progress for watershed restoration and trash reduction strategy will also help achieve (WLAs)
- Develop implementation plan within one year after EPA approves TMDLs
- Provide public comment period prior to submission to MDE

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Must Address Wasteload Allocations in TMDLs



EPA approved TMDLs shown in red

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Potential Funding Sources

- FY09-14 CIP for stormwater facility planning, design, construction
 - Includes \$2M from WQPC for public LID implementation and major repairs for stormwater management facilities
- WQPC for maintenance, private LID (Rainscapes), TMDL monitoring
- Enterprise Fund for trash management
- DEP (GF) for enforcement, outreach, countywide monitoring, non-structural control practices, program coordination and tracking
- SPA fees for monitoring (non-dedicated source)
- Funding Sources outside of County
 - Federal (e.g., ACOE, US DOT)
 - State (e.g., Chesapeake Bay Trust Fund, 319)
 - Local Partner

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Next Steps

- FY09
 - Continue project implementation consistent with existing 6 yr projection levels.
 - Begin development of implementation plan

- FY10
 - Complete scope, cost estimates, and priorities
 - Develop implementation schedule
 - Identify County and non-County funding sources

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Questions?



Sculpin



Stonefly

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