Montgomery County MS4 Partnership and Funding

The Montgomery County Department of Environmental Protection coordinates the implementation of the County’s MS4 permit

- **Partners:** Department’s of Transportation, Permitting Services, General Services, Montgomery County Public Schools and Maryland National Capital Parks and Parks and Planning Commission

- **Funding:** Water Quality Protection Charge
  - On the Property Tax bill
  - Current rate $104.25
  - All property owners pay
  - Based on property impervious surface and potential to contribute stormwater
Current MS4 Permit

Current MS4 permit issued February 16, 2010

Requirements

- Acceptable stormwater management and erosion sediment control program
- Illicit discharge and detection program
- Trash and litter program – Potomac Trash Treaty
- Watershed Assessments
- Watershed Restoration: restore 20% of County’s untreated impervious surface
Status of the Current MS4 Permit

- Issued a consent decree on May 2, 2018 for failure to meet the restoration requirement of 3778 acres
  - Required fulfilment of the Permit restoration requirement by December 2020
  - Assessed a $300,000 fine which could be addressed through Supplemental Environmental Projects

Consent decree fulfilled December 30, 2018

All other provisions of the permit administratively extended
Status of the Current MS4 permit

- DOT Outfall Stabilization Projects, 26
- Stream Restoration Projects, 16
- Stormwater Pond Retrofits, 37
- ESD BMPs, 379

Number of BMPs Installed to Meet the 2010 Permit Restoration Goal
New MS4 Permit and Accounting Guidance

New Permit Tentative Determination (draft) to be issued Summer 2020 along with the 2019 Accounting Guidance – Final end of 2020

- Restoration requirement to be based on Maximum Extent Practicable (MEP) analysis.
  - Focused on the treatment of untreated impervious surface but may also have reduction requirements for nitrogen, phosphorus and total suspended sediments
- MEP Analysis
  - Restoration Project Portfolio - Currently being revised based on new Accounting Guidance Document issued
  - Physical Capacity
  - Financial Capacity
Major Changes 2019 Guidance

- Move to Phase 6 CBP model
  - Changes in BMP efficiencies
  - Changes in loading rates
  - Changes in EIA due to shift to phase 6
- Adds expert panel protocols
  - Stream restoration, outfall stabilization, floating wetlands, IDDE grey infrastructure
  - Changes street sweeping credit
  - Changes the tree canopy and forest credit
Major Changes 2019 Guidance

- Provides additional IA credit for green stormwater infrastructure and addition quantity storage (no changes in nutrient and sediment)
- EIA credits for septic outreach and education, inspection, and maintenance program
- Changes redevelopment calculation
- Nutrient trading calculations

Phase 1 Counties have submitted “fatal flaws” and a significant number of minor issue comments – MDE has provided a response
Montgomery County Program Innovations

Targeting approach

▪ Development of suitability models and maps for stormwater best management practices and stream restoration
▪ Working to develop environmental justice layer

New Financing Approach – State Revolving Loan Fund

Increased use of program performance metrics
Use a GIS Suitability Model to Create Science Based Geographic Targeting Maps

- Created a map to show existing watershed conditions – Existing Watershed Conditions Map
- Created a Restoration Suitability Map
  - To select suspended projects for MDE Project Portfolio
  - To identify and prioritize areas for new restoration work

Process:
1. Survey available data
2. Create layers
3. Prioritize meaningful ranges of values
4. Weight layers by relative importance
5. Add spatially in GIS
Goals

Meet Regulatory Requirements
- TMDL pollutant reduction requirements and progress vary spatially across the County watersheds.

Achieve Biological Uplift
- Select projects with a high likelihood of improving biology and ecosystem function.

Ensure Project Longevity:
- Reduce Stream Maintenance Obligations
- Locate stream restoration projects in smaller drainage areas with existing upland stormwater management to mitigate the effects of high flow events.
- Prioritize stormwater management upstream of existing stream restoration projects.
Key Messages

The Suitability Maps

- Strategic and precise, developed with goals in mind
- Data driven: Uses Science, best professional experience, and sound data
- A tool which combines science and policy decisions (Cost, regulatory, nutrient/TSS reduction, EJ)
- Direct program implementation for strategic performance (CIP, RainScapes, Tree Montgomery)
- Direct program implementation for regulatory compliance
Existing Watershed Conditions

- TMDLs
- Biological Condition Gradient
- Impervious Coverage Percentage
- Stream Habitat
Stormwater Management Suitability Map

Mapping and targeting watersheds
- Little to no existing stormwater management
- Poor stream habitat and biological conditions
- Flow to existing stream restoration projects
- Require additional restoration work to meet TMDL pollutant reductions

Prioritize future upland stormwater management projects in the most suitable watersheds.
Stormwater Management Project Eligibility

- Stream Habitat
- Biological Condition Gradient
- Impervious Coverage Percentage
- Net Impervious Coverage Percentage
- TMDL Progress
- Existing Stream Restoration Drainage Areas
Mapping and targeting watersheds

- Existing stormwater management
- Low imperviousness
- High likelihood of improving biological and ecosystem function
- Require additional restoration work to meet TMDL pollutant reductions.

Prioritize future stream restoration projects in the most suitable watersheds.
Stream Restoration Project Eligibility

- Stream Habitat
- Biological Condition Gradient
- Impervious Coverage Percentage
- Net Impervious Coverage Percentage
- TMDL Progress
Montgomery County Program Future Challenges

Future Challenges

• Uncertainty of the next MS4 permit timeline
• Major questions concerning the new Accounting Guidance
• Implementing a new contracting approach - Design/Build
• Refining our Suitability model and maps
• Geodata base development and implementation
• Financing – Finding alternative funding sources and/raising the water quality protection charge
• Growing number of inspection and maintenance challenges
Montgomery County Program Future Challenges

New BMP's Aded by Calendar Year

Total BMP's by Maintenance Responsibility Ratio

Maintained BY
- DEP Maintained
- Single Family
- Private Maintained

Total BMP's by Maintenance Responsibility

- DEP Maintained
- Single Family
- Private Maintained
Questions?

Contact: Frank Dawson
Division Chief, Watershed Restoration Division
Frank.Dawson@MontgomeryCountyMD.gov
240-777-7732