

Chesapeake Bay TMDL: Phase II WIP Update

Presented to
Hampton Roads Planning District Commission
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Phase II WIPs – due February 1st

State letter requested that local governments:

1. Develop a current BMP inventory.
2. Evaluate land use/ land cover information.
3. **Review BMP scenarios identified in the Phase I WIP, and develop preferred local scenarios that provide a similar level of treatment.**
4. Develop strategies to implement the BMP scenarios.
5. Identify any resource needs to implement the strategies.



HRPDC Actions at November meeting

Localities submit information on program level goals and HRPDC staff translates into a Regional VAST scenario that will be submitted to Virginia.

- ❑ Localities will each submit an individual plan to DCR that focuses on narrative strategies.
- ❑ HRPDC staff will translate strategies into a Regional input file that will be appended to locality reports.



Regional Steering Committee Actions

At December 1st meeting, Committee agreed:

- ❑ Localities would each submit BMP scenarios based on realistic financial commitments.
- ❑ HRPDC staff would translate local scenarios into a Regional input file and identify the gap between the target and realistic implementation plans.

HRPDC sent letter to CAOs on December 8, 2011 reflecting the Steering Committee's recommendations.



December correspondence with State

- If localities submit BMP scenarios with less nutrient reductions than Phase I WIP, State will work with localities to fill the gap.
- **If there isn't enough time or the gap is too big, the State will use the Phase I WIP scenarios and disregard the local input.**
- DCR expects the region to identify additional conditions that will limit the feasibility of implementing the BMP scenarios.
 - ❑ Funding limitations
 - ❑ Insufficient time
 - ❑ Lack of State programs such as Nutrient Credit Trading
 - ❑ Inadequate BMP research, i.e. Fertilizer ban has not been quantified.



Recommendations

Locality role:

1. Develop preferred local scenarios that provide a similar level of treatment to Phase I WIP.
2. Identify portion that can be realistically funded and define qualifications and conditions to reaching the Phase I WIP level of treatment.



Recommendations

HRPDC role: Create BMP scenarios for James and York basins that meet Phase I WIP level of treatment.

- PDC staff will select BMPs to fill the gap between local scenarios and the level of treatment for each basin.
- PDC staff will include conditions that impact the feasibility of implementing the basin scenarios.
- If localities do not provide input, PDC staff will select BMPs to meet the level of treatment for each basin.



Local Input for regional BMP Scenarios

Send HRPDC the following data:

1. Corrected baseline BMP and land use data.
2. Level of implementation for each BMP in VAST webtool.
 - Preferred data: acres or percentage of land treated by each type of BMP.
 - Adequate data: prioritize BMPs that the locality would implement & estimate level of implementation: high, medium, or low.
3. Level of implementation for Alternate BMPs which are not currently included in VAST.



HRPDC data format

Data Source	BMP	Unit of Measure	Nitrogen Removal	Phosphorus Removal	Sediment Removal	Annual Cost over 20 years per impervious acre treated	Proposed acres treated by 2025	Proposed Pervious Acres Treated	Proposed Impervious Acres Treated	Proposed 2025 Implementation Level (high, medium, low, none)
VAST	Wetland Restoration	acres treated				\$ 3,963				
VAST	Urban Tree Planting; Urban Tree Canopy	acres				\$ 2,860				
VAST	Green Roofs, Rain Barrels, rooftop disconnects (Impervious acres converted to pervious)	acres	13%	72%	84%	\$ 5,698				
VAST	Impervious Surface Reduction (impervious acres converted to forest)	acres	71%	94%	93%	NA				
VAST	Urban Infiltration Practices - with sandveg no underdrain	acres treated	85%	85%	95%	\$ 3,879				
VAST	Permeable Pavement - no sandveg with underdrain	acres treated	50%	45%	70%	\$ 14,167				
VAST	Vegetated Open Channel - Urban	acres treated	45%	45%	70%	\$ 1,810				
VAST	Urban Filtering Practices	acres treated	40%	60%	80%	\$ 4,156				
VAST	Bioretention/raingardens (new)	acres treated	75%	70%	80%	\$ 3,875				
VAST	Wet Ponds and Wetlands	acres treated	20%	45%	60%	\$ 1,968				
VAST	Street Sweeping Mechanical Monthly (annual load reduction of TN=0.43lbs, TP=0.08lbs, TSS=0.05lbs)	lbs of debris and acres swept	3%	3%	9%	\$ 754				
VAST	Septic Pumping	Unit	0.6 lb/unit	NA	NA					
VAST	Septic Denitrification	Unit	6 lb/unit	NA	NA					
VAST	Septic Connection to WWTP	Unit	9 lb/unit	NA	NA					
Alternative BMP	Shoreline Erosion Control/Living Shorelines	Linear feet	.16 lb/unit	.11 lb/unit	451 lb/unit					
Alternative BMP	Emergent marsh restoration	acres	42%	55%						
Alternative BMP	Catch Basin Cleaning	tons of collected dry material	1.5lb/ton	0.6lbs/ton	600lbs/ton					
Alternative BMP	Storm Drain Vacuuming	tons of collected dry material	1.5lb/ton	0.6lbs/ton	600lbs/ton					

Spreadsheet was distributed on December 6th to the Regional Steering Committee and Stormwater Committee. This is a portion of the BMPs on the spreadsheet; there are additional BMPs and localities can add other alternatives.



Basin BMP Scenarios - Timeline

- **December 28th:** Localities submit BMP scenarios to HRPDC staff.
- **January 5th:** HRPDC staff review draft regional VAST input files and narrative with Regional Steering Committee.
- **January 19th:** Regional Appendix will be presented at HRPDC commission meeting.
- **February 1st:** Localities submit Phase II WIP input to DCR including regional appendix.



What happens if localities don't provide Phase II WIP input to State?

1. Virginia will submit the Phase I WIP scenarios to EPA which do not represent preferred local strategies.
2. Local governments may be perceived as not supporting the Chesapeake Bay clean up.
3. EPA could implement Backstops in Virginia.



EPA's plan for Reasonable Assurance

EPA could implement Backstops if Virginia's Phase II WIP does not provide reasonable assurance that TMDL will be implemented.

- ❑ Backstops require 1,460,000 lbs/yr of N removed from urban stormwater in James & York basins.
- ❑ Phase I WIP requires 489,000 lbs/yr of N removed from urban stormwater in James & York basins.
- ❑ Urban stormwater backstops would cost Hampton Roads approximately \$6B more than the Phase I WIP.



Recommended Action

1. By December 28th, localities will send HRPDC:
 - ❑ Corrected baseline BMP and land use data.
 - ❑ Level of implementation for each BMP with conditions and qualifications.
2. Authorize HRPDC staff to select BMPs to fill the gap between local scenarios and the Phase I WIP level of treatment. BMP scenarios for the James and York basins will be included in the Regional report.
3. Localities will each submit an individual plan to DCR that focuses on narrative strategies and includes the Regional report as an appendix.

