Collaboration to Improve TMDL Implementation

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Initiative: collaborate on restoration of TMDL watersheds with Use Class __-P designations

MDE Watershed Restoration Division seeks to partner with the Potomac River Basin Drinking Water Source Protection Partnership (DWSPP) to increase the efficiency and the effectiveness of pollution reductions being driven by TMDLs and mandated in Phase I stormwater permits.
Partnerships

• The Integrated Water Planning Program (IWPP) is part of the Water and Science Administration (WSA)
  – TMDL Development
  – Watershed Restoration Division
  – Water and Sewer Plan Review

• IWPP’s Watershed Restoration Division
  – Partnerships increasing with other agencies driven by Chesapeake Bay WIP development
  – DNR
    • Fisheries
    • Forest Service
  – Maryland Department of Planning
  – Maryland Department of Health and Mental Hygiene
  – Maryland Department Agriculture
Information in the presentation

- 1) highlight information being generated by stormwater permits in order to identify opportunities to collaborate with the DWSPP membership, and

- 2) to foster collaboration between DWSPP and Maryland jurisdictions in order to prioritize the improvement of water quality in Maryland’s Use Class -P (water supply designated use) waters.
Clean Water Act mandates development of TMDLs for all the waters identified on their Section 303(d) list of impaired waters.

- $\Sigma WLA = \text{sum of wasteload allocations (point sources)}$
  - Stormwater (SW)
- $\Sigma LA = \text{the sum of load allocations (nonpoint sources and background)}$
- MOS = margin of safety
Use Class-P Designated Uses

• Use Class I: Water Contact Recreation, and Protection of Nontidal Warmwater Aquatic Life

• **Use Class I-P: Water Contact Recreation, Protection of Aquatic Life, and Public Water Supply**

• Use Class II: Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting

• **Use Class II-P: Tidal Fresh Water Estuary – includes applicable Use II and Public Water Supply**

• Use Class III: Nontidal Cold Water

• **Use Class III-P: Nontidal Cold Water and Public Water Supply**

• Use Class IV: Recreational Trout Waters

• **Use Class IV-P: Recreational Trout Waters and Public Water Supply**
Use Class -P Waters of the non-tidal Potomac River Basin-Hatched Segments
Local TMDL Implementation

• Most implementation driven by:
  – NPDES Surface Water discharge permits
  – NPDES MS4 permits

• Phase I stormwater permits in Maryland require the development of TMDL stormwater wasteload allocation (SW-WLA) implementation plans for all applicable pollutants.
Legal requirements for SW-WLA WIPs include five basic elements:

1. Schedule of projects and programs leading to attainment, and with end date.
2. Accounting of cost estimates for projects and programs.
3. Detailed monitoring and modeling plan that has a solid scientific foundation for actions taken.
4. Specific adaptive management process
5. Set up a system of accountability, which includes meaningful and technologically relevant forms of public engagement
Pollutants Covered in these Plans

- Bacteria
- PCBs
- Sediment
- Nutrients
- Trash
- Temperature?
Prioritize the resource-base and/or the designated use to drive planning

- Reservoir/Use-P
- Fisheries and aquaculture
- Beaches
- Agricultural Water Supply (FDA Regulations)
- 319 non-point source plans (for working landscapes)
- Scenic and Wild Rivers Program (for tourism)
Jurisdictions Creating SW-WLA (Watershed) Implementation Plans

- Maryland DOT State Highway Administration
- Anne Arundel
- Baltimore City
- Baltimore County
- Carroll County
- Charles County
- Frederick County
- Harford County
- Howard County
- Montgomery County
- Prince George’s County
Interjurisdictional cooperative framework to encourage coordinated implementation

Gold Standard: interjurisdictional WIPs, but this requires a process

- Ultimately, IWPP hopes to leverage this cooperative process to encourage interjurisdictional TMDL implementation and planning efforts. IWPP has also initiated similar processes with the Baltimore City Reservoir Technical Group (RTG) and the Patuxent Reservoirs Technical Advisory Committee (TAC).

- Develop clearinghouse of data and information among involved jurisdictions for addressing TMDLs
- Pooled monitoring data can help monitor liability
  - Co-authoring implementation plans, to expedite reductions called for by TMDLs
  - Implement monitoring called for by technical workgroups

- Leverage
  - Funding from other agencies and sectors
  - Existing data resources
  - BMP implementation
  - Planning resources

- Improve
  - Modeling and BMP sizing
  - Processes for the prioritization of BMP implementation

- Avoid
  - Planning based on political boundaries
  - Wasting resources
  - Missing opportunities
Trust Fund priority watersheds in the Potomac River Basin

Trust Fund Restoration Mapper:
https://geodata.md.gov/imapwab/?appid=bcf8a3f28efe40d498402025a88d482f

Grants Gateway Application:
https://dnr.maryland.gov/ccs/Pages/funding/grantsgateway.aspx
GreenPrint: Targeted Ecological Areas for Stateside Program Open Space

GreenPrint Interactive Mapper: https://geodata.md.gov/greenprint/

Stateside Program Open Space: https://dnr.maryland.gov/land/Pages/ProgramOpenSpace/Program-Open-Space-Stateside-Targeting.aspx
GreenPrint Implementation Quilt
Rural Legacy Area Program and other Conservation Partners

Rural Legacy Program
https://dnr.maryland.gov/land/Pages/RuralLegacy/home.aspx
### Stitching Together Funding Opportunities

<table>
<thead>
<tr>
<th>Funding Program</th>
<th>Agency</th>
<th>Objective</th>
<th>Project Type</th>
<th>Eligibility</th>
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</thead>
<tbody>
<tr>
<td><strong>Restoration</strong></td>
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<tr>
<td>Chesapeake and Atlantic Coastal Bays Trust Fund</td>
<td>DNR</td>
<td>Nutrient/Sediment reduction</td>
<td>tree planting, stream restoration, stormwater management, wetland restoration</td>
<td>Priority Trust Fund Watersheds</td>
</tr>
<tr>
<td>Chesapeake and Atlantic Coastal Bays Trust Fund</td>
<td>MDA</td>
<td>Nutrient/Sediment reduction</td>
<td>Cover Crops/Farm Management</td>
<td>Agricultural lands</td>
</tr>
<tr>
<td>Chesapeake Bay Stewardship Fund</td>
<td>National Fish and Wildlife Federation</td>
<td>Restoration: Nutrients, sediments, farms, wildlife, habitat</td>
<td>Planning and implementation</td>
<td>Baywide - Consistency with Chesapeake Bay goals</td>
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<tr>
<td><strong>Conservation</strong></td>
<td></td>
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<tr>
<td>Stateside Program Open Space</td>
<td>DNR</td>
<td>Open space for ecological protection, recreation and public access</td>
<td>Acquisition and Easements Easements</td>
<td>Within a GreenPrint Targeted Ecological Area</td>
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<tr>
<td>Rural Legacy Program</td>
<td>DNR and County Sponsors</td>
<td>Conserve rural, working landscapes</td>
<td></td>
<td>Within a Rural Legacy Area</td>
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<tr>
<td>Maryland Agricultural Land Preservation Program</td>
<td>MDA</td>
<td>Conserve agricultural lands</td>
<td>Easements</td>
<td>Agricultural land - usu 20 acres and in a Priority Preservation Area</td>
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<tr>
<td>Maryland Environmental Trust</td>
<td>MET</td>
<td>Conserve natural and working lands</td>
<td>Donated easements</td>
<td>Agriculture, forest and other natural lands</td>
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<td><strong>Resiliency Planning and Implementation</strong></td>
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<tr>
<td>CoastSmart Communities</td>
<td>DNR</td>
<td>Enhance capacity to understand and effectively plan for and address flood risks associated with a changing climate</td>
<td>Vulnerability and risk assessment, planning</td>
<td>Communities facing coastal hazards</td>
</tr>
<tr>
<td>Green Infrastructure Resilience</td>
<td>DNR</td>
<td>Enhance capacity to understand and effectively plan for and address flood risks associated with a changing climate</td>
<td>Vulnerability and risk assessment, planning</td>
<td>Communities facing stormwater and riparian flooding hazards</td>
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<tr>
<td>Resiliency through Restoration Initiative</td>
<td>DNR</td>
<td>Use of nature and nature based infrastructure to enhance resilience to climate change</td>
<td>Implementation</td>
<td>Clearly addresses CC vulnerability and risk</td>
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