Finding BMP Gold

MACO Summer Conference
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Session: X Marks the Spot - A Treasure Trove of Stormwater Solutions

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• Phase I Municipal Separate Storm Sewer System (MS4) Permit
• Permit expires December 29, 2019.
• Permit is challenging:
  • Requirement to treat 20% of untreated urban impervious area with stormwater management
  • Focus on large-scale program delivery
  • Simultaneously build capacity and projects
  • Address rapid cost escalation
  • Maintain regulatory compliance
Find yer treasure

- Opportunities are jurisdiction-specific
- Review the financial assurance plans
  - Look at plans for jurisdictions like yours (urban versus more rural)
  - Phase I jurisdictions update plans to the legislature every 2 years
  - These jurisdictions have several permit cycles of experience with BMP installation.
  - Large blocks of acres of practice types = cost-effective mass deployment
  - Contact jurisdictions for advice and lessons learned
### Frederick County’s Plan

#### Estimated Complete, Programmed, and Identified Impervious Restoration Credit by Type

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Completed</th>
<th>Programmed</th>
<th>Total Planned Credit (by end of permit)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Retrofit</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wet Pond</td>
<td>12</td>
<td>313</td>
<td>325</td>
</tr>
<tr>
<td>Filtering</td>
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<td>2</td>
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<tr>
<td><strong>New Stormwater</strong></td>
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<td></td>
</tr>
<tr>
<td>Bioretention</td>
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<td>4</td>
</tr>
<tr>
<td>Bioswale</td>
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<td></td>
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</tr>
<tr>
<td>Wet Pond</td>
<td></td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Stream Restoration/Regenerative Stormwater</td>
<td>55</td>
<td>80</td>
<td>135</td>
</tr>
<tr>
<td><strong>Tree Planting</strong></td>
<td>39</td>
<td>160</td>
<td>199</td>
</tr>
<tr>
<td><strong>Septic Denitrification</strong></td>
<td>55</td>
<td></td>
<td>55</td>
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<tr>
<td>Septic Connections to WWTP</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Vacuum Street Sweeping</td>
<td>25</td>
<td></td>
<td>25</td>
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<tr>
<td>Outfall Stabilization</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Septic Pumping</td>
<td>194</td>
<td>135</td>
<td>329</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>392</td>
<td>699</td>
<td>1,091</td>
</tr>
</tbody>
</table>

*Pollutant Trading with WWTP Performance*  
As Needed
Case Study: Creek ReLeaf

- Multi-year program to plant trees on private and public lands to provide stormwater control, reduce stream temperatures, and to provide credit towards the County's MS4 Permit;

- The County pays landowners for permanent easements on the reforested area, pays for the trees (350/ac.) and the first 5 years of maintenance;

- This is a voluntary program for landowners.
Case Study: Creek ReLeaf

- Currently a 2 acre minimum requirement;
- Easement is forever, conveys with inheritance or sale of property for protection of the forest and the MS4 credit;
- 5 years maintenance followed by triennial inspections for easement compliance and retention of MS4 credit;
- Owner must maintain the planting and control invasives;
- Contract is piggybackable; uses indefinite qualities. Has both machine and hand planting, installation, supplies, maintenance.
MS4 Jurisdiction Benefits

• Jurisdiction obtains credit towards their permit goal at the published rate of 0.38 impervious equivalent acres per 1.0 acres of reforestation;
• Cost-effective method of attaining credit;
• Long term maintenance is landowner’s responsibility, decreasing long-term maintenance costs;
• Public is accepting of tree plantings;
• Jurisdiction decides the easement restrictions;
• Quick implementation process compared to other BMP types.
• Multiple environmental benefits, addresses portion of forest loss.
Landowner Benefits

- Receives compensation for an easement placed on the reforestation area at 75% of fair market value;
- Receives free trees and free pre-planting maintenance as needed;
- Receives first 5 years of maintenance at no cost;
- Owner has input of tree species planted;
- Retains ownership of the land to use within the terms of the easement (recreation, selective logging, etc.);
- Ecological benefits for the property of the environmentally minded applicants.
County performs pre-planting maintenance.

Trees spaced for ease of mowing.
Success to Date

• Round 1: Planted 26.8 acres of public land and scheduled to plant 120 acres of private land and 15 acres of public land fall 2018.

• Round 2: Received over 150 acres of interest prior to the official application period that opened August 1; 75 acres of application on the first day.

• The program is very popular with the public and great public relations for the County.
Ask Questions, if ye dare

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