

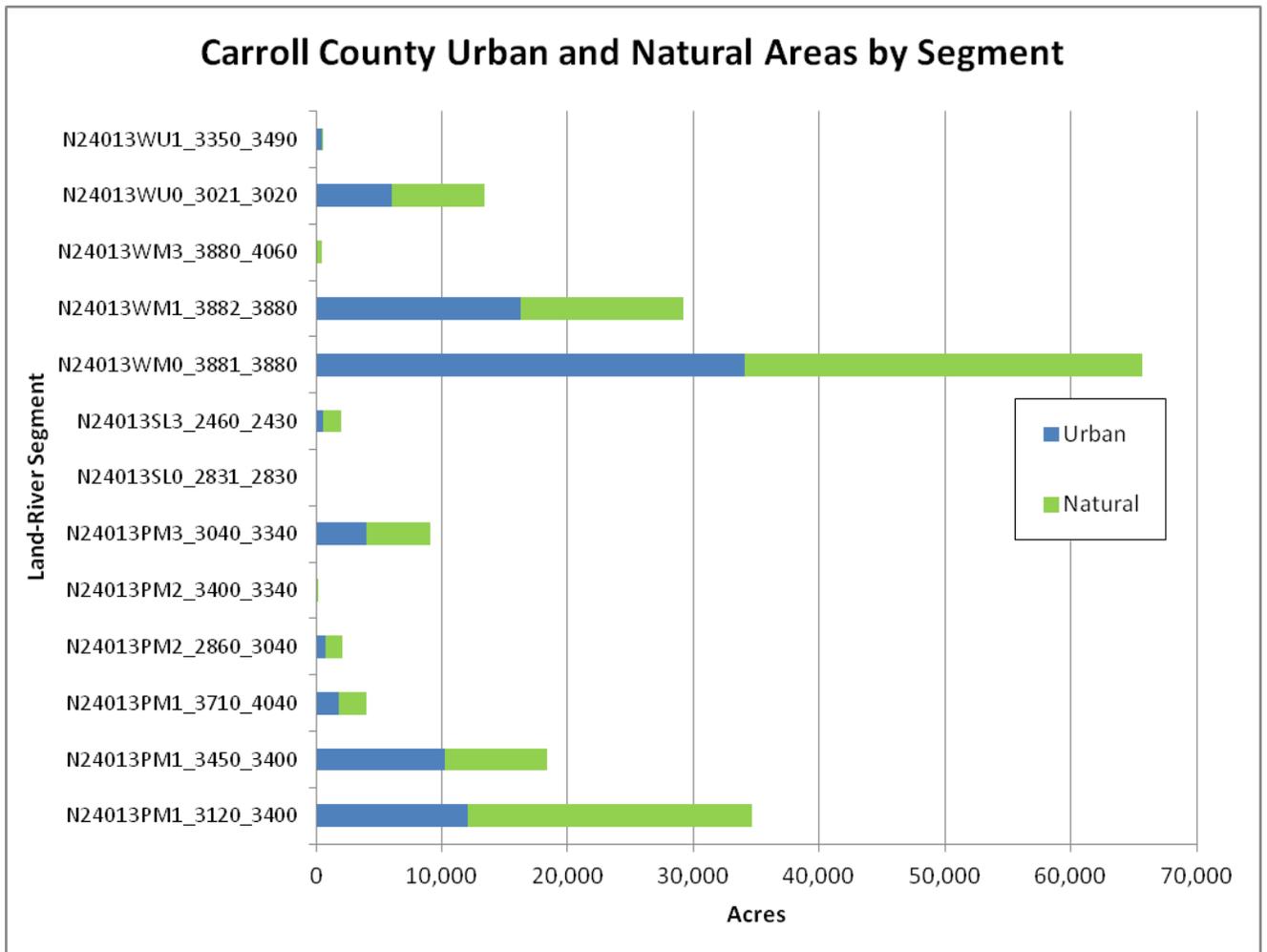
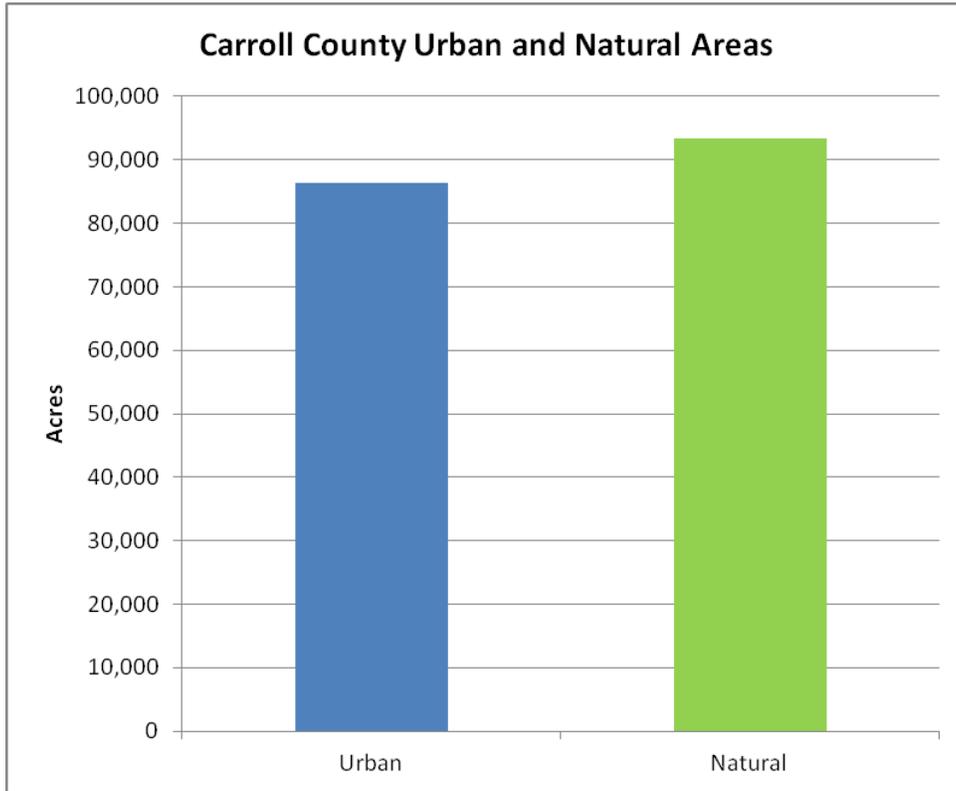
# MD Estimates for the Chesapeake Bay Phase 6 Watershed Model

## Land-Use, Version 1: Carroll 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.

### Carroll County Urban and Natural Areas by Segment

Land-River Segment	Urban (Acres)	Natural (Acres)
N24013PM1_3120_3400	12,091.5	22,577.4
N24013PM1_3450_3400	10,207.3	8,165.5
N24013PM1_3710_4040	1,845.8	2,131.1
N24013PM2_2860_3040	733.8	1,353.5
N24013PM2_3400_3340	100.2	122.4
N24013PM3_3040_3340	3,990.3	5,097.9
N24013SL0_2831_2830	44.0	33.9
N24013SL3_2460_2430	569.8	1,398.9
N24013WM0_3881_3880	34,029.4	31,609.3
N24013WM1_3882_3880	16,242.1	12,934.3
N24013WM3_3880_4060	15.2	474.3
N24013WU0_3021_3020	5,991.7	7,425.1
N24013WU1_3350_3490	500.6	41.1
	<b>86,361.7</b>	<b>93,364.8</b>



## Carroll County Urban Area by Segment

Land-River Segment	Canopy Over Impervious (Acres)	Impervious - No Canopy (Acres)	Canopy Over Turf (Acres)	Turf - No Canopy (Acres)
N24013PM1_3120_3400	462	1,788	1,174	8,668
N24013PM1_3450_3400	247	1,524	1,159	7,278
N24013PM1_3710_4040	66	269	251	1,260
N24013PM2_2860_3040	24	97	64	549
N24013PM2_3400_3340	1	19	8	72
N24013PM3_3040_3340	89	671	293	2,937
N24013SL0_2831_2830	2	7	6	30
N24013SL3_2460_2430	31	72	55	412
N24013WM0_3881_3880	757	5,246	4,178	23,848
N24013WM1_3882_3880	334	2,317	2,125	11,467
N24013WM3_3880_4060	4	7	2	3
N24013WU0_3021_3020	216	828	715	4,233
N24013WU1_3350_3490	8	98	66	329
	<b>2,241</b>	<b>12,942</b>	<b>10,094</b>	<b>61,085</b>

### Method Summary

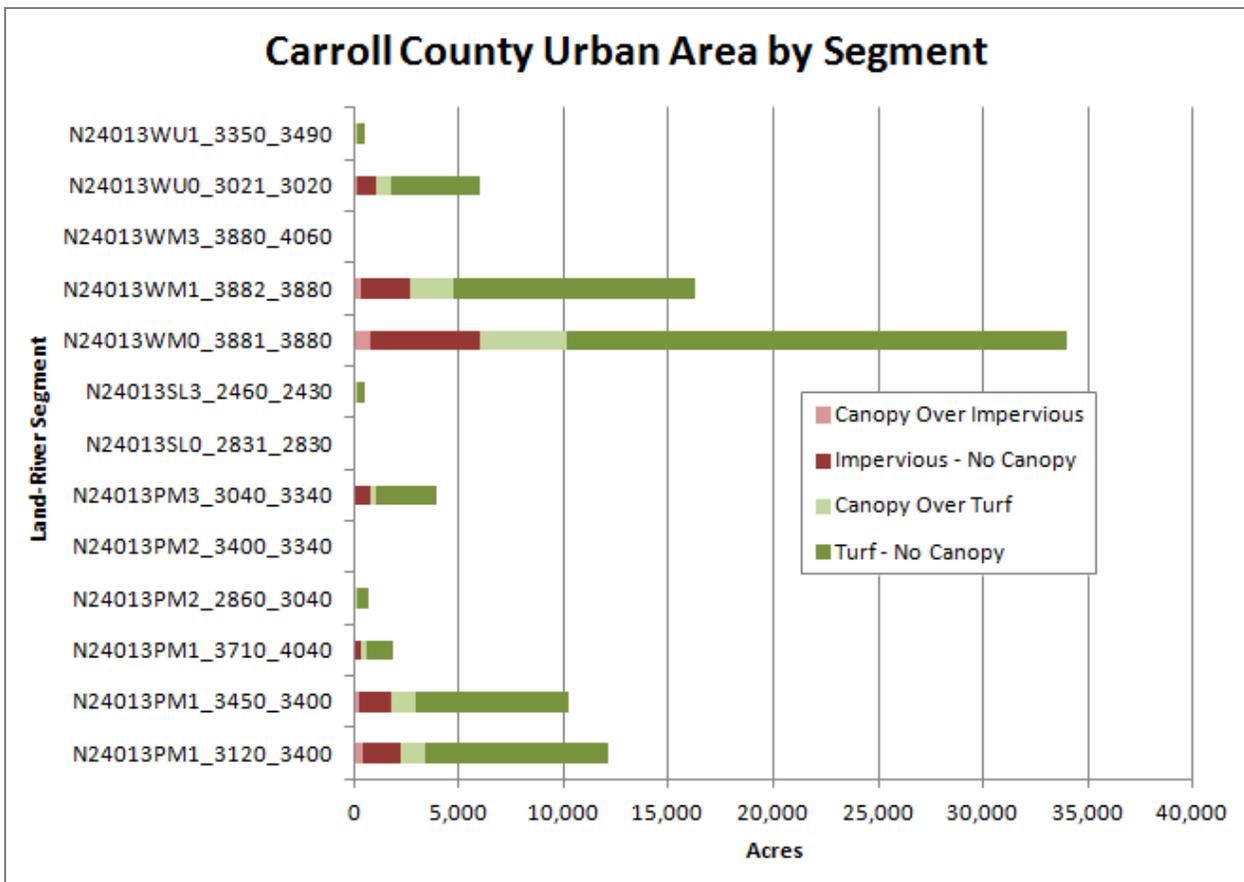
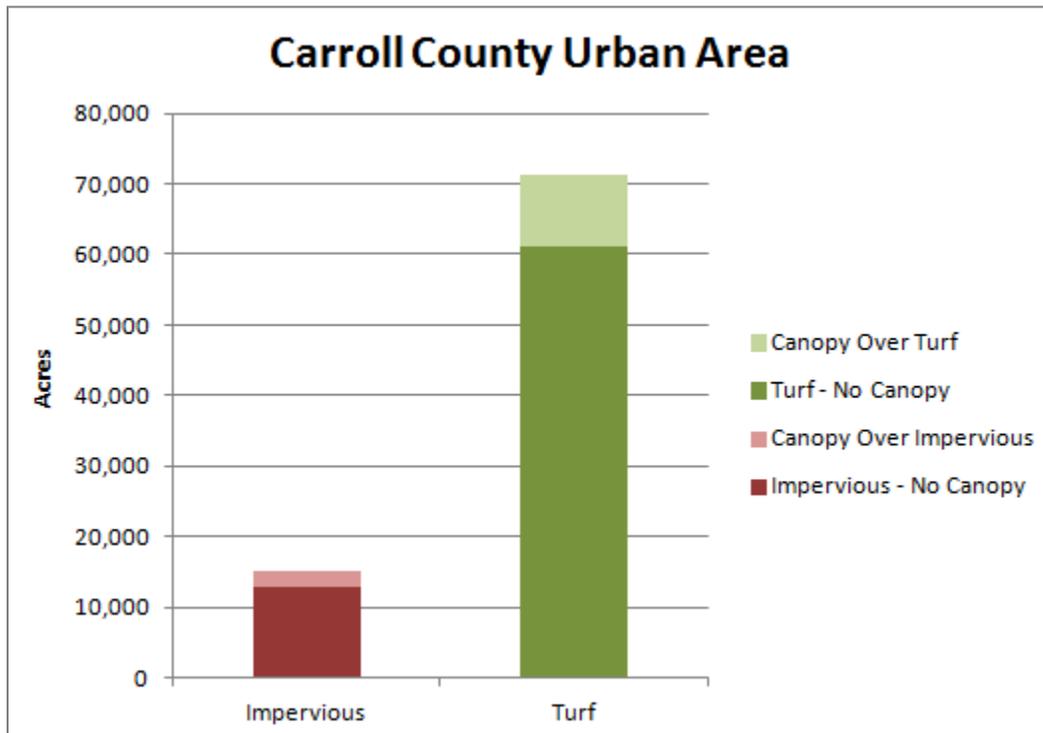
**Turf:** Calculated by applying the ratio of Chesapeake Bay Phase 5.3.2 Watershed Model urban pervious acres to impervious acres to the Phase 6 2012 impervious acres. MD acknowledges the inaccuracy of these turf acres. Turf estimates should be significantly improved upon in the final model Land Use,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

**Impervious:** Calculated using 2014 planimetric data provided by the County. These methods assume no increase from 2012 conditions. Coefficients were applied to correct for the features missing from the planimetric dataset: patios, pools, and secondary sidewalks. Carroll County planimetric data was also missing portions of driveways as those features were digitized by lines. 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.



## Carroll County Natural Area by Segment

Land-River Segment	Forest (Acres)	Canopy over Open Space (Acres)	Wetland (Acres)
N24013PM1_3120_3400	17,230.1	2,821.3	2,526.0
N24013PM1_3450_3400	5,946.1	1,503.5	715.8
N24013PM1_3710_4040	1,846.1	145.0	140.0
N24013PM2_2860_3040	983.4	267.0	103.1
N24013PM2_3400_3340	65.1	26.4	30.9
N24013PM3_3040_3340	3,183.7	997.4	916.7
N24013SLO_2831_2830	26.8	5.7	1.4
N24013SL3_2460_2430	1,247.8	121.1	30.0
N24013WM0_3881_3880	26,569.3	2,263.0	2,777.1
N24013WM1_3882_3880	10,330.4	1,007.6	1,596.3
N24013WM3_3880_4060	470.0	4.2	0.1
N24013WU0_3021_3020	6,258.4	680.8	486.0
N24013WU1_3350_3490	34.5	5.8	0.8
	<b>74,191.7</b>	<b>9,848.7</b>	<b>9,324.4</b>

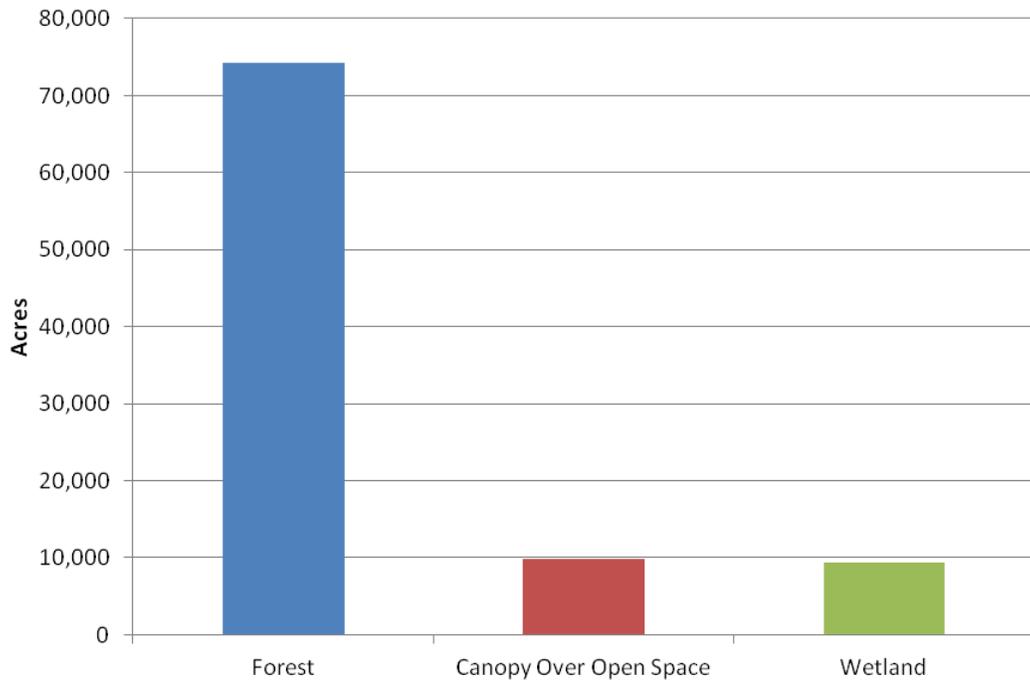
### **Method Summary**

**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.

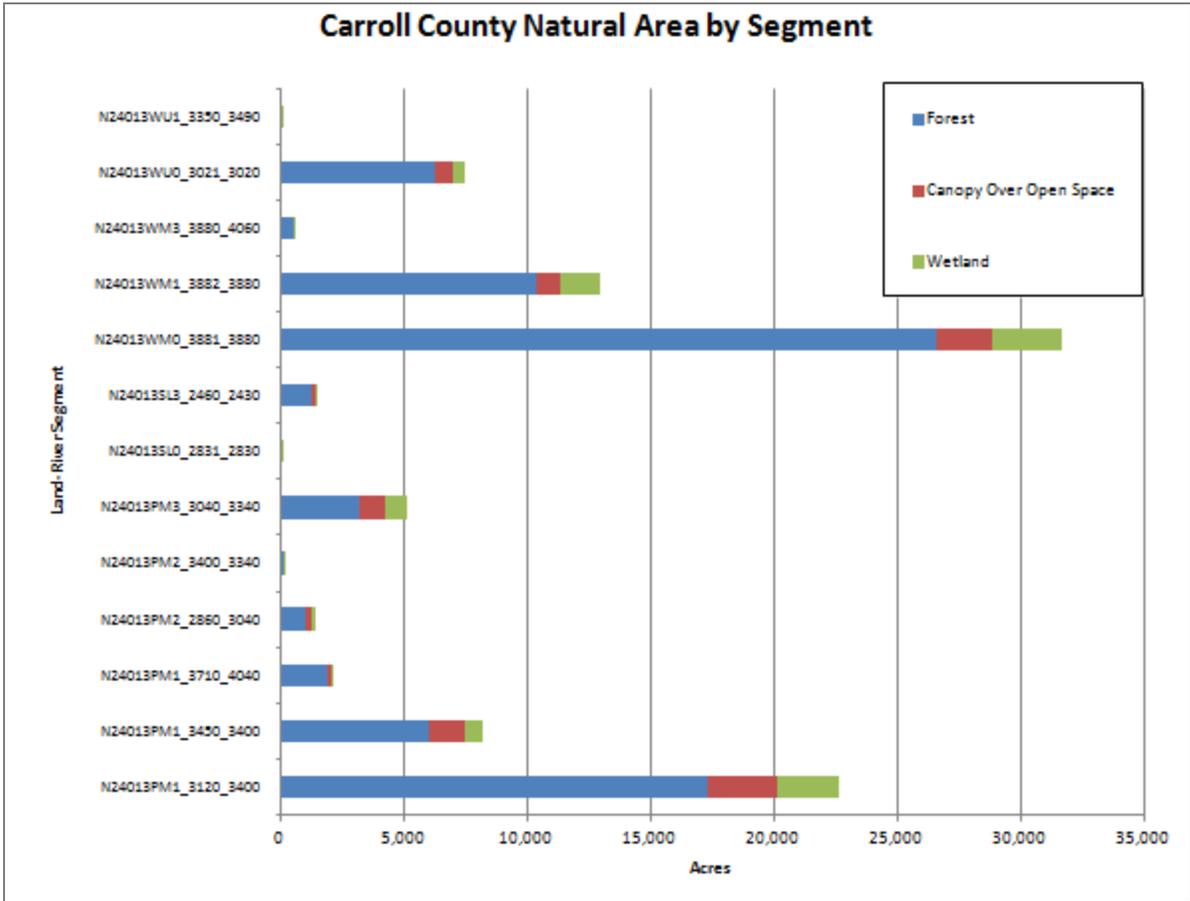
**Canopy over Open Space:** All tree canopy cover that is not forest, is not associated with wetlands, and falls outside MD's urban mask. The urban mask contains Phase 5.3.2 model urban and suburban zones, all parcels that have a >\$10,000 improvement value and are not Agriculture or large-lot Residential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

## Carroll County Natural Acres



### Carroll County Natural Area by Segment



# Carroll County Land-River Segments

