

MD Estimates for the Chesapeake Bay Phase 6 Watershed Model

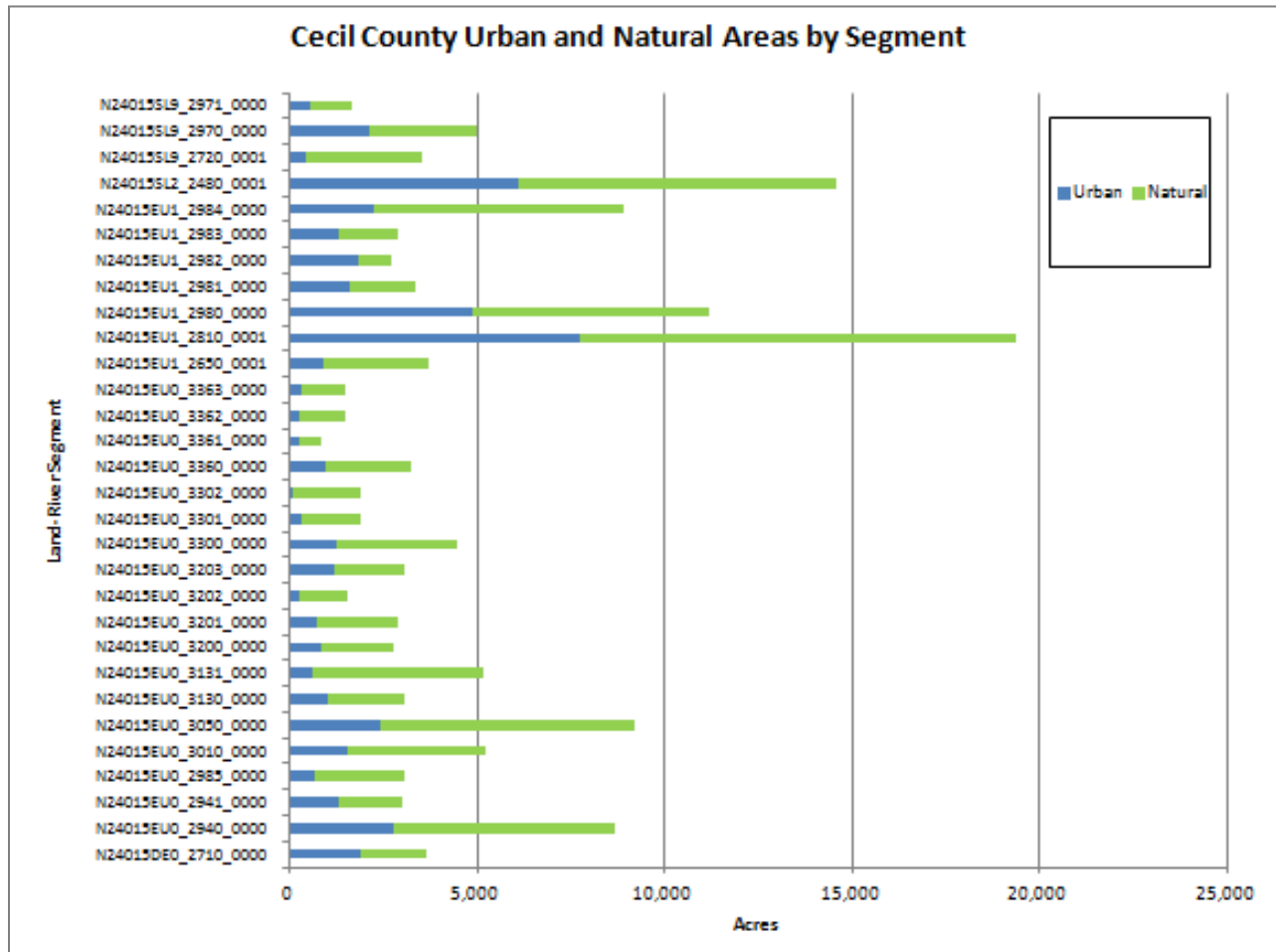
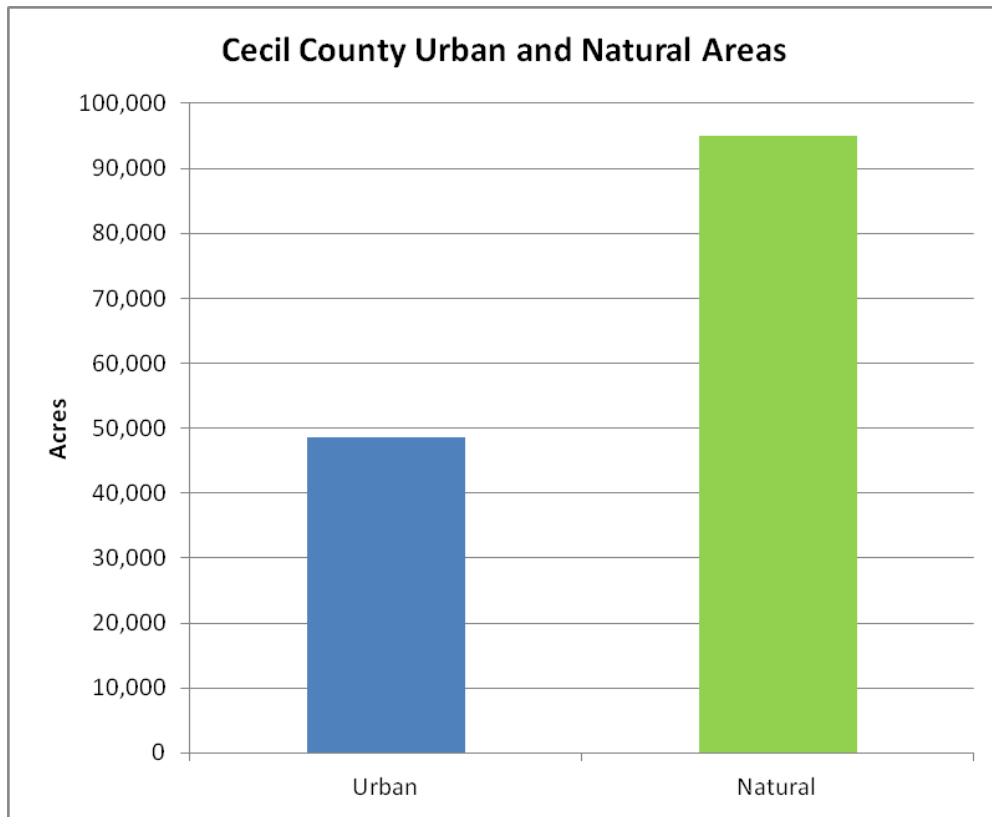
Land-Use, Version 1: Cecil County Summary

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.

Cecil County Urban and Natural Areas by Segment

Land-River Segment	Urban (Acres)	Natural (Acres)
N24015DE0_2710_0000	1,925.8	1,741.1
N24015EU0_2940_0000	2,762.3	5,909.2
N24015EU0_2941_0000	1,309.6	1,694.5
N24015EU0_2985_0000	666.9	2,391.6
N24015EU0_3010_0000	1,573.9	3,639.2
N24015EU0_3050_0000	2,432.1	6,785.4
N24015EU0_3130_0000	1,018.3	2,048.9
N24015EU0_3131_0000	623.2	4,566.8
N24015EU0_3200_0000	831.1	1,964.6
N24015EU0_3201_0000	717.6	2,161.6
N24015EU0_3202_0000	258.8	1,296.5
N24015EU0_3203_0000	1,223.3	1,820.5
N24015EU0_3300_0000	1,235.4	3,260.0
N24015EU0_3301_0000	342.2	1,564.6
N24015EU0_3302_0000	118.3	1,795.5
N24015EU0_3360_0000	964.9	2,255.8
N24015EU0_3361_0000	247.7	630.8
N24015EU0_3362_0000	262.2	1,216.6
N24015EU0_3363_0000	302.3	1,170.0
N24015EU1_2650_0001	917.6	2,797.1
N24015EU1_2810_0001	7,731.6	11,607.9
N24015EU1_2980_0000	4,874.3	6,299.4
N24015EU1_2981_0000	1,583.4	1,781.0
N24015EU1_2982_0000	1,858.2	847.0
N24015EU1_2983_0000	1,301.7	1,613.0
N24015EU1_2984_0000	2,278.0	6,618.6
N24015SL2_2480_0001	6,093.3	8,513.7
N24015SL9_2720_0001	466.4	3,096.6
N24015SL9_2970_0000	2,123.8	2,873.2
N24015SL9_2971_0000	561.6	1,092.3
	48,606.0	95,053.0



Cecil County Urban Area by Segment

Land-River Segment	Canopy Over Impervious (Acres)	Impervious - No Canopy (Acres)	Canopy Over Turf (Acres)	Turf - No Canopy (Acres)
N24015DE0_2710_0000	78	354	365	1,129
N24015EU0_2940_0000	85	411	368	1,899
N24015EU0_2941_0000	39	286	162	822
N24015EU0_2985_0000	29	115	123	400
N24015EU0_3010_0000	64	202	193	1,115
N24015EU0_3050_0000	149	444	366	1,473
N24015EU0_3130_0000	54	104	97	763
N24015EU0_3131_0000	74	87	110	353
N24015EU0_3200_0000	15	132	47	637
N24015EU0_3201_0000	41	79	64	533
N24015EU0_3202_0000	18	30	22	189
N24015EU0_3203_0000	35	147	109	933
N24015EU0_3300_0000	65	130	111	930
N24015EU0_3301_0000	14	40	29	259
N24015EU0_3302_0000	23	13	21	61
N24015EU0_3360_0000	52	101	52	761
N24015EU0_3361_0000	3	47	11	187
N24015EU0_3362_0000	5	49	10	199
N24015EU0_3363_0000	21	30	35	217
N24015EU1_2650_0001	43	128	418	329
N24015EU1_2810_0001	248	1,205	940	5,338
N24015EU1_2980_0000	143	703	637	3,391
N24015EU1_2981_0000	22	334	220	1,008
N24015EU1_2982_0000	33	472	246	1,107
N24015EU1_2983_0000	23	208	143	927
N24015EU1_2984_0000	124	324	293	1,537
N24015SL2_2480_0001	230	783	809	4,271
N24015SL9_2720_0001	52	68	77	270
N24015SL9_2970_0000	85	360	479	1,201
N24015SL9_2971_0000	19	66	66	412
	1,885	7,450	6,621	32,650

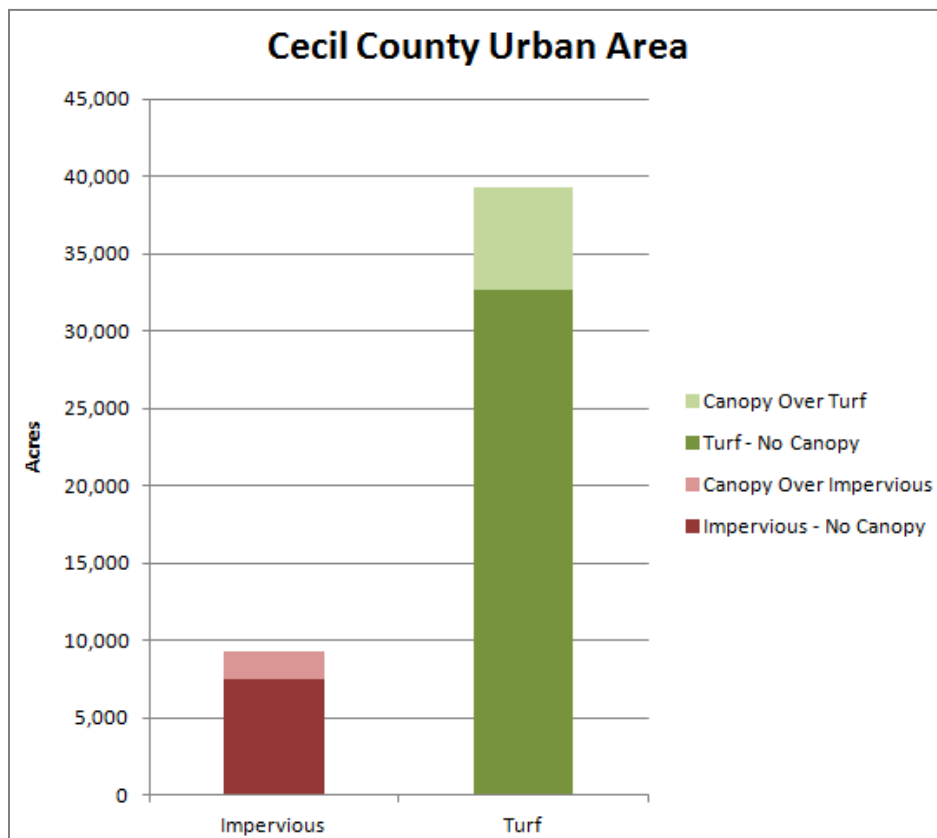
Method Summary

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.

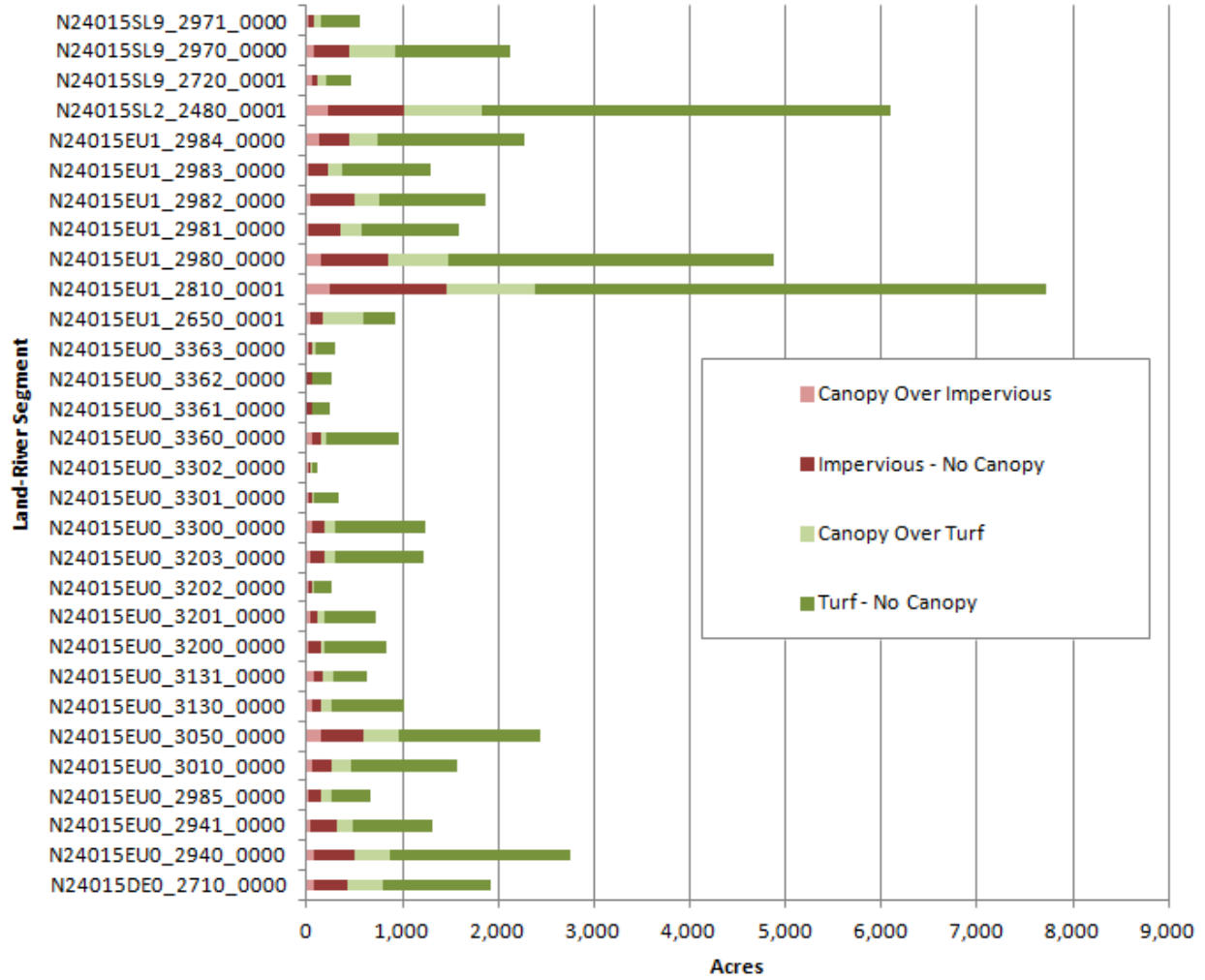
Impervious: Calculated using 2013 planimetric data (buildings only) provided by the County along with NAVTEQ buffered roads. Planimetric data were based on 2013 leaf-off orthoimagery, which were assumed to be representative of end of 2012 conditions, so no projection was needed. County roads included the previous right-of-way as well as sidewalks which could not be isolated, so NAVTEQ roads were substituted. Coefficients were applied to correct for the features missing from the planimetric dataset: patios, pools, recreational features, sidewalks, driveways, and parking lots. Parking lots and driveways account for a significant portion of residential and non-residential impervious area, so the correction was significant - 31% of total impervious area.

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.



Cecil County Urban Area by Segment



Cecil 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
	74,191.7	9,848.7	9,324.4

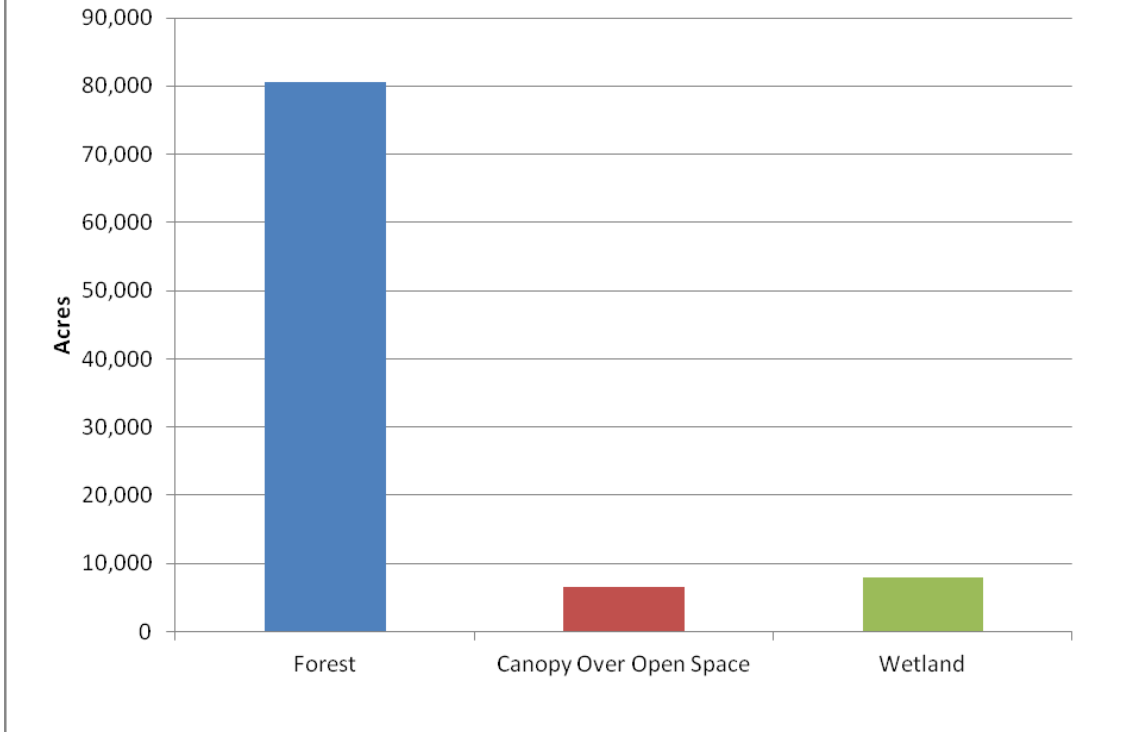
Method Summary

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.

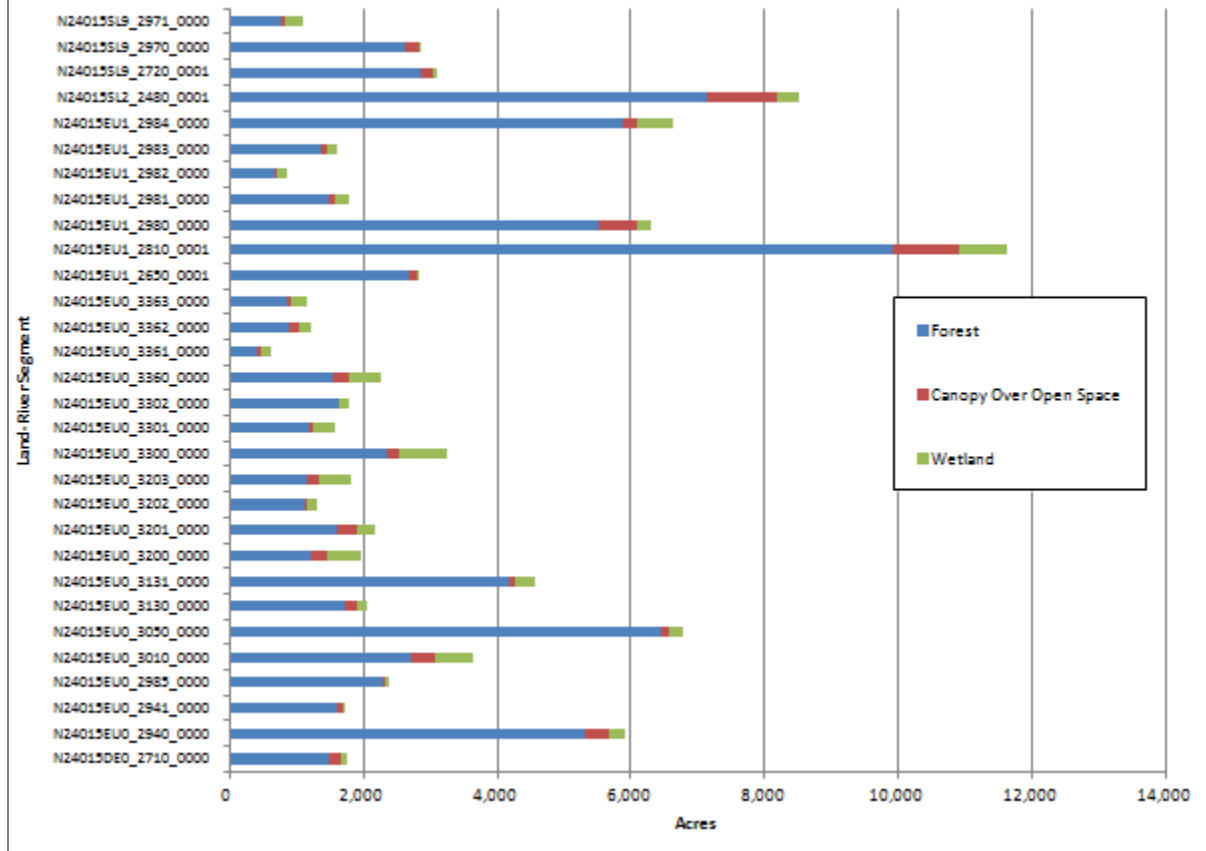
Canopy over Open Space: All tree canopy cover that is not forest , is not associated with wetlands, and falls outside MD's urban mask. The urban mask contains Phase 5.3.2 model urban and suburban zones, all parcels that have a >\$10,000 improvement value and are not Agriculture or large-lot Residential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

Cecil County Natural Acres



Cecil County Natural Area by Segment



Cecil County Land-River Segments

