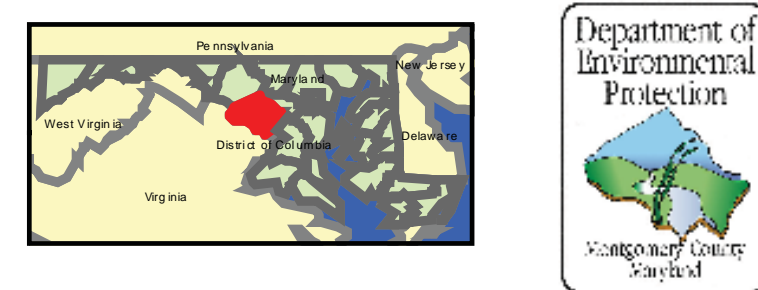
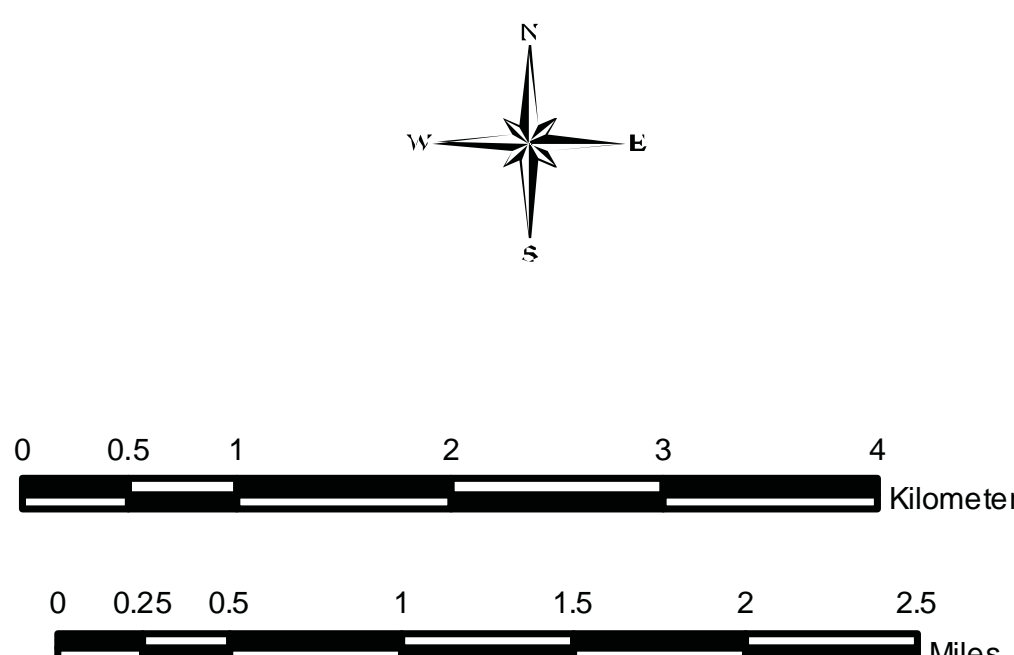
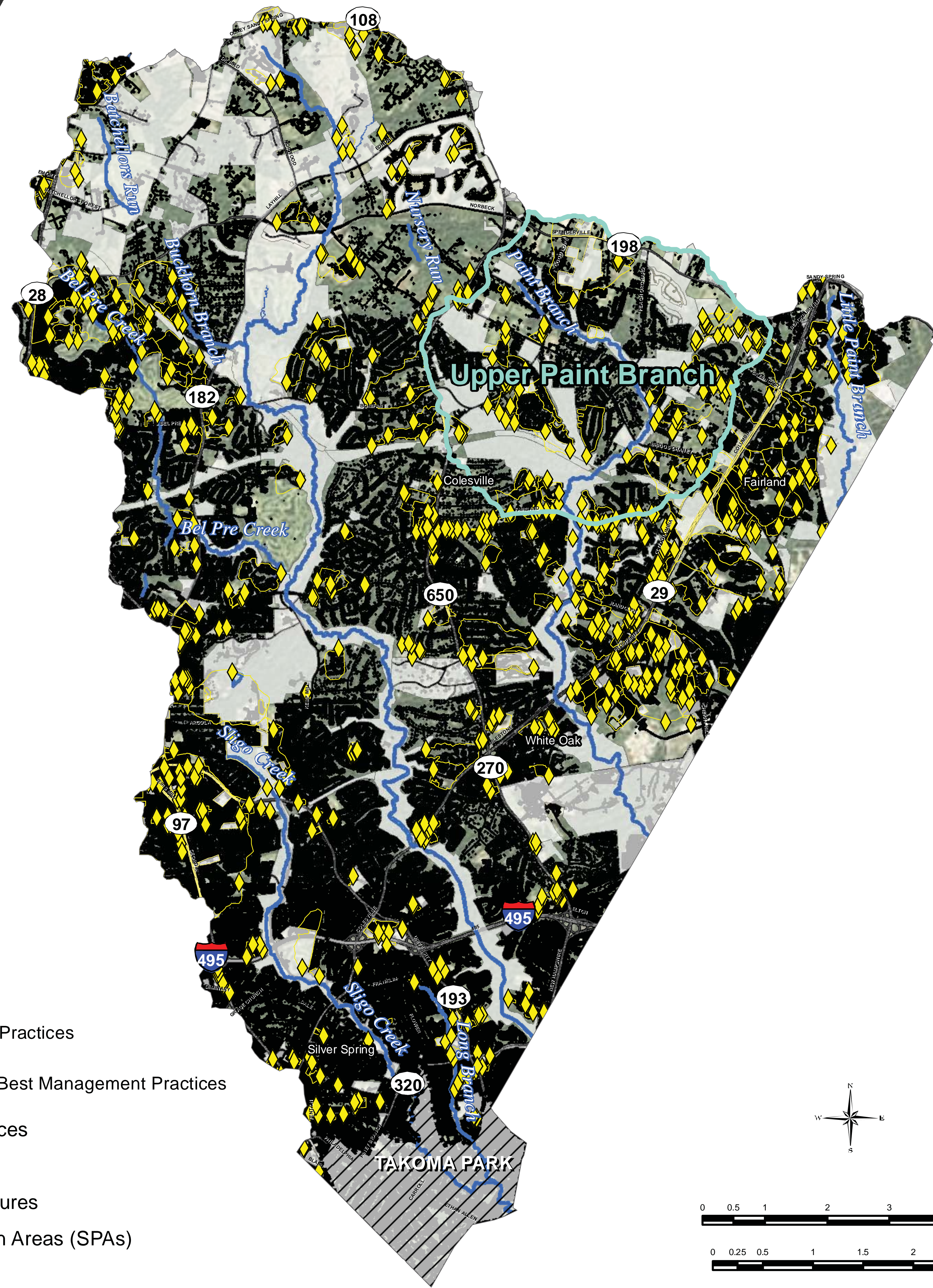
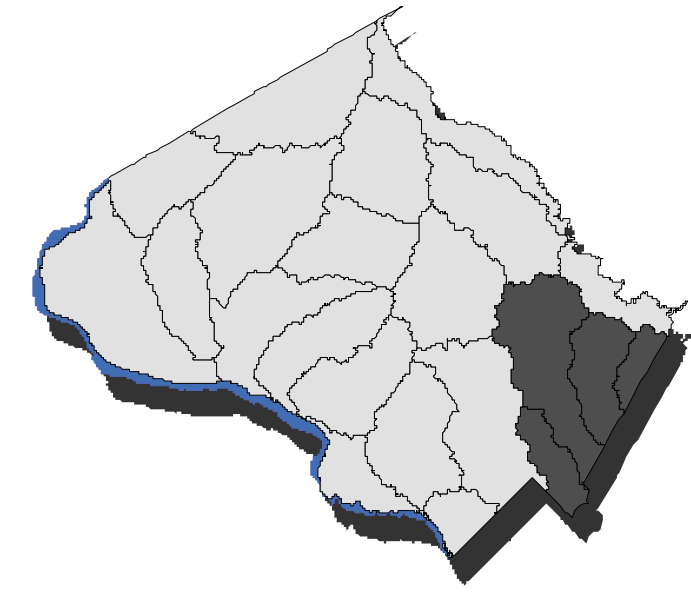


Anacostia Watershed Existing Conditions

Montgomery County, MD

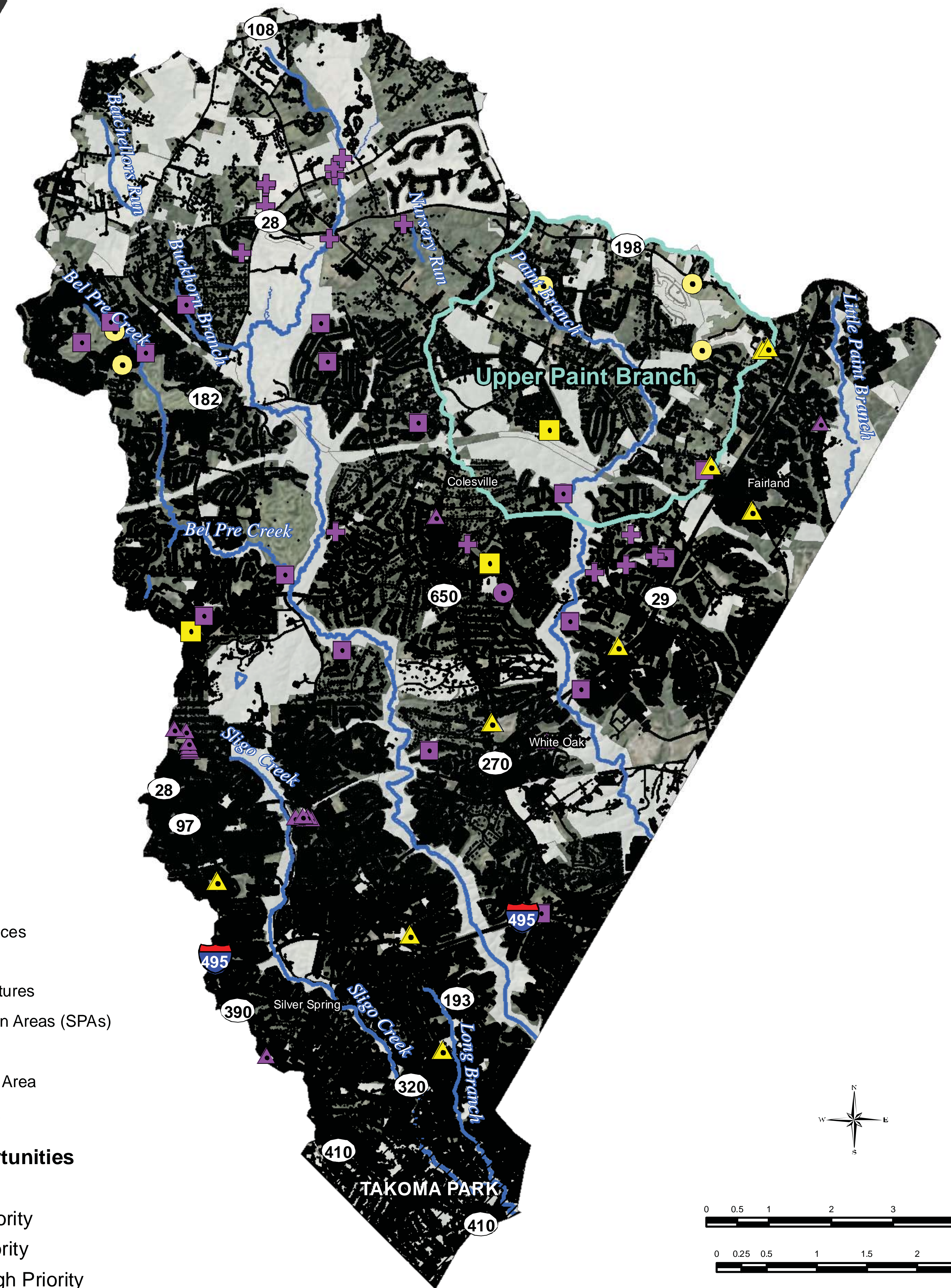
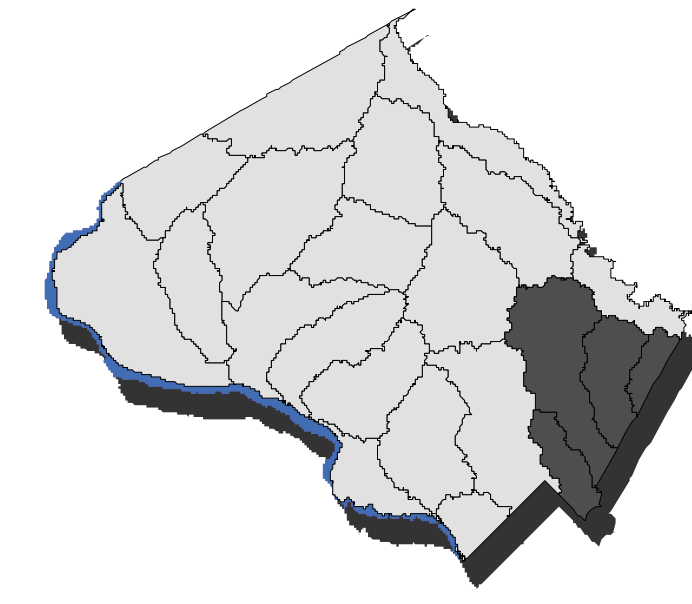
DRAFT - March 2011







Anacostia Watershed High and Low Priority Projects

Montgomery County, MD

DRAFT - March 2011



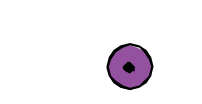


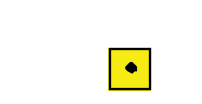



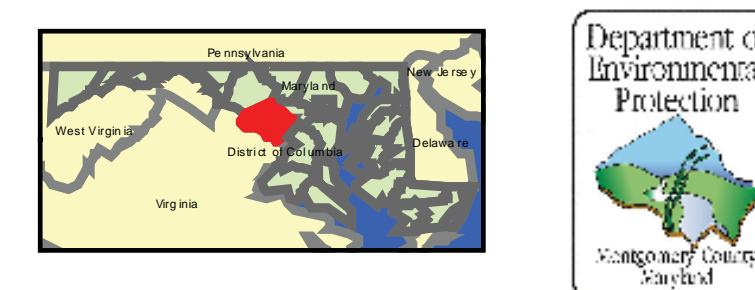
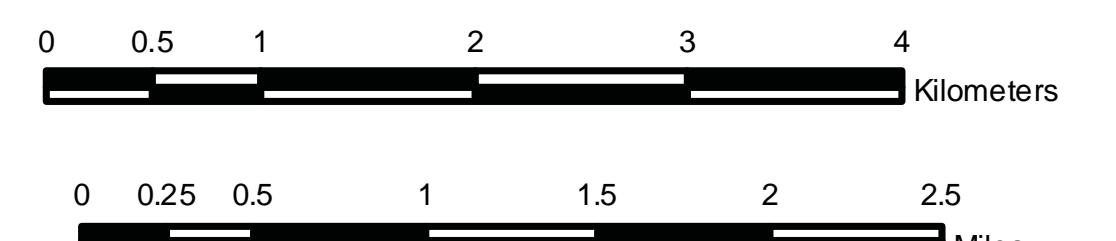
Legend

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

Restoration Opportunities

Project Priority

-  ESD, High Priority
-  ESD, Low Priority
-  New Pond, High Priority
-  New Pond, Low Priority
-  Retrofit, High Priority
-  Retrofit, Low Priority
-  Stream Restoration, High Priority



Implementation Strategy Summary

For the first permit cycle (through 2015), a priority was placed on full implementation of completed, high, and low priority projects. Next, implementation of a third of the other potential projects, including ESD on public property, was targeted as a large number of these were identified in conjunction with the USACE's Anacostia Watershed Restoration Plan efforts. Also included was implementation of 10% of the total identified ESD projects on private property and additional public property. Stream restoration (12% of total identified) and outreach (25% of the total identified for outreach as a programmatic approach) were targeted for pollutant load reduction but not credited towards impervious cover credit.

In future permit cycles, the remainder of the other potential projects are targeted along with the remaining ESD projects on private and public property, and a limited amount of riparian reforestation for impervious cover and pollutant load reduction. Outreach and stream restoration are significant strategies pursued for load reduction benefits. Nutrient and sediment MS4 permit area WLAs are met by 2030, but bacteria load reduction does not meet MS4 permit area WLA compliance. The remaining bacteria reduction is believed to be associated with urban wildlife sources. Unless intense urban wildlife management practices are implemented, this remaining load reduction will not be possible.

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
<i>Completed and High Priority Projects</i>	100.0%	315	9%	\$16	30%	5.8%	5.9%	1.9%	6.2%	5.5%
<i>Low Priority Projects</i>	100.0%	194	8%	\$5	61%	2.0%	2.1%	0.7%	2.2%	2.7%
<i>Other Potential Projects</i>	33.0%	732	20%	\$82	24%	7.7%	8.0%	2.6%	8.4%	10.0%
<i>Public ESD Retrofits</i>	10.0%	96	100%	\$24	100%	1.1%	1.1%	0.4%	1.2%	1.4%
<i>Private ESD Retrofits</i>	10.0%	86	100%	\$21	100%	1.0%	1.0%	0.3%	1.0%	1.3%
<i>Riparian Reforestation</i>	0.0%	-	0%	\$0	0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Stream Restoration</i>	11.7%	-	0%	\$11	0%	5.0%	6.6%	38.1%	0.0%	0.0%
<i>Programmatic Practices</i>	25.0%	-	0%	\$0.9	0%	2.2%	2.1%	2.6%	2.0%	20.4%
Subtotal	31.3%	1,421	26.3%	\$160	45.4%	24.8%	26.8%	46.6%	21.0%	41.3%

 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)	1,421	2,393	3,364	4,272	4,544	
% of Impervious Area Treated by ESD	26%	44%	61%	69%	71%	
Impervious Area Treatment Cost (Million \$)	160	307	486	732	820	
% of Cost for ESD	45%	62%	71%	78%	78%	
Nitrogen (% Reduction)	25%	39%	68%	89%	100%	81.8%
Phosphorus (% Reduction)	27%	42%	77%	100%	100%	81.2%
Sediment (% Reduction)	47%	72%	100%	100%	100%	87.5%
Bacteria (% Reduction)	21%	33%	46%	59%	64%	87.9%
Trash (% Reduction)	41%	65%	89%	100%	100%	

 TMDL Target NOT Met

 TMDL Target Met

Assumptions:

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