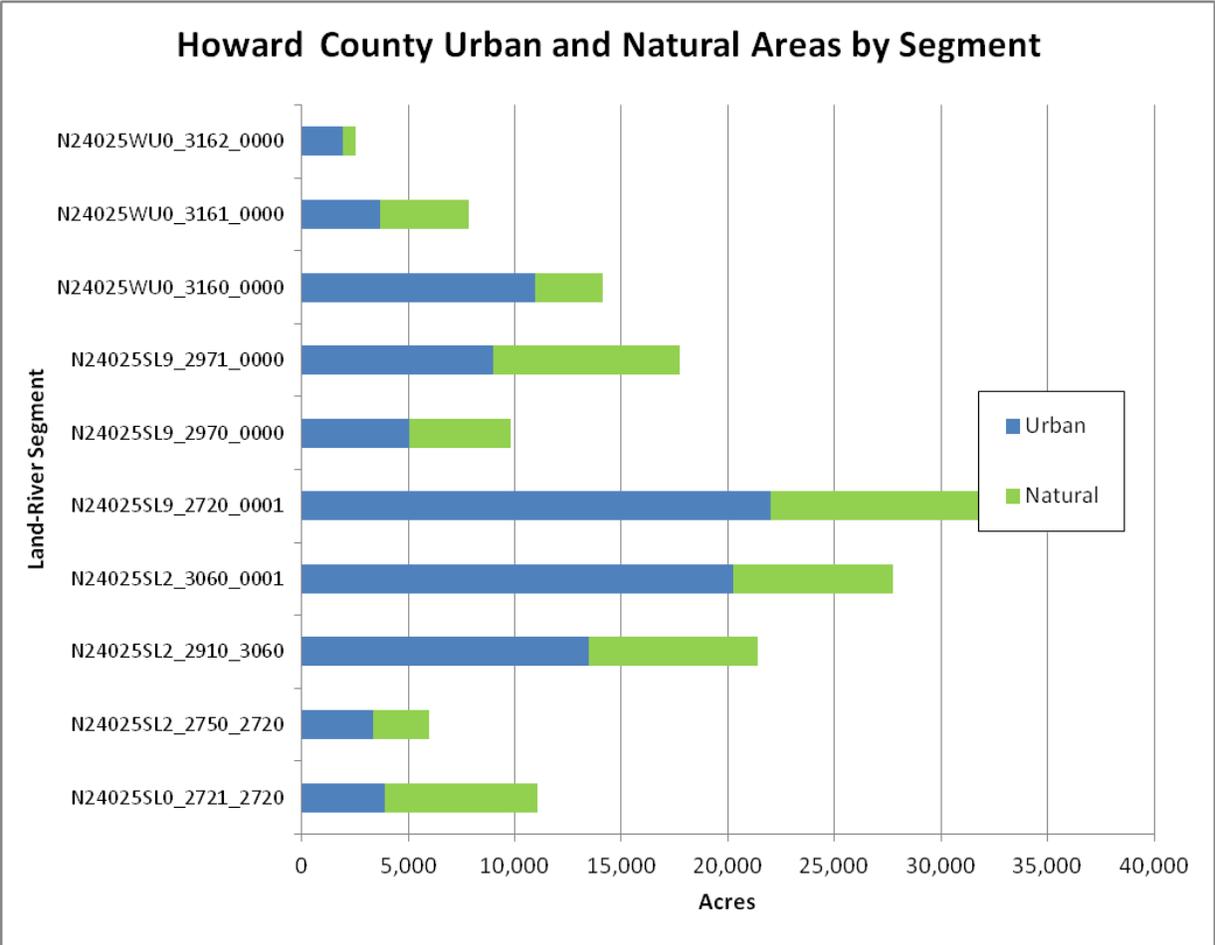
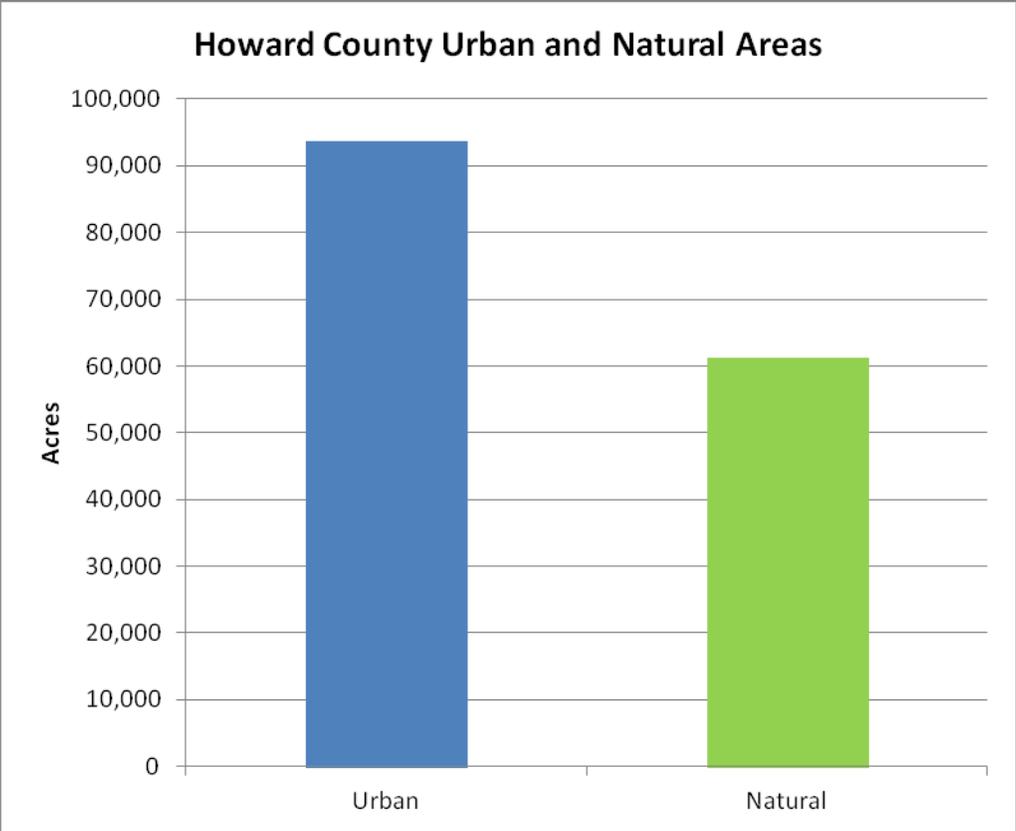


## MD Estimates for the Chesapeake Bay Phase 6 Watershed Model Land-Use, Version 1: Howard County Summary

**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.

### Howard County Urban and Natural Areas by Segment

Land-River Segment	Urban (Acres)	Natural (Acres)
N24027WM1_3882_3880	3,904.3	7,182.6
N24027WM3_3880_4060	3,357.3	2,601.8
N24027WM3_4060_0001	13,447.1	7,956.6
N24027XU0_4090_4270	20,239.8	7,508.7
N24027XU0_4091_4270	21,988.2	14,682.9
N24027XU0_4130_4070	5,061.6	4,751.0
N24027XU2_4070_4330	8,974.0	8,742.9
N24027XU2_4270_4650	10,979.8	3,142.5
N24027XU2_4330_4480	3,698.8	4,148.0
N24027XU2_4480_4650	1,950.5	575.5
	<b>93,601.5</b>	<b>61,292.4</b>



## Howard County Urban Area by Segment

Land-River Segment	Canopy Over Impervious (Acres)	Impervious - No Canopy (Acres)	Canopy Over Turf (Acres)	Turf - No Canopy (Acres)
N24027WM1_3882_3880	188	582	670	2,731
N24027WM3_3880_4060	80	423	426	2,161
N24027WM3_4060_0001	435	3,616	1,907	7,489
N24027XU0_4090_4270	1,199	4,406	4,308	14,387
N24027XU0_4091_4270	679	2,868	2,657	13,726
N24027XU0_4130_4070	89	241	222	1,292
N24027XU2_4070_4330	323	1,222	1,245	7,399
N24027XU2_4270_4650	217	3,667	1,117	5,978
N24027XU2_4330_4480	143	466	474	2,616
N24027XU2_4480_4650	42	403	199	1,306
	<b>3,395</b>	<b>17,895</b>	<b>13,227</b>	<b>59,085</b>

### **Method Summary**

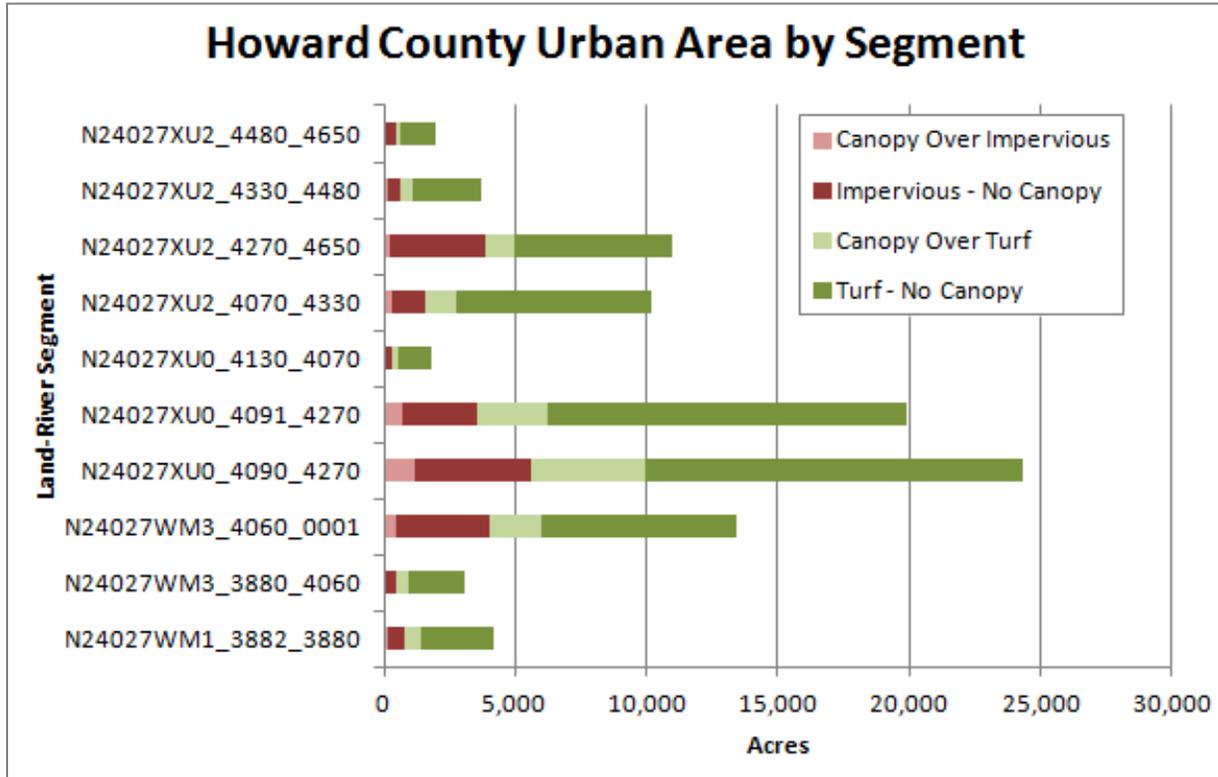
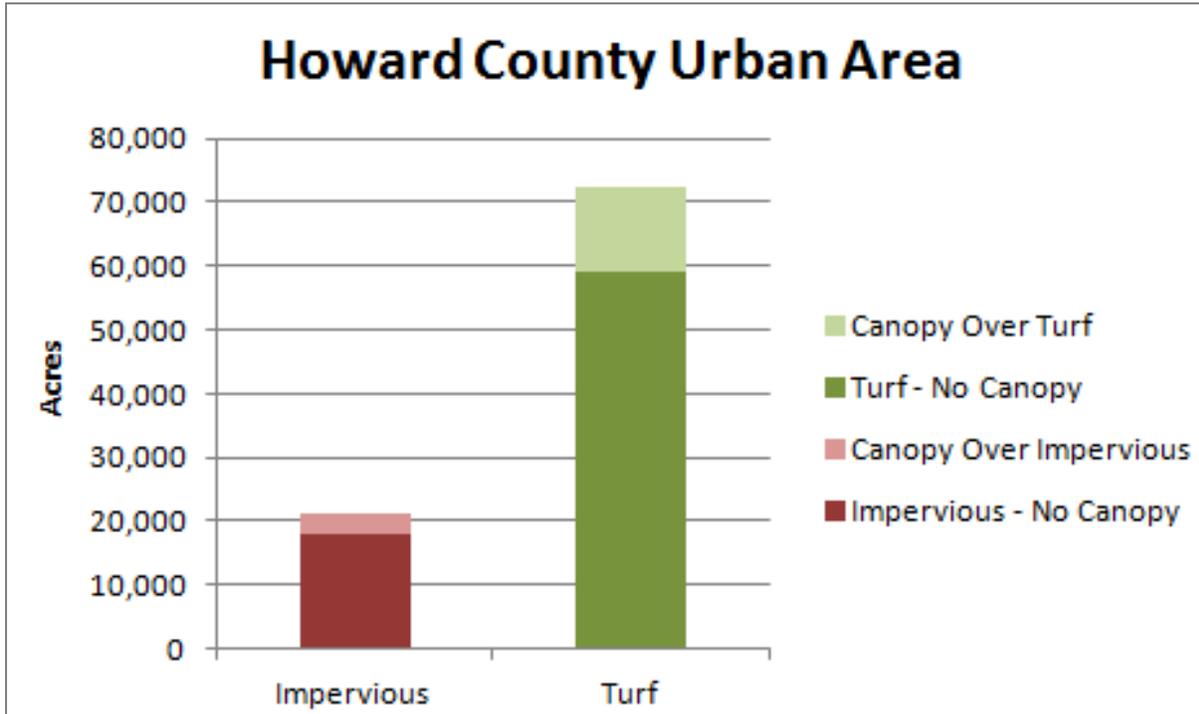
**Turf:** Calculated by applying the ratio of Chesapeake Bay Phase 5.3.2 Watershed Model urban pervious acres to impervious acres to the Phase 6 2012 impervious acres. MD acknowledges the inaccuracy of these turf acres. Turf estimates should be significantly improved upon in the final model Land Use,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

**Impervious:** Calculated using 2013 planimetric data provided by the County. Planimetric data were based on 2013 leaf-off orthoimagery, which were assumed to be representative of end of 2012 conditions, so no projection was needed. Coefficients were applied to correct for the features missing from the planimetric dataset: patios, buildings < 200 square feet, recreational features, and secondary sidewalks. 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. The intersect areas were adjusted up to account for any features missing from the county

impervious surface data, based on the average percent of mapped impervious cover covered by canopy in the county.



## Howard County Natural Area by Segment

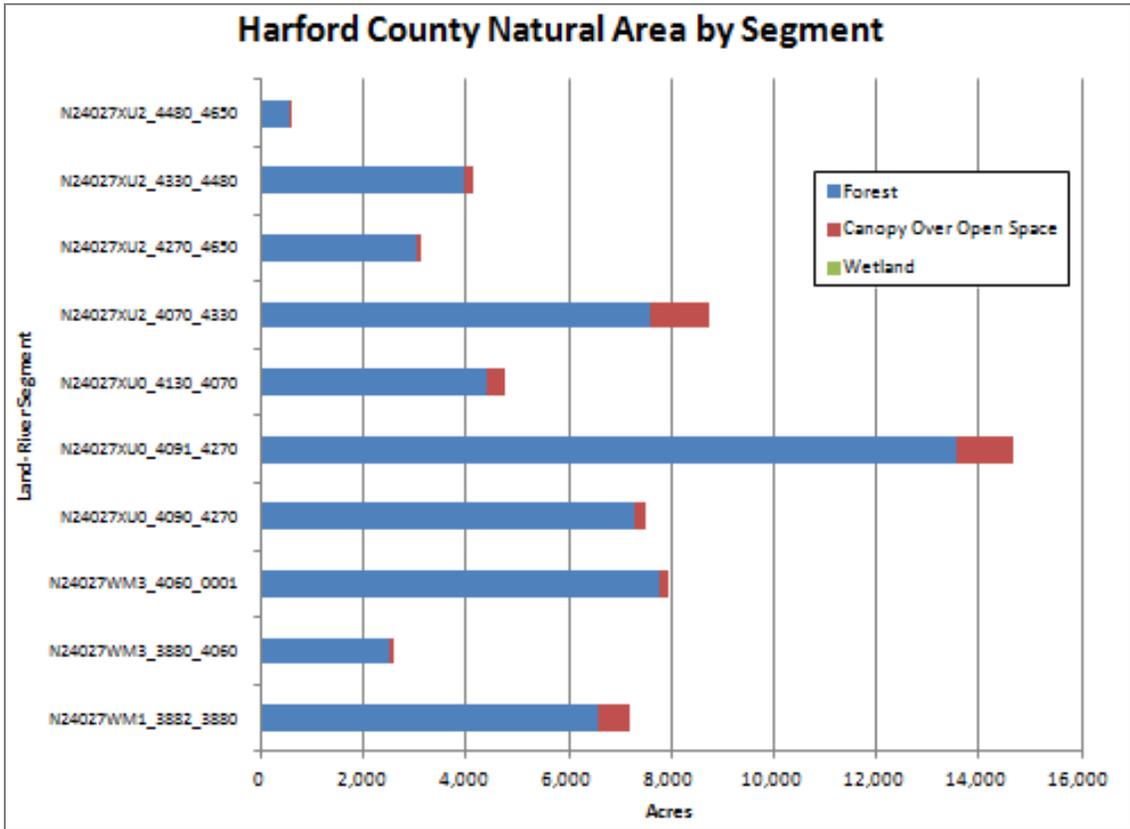
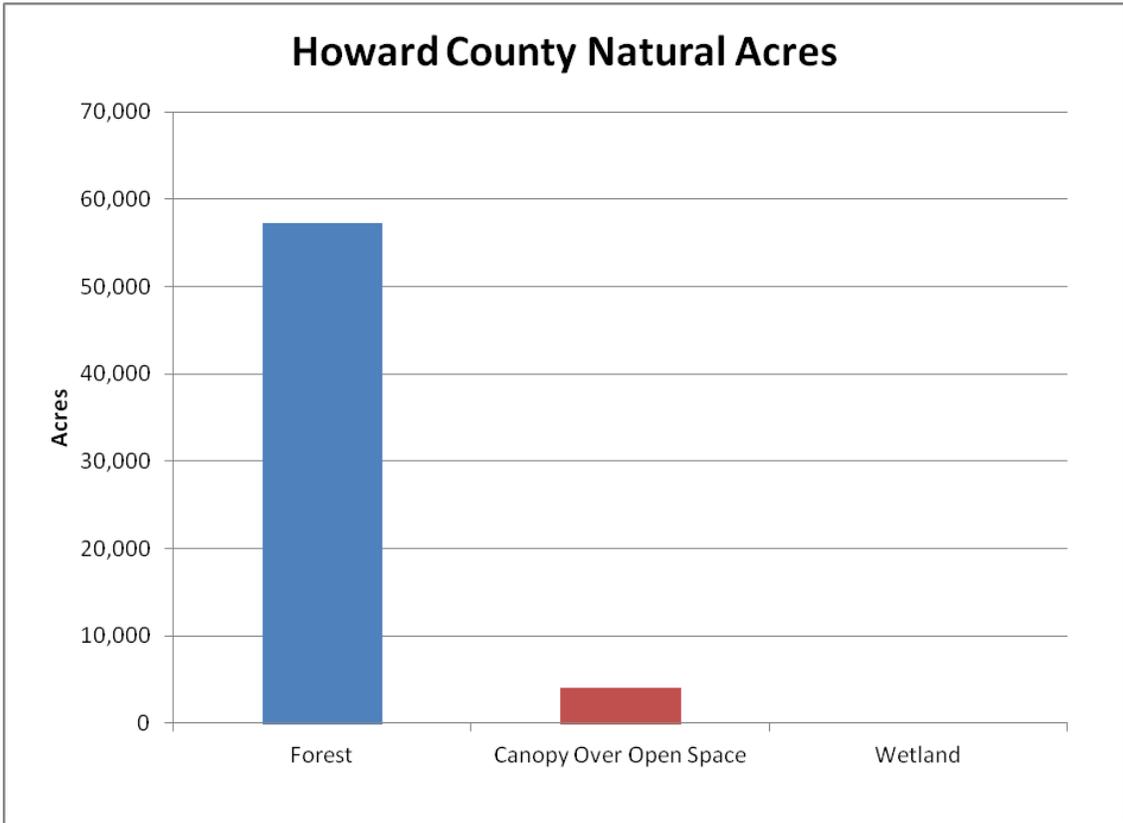
Land-River Segment	Forest (Acres)	Canopy over Open Space (Acres)	Wetland (Acres)
N24027WM1_3882_3880	6,595.0	587.5	0.0
N24027WM3_3880_4060	2,493.6	108.2	0.0
N24027WM3_4060_0001	7,777.6	179.0	0.0
N24027XU0_4090_4270	7,275.6	233.1	0.0
N24027XU0_4091_4270	13,563.5	1,119.4	0.0
N24027XU0_4130_4070	4,420.8	330.2	0.0
N24027XU2_4070_4330	7,590.3	1,152.6	0.0
N24027XU2_4270_4650	3,041.6	100.8	0.0
N24027XU2_4330_4480	3,944.7	203.3	0.0
N24027XU2_4480_4650	573.2	2.3	0.0
	<b>57,275.9</b>	<b>4,016.5</b>	<b>0.0</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.



## Howard County Land-River Segments

