

Baltimore County – Phase II Watershed Implementation Plan – Restoration Progress

February 26, 2013

MDE Webinar



Availability of Phase II WIP

- The Maryland Phase II WIP was posted on the MDE website in October. It includes the local plans.

http://www.mde.state.md.us/programs/Water/TMDL/ChesapeakeBayTMDL/Pages/programs/waterprograms/tmdl/cb_tmdl/index.aspx

2-Year Milestone Progress Stormwater



July 2011 – June 2013

2 – Year Restoration Milestones

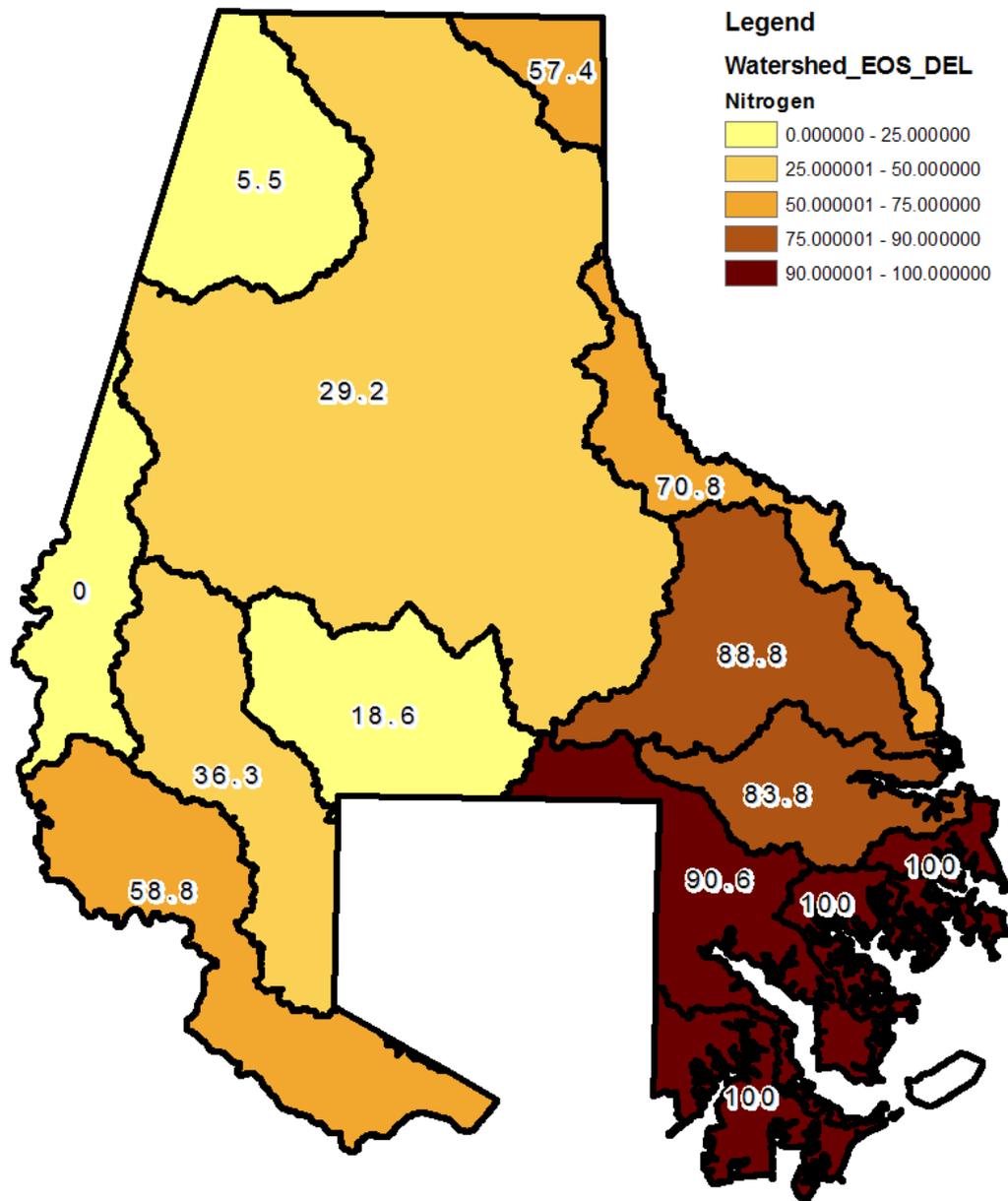
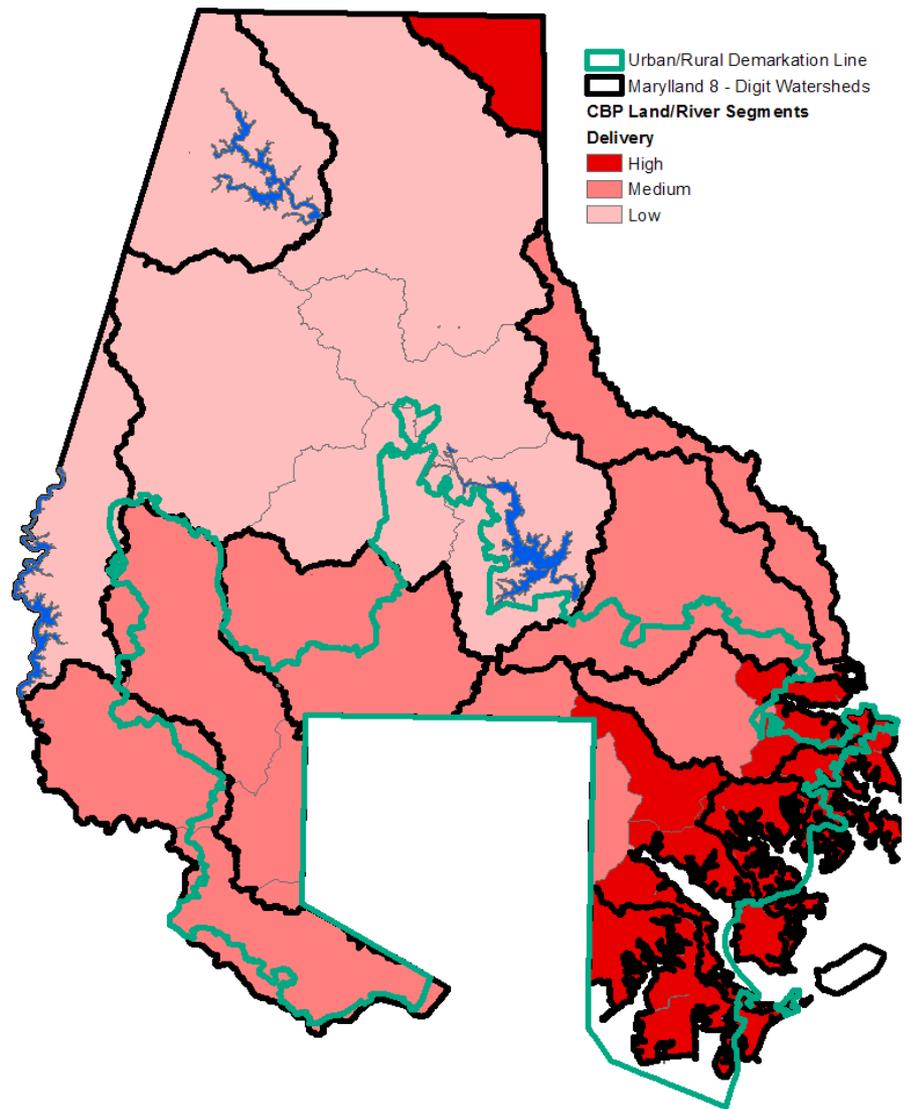
- 63,174 linear feet of stream restoration
- 972 linear feet of shoreline enhancement
- 669 acres of SWM retrofits/conversions
- Street Sweeping at current pace
- Storm drain cleaning at current pace
- 6,125 acres – urban nutrient management (1998)
- Watershed Association projects
- SSO elimination (20% of current average overflow rate)
- Redevelopment (estimated 200 acres over 2 years)
- Possible (10 acres urban riparian buffer and 100 acres of upland reforestation)

Restoration Actions Progress

Action	Proposed Restoration Rates (2-years)	Actual Rate for 1 year	% Progress
Stream Restoration	63,174 Linear Feet	3,500	5.5%
Shoreline Erosion Control	5,190 Linear Feet	5,710	110.0%
SWM Retrofit/Conversions	669 Acres	15.2	2.3%
Street Sweeping	Current Rate	Below historic rate	35.9%
Storm Drain Cleaning	Current Rate	~ the same as historic rate	104.2%
Urban Nutrient Management	6,125 Acres	Waiting for expert panel results	
SSO Elimination	20% reduction from baseline	Need to develop tracking mechanism	
Upland Reforestation	85 Acres	Need Program Development	
Riparian Buffer Reforestation	57 Acres	Need to develop tracking mechanism	
Urban Tree Canopy Planting	1,400 trees	1,676	119.7%
Redevelopment	200 Acres	Need to develop tracking mechanism	
Watershed Association Projects	Current Rate	Exceeds historic rate	268.6%

Nitrogen Reduction Progress

Action	Proposed N Load Reduction	Actual N Load Reduction (EOS)	% Progress
Stream Restoration	7,165	700	9.8%
Shoreline Erosion Control	830	929	112.0%
SWM Retrofit/Conversions	1,268	70	5.5%
Street Sweeping	4,238	1,521	35.9%
Storm Drain Cleaning	734	765	104.2%
Urban Nutrient Management	4,565	Waiting for expert panel results	
SSO Elimination	230	Need to develop tracking mechanism	
Upland Reforestation	20 Acres	Need Program Development	
Riparian Buffer Reforestation	10 Acres	Need to develop tracking mechanism	
Urban Tree Canopy Planting	1,400 trees	116	196.9%
Redevelopment	200 Acres	Need to develop tracking mechanism	
Watershed Association Projects	Current Rate	Exceeded Rate	268.6%
Total	20,301	4,517	22.3%



Nitrogen Reductions -Delivered Load

Watershed	EOS N	% Delivery	Delivered N Load
Prettyboy	126.8	5.5%	7.0
Loch Raven	452.8	25.9%	117.3
Lower Gunpowder	224.7	88.8%	199.5
Bird River	133.0	83.2%	110.7
Gunpowder River	24.6	100%	24.6
Middle River	67.0	100%	67.0
Patapsco River	358.8	53.7%	192.7
Gwynns Falls	595.9	35.2%	209.8
Jones Falls	456.8	18.6%	85.0
Back River	1,447.2	91.1%	1,318.4
Baltimore Harbor	629.5	100%	629.5
Total	4,517.1		2,961.3

Phosphorus Reduction Progress

Action	Proposed P Load Reduction	Actual P Load Reduction (EOS)	% Progress
Stream Restoration	4,225	238	5.6%
Shoreline Erosion Control	571	445	112.0%
SWM Retrofit/Conversions	165	10	5.9%
Street Sweeping	1,620	609	37.6%
Storm Drain Cleaning	284	296	104.3%
Urban Nutrient Management	204	Waiting for expert panel results	
SSO Elimination	76	Need to develop tracking mechanism	
Upland Reforestation	3	Need Program Development	
Riparian Buffer Reforestation	4	Need to develop tracking mechanism	
Urban Tree Canopy Planting	2	4	195.0%
Redevelopment	106	Need to develop tracking mechanism	
Watershed Association Projects	15	20	133.7%
Total	7,272	1,622	22.3%

Phosphorus Reductions -Delivered Load

Watershed	EOS P	% Delivery	Delivered P Load
Prettyboy	5.53	8.1%	0.45
Loch Raven	109.26	36.0%	39.33
Lower Gunpowder	61.06	79.4%	48.48
Bird River	50.58	94.0%	47.55
Gunpowder River	8.92	100%	8.92
Middle River	25.45	100%	25.45
Patapsco River	132.92	21.7%	36.02
Gwynns Falls	220.41	66.7%	147.01
Jones Falls	152.07	22.5%	34.22
Back River	507.53	96.9%	491.80
Baltimore Harbor	347.41	100%	347.41
Total	1,621.14		1,226.64

Capital Projects in the Works to meet 2-Year Milestones – Stream Restoration

- Jennifer Branch SR – 6,100 lf under construction
- East Beaver Dam SR – 1,600 lf in design
- White Marsh Road SR – 5,200 lf in design
- West Branch North Fork White Marsh Run – 8,000 lf in design
- Proctor Lane Lower Gunpowder Falls tributary SR – 2,000 lf – in design (includes retrofit of three SWMs)
- Lower Minebank SR – 3,000 lf in design – construction spring 2013
- Scotts Level Branch @McDonogh Road SR – 1,125 lf + 2.37 acres forested wetland creation + 0.29 acres emergent wetland creation + 1.77 acres of floodplain enhancement
- Dead Run Westview Park – 4,500 lf in design
- Roland Run @ Greenspring – 3,500 lf in design includes a WQ retrofit.

Capital Projects in the Works to meet 2-Year Milestones – Stream Restoration

- Towson Run @ Cloisters SR – 3,000 If in design
- Herring Run @ Overlook Park SR – 9,000 If in design
- Bread and Cheese Creek SR – 1,523 If in design

Capital Projects in the Works to meet 2-Year Milestones - Stormwater Retrofits/Conversions

- Magnolia 2 outfalls 6.5 acres drainage – in design
- Upper Gwynns Falls SWM facility retrofits – 170 acres – ready for construction
- Back River 5 SWM conversions - 110 Acres – in design

July 2011 – June 2013

Programmatic 2 - year milestones

Programmatic Milestone	Status
Work with the State of Maryland to develop adequate mechanisms to fund the increased restoration pace and the staff needed to meet the urban stormwater reduction allocations by 2025.	Stormwater Utility Fee being developed
Develop tracking and reporting mechanisms for redevelopment and revitalization to assess load reductions	Initial exploration of mechanisms started
Develop tracking and report mechanisms for green field development to assess load increases	Superceded by the State - Accounting for Growth Offset Policy and Regulations currently in development

July 2011 – June 2013

Programmatic 2 - year milestones

Programmatic Milestone	Status
Work with MDE, Baltimore City, Anne Arundel County, and Howard County to define each jurisdiction's share of the remaining capacity of the WWTPs	Not initiated yet. Not sure if it is necessary to develop a Trading – In – Time Program
Continue working with the Chesapeake Bay Program – Urban Stormwater Workgroup expert panel to determine new stream restoration pollutant load reduction credits	Expert Panel Report of Stream Restoration in final review. Baltimore County also worked on the Approved Retrofit Accounting and is working on the Illicit Connection, Shoreline Erosion Control, and Urban Riparian Buffer Panels for pollution reduction credits
Develop a reforestation program funded through capital funds	Not initiated yet, will wait until Stormwater Utility Fee is developed

July 2011 – June 2013

Programmatic 2 - year milestones

Programmatic Milestone	Status
<p>Coordinate between the Departments of Public Works and Environmental Protection and Sustainability to target street sweeping and storm drain cleaning in neighborhoods identified through the Neighborhood Source Assessment in the Small Watershed Action Plans</p>	<p>Not initiated yet</p>
<p>Continue to work with the Farm Trust to determine if there are pollutant load reduction credits associated with Preservation Programs</p>	<p>Continuing, although there has been no recent activity.</p>
<p>Continue to explore the possibility of pollutant load reduction credits as a result of Baltimore County's land use planning through the implementation of the 2020 Master Plan</p>	<p>Baltimore County is a member of the Chesapeake Bay Program – Land Use Work group that will explore these issues..</p>

July 2011 – June 2013

Programmatic 2 - year milestones

Programmatic Milestone	Status
Continue to work with the State and the Chesapeake Bay Program to find solutions to the Watershed Model technical and data deficiencies identified in Chapter 6 below	Baltimore County is a member of the Urban Stormwater and Land Use Workgroups that are working on these issues.

2-Year Milestone Progress OSDS



On-site Disposal Systems Progress

Restoration Action	Number Proposed	Number Completed	Nitrogen Reduced
Install denitrifying systems	20	16	90.64
Sanitary Sewer Hook-up	14	2	Need to determine calcs
Septic Pumpouts	7,800	Need to Develop Tracking Program	

July 2011 – June 2013

Programmatic 2 - year milestones

Programmatic Milestone	Status
Investigate households within the CBCA that are indicated as being on OSDS to determine the correctness of the designation	On-going with coordination between EPS – Groundwater Section and staff from the Metropolitan District
Investigate households within the URDL that are indicated as being on OSDS to determine the correctness of the designation	On-going with coordination between EPS – Groundwater Section and staff from the Metropolitan District
Investigate the legal mechanisms for requiring households on OSDS within the URDL to connect to the sanitary sewer system	Complete

July 2011 – June 2013

Programmatic 2 - year milestones

Programmatic Milestone	Status
Develop outreach and education programs on the value of OSDS pump-outs with the intention of increasing the pump-out rate from 21.5% to 33.3% or once every three years on average	Complete
Investigate solutions for OSDS problem areas identified in the report entitled <i>Problem Areas for OSDS in Baltimore County</i> (DEPRM 1998)	Not Initiated yet
Improve tracking of OSDS connections to the sanitary sewer and OSDS pump-outs	Various means of tracking are being explored
Conduct detailed parcel analysis between data used in MDE Report and Baltimore County data	Complete

Contact Information

Steve Stewart

sstewart@baltimorecountymd.gov