

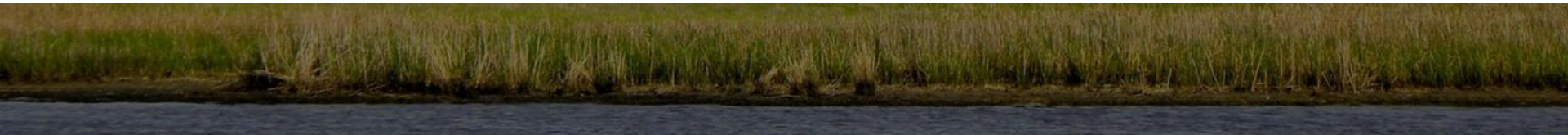


**Maryland**  
Department of  
the Environment

# Tracking Restoration Progress in Maryland

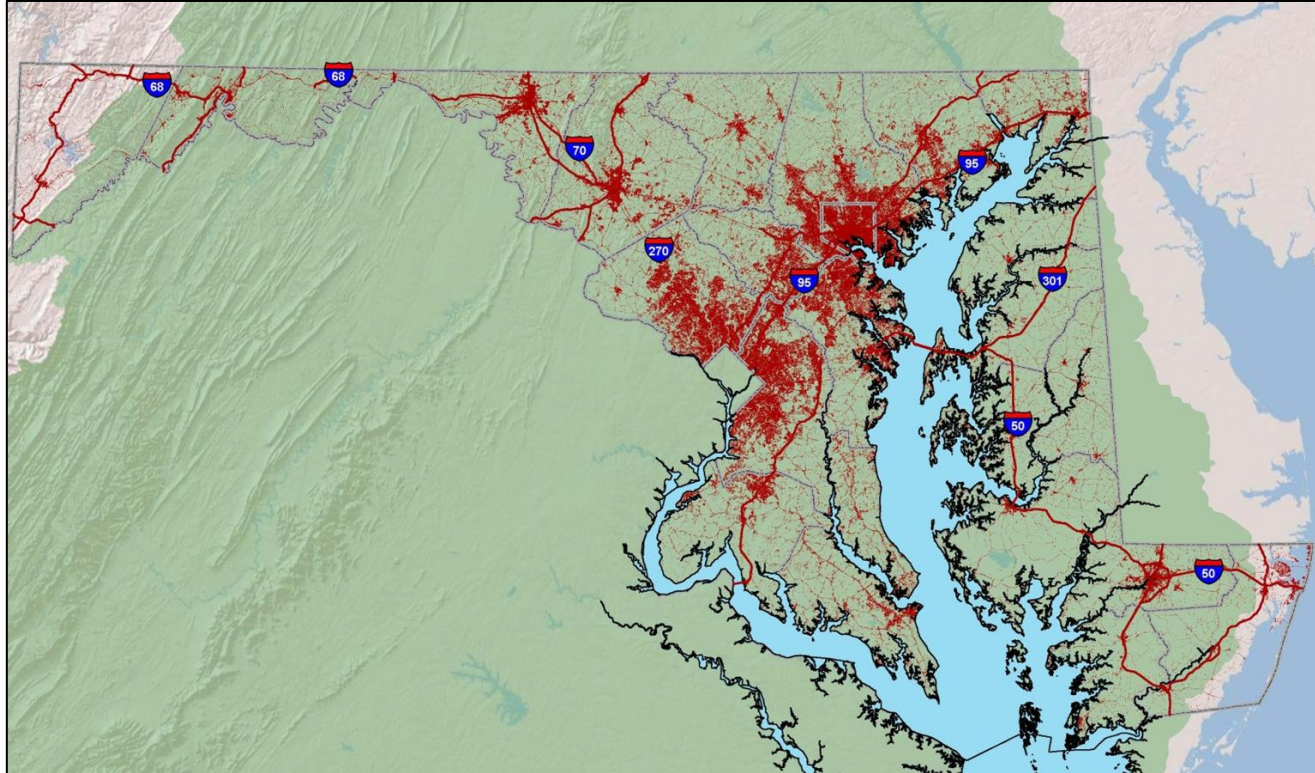
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Maryland Department of the Environment



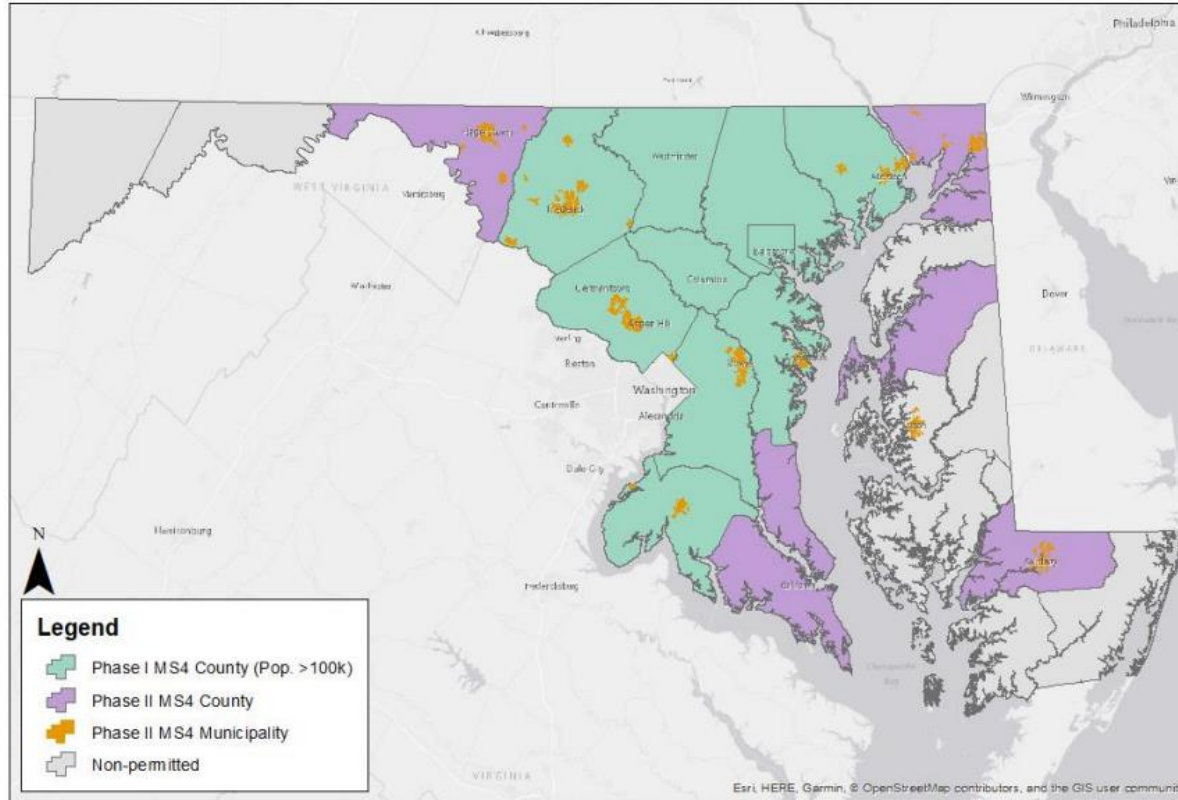


# Maryland's Paved Areas





# Maryland MS4 Permitted Jurisdictions





# MS4 Restoration Plan Requirements

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1. Date that TMDL is expected to be met
2. Detailed accounting of cost estimates
3. Detailed list of practices to be implemented
4. Specific adaptive management process
5. Public engagement



Source: MD DNR Flickr



# MS4 Permit vs TMDL Goals

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- Assimilative capacity of a waterbody restored
- Water quality criteria have been met
- Waterbody/pollutant impairment combination removed from the 303(d) list





# Implementation Guidance Documents

- General + pollutant-specific
- Required + recommended element checklists
- Adaptive and iterative watershed management

## TMDL Stormwater Implementation Resources

This webpage provides a set of technical resources for Maryland jurisdiction Stormwater WLA Implementation Plans. The guidance documents on this developed by MDE's Water and Science Administration and are recommen

- General Guidance
- Nutrients and Sediment TMDL Guidance
- PCBs TMDL Guidance
- Bacteria TMDL Guidance
- Mercury TMDL Guidance
- Trash TMDL Guidance
- Glossary



# Metrics

- Tracking % progress
  - Modeling
- Monitoring
  - BMP effectiveness
  - Watershed assessment

<b>SUMMARY</b>		
<i>Overall plan summary for specified pollutant</i>		
EOS or EOT	EOT	
<b>Baseline</b>		
Impairment Baseline Load	16,852.29	lbs/yr
Target Reduction %	47.00	%
Target Load	8,931.71	lbs/yr
Total Reduction Required	7,920.57	lbs/yr
<b>Permit</b>		
Total Permit Load	16,057.31	lbs/yr
Permit % Reduction	4.72	%
<b>Progress</b>		
Total Progress Load	17,520.37	lbs/yr
Progress % Reduction	(3.96)	%
<b>Implementation (Milestone 1)</b>		
Total Load after Implementation	14,207.89	lbs/yr
Implementation % Reduction	15.69	%
<b>Implementation (Milestone 1 + Milestone 2)</b>		
Total Load after Implementation	14,207.89	lbs/yr
Implementation % Reduction	15.69	%
<b>Implementation (Milestone 1 + Milestone 2 + Planned)</b>		
Total Load after Implementation	3,925.64	lbs/yr
Implementation % Reduction	76.71	%



# Evaluating TMDL Implementation

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# Other Data and Information Sources

- Other MS4 data
  - e.g., conductivity data when chloride is pollutant
- Ag and stormwater BMPs
- 319/TMDL overlap





# Future Sources?

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- Other data from local jurisdictions
- Community science
  - e.g., [Chesapeake Monitoring Cooperative](#)
    - Integrates volunteer-based monitoring data into centralized data hub
    - Classifies data quality for potential uses
    - Already used for IR, as appropriate

Thank you!!

