



Forest Conservation Program Annual Report



Katherine E. Nelson, Planner Coordinator, Katherine.Nelson@montgomeryplanning.org 301-495-4622

JAC John Carter, Chief, Area 3, John.Carter@montgomeryplanning.org 301-495-4575

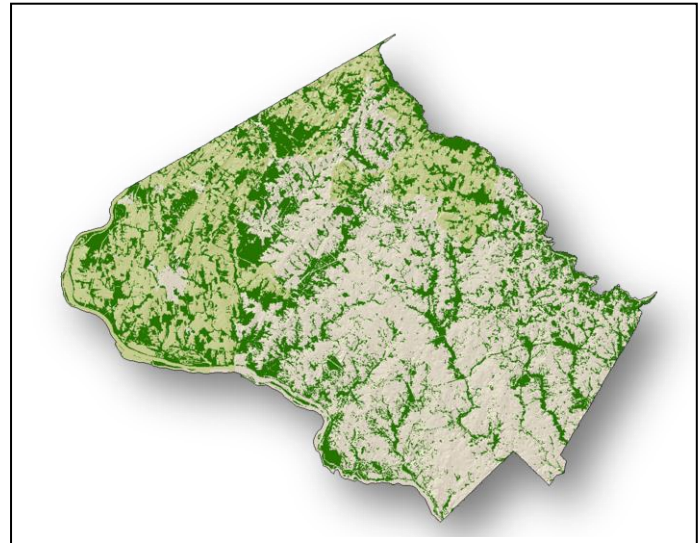
Completed: 03/26/15

Description

Forest Conservation Program Annual Report

Review the performance of the forest conservation program

Staff Recommendation: Transmit Data to Maryland Department of Natural Resources (DNR)

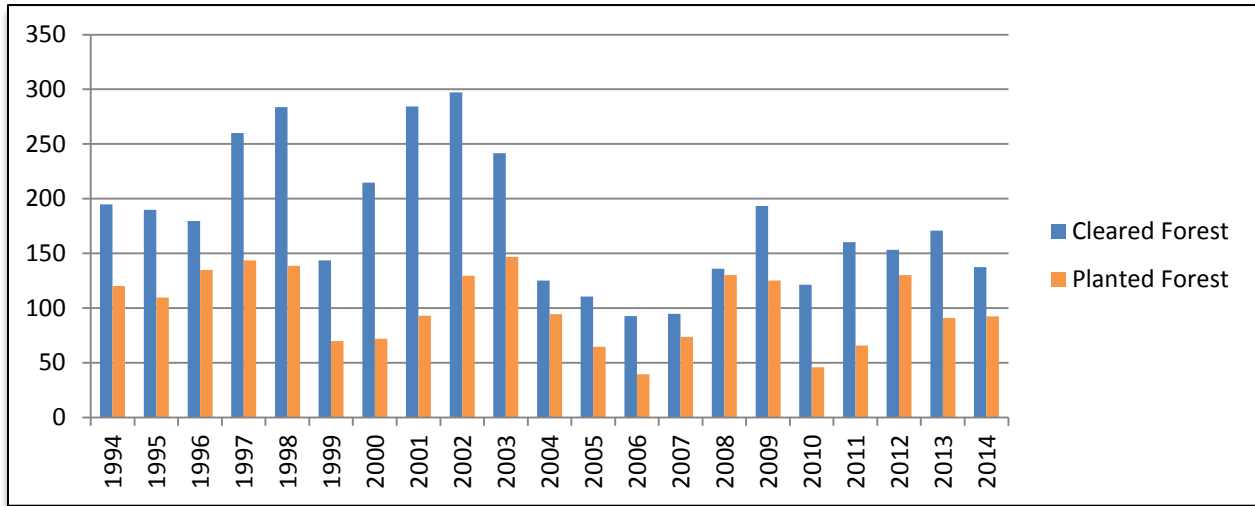


SUMMARY

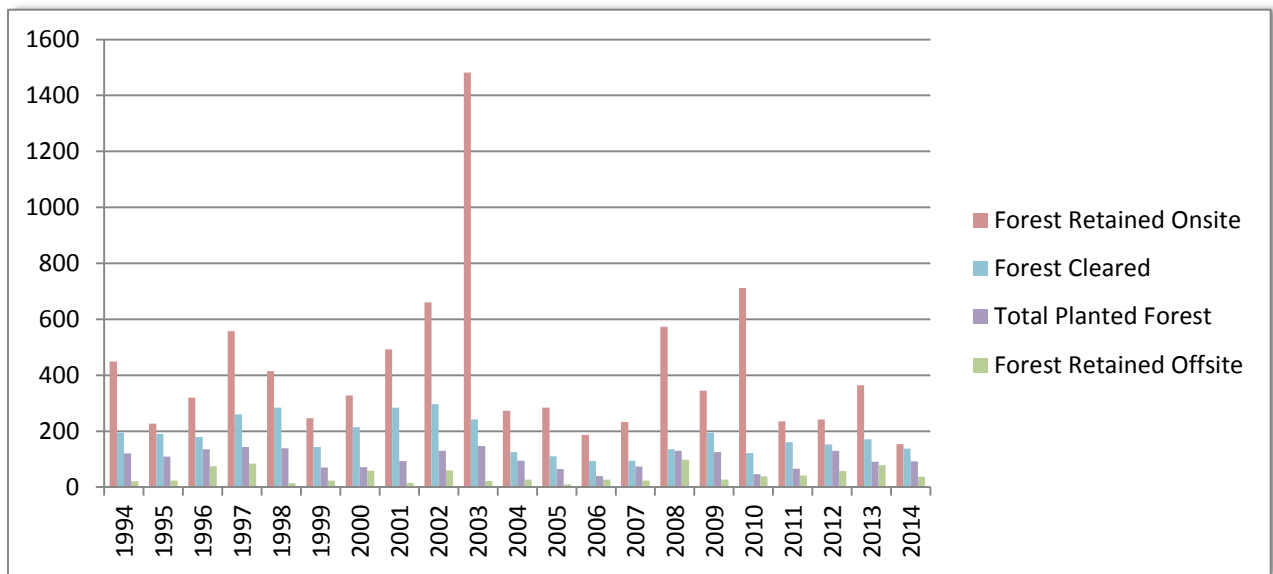
The State Forest Conservation Law requires all jurisdictions to report to DNR each year regarding efforts to implement and enforce the law. See tables below. This report includes these findings as well as other aspects of the forest conservation program and forest related issues.

PROJECT DESCRIPTION

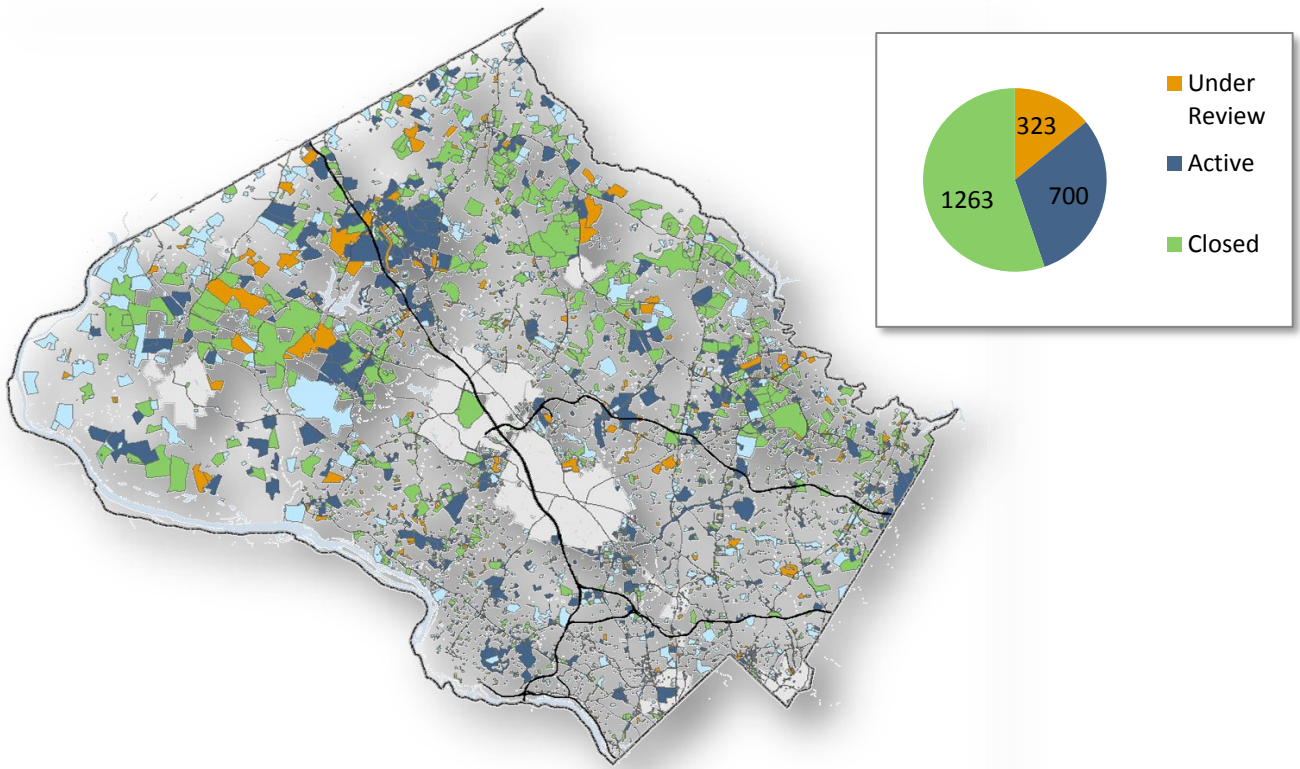
The Forest Conservation Program in Montgomery County has been in effect for over twenty years. The County has experienced an average of 180 acres of forest loss due to development each year. This average continues to decline with fewer green field developments in the County. Forest planting averages at a fairly stable 100 acres per year.



Protection of Existing Forest (forest retained) in the County, including forest mitigation banks (primarily forest retained offsite) averages approximately 465 acres per year.

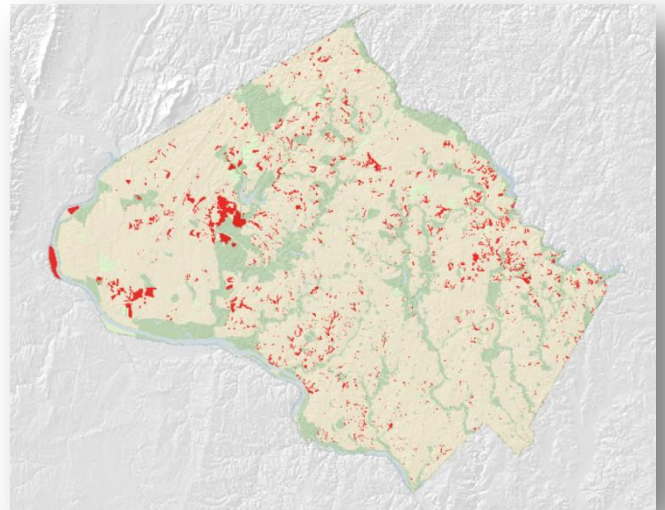


These efforts are the result of nearly two thousand forest conservation plans that are fully implemented or actively within the construction process.



Forest Conservation Easements

404-acres of forest were placed in permanent conservation easements on private land in FY2014. The easement area under the jurisdiction of the Planning Department is approximately 10,300 acres. These figures do not include other easement types such as scenic easements or those held by other jurisdictions such as the City of Rockville. Nor do they include privately held easements.



Reforestation Program

The fee in lieu fund is used by developers to meet forest mitigation requirements when on-site planting is impractical and mitigation requirements are fractional. This fund is also used when no forest mitigation banks are available. The Planning Department continues to work with the Parks Department to use this fund to plant unforested stream valleys in conservation parks. Approximately 20 acres of forest on five different Parks have been planted through this program with two plantings scheduled for 2015.

Volunteer Efforts

The fund is also used to resource community projects on the Planning Department's reforestation sites. Volunteers such as environmental, youth and corporate groups remove invasive vines, build deer protection for young trees and occasionally plant a few new trees. Although staff continues to employ contractors to maintain newly planted forest, we also rely on volunteer efforts to bring trees to maturity. The Planning Department hosts about five volunteer efforts per year.

Volunteer Events				
Fiscal Year	Events	Participants	Total Hours	Cost
2010	2	24	72	0
2011	5	61	183	\$1,353.10
2012	5	89	167	\$2,642.98
2013	6	134	377	\$1,678.87
2014	5	106	268	\$2,322.78
Average	5	98	249	\$1,999.43

Leaves for Neighborhoods Program

Leaves for Neighborhoods is a coupon program established in 2010 and also funded by in-lieu fees. Coupons are worth \$25.00 when a qualifying tree is purchased from participating private nurseries in Montgomery County. The program continues to be popular, averaging the use of 650 coupons per year.

Shades of Green

In 2009 Maryland State DNR amended the restrictions that governed the use of in-lieu-fee funds. Rather than being restricted to use for forest only, the fund could now be used to meet urban tree canopy goals. This opened up the potential for using developer funds to enhance urban forest and improve the quality of life in urban areas. Since then staff has worked to develop an urban planting program. Over the last four years this has evolved into the Shades of Green program. Last year staff partnered with Casey Trees to plant 75 trees in the Wheaton and Glenmont urban areas.

GIS Forest Layer Update

Area and Countywide forest analysis requires an accurate GIS layer. The Planning Department did the first comprehensive forest layer update in 2010 using the 2008 air photos. Prior to that, the GIS forest

layer was updated concurrent with every master plan update resulting in an analysis tool that was not consistent throughout the County. The 2008 forest layer established an accurate tool and has been used extensively since then for both State and local planning efforts.

Staff is in the process of updating the 2008 forest layer using the 2013 air photos. With this new data, trends in forest gains, losses and quality can begin to be observed.

Tree Canopy Assessment

In 2009 the Planning Department contracted with the University of Vermont's Spatial Analysis Laboratory (SAL) to perform a canopy cover assessment that included a high-resolution land cover dataset and tree-canopy/land-cover data.

Canopy cover differs from forest cover in that a canopy analysis includes the canopy of individual trees and small groups of trees that are too small, too narrow, or co-existing with too many built structures to be considered a functioning forest. A forest analysis uses leaf-off (winter) air photos and places a great emphasis on the existence of a forest floor. A canopy analysis uses leaf-on (summer) air photos and includes both the canopy area of forest and of individual trees no matter what other structures, lawns or roads exist under the canopy.

The goal of the tree canopy assessment is to increase our understanding of our green infrastructure that currently exists within urban areas. This analysis focuses on urban and suburban areas where little or no forest is likely to exist. In these areas the presence of trees, although lacking many of the functions of a forest, still have a significant impact of air quality, stormwater runoff, energy use, and the heat-island effect. The analysis is used to answer questions such as:

- What percentage of urban areas in the County are shaded by tree canopy?
- Which areas in a sector plan lack shade and should be targeted for planting?
- What is a realistic tree-canopy goal in any given area?
- Which urban areas have the greatest percentage of unshaded impervious surfaces?
- What neighborhoods have below-average tree canopy?

The Planning Department has recently received an update to the canopy analysis and can begin to assess efforts to increase canopy, particularly in urban areas.

CONCLUSION

The Forest conservation Program Annual Report is a summary of the impact of development on the forest in Montgomery County. Staff recommends transmitting the report to the Maryland Department of Natural Resources.

KN:rb

Attachment



Composite Montgomery County Forest Conservation Annual Report

Fiscal Year	Total Review <i>Project Reviews</i>	Exemptions <i>Total exemptions and NRIs</i>	Forest Conservation <i>FCPs reviewed</i>	Net Tract Area <i>Net tract area under review</i>	Existing Forest <i>Forest in net tract area minus floodplain</i>	Cleared <i>All forest cleared including floodplain</i>	Planted Forest <i>All forest planted for all projects</i>		
							onsite	offsite	total
1994	585	457	128	2142.1	649.7	194.9	86.7	33.5	120.2
1995	357	272	85	1349.5	417.2	189.9	89.5	20.0	109.6
1996	343	267	76	1761.7	499.5	179.5	129.2	5.7	134.9
1997	309	241	68	2798.6	817.9	260.1	130.0	13.5	143.5
1998	380	313	67	2038.3	699.2	283.6	119.0	19.6	138.6
1999	394	336	58	1128.5	388.1	143.7	50.9	19.1	69.9
2000	413	328	85	1412.2	541.2	214.8	48.3	23.6	71.8
2001	428	376	52	1932.9	771.3	284.4	84.2	8.8	93.0
2002	510	426	84	2711.0	959.0	297.2	106.3	23.0	129.4
2003	445	364	81	3869.1	1768.9	241.7	116.7	30.1	146.8
2004	466	393	73	1217.8	397.8	125.0	70.0	24.5	94.5
2005	430	374	56	975.0	390.5	110.6	56.4	8.1	64.6
2006	433	367	66	943.7	278.3	92.7	33.9	5.6	39.5
2007	382	323	59	1030.2	325.0	94.8	57.8	15.8	73.6
2008	314	235	79	2512.3	711.8	135.8	117.7	12.5	130.2
2009	297	232	65	1680.1	538.8	193.4	89.8	35.5	125.2
2010	292	237	55	1566.4	833.6	121.4	31.3	14.5	45.9
2011	302	229	73	1223.2	399.2	160.3	52.8	12.9	65.7
2012	255	196	59	1441.2	395.5	153.1	83.4	46.6	130.0
2013	280	213	67	1445.5	522.4	170.6	39.7	51.1	90.8
2014	268	202	66	1122.6	292.0	137.4	50.3	42.1	92.4



MONTGOMERY COUNTY PLANNING DEPARTMENT THE MARYLAND-NATIONAL
CAPITAL PARK AND PLANNING COMMISSION

All area figures are in acres

Fiscal Year	Retained Forest			Long Term Protection <i>Forest Protected with Easement or Park Dedication</i>	Forest Mitigation Banks			
	<i>Retained forest</i>		total		<i>Existing forest</i>		<i>Newly planted forest</i>	
	onsite	offsite			Newly Created	Debited	Newly Created	Debited
1994	448.5	20.9	469.4	448.5	NR	NR	NR	NR
1995	226.6	23.0	249.5	442.4	NR	NR	NR	NR
1996	319.8	75.1	394.9	397.2	NR	NR	NR	NR
1997	557.7	84.2	641.9	397.5	NR	NR	NR	NR
1998	415.1	14.2	429.3	688.8	NR	NR	NR	NR
1999	246.1	23.3	269.4	618.2	NR	NR	NR	NR
2000	327.2	58.6	385.7	606.6	NR	NR	NR	NR
2001	491.8	14.9	506.6	674.7	NR	NR	NR	NR
2002	660.1	59.7	719.8	903.0	NR	NR	NR	NR
2003	1481.6	22.2	1503.8	760.5	NR	NR	NR	NR
2004	273.1	26.3	299.4	500.2	NR	NR	NR	NR
2005	283.8	9.7	293.5	527.4	NR	NR	NR	NR
2006	186.5	27.0	213.6	557.0	NR	NR	NR	NR
2007	232.2	23.1	255.3	645.3	NR	NR	NR	NR
2008	573.3	98.1	671.3	1209.1	160.50	24.00	0.00	17.90
2009	344.3	26.7	371.0	166.3	70.90	45.44	0.00	0.08
2010	711.7	38.3	750.0	210.4	0.00	39.70	0.00	0.00
2011	235.1	41.6	276.7	244.5	3.90	39.00	7.30	2.40
2012	241.6	57.6	299.3	358.3	7.80	27.10	2.13	0.00
2013	364.2	78.8	443.0	247.1	6.60	50.06	0.85	0.00
2014	154.0	36.9	190.8	403.9	0.00	22.81	0.00	17.02