

# Chesapeake Bay TMDL

The Bay TMDL is coming ...  
Can we make it work to our local advantage?

Propose actions that benefit our *local communities*

Clean up *local waters* while cleaning up the Bay

Develop a *local response* that makes sense for our  
Piedmont region

October 6, 2010

Leslie Middleton, Rivanna River Basin Commission



# Purposes of Today's Meeting

- Provide information on Chesapeake Bay TMDL process
- Gather information on local concerns and local ideas for action within the building and development sector
- Discuss idea of regional response to Chesapeake Bay TMDL including a local/regional Watershed Implementation Plan (WIP)
- Provide input to VA on how best to work with local stakeholder groups and local governments



# Presentation Outline

- How did we get to this point?
- What is a TMDL?
- How is Chesapeake Bay TMDL different?
- Who will be affected?
- Will there be enforcement?
- Elements of Watershed Implementation Plans (WIPs)
- Timeline
- How does this relate to the Stormwater Regulations?
- A Regional Approach
- Piedmont Regional Pilot Project
- Discussion



# How did we get to this point?

- 1972 Clean Water Act
- 1987 Chesapeake Bay Agreement
- 1999 Virginia TMDL case settled
- 2000 Chesapeake Bay 2000 with the 2010 goals
- 2003 Virginia Tributary Strategies
- 2008 Bay states ask EPA to take over Bay TMDL
- 2009 Executive Order on Chesapeake Bay
- 2010 Chesapeake Bay Foundation case against EPA settled
- 2010 Draft EPA Chesapeake Bay TMDL

# What is a TMDL?

- TMDL stands for Total Maximum Daily Load \*
- *\* The maximum amount of pollutant that a water body can absorb and still meet water quality standards for intended uses (recreation, water supply, aquatic life, etc.)*
- TMDL is also shorthand for a water quality restoration goal *and* the public process by which it is produced.
- Comprised of waste load allocations for **point sources** like sewage treatment plants, urban stormwater systems and large animal feeding operations
- Plus load allocations for **non-point sources**, such as polluted rainfall runoff from agricultural lands and impervious surfaces
- Plus a margin of safety
- And, if desired, an allocation to accommodate growth.



# Chesapeake Bay TMDL?

- Focus: restoring nutrients and sediment to acceptable levels in the Bay to meet H<sub>2</sub>O standards
  - Dissolved O<sub>2</sub> in the main stem of the Bay
  - Water clarity
  - Underwater grasses to support life (crabs, fish)
  - Acceptable algae levels (*chlorophyll a*)
- Divides Bay and tidal tributaries into 92 segments
- Many local waters will have to be restored and protected in order for the Bay TMDL to succeed



# Chesapeake Bay TMDL?

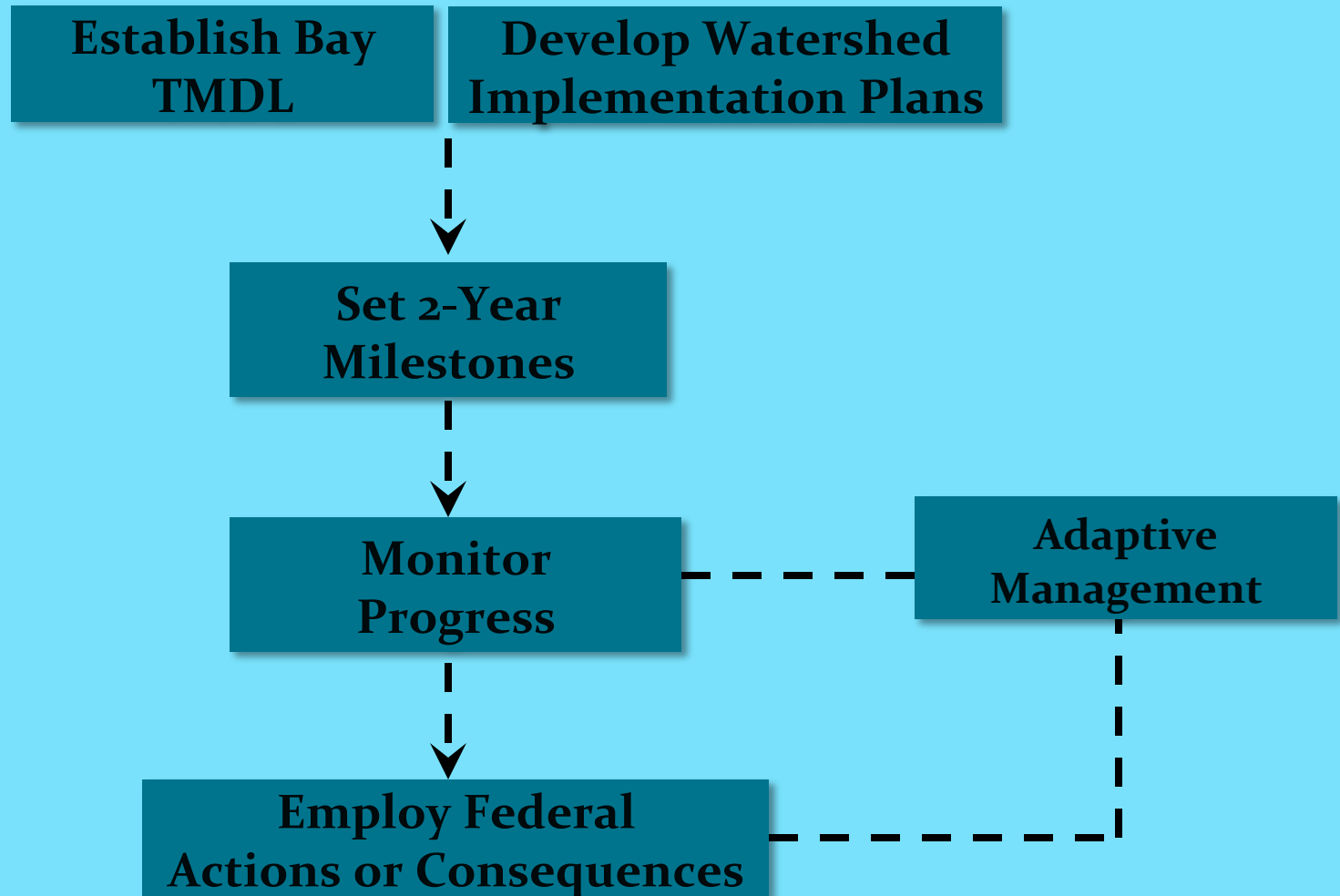
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# Chesapeake Bay vs. other TMDLs?

- Most complicated, data-rich TMDL ever attempted
- Involves 6 states, DC, and federal agencies
- Includes Watershed Implementation Plans
- 2-year incremental steps through 2025, with 2017 interim goal of 60% progress
- Support from Executive Order and Action Plan
- Efforts to account for what's already been accomplished
- Accountability framework

# Accountability for Results





## Elements of Watershed Implementation Plans

- Interim and final target loads
- Current loading baseline and program capacity
- *Account for growth*
- Gap analysis (resources, programs, regulations)
- Commitment and strategy to fill gaps
- Tracking and reporting protocols
- Contingencies for slow or incomplete implementation
- Detailed targets and schedule



# Will there be enforcement?

YES – EPA will act within its NPDES permit authority if necessary:

- Expand permit coverage to unregulated sources
- Increase oversight of state issued NPDES permits
- Increase pollution reductions from point sources such as wastewater treatment plants
- Increase federal enforcement and compliance
- Deny new or expanded discharges
- Redirect federal grants
- Revise water quality standards to protect local and downstream waters

# Who will be affected?

- Federal, state and local governments
- Wastewater (permitted point sources)
- Permitted stormwater runoff (MS4s and construction)
- Homeowners (limitations on fertilizer)
- Turf managers
- Agriculture (some more than other, i.e., CAFOs)
- Alternative and onsite wastewater (including septic)
- Air deposition (power plants, vehicles, animal waste lagoons)
- Natural gas production in Marcellus Shale (new)

*Everyone!*



# Timeline

September 1, 2010	Draft Phase I WIPs
September 24	EPA Draft Bay TMDL
November 8	Public comments due on Bay TMDL
November 11	Public comments due on VA WIP
November 29	Final Phase I WIP from VA
December 31, 2010	EPA Final TMDL w/ Phase I WIPs
2011	Phase II WIPs (local allocations)
2013, 2015	2-year incremental plans (mini-WIPS)
2017	60% implementation
2025	100% implementation

*Actual attainment of water quality standards  
in the Bay will follow*



## How is this different from the VA stormwater regulations?

- VA Stormwater Regulations go into effect 280 days following the finalization of Virginia Watershed Implementation Plan or Dec 2012
- The stormwater controls are a very important part of the Chesapeake Bay TMDL process
- The Chesapeake Bay TMDL process is broader and will focus on source sectors beyond stormwater
- The Chesapeake Bay TMDL process is attempting to reach reduced pollutant levels by 2025 that will lead to restoration of the Chesapeake Bay.



# How will this effect us locally?

*From draft Virginia Watershed Implementation Plan, September 2010*

- **Wastewater:**
  - New single family homes and wastewater systems/industry below 40,000 gallons per day required to be completely offset
- **Onsite/Septic:**
  - Implement proposed Dept. of Health regulations for alternative systems
  - State to consider revisions to require nitrogen reducing technologies
  - State to consider revisions to encourage the use of community onsite systems
  - May expand the Nutrient Credit Exchange Program to include on-site systems



# How will this effect us locally?

*From **draft** Virginia Watershed Implementation Plan,  
September 2010*

- **Stormwater**

- Revise Stormwater Management Regulations to prevent load increases from new development
- Restrict application of non-ag fertilizers to require reporting from “for-hire” applicators
- Encourage all locality owned non-ag lands receiving nutrients to develop and implement nutrient management plans
- Require that redevelopment meet reductions in nutrient and sediment loads from Stormwater Management Regulations
- Implement additional BMPs on existing pervious and impervious lands through future permits and wider adoption of stormwater utility fees

# EPA Sept 24 Draft TMDL: Virginia Backstop

- Wastewater facilities: 4 mg/L TN and .3 mg/L TP and design flow
- MS4s:
  - 50% of urban MS4 lands must meet *aggressive performance standard* through retrofit/ redevelopment
  - 50% of unregulated land *treated as regulated*
- Construction:
  - Erosion and sediment control on all lands subject to Construction General Permit
- CAFO production areas:
  - Waste management, barnyard runoff control, mortality composting
  - Precision feed management for all animals.
  - Same standards apply to AFOs not subject to CAFO permits EXCEPT no feed management on dairies
- Additional adjustments to agriculture nonpoint sources as necessary to exactly nutrient and sediment allocations

# Piedmont Regional Pilot Project for the Chesapeake Bay TMDL

- Task 1: Existing Conditions –Review existing impaired waters and analyze relative to Bay pollution targets in order to coordinate with local clean-up efforts
- Task 2: Conduct outreach to pollutant sector stakeholders
  - Solicit input on Chesapeake Bay TMDL
  - Identify information or resources that are needed for implementation of Ches Bay TMDL within the region
  - Build support for development of a regional Watershed Implementation Plan

PRPP Committee (a lesson in acronyms):

TJSWCD

RRBC

TJPDC

SELC

VA “SAG” CB TMDL

IEN

Local Government Officials (Greene, Nelson BOS)



# How will this effect us locally?

- Higher standards (lower pollutant discharges) for building and redevelopment
- No net impacts from growth
- Additional regulatory and administrative burdens on local governments
- *All sectors will be affected*



## Advantages of working together as a region?

- Collective voice asking for resources for implementation
- Opportunities to work together to figure out the best methods for reducing loads of pollutants *across all sectors*
- Potential for pollutant offsets with other regions or watersheds, *but also*
- Opportunity to create regional or watershed-based offset program (appropriate scale for implementation)



# Planned Focus Groups

- Local Government Staff Members – July 21, 2010
- Agriculture Stakeholders – August 31
- Local Elected Officials – September 8
- Developers/Builders – October 6
- Point Sources – October 18
- Work sessions with local governments (October – November)

# Input/Discussion

1. What information do you already have about the Bay TMDL, and where is this information coming from?
2. What are your concerns about the Bay TMDL?
3. How do you expect the Bay TMDL to impact site design practices and cost structures?
4. Are there ways that local government can help in minimizing these impacts (*other than simply lowering fees*)?
5. How can the Bay TMDL be used to achieve other goals for your business, our community, and our region?
6. Would you like to play in development of a local WIP?

# Next Steps

- Meeting summary sent to all October 6 participants
- Interim reports posted online:
  - <http://www.rivannariverbasin.org/Chesapeake-Bay-TMDL.php>
- Contact Pilot Project Steering Committee:
  - [PiedmontPilot@gmail.com](mailto:PiedmontPilot@gmail.com)
- Report to local governments – November 2010
- Report to EPA and Virginia DCR – December 2010
- Preparing local governments to respond to requirements for developing local watershed implementation plans – January 2011