

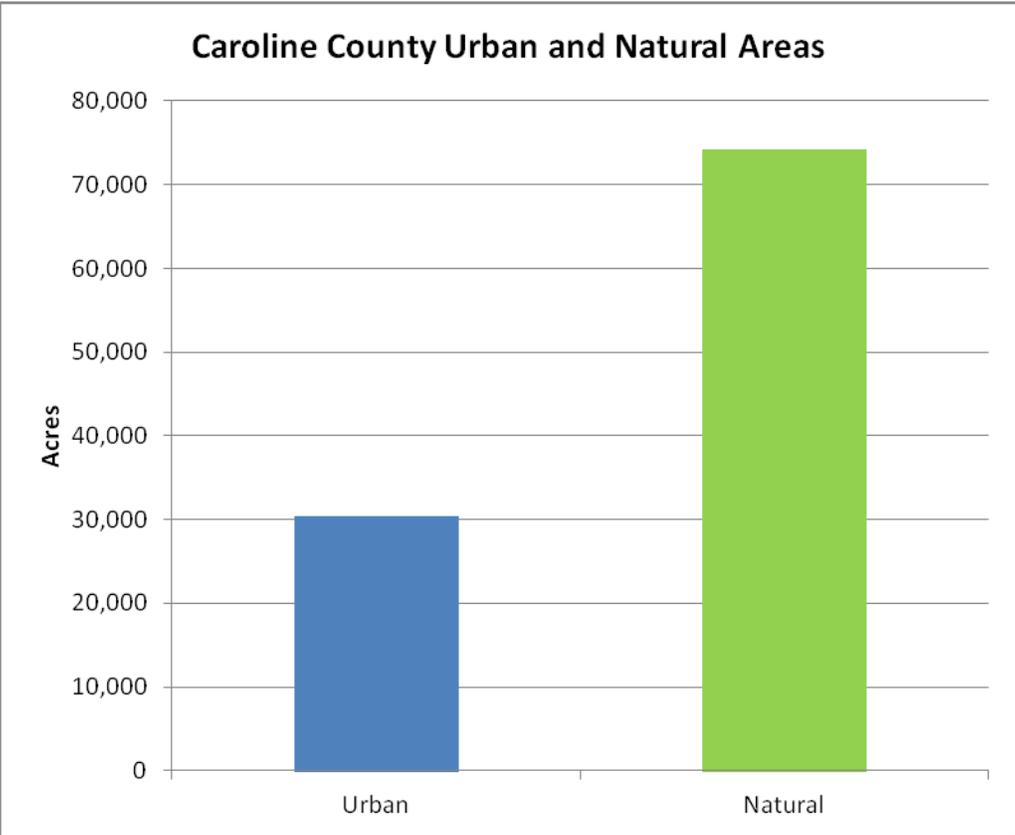
MD Estimates for the Chesapeake Bay Phase 6 Watershed Model

Land-Use, Version 1: Caroline County Summary

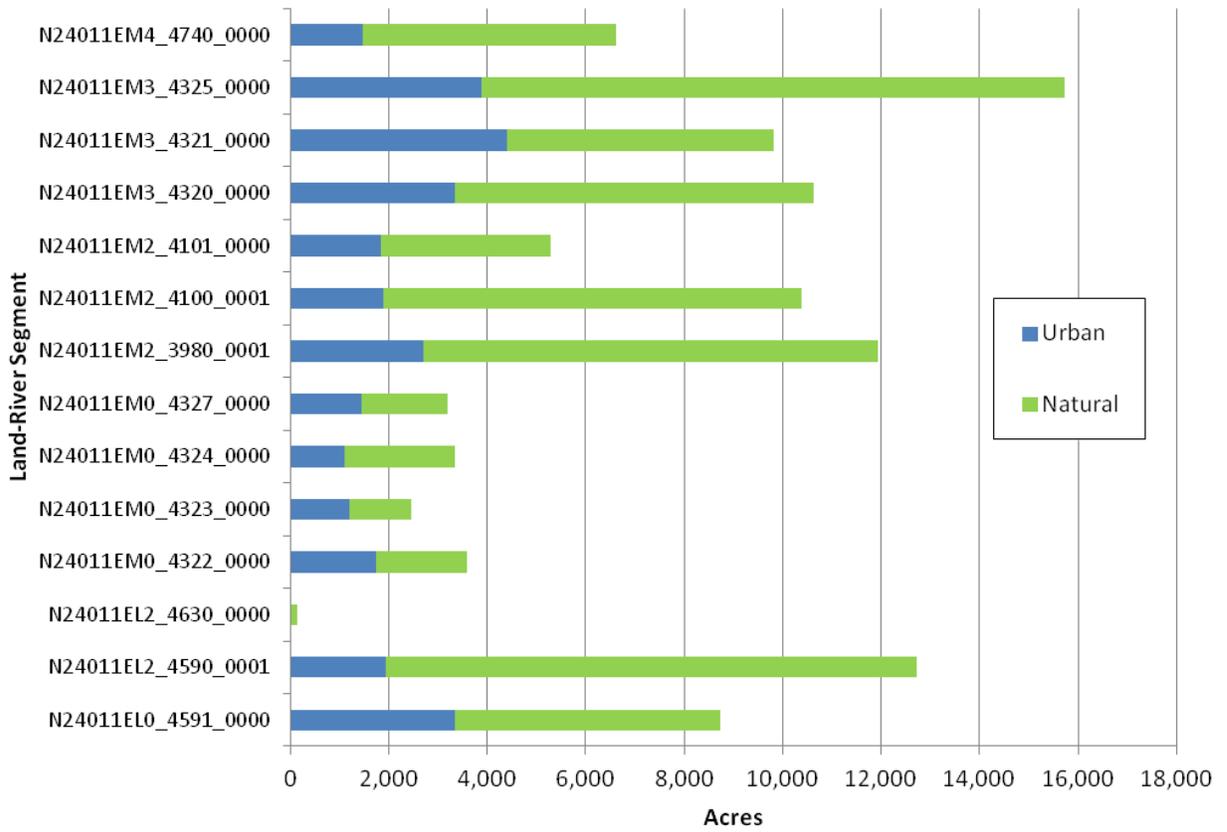
Note: The estimates presented in this summary were provided by Maryland for 2012 conditions to the Chesapeake Bay Program for input into the Phase 6 watershed model land-use. Estimates were provided for urban and natural land-uses only. Per Chesapeake Bay Program decision rules, agricultural land-use 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.

Caroline County Urban and Natural Areas by Segment

Land-River Segment	Urban (Acres)	Natural (Acres)
N24011EL0_4591_0000	3,339.4	5,395.4
N24011EL2_4590_0001	1,940.3	10,778.9
N24011EL2_4630_0000	21.8	130.7
N24011EM0_4322_0000	1,751.2	1,834.6
N24011EM0_4323_0000	1,216.3	1,251.3
N24011EM0_4324_0000	1,104.3	2,235.3
N24011EM0_4327_0000	1,458.4	1,743.8
N24011EM2_3980_0001	2,717.1	9,222.5
N24011EM2_4100_0001	1,883.6	8,493.6
N24011EM2_4101_0000	1,839.1	3,453.7
N24011EM3_4320_0000	3,337.7	7,302.4
N24011EM3_4321_0000	4,398.5	5,424.2
N24011EM3_4325_0000	3,877.5	11,840.2
N24011EM4_4740_0000	1,467.6	5,147.6
	30,352.7	74,254.3



Caroline County Urban and Natural Areas by Segment



Caroline County Urban Area by Segment

Land-River Segment	Canopy Over Impervious (Acres)	Impervious - No Canopy (Acres)	Canopy Over Turf (Acres)	Turf - No Canopy (Acres)
N24011EL0_4591_0000	94	692	241	2,667
N24011EL2_4590_0001	44	387	56	1,099
N24011EL2_4630_0000	1	5	1	15
N24011EM0_4322_0000	25	248	83	1,164
N24011EM0_4323_0000	17	133	53	695
N24011EM0_4324_0000	32	144	41	729
N24011EM0_4327_0000	25	161	42	720
N24011EM2_3980_0001	80	424	190	1,610
N24011EM2_4100_0001	66	402	158	1,453
N24011EM2_4101_0000	46	288	108	1,581
N24011EM3_4320_0000	107	589	216	2,946
N24011EM3_4321_0000	139	778	358	3,157
N24011EM3_4325_0000	138	746	305	3,266
N24011EM4_4740_0000	63	243	103	1,179
	876	5,240	1,957	22,280

Method Summary

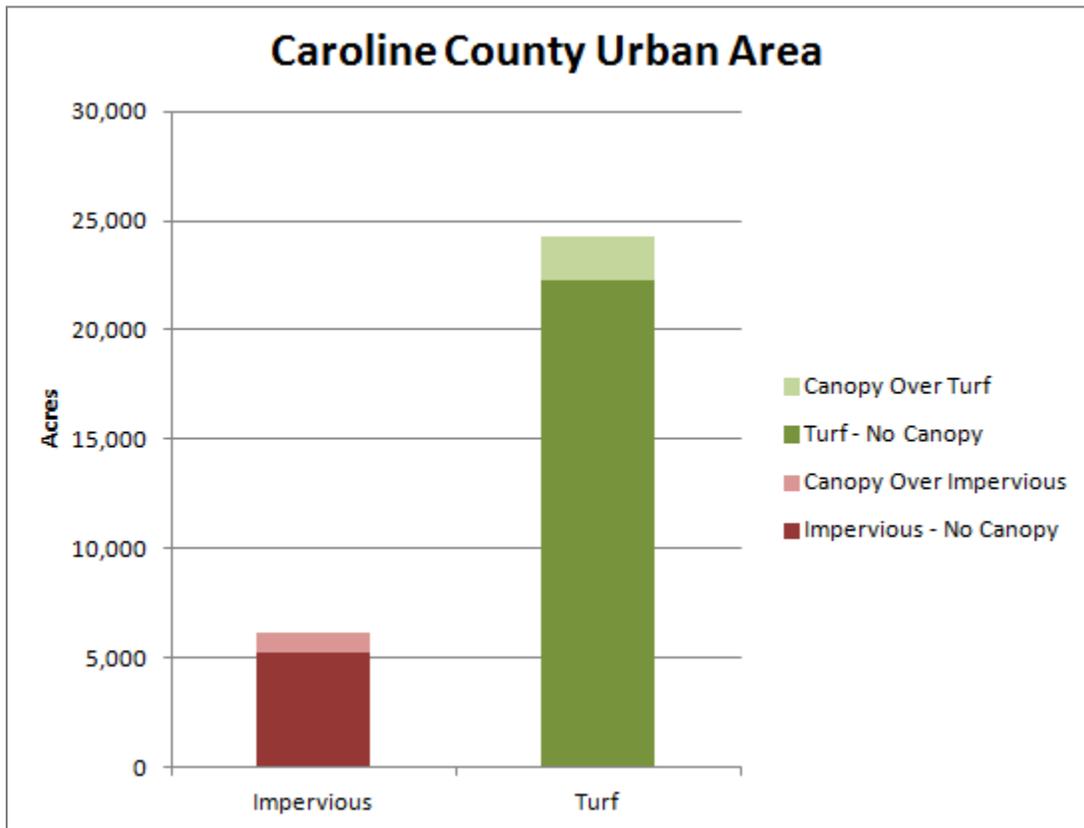
Turf: Calculated by applying the ratio of Chesapeake Bay Phase 5.3.2 Watershed Model urban pervious acres to impervious acres to the Phase 6 2012 impervious acres. MD acknowledges the inaccuracy of these turf acres. Turf estimates should be significantly improved upon in the final model Land Use, scheduled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

Impervious: Calculated using 2008 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. Coefficients were applied to correct for the features missing from the planimetric dataset: patios, pools, and sidewalks. Lastly, estimates were adjusted down to account for tree canopy over impervious surface.

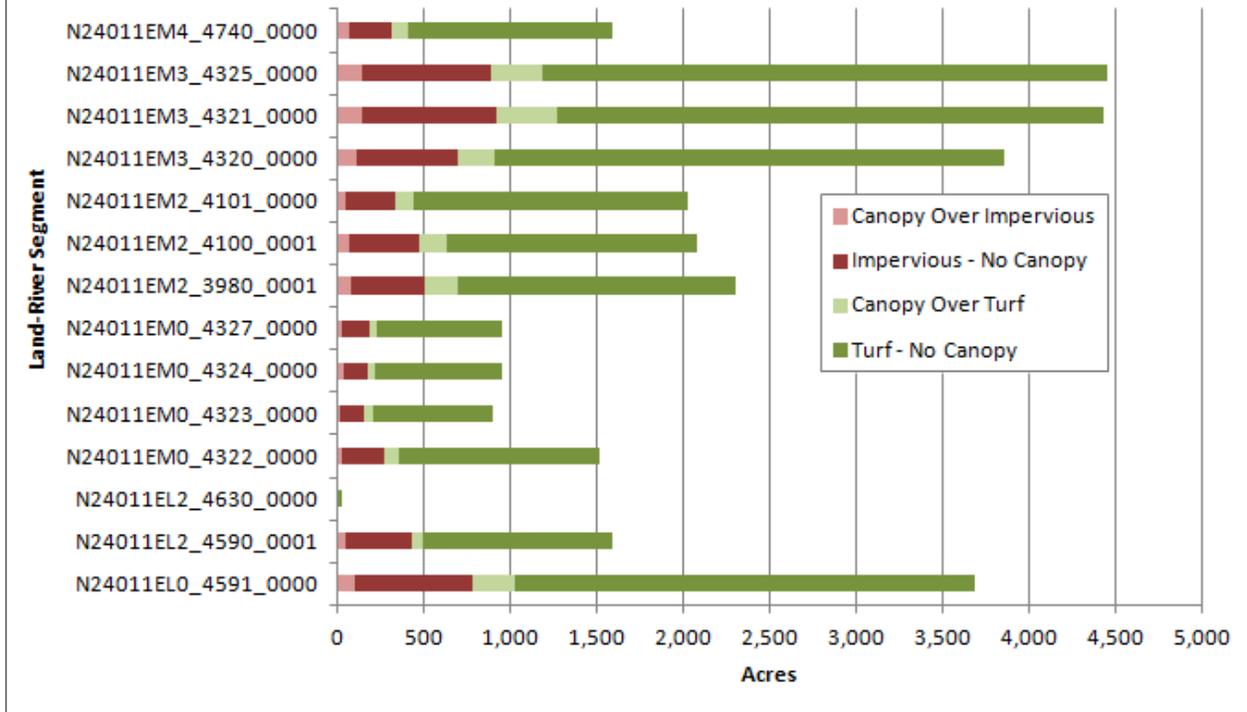
Canopy Over Turf: All mapped tree canopy (University of Maryland's 1 m resolution tree canopy cover data) that is not delineated as forest (> 1 acre of contiguous canopy cover and > 120 ft. wide) or associated with wetlands and is located within MD's urban mask. The urban mask contains Phase 5.3.2 model 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.



Caroline County Urban Area by Segment



Caroline County Natural Area by Segment

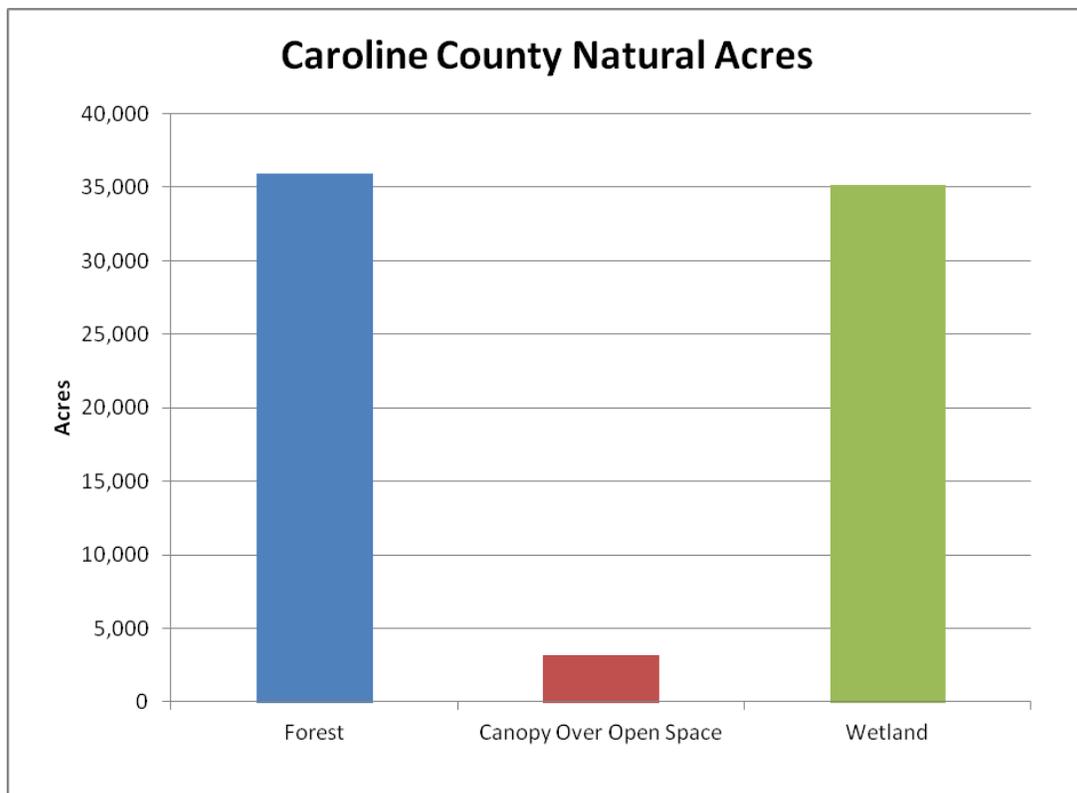
Land-River Segment	Forest (Acres)	Canopy over Open Space (Acres)	Wetland (Acres)
N24011ELO_4591_0000	2,289.1	201.6	2,904.7
N24011EL2_4590_0001	4,835.7	322.1	5,621.1
N24011EL2_4630_0000	52.1	11.1	67.5
N24011EM0_4322_0000	839.0	83.0	912.6
N24011EM0_4323_0000	830.8	67.4	353.2
N24011EM0_4324_0000	1,578.2	75.6	581.5
N24011EM0_4327_0000	1,021.5	76.1	646.2
N24011EM2_3980_0001	3,715.1	402.4	5,105.0
N24011EM2_4100_0001	3,072.2	327.9	5,093.5
N24011EM2_4101_0000	1,983.0	202.7	1,268.0
N24011EM3_4320_0000	3,584.1	462.8	3,255.5
N24011EM3_4321_0000	2,889.4	313.3	2,221.5
N24011EM3_4325_0000	6,514.8	399.2	4,926.3
N24011EM4_4740_0000	2,688.4	247.1	2,212.1
Total	22,279.8	6,116.4	1,956.6

Method Summary

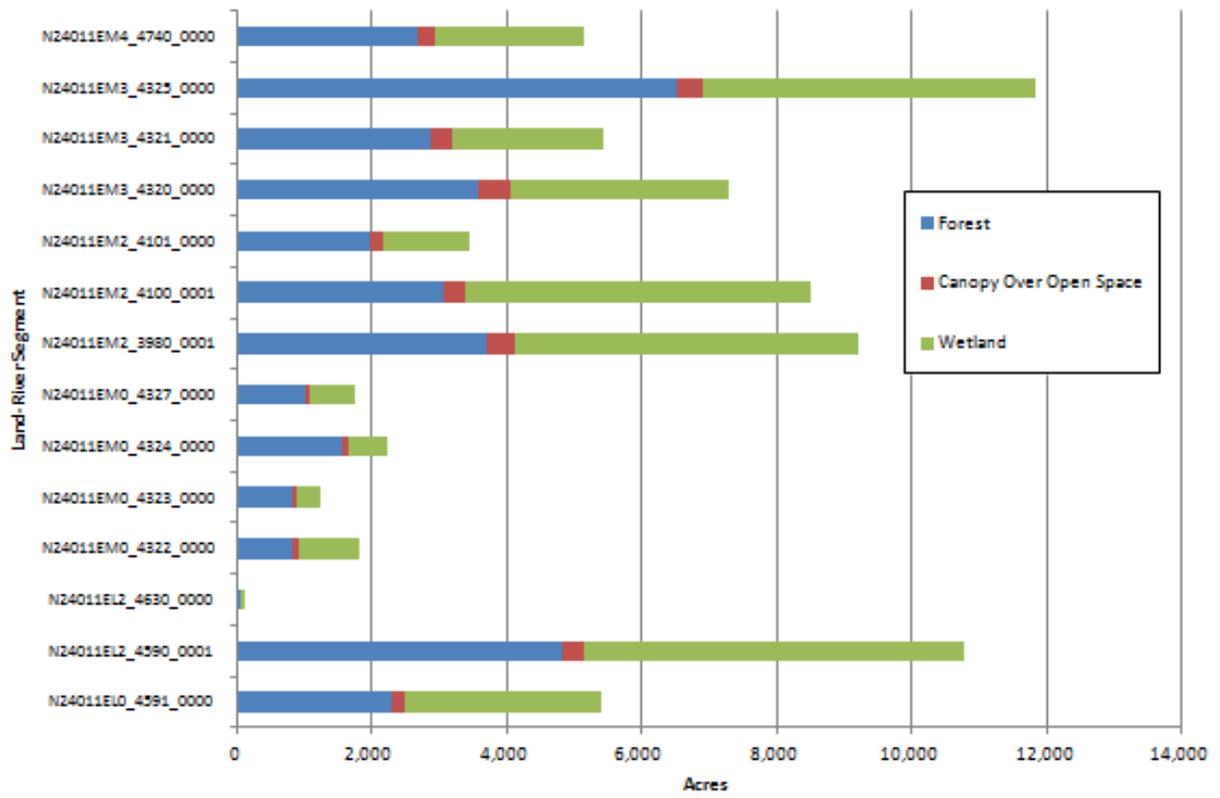
Forest: Contiguous tree canopy cover (University of Maryland’s 1 m resolution tree canopy cover data) that is greater than 1 acre in size and greater than 120 ft in width. This area excludes any canopy cover associated with wetlands.

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.



Caroline County Natural Area by Segment



Caroline County Land-River Segments

