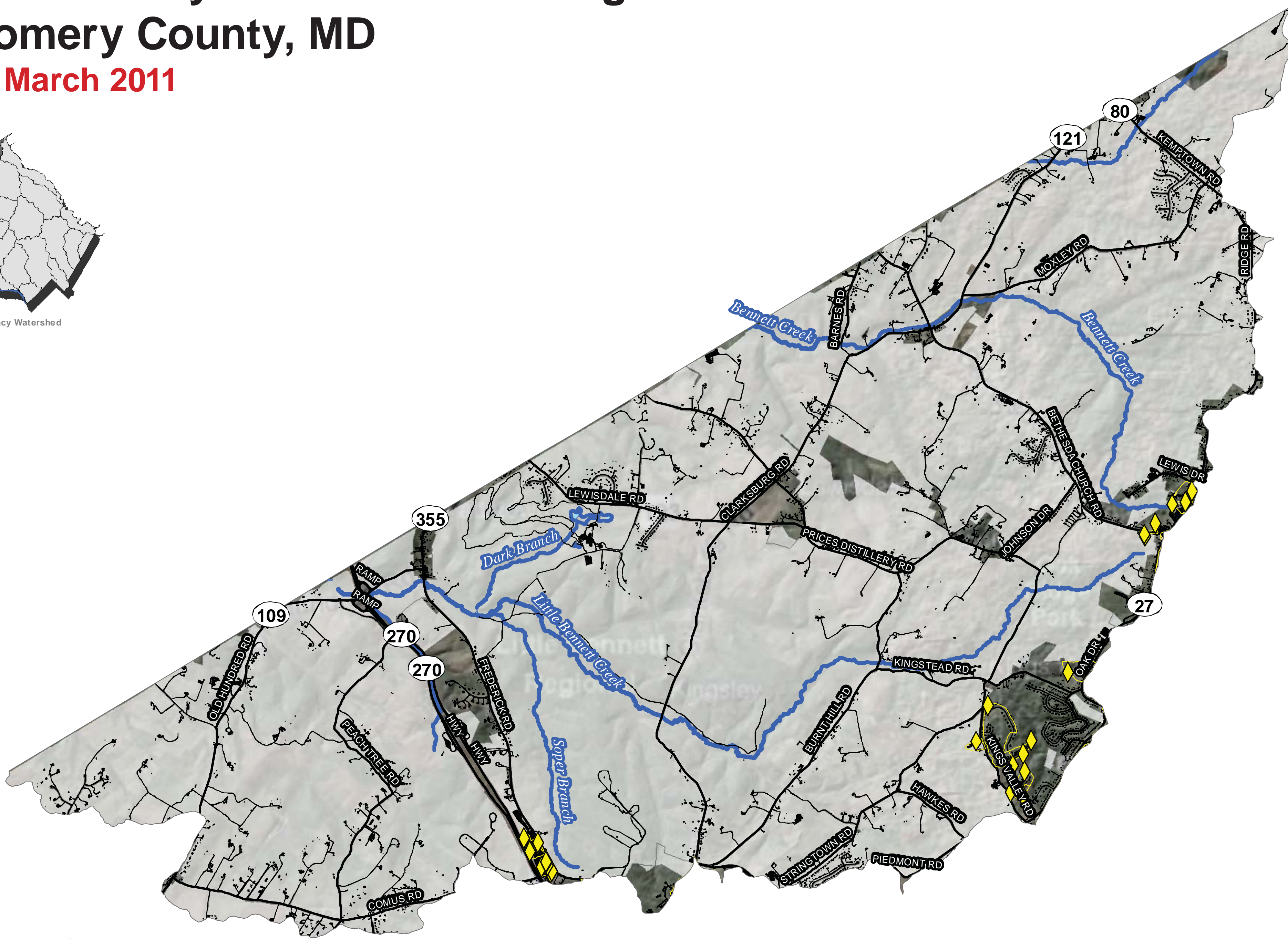
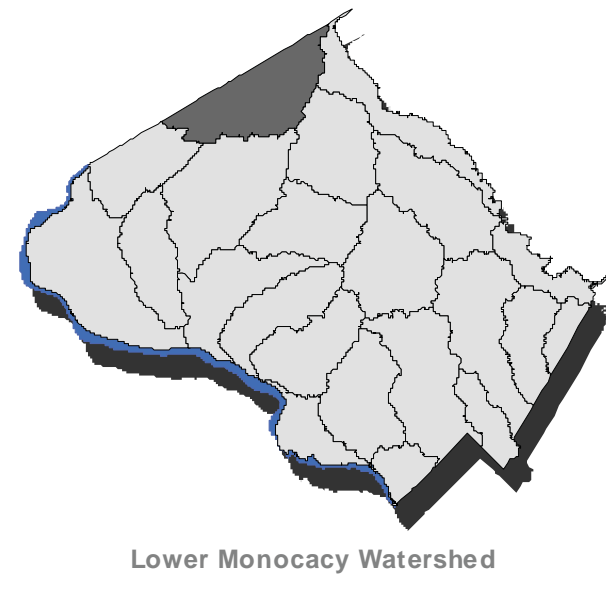


LOWER MONOCACY WATERSHED MONTGOMERY COUNTY, MD



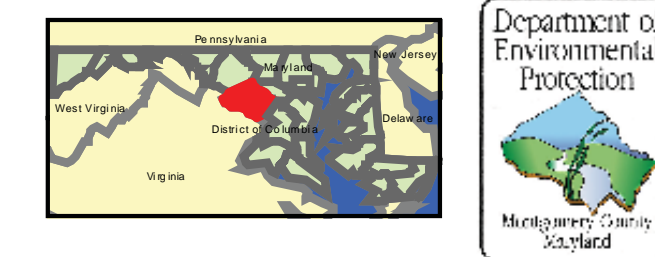
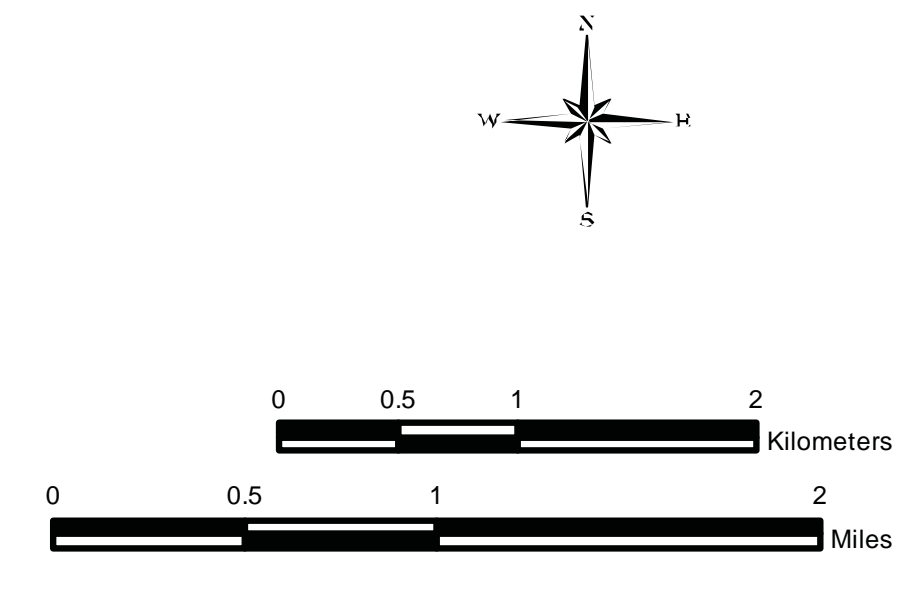
Lower Monocacy Watershed Existing Conditions Montgomery County, MD

DRAFT - March 2011



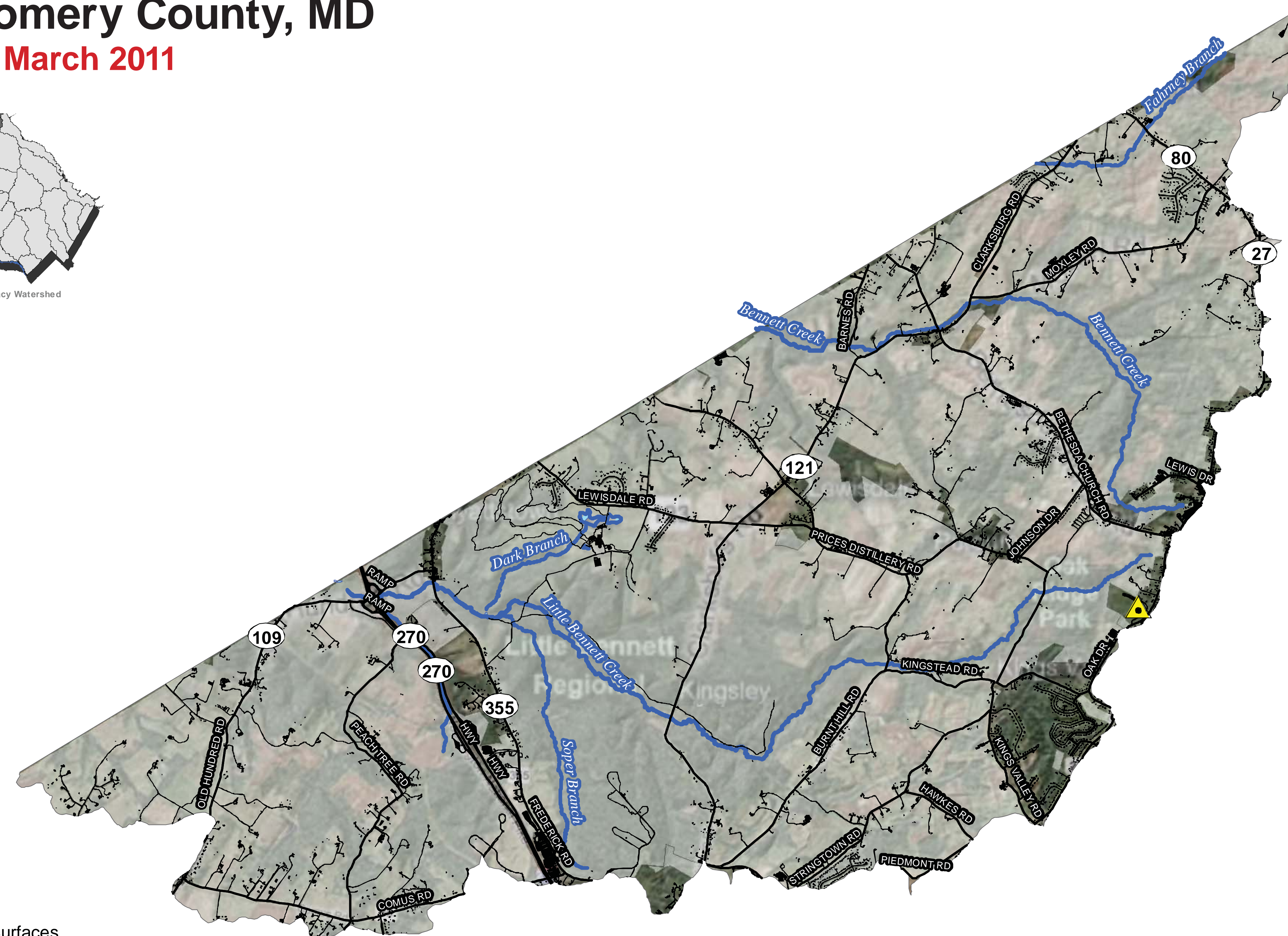
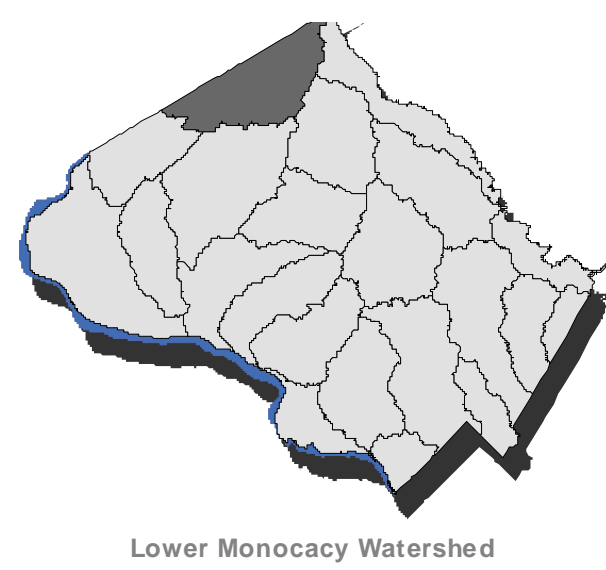
Legend

- Best Management Practices
- Drainage Areas to Best Management Practices
- Impervious Surfaces
- Streams
- Major Water Features
- Special Protection Areas (SPAs)
- Municipalities
- Non-MS4 Permit Area
- MS4 Permit Area



Lower Monocacy Watershed High and Low Priority Projects Montgomery County, MD

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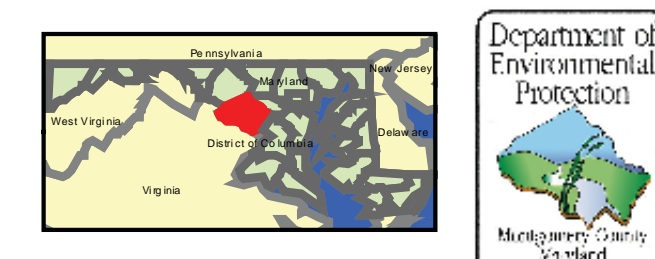
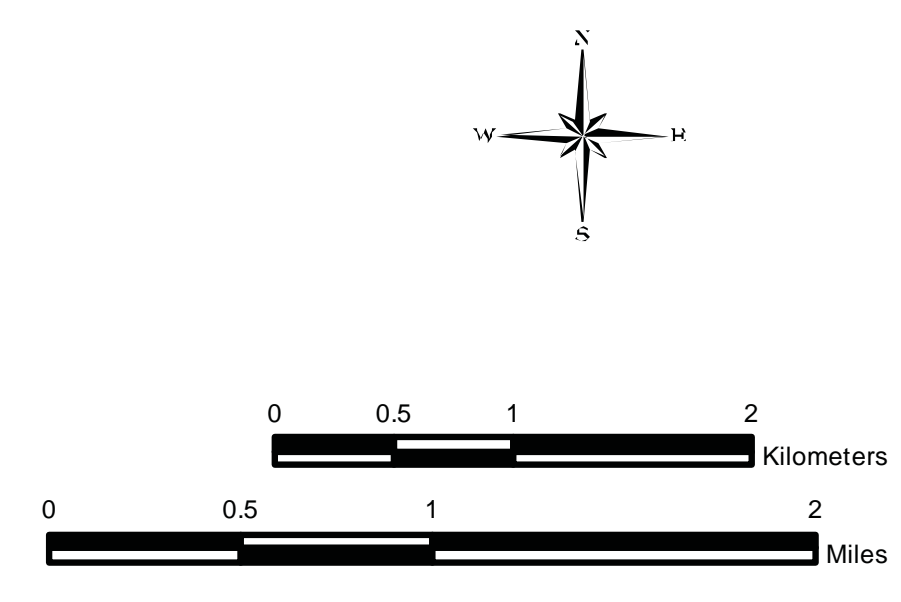


Legend

- Impervious Surfaces
- Streams
- Major Water Features
- Special Protection Areas (SPAs)
- Municipalities
- Non-MS4 Permit Area
- MS4 Permit Area

Restoration Opportunities Project Priority

- ESD, Low Priority



Implementation Strategy Summary

Lower Monocacy Creek is the most rural watershed in the County and has the least amount of area subject to the County MS4 permit. In addition, there are no pre-identified restoration projects within the watershed. Therefore, during the first permit cycle (through 2015), only a very small amount (10% of total identified) of private property ESD is pursued. It is not until the second permit cycle that more focus is placed on private and public ESD as well as stream restoration and programmatic strategies, such as street sweeping, to target sediment loads associated with the TMDL.

In future permit cycles, stream restoration is pursued for pollutant load reduction. The sediment WLA within the MS4 permit area is projected to be met around 2025.

Key Acronyms

ESD – Environmental Site Design
MS4 – Municipal Separate Storm Sewer System
TMDL – Total Maximum Daily Load
USACE – U.S. Army Corps of Engineers
WLA – Waste Load Allocation

Summary of Implementation Plan Schedule for the 2015 Fiscal Period
with expected level of ESD and pollutant load reductions

Strategies	% Completed in Permit Cycle	IC Treated (acres)	ESD (% IC)	Cost (Million \$)	ESD (% Cost)	% Reduction from Baseline				
						TN	TP	TSS	Bacteria	Trash
Completed and High Priority Projects	0.0%	-	0%	\$0	0%	-	-	-	-	-
Low Priority Projects	0.0%	-	0%	\$0	0%	-	-	-	-	-
Other Potential Projects	0.0%	-	0%	\$0	0%	-	-	-	-	-
Public ESD Retrofits	0.0%	-	100%	\$0	100%	0.0%	0.0%	0.0%	0.0%	0.0%
Private ESD Retrofits	10.0%	1	100%	\$0	100%	0.4%	0.4%	0.4%	0.4%	0.0%
Riparian Reforestation	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
Stream Restoration	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
Programmatic Practices	0.0%	-	0%	\$0.0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
Subtotal	2.3%	1	100.0%	\$0.29	100.0%	0.4%	0.4%	0.4%	0.4%	0.0%

Pollutants with TMDLs

IC: Impervious Cover
ESD: Environmental Site Design
TN: Total Nitrogen
TP: Total Phosphorus
TSS: Total suspended solids

Summary of Implementation Plan schedule with expected MS4 permit area WLA compliance endpoints

	2015	2017	2020	2025	2030	Permit/ TMDL Targets
Impervious Area Treated (acres)	1	16	32	58	58	
% of Impervious Area Treated by ESD	100%	85%	84%	91%	91%	
Impervious Area Treatment Cost (Million \$)	0	4	11	18	20	
% of Cost for ESD	100%	85%	54%	63%	58%	
Nitrogen (% Reduction)	0%	5%	14%	22%	24%	
Phosphorus (% Reduction)	0%	5%	16%	26%	28%	
Sediment (% Reduction)	0%	5%	46%	61%	69%	60.8%
Bacteria (% Reduction)	0%	6%	12%	19%	19%	
Trash (% Reduction)	0%	0%	0%	0%	0%	

TMDL Target NOT Met

TMDL Target Met

Assumptions:

- Does not include repeated Outreach and Education costs beyond FY2015
- Does not include an inflation multiplier