

Hampton Roads Regional Steering Committee for development of the Chesapeake Bay Phase II WIP

July 14, 2011
HRPDC Regional Building



Introductions and Steering Committee Overview

John Carlock
Deputy Executive Director,
HRPDC



Chesapeake Bay TMDL: *Phase I WIP Summary and Phase II WIP Overview*

Joan Salvati

Virginia Department of Conservation and Recreation



Chesapeake Bay TMDL: *Hampton Roads Phase II WIP Overview*

Whitney Katchmark
Principal Water Resources Engineer



Virginia's approach to Phase II WIP

State's Role

- Provide Bay model data:
 - 2009 data
 - Assumptions used in VA's Phase I WIP to meet the 2017 and 2025 reductions.
- Provide Assessment Tool
 - Localities can enter proposed BMPs and programs to find out if they meet the 2017 and 2025 reductions.
- Evaluate the need for new State programs (Fertilizer control, Enhanced Nutrient Credit Exchange Program)

Locality or PDC's Role

- Provide more detailed plans to meet nutrient reductions required by TMDL.
 - Collect and analyze data.
 - Develop strategies to meet TMDL reductions.



Local & Regional submittals

Local

- Revise spreadsheets and write implementation strategies for each Locality:
 - Identify errors in 2009 land use and BMPs.
 - Locality's implementation plan for 2017 & 2025 (BMPs, septic, etc.)
 - Nutrient reductions for other permittees: military, industrial, VDOT.
 - Nutrient reductions for Agricultural loads in the locality.
 - Locality's strategies: funding, authority, & policies

Regional

- Identify programs that reduce nutrients but are not in the spreadsheet.
- Identify additional resources, authority, and regulations needed to achieve implementation goals.



Why should localities participate?

- State must provide WIP to EPA at local scale.
- If localities don't provide input, likely that State Phase II WIP will be similar to Phase I WIP.
- Cost is major obstacle to implementing TMDL.
 - HRPDC cost estimates focused on EPA backstops and retrofits that represent most expensive solution.
 - Need “best case” cost estimates from localities to evaluate the challenge of funding the implementation plans.



HRPDC's Approach: Regional Tier

Steering committee with members from:

- Permit holders
- Technical experts
- Environmental groups
- State agencies

Objective: share information and resolve confusion about technical issues, data availability, regulatory authority, etc.



Regional Tier - Challenges

- Beginning of Phase II process:
 - Localities need to document projected nutrient reductions that will occur on land with separate stormwater permits (VDOT, DoD, universities).
 - Need to maintain good relationships with these organizations and eventually share progress reports.
- End of the Phase II process:
 - If projected nutrient reductions don't meet targets, how to fill gap? Are the Phase I WIP sector implementation strategies backstops?
 - How do we help each sector meet target? Can we encourage the most cost effective solutions?



HRPDC Role

- Facilitate Regional Steering Committee Meetings.
- Conduit for information exchange between State and local governments.
- Technical Assistance to localities
 - Research on alternative management actions
 - Evaluation matrix for BMPs that includes costs and ancillary benefits.



HRPDC's approach: Local Tier

Local tier would be a multi-department team in each locality.

- City Manager/County Administrator or his/her representative
- Public Works
- Utilities
- Transportation
- GIS
- Parks and Recreations
- Legal Counsel
- Economic Development
- School Board

Locality teams would identify nutrient reductions that could be implemented by the locality.



Local Tier - Challenges

- Collecting and evaluating data for existing BMPs and opportunities for future BMPs in short timeframe.
- Assessing BMPs and finding funding to support implementation plan.

Local Government Criteria	Local Government Objectives
Cost effectiveness	Improve Local Water Quality
Ease of implementation	Urban Renewal / Beautification
Long-term O&M costs	Expand trail system
Project Visibility	Protect drinking water
Public Education & Outreach	Economic Development



Schedule

- June – September : Localities groundtruth BMP and septic information.
- July –August : Localities develop local teams.
- August : Revised land use acres and loading targets and locality BMP assessment tool from Virginia.
- October : Localities return local data comparisons.
- November : Regional Steering output to State.
- February : Local management actions to State.



What can localities do now?

- Groundtruthing BMP and septic information provided by DCR.
- Form locality WIP teams
 - Get departments up to speed on the TMDL
 - Review Phase I WIP defaults
 - Develop criteria for evaluating BMP scenarios
- Evaluate the accuracy of local land use data and how the categories relate to the TMDL.
- Assess technical assistance needs for WIP development.



Example: Model data for Chesapeake

Subsource	Land Use LU/LC (acres)	2009 Phosphorus Load	2025 Phosphorus Goal Load	Phosphorus Reduction Goal	Phosphorus Reduction %
Animal Operations	3	165	38	(127)	-77%
Crop	4,423	6,468	4,527	(1,941)	-30%
Hay	120	15	21	6	40%
Pasture	113	133	84	(49)	-37%
Nurseries	3	404	116	(288)	-71%
MS4Urban	32,852	48,707	45,594	(3,113)	-6%
NonMS4Urban	781	4,857	2,224	(2,633)	-54%
Construction	358	3,192	1,919	(1,273)	-40%
CSS	-	-	-	-	0%
Septic	-	-	-	-	0%
Surface Mine	310	1,393	71	(1,322)	-95%
Unmanaged Grass	70	1	18	17	1700%
Forest	17,301	2,346	2,419	73	3%
Grand Total	56,334	67,681	57,031	(10,650)	-16%

BMPs	2009 Progress BMPs	2025 WIP I Proposed BMPs	New BMPs Proposed by 2025	2017 BMPs 60%
Septic Pumpouts (systems)	-	388	388	233
StreetSweep	-	947	947	568
UrbStrmRest (linft)	-	2,502	2,502	1,501
WetPondWetland	5,551	4,967	-	-
Filtration	208	1,295	1,088	653
Infiltration	58	1,230	1,172	703



Chesapeake Bay TMDL Phase II WIP: *Key Regional Issues*

Jennifer Tribo

Senior Water Resources Planner



Key Issues

- Current locality loading targets include lands that are owned/operated by other entities.
- The current Model does not account for some management actions that a locality may want to implement.
- Localities may lack the authority or funding to implement some management actions.



Land Area Issue

- Current load reduction targets based on municipal boundaries.
- No separate allocations for federal properties, VDOT, or industrial stormwater permittees.
- Updated loading rates will separate out federal properties.



Land Area Priority Actions

- Verify federal boundaries used in the revised model run.
- Coordinate with DEQ to develop methodology for identifying and extracting industrial stormwater permit holders.
- Coordinate with VDOT and DCR to calculate areas controlled by VDOT that should be excluded from municipal loads.
- Coordinate with DCR to identify other permit holders within municipal boundaries (institutions)



Chesapeake Bay Model and BMPs*

Types of conservation practices/management actions

Category	Example
Application Reduction	Nutrient Management Plan
Land Use Change	Reforestation
Efficiency Change	Conservation plans
Load Reduction	Structural stormwater controls
Systems Change	Conversion from septic to sewer

* See Handout for list of existing practices and efficiencies.



Chesapeake Bay Model and BMPs

- 1) Management actions that have model efficiencies, but are not currently being tracked/reported in Virginia
- 2) Management actions that improve water quality, but are not currently recognized by the Bay Models.



Existing Management Actions

Examples:

Shoreline stabilization/living shorelines

Non structural practices within the Chesapeake Bay Preservation Areas.

Solution:

Coordinate with localities, DCR, EPA to identify these practices and determine the best way to track and report them.



Protocol for Reviewing New BMPs

- Requests for review of new BMPs can be initiated by:
 - Chesapeake Bay Program Source Sector Workgroup
 - State
 - Group/agency if sponsored by a workgroup.
- Review Panel of experts is convened by the representative source sector workgroup.
- Review by Watershed Technical Workgroup
- Review by Water Quality Goal Implementation Team



New Management Actions

- Urban stormwater workgroup has developed a list
 - Stormwater retrofits
 - Green roofs
 - Illicit Discharge Elimination
 - Permeable Pavement
 - Lawn fertilizer law impacts
- Other management actions
 - Oyster restoration
 - No Discharge Zones



2011 Urban Stormwater Workgroup Panels

➤ Stormwater Retrofits

- New facilities
- BMP conversions
- BMP enhancements
- Green Streets

➤ Runoff Reduction Practices

➤ Stream Restoration Update

➤ Maintenance Upgrades to BMPs



BMP Priority Actions

- Nominate local government representatives for BMP panels.
- Work with DCR and USWG to determine interim rates for use in Phase II WIP Planning.
- Coordinate with DCR to identify existing management actions that need to be tracked/reported.
- Coordinate with DCR to list and prioritize management actions that should be added to the model.
- Coordinate with DCR to agree on interim efficiencies that can be used for local WIP development.



Regulatory and Funding Gaps

- Localities may lack authority to implement some management actions.
- How will structural practices be monitored, inspected, and maintained?
- Adequate funding will be a key issue for effective implementation.



Regulatory and Funding Priority Actions

- Identify Regulatory authority gaps
- Research options for enforcing maintenance of practices on private property.
- Calculate costs of management actions
- Track resources committed for WIP development
- Identify potential partners and funding sources for implementation
- Reach out to State and Federal Legislatures to commit to funding Bay restoration activities.



Facilitated Discussion

Julia B. Hillegass

Public Information & Community Affairs Administrator
Hampton Roads Planning District Commission



Discussion Topics

- Key concerns by sector
- Technical Assistance Needs
- Additional management actions
- Funding Needs and potential sources
- Legislative Priorities



Wrap up and Future Meeting Schedule



Future Meetings

- Monthly (through March 2012)
- First Thursday of every month – 1:30 pm?
- Rotate between southside and peninsula?
 - Identify peninsula location
- Conflicts / Suggestions?

