

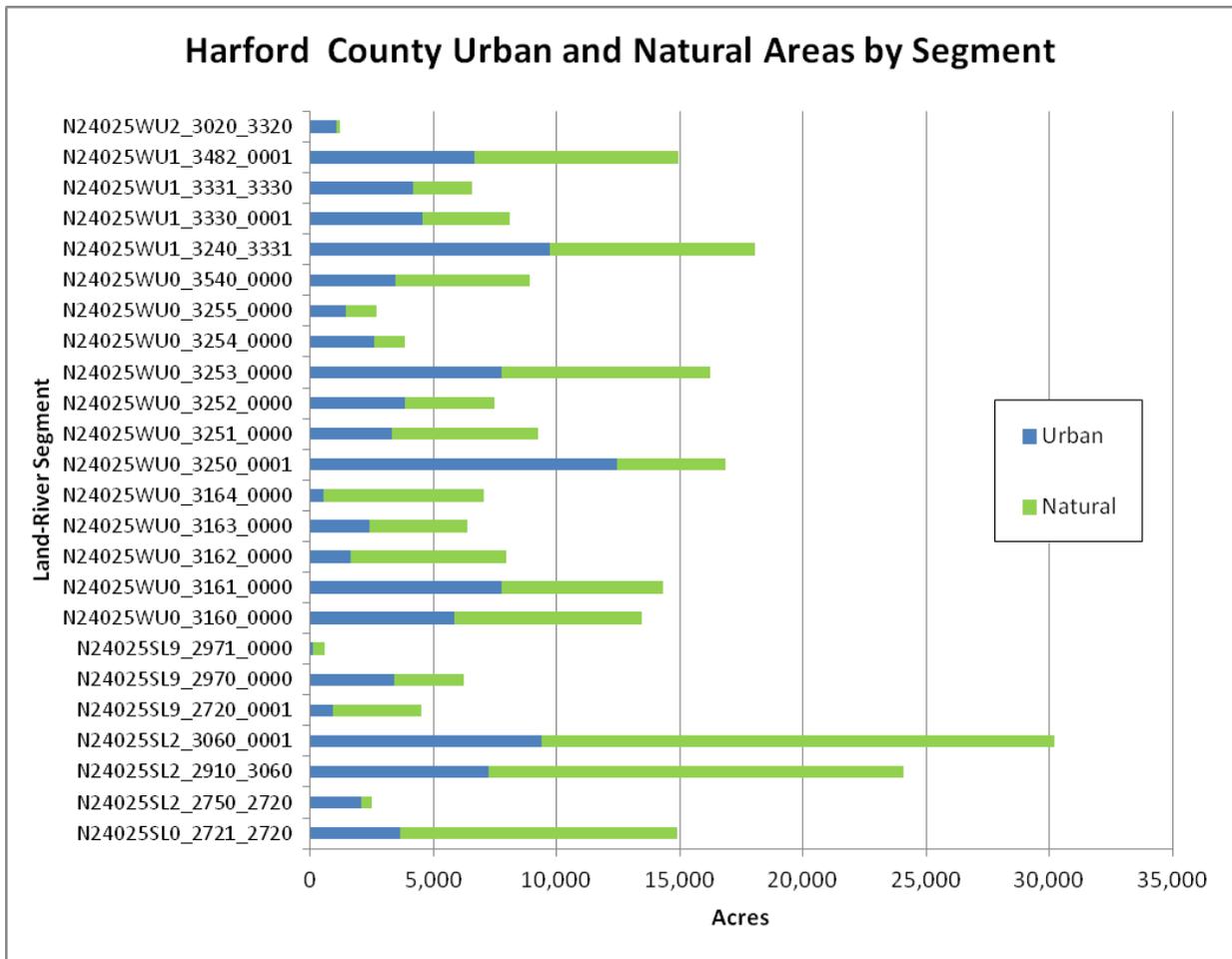
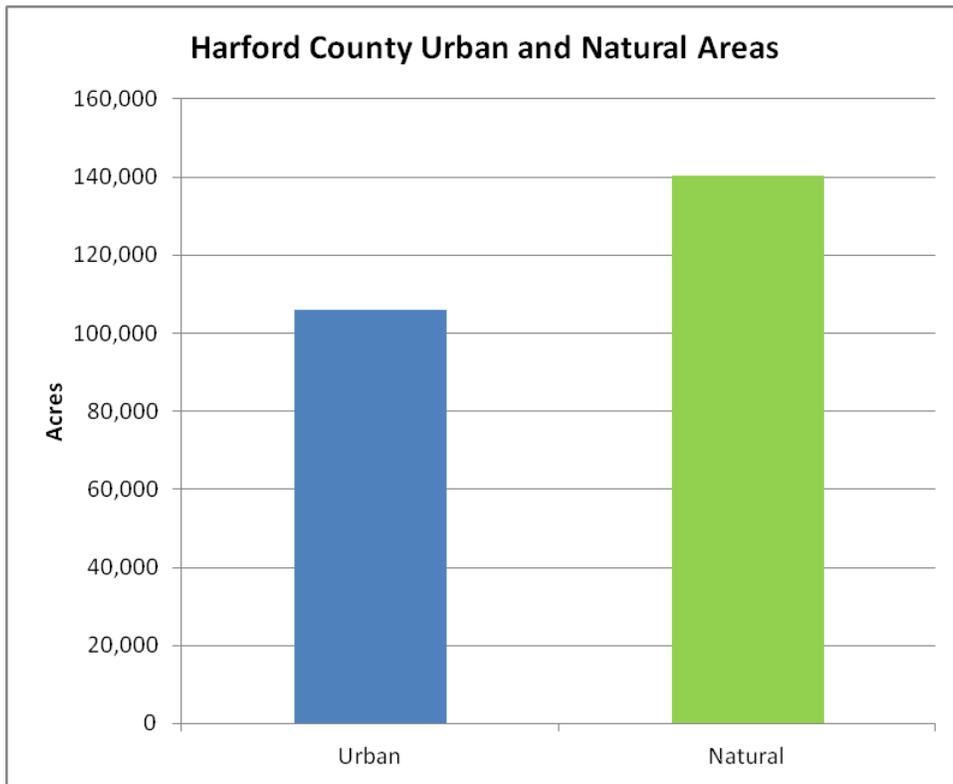
# MD Estimates for the Chesapeake Bay Phase 6 Watershed Model

## Land-Use, Version 1: Harford County Summary

**Note:** The estimates presented in this summary were provided by Maryland for 2012 conditions to the Chesapeake Bay Program for input into the Phase 6 watershed model land-use. Estimates were provided for urban and natural land-uses only. Per Chesapeake Bay Program decision rules, agricultural land-use acres in the watershed model are based on the United States Department of Agriculture (USDA) census data. Therefore, there was no reason for Maryland to provide estimates for agricultural lands to the Chesapeake Bay Program.

### Harford County Urban and Natural Areas by Segment

Land-River Segment	Urban (Acres)	Natural (Acres)
N24025SL0_2721_2720	3,654.3	11,264.5
N24025SL2_2750_2720	2,067.9	441.1
N24025SL2_2910_3060	7,231.5	16,844.5
N24025SL2_3060_0001	9,403.8	20,799.9
N24025SL9_2720_0001	937.0	3,593.9
N24025SL9_2970_0000	3,388.3	2,840.3
N24025SL9_2971_0000	106.5	468.1
N24025WU0_3160_0000	5,855.5	7,593.8
N24025WU0_3161_0000	7,751.9	6,588.5
N24025WU0_3162_0000	1,646.8	6,306.5
N24025WU0_3163_0000	2,385.2	3,976.8
N24025WU0_3164_0000	548.5	6,477.1
N24025WU0_3250_0001	12,470.7	4,389.8
N24025WU0_3251_0000	3,296.0	5,929.6
N24025WU0_3252_0000	3,840.7	3,623.1
N24025WU0_3253_0000	7,784.1	8,469.7
N24025WU0_3254_0000	2,603.5	1,250.2
N24025WU0_3255_0000	1,466.0	1,216.7
N24025WU0_3540_0000	3,465.0	5,465.3
N24025WU1_3240_3331	9,706.9	8,364.2
N24025WU1_3330_0001	4,541.0	3,582.8
N24025WU1_3331_3330	4,189.9	2,401.6
N24025WU1_3482_0001	6,665.2	8,291.5
N24025WU2_3020_3320	1,043.1	145.0
	<b>106,049.4</b>	<b>140,324.3</b>



### Harford County Urban Area by Segment

Land-River Segment	Canopy Over Impervious (Acres)	Impervious - No Canopy (Acres)	Canopy Over Turf (Acres)	Turf - No Canopy (Acres)
N24025SL0_2721_2720	226	658	615	2,673
N24025SL2_2750_2720	12	80	44	298
N24025SL2_2910_3060	310	862	839	3,659
N24025SL2_3060_0001	430	1,639	1,672	7,236
N24025SL9_2720_0001	66	210	187	474
N24025SL9_2970_0000	94	705	465	2,039
N24025SL9_2971_0000	7	13	11	3
N24025WU0_3160_0000	194	839	896	3,788
N24025WU0_3161_0000	194	1,456	950	6,003
N24025WU0_3162_0000	113	254	522	1,105
N24025WU0_3163_0000	68	-52	316	0
N24025WU0_3164_0000	112	-66	519	0
N24025WU0_3250_0001	320	2,414	1,886	9,551
N24025WU0_3251_0000	163	332	789	857
N24025WU0_3252_0000	71	285	326	1,449
N24025WU0_3253_0000	172	1,894	814	5,453
N24025WU0_3254_0000	36	416	192	1,100
N24025WU0_3255_0000	16	15	77	0
N24025WU0_3540_0000	153	850	753	2,697
N24025WU1_3240_3331	262	1,464	1,806	7,855
N24025WU1_3330_0001	126	1,391	724	3,461
N24025WU1_3331_3330	143	1,168	720	3,439
N24025WU1_3482_0001	254	1,136	1,319	4,894
N24025WU2_3020_3320	2	27	11	29
	<b>3,545</b>	<b>17,990</b>	<b>16,452</b>	<b>68,062</b>

#### **Method Summary**

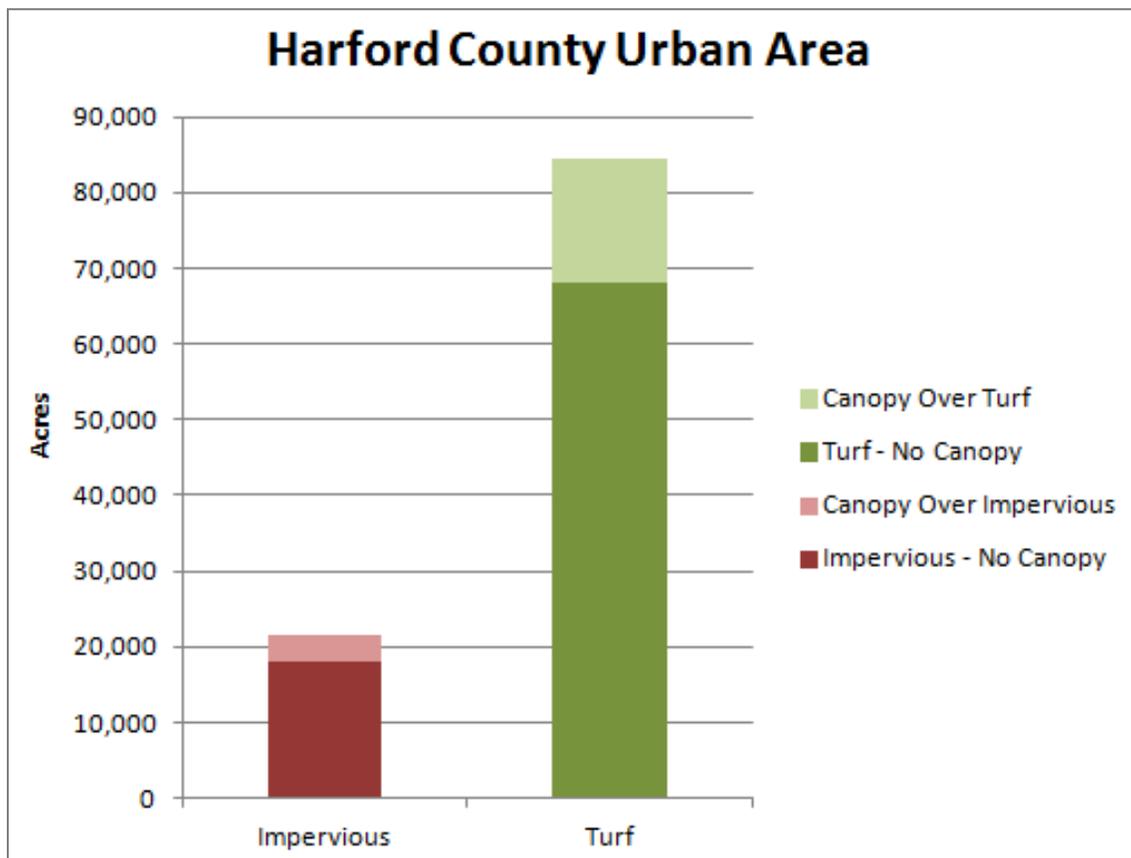
**Turf:** Calculated by applying the ratio of Chesapeake Bay Phase 5.3.2 Watershed Model urban pervious acres to impervious acres to the Phase 6 2012 impervious acres. MD acknowledges the inaccuracy of these turf acres. Turf estimates should be significantly improved upon in the final model Land Use, scheduled for completion in September 2016, and will utilize MD's sampling and statistical modeling approach.

**Impervious:** Calculated using 2011 complete planimetric data provided by the County. Projected to 2012 conditions using 1) MDP data for residential and non-residential parcels developed between the data imagery year and 2012, and 2) NAVTEQ roads data. The planimetric data did not include a separate designation for roads, so NAVTEQ roads data were used to calculate the road impervious portion. County data lacked complete coverage for

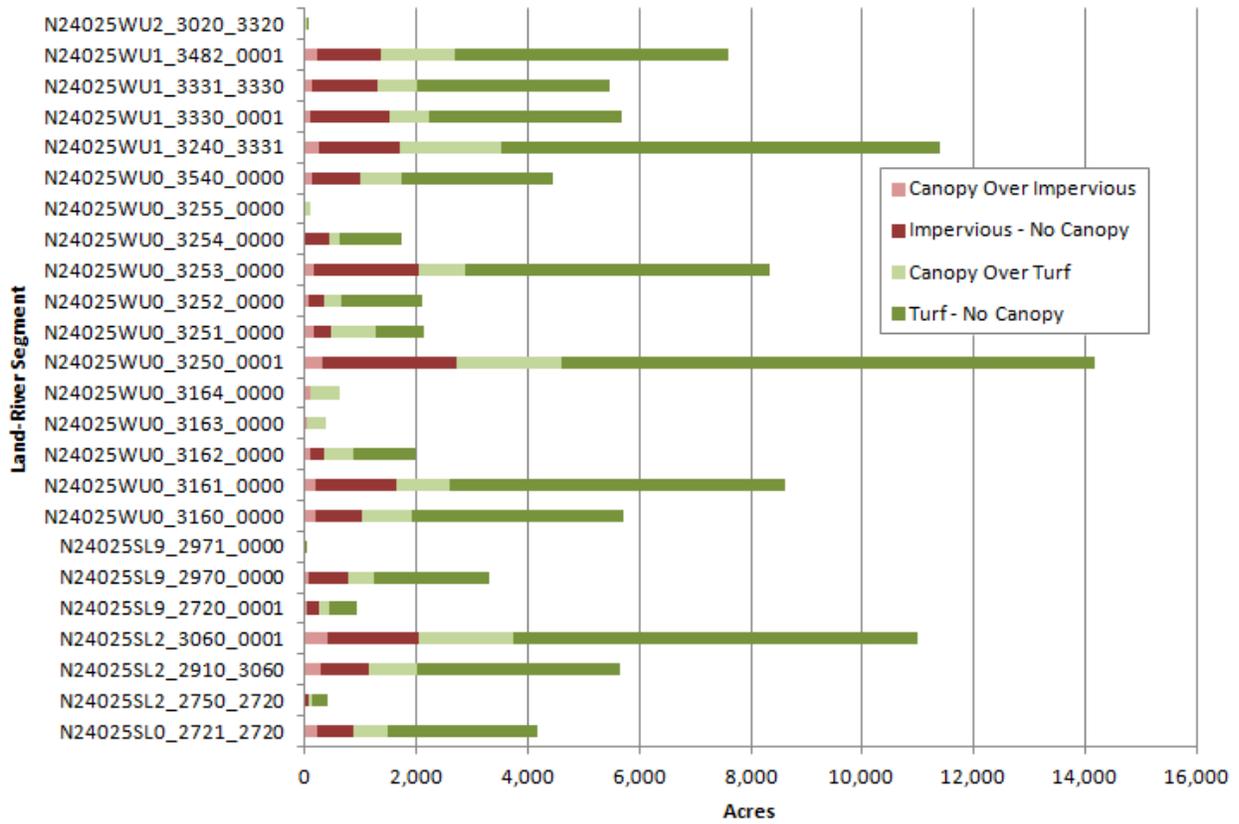
Aberdeen Proving Grounds. Federal impervious data and NAVTEQ roads data were used to determine total impervious and road impervious acreage, respectively. Lastly, estimates were adjusted down to account for tree canopy over impervious surface.

**Canopy Over Turf:** All mapped tree canopy (University of Maryland’s 1 m resolution tree canopy cover data) that is not delineated as forest (> 1 acre of contiguous canopy cover and > 120 ft. wide) or associated with wetlands and is located within MD's urban mask. The urban mask contains Phase 5.3.2 model urban and suburban zones, all parcels that have a >\$10,000 improvement value and are not Agriculture or large-lot Residential development, and all road right-of-ways.

**Canopy Over Impervious:** Calculated as the intersection of the impervious surface data provided by the county and the University of Maryland’s 1 m resolution tree canopy cover data.



## Harford County Urban Area by Segment



## Harford County Natural Area by Segment

Land-River Segment	Forest (Acres)	Canopy over Open Space (Acres)	Wetland (Acres)
N24025SL0_2721_2720	9,862.7	1,124.6	277.2
N24025SL2_2750_2720	405.9	20.0	15.2
N24025SL2_2910_3060	14,794.5	1,703.8	346.2
N24025SL2_3060_0001	18,212.1	2,280.5	307.3
N24025SL9_2720_0001	3,280.7	272.6	40.6
N24025SL9_2970_0000	2,604.2	188.7	47.4
N24025SL9_2971_0000	390.0	25.8	52.4
N24025WU0_3160_0000	5,620.9	542.0	1,430.9
N24025WU0_3161_0000	5,793.9	384.9	409.7
N24025WU0_3162_0000	3,632.8	351.4	2,322.3
N24025WU0_3163_0000	2,199.1	212.7	1,564.9
N24025WU0_3164_0000	3,611.4	349.3	2,516.3
N24025WU0_3250_0001	4,025.4	197.9	166.5
N24025WU0_3251_0000	4,742.5	428.1	759.0
N24025WU0_3252_0000	2,313.9	206.1	1,103.1
N24025WU0_3253_0000	7,375.0	475.7	619.0
N24025WU0_3254_0000	1,172.7	18.1	59.4
N24025WU0_3255_0000	532.4	51.5	632.8
N24025WU0_3540_0000	4,035.7	295.4	1,134.2
N24025WU1_3240_3331	7,387.1	797.3	179.8
N24025WU1_3330_0001	2,896.0	176.9	509.9
N24025WU1_3331_3330	2,199.1	156.3	46.1
N24025WU1_3482_0001	7,296.5	767.3	227.7
N24025WU2_3020_3320	94.1	45.8	5.1
<b>114,478.5</b>	<b>11,072.7</b>	<b>14,773.1</b>	

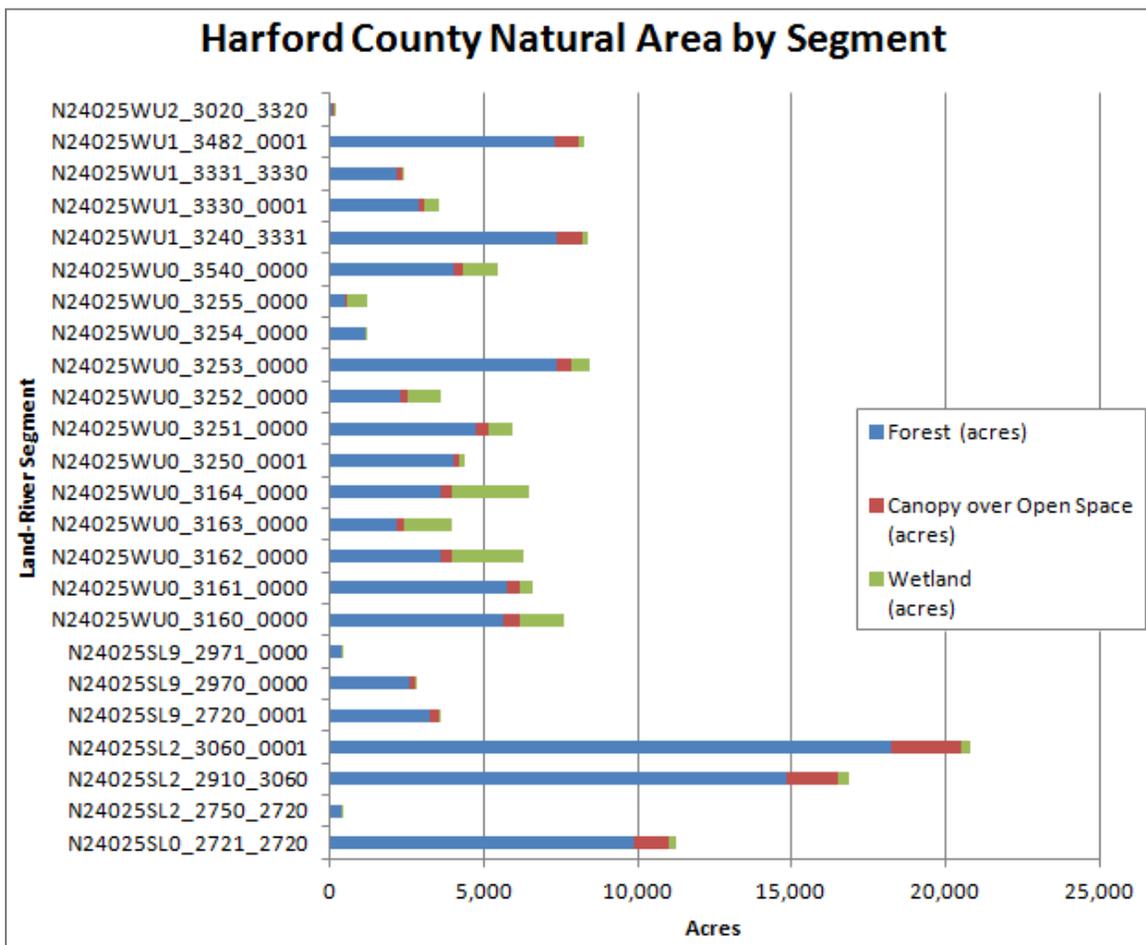
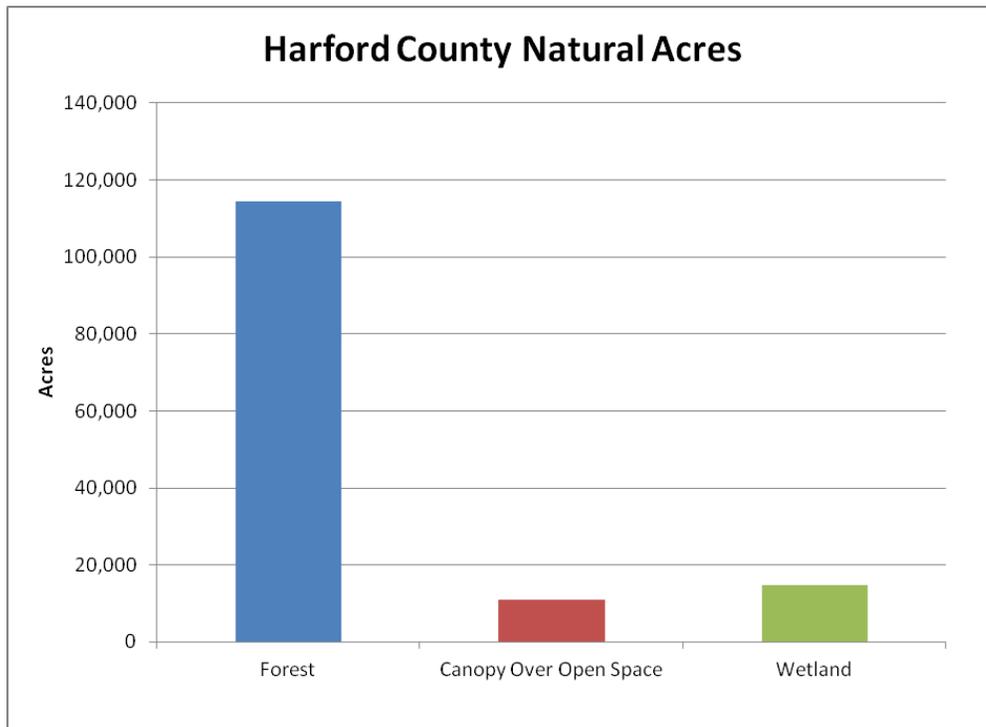
### **Method Summary**

**Forest:** Contiguous tree canopy cover (University of Maryland’s 1 m resolution tree canopy cover data) that is greater than 1 acre in size and greater than 120 ft in width. This area excludes any canopy cover associated with wetlands.

**Canopy over Open Space:** All tree canopy cover that is not forest, is not associated with wetlands, and falls outside MD's urban mask. The urban mask contains Phase 5.3.2 model urban and suburban zones, all parcels that have a >\$10,000 improvement value and are not Agriculture or large-lot Residential development, and all road right-of-ways.

**Wetlands:** Estimated using NWI and DNR wetland delineations, with open water areas removed. The acres presented here include tidal wetlands, but it should be noted that the

Chesapeake Bay Program Partnership recently decided to move tidal wetlands from the watershed model to the estuarine water quality model.



# Harford County Land-River Segments

