



Maryland
Department of
the Environment

Building a Phase III WIP for Wastewater, Stormwater & Septic Systems

*Spring 2018 – Upper Eastern Shore WIP Workshop
The Milestone, Easton, MD
June 15, 2018*

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Presentation topics

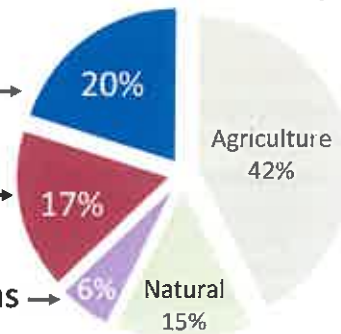
- Where are we now?
- Where are we going?
- What is your role?

➔ 1. Wastewater →

➔ 2. Stormwater →

➔ 3. Septic Systems →

**Maryland 2017 Nitrogen
Contributions to Bay**



- Phase III WIP process overview



Wastewater ... where we are today

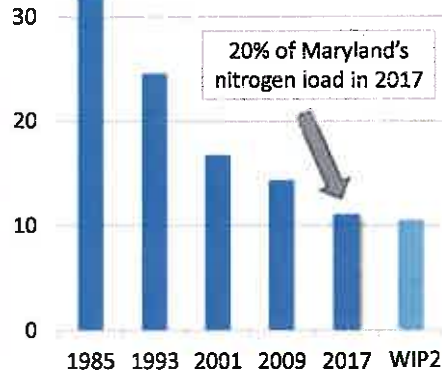
1980s & 90s

- Industrial re-tooling, treatment and closures
- Phosphorus controls

2000s

- Wastewater upgrades with Bay Restoration Fund (BRF)
 - Enhanced Nutrient Removal
 - By 2017 \$970M in BRF Wastewater Treatment Plant Fund
 - Over 95% of capacity will be upgraded

Million Pounds of Nitrogen to the Bay



3



Wastewater ... where we are today

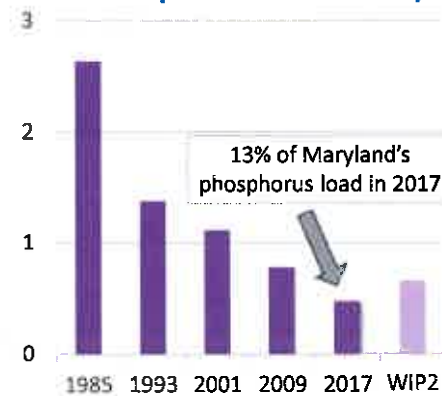
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Million Pounds of Phosphorus to the Bay



4



Wastewater ... Phase III WIP

- Participating in the Phase III WIP
 - Local WIP Inventory
 - Performance incentives
 - Water Quality Trading Program
 - Clean Water Commerce Act
 - BRF O&M Grants for Performance
 - Capital improvements
 - Minor Municipal Upgrades
 - Sewer Projects & Septic Connections
 - Consider new technologies
 - Treatment
 - Water reuse
- Key Planning Documents
 - Wastewater Permits
 - County WIPs and Milestone Plans
 - Bay Restoration Fund Annual Report
 - County Water and Sewer Plans



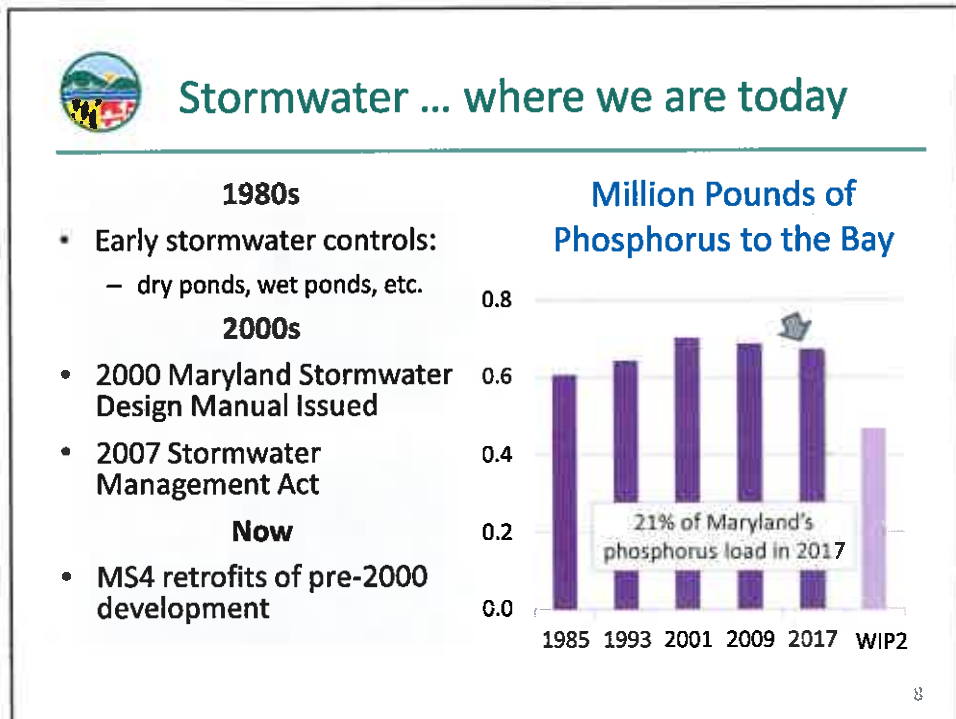
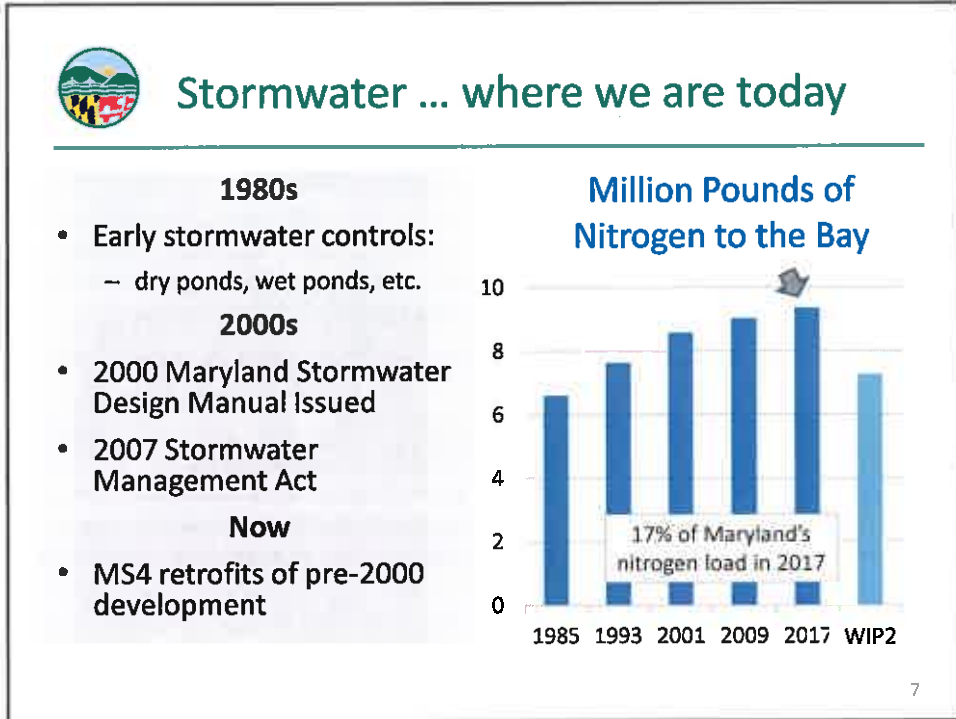
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Stormwater treatment



6





Stormwater on new development & redevelopment

- Stormwater Management
 - Environmental Site Design
“woods in good condition”
- Conservation
 - Forest conservation
 - Critical area protection
 - Wetland protection

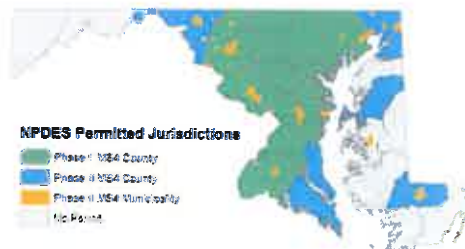


9



Stormwater on existing development

- MS4s: Municipal Separate Storm Sewer System Permits
 - Restoration requirements
 - Retrofit untreated acres
 - Impervious Acre Equivalents
 - Bay Restoration
 - Phase I MS4s
 - Population over 100K
 - Permits Issued 2013-14
 - Annual restoration budgets exceed \$300M
 - Phase II MS4s
 - Issued 2018



10



Stormwater ... Phase III WIP

- Participating in the Phase III WIP
 - Local WIP inventory
 - MS4 Restoration Requirement
 - Restoration plans
 - Impervious acre retrofits
 - Bay restoration
 - Non-MS4s
 - Water Quality Trading Program
 - Grant programs
 - Plans for projects with nutrient benefits
 - Watershed Restoration Specialists
- Key Planning Documents
 - MS4 Restoration Plans
 - MS4 Financial Assurance Plans
 - County WIPs and Milestone Plans
 - Annual reporting of BMP implementation
- Emphasize benefits beyond nutrients



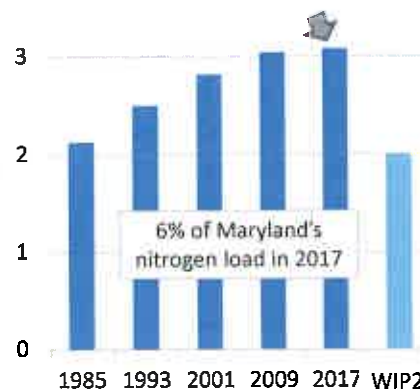
11



Septics ... where we are today

- Management actions
 - Connections
 - Upgrades
 - Pumpouts
- Bay Restoration Fund
 - \$122M in septic Grants awarded
- Three Rs
 - Regulatory reform
 - Retool inspection and enforcement efforts
 - Rethink septic vs. sewers

Million Pounds of Nitrogen to the Bay



12



Septics ... looking to 2025

- 420,000 systems
 - 6% of Maryland's nitrogen
 - Minimal phosphorus
- Focus on benefits to public health
 - Drinking water
 - Shellfish harvesting
 - Concentrated problem areas
- Septic Stewardship Plans
 - Target use of state funds
 - Address county-specific water quality concerns



13



Septics ... Phase III WIP

- Participating in the Phase III WIP
 - Local WIP Inventory
 - Capital improvements using BRF
 - Septic Upgrades
 - Septic Connections
 - Credit through permits
 - MS4 restoration credit
 - Wastewater capacity
 - Septic Stewardship Plans
 - Complete in 2021
- Key Planning Documents
 - County WIPs and Milestone Plans
 - NPDES permits
 - County Water and Sewer Plans
 - Septic Stewardship Plans



14



2017 Midpoint Assessment

- Phase II WIP
 - 60% toward our 2025 goal by 2017
 - Phosphorus and sediment met this with room to spare
 - Nitrogen is there as well, but is not accounted for in the 2017 modeling

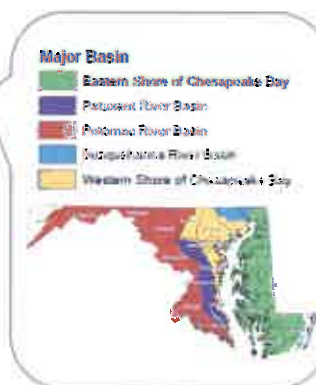


15



EPA Phase III WIP Expectations

- Implementation commitments from 2018 to 2025 to meet WIP Planning Targets
 - Developed at a scale finer than the basin
 - Identify:
 - Specific funding and financing
 - Cost-share & technical assistance
 - Voluntary actions & incentives
 - Policy, legislative & regulatory actions
- Engagement of local, regional and federal partners
- Account for climate change, Conowingo infill and growth



16



Bay Cabinet: Maryland's Bay Restoration Framework

- 2016 Historical and Projected Chesapeake Bay Spending Report
 1. Use wastewater growth allocations wisely ...
 - preserve future options for local growth
 - build capacity back into the system.
 2. Mitigate the future impact of growth
 - ...
 6. Plan for 2025 and beyond

17



Compiling our Phase III WIP



- Local WIP Inventories
 - Current practices
 - Proposed practices by 2025
 - For each sector
 - For each county
- MDE to work directly with local practitioners
- MDE to compile:
 - At a county level
 - For the entire state

18



Phase III WIP Schedule

Since 2010 WIP engagement

Summer 2018 Establish sector suballocations

Fall 2018 Develop Local WIP Inventories

- Work with local practitioners
- Individually and through existing workgroups
- Comprehensive inventory of planned projects
- Improve inventory of current projects

Winter 2018/19 Compile statewide WIP

- Combine local WIP inventories
- Assess whether plan meets WIP targets
- Establish local WIP goals

March 2019 Draft WIP for Public Review

- Address stakeholder comments

June 2019 Final Phase III WIP

2019 to 2025 Refine Phase III WIP

- 2-year milestones



19



Conclusions

- Water quality in the bay is improving
... but our job is not getting easier
- Focus on capacity for 2025 and beyond
- Emphasize benefits beyond nutrient reductions
- Outreach to practitioners and stakeholders:
 - Ongoing since Phase I WIP
 - Through spring 2019 for WIP development
 - To continue through 2025 implementation and milestones
 - To develop Local WIP Inventories
 - To ensure that Maryland's WIP is comprehensive

20