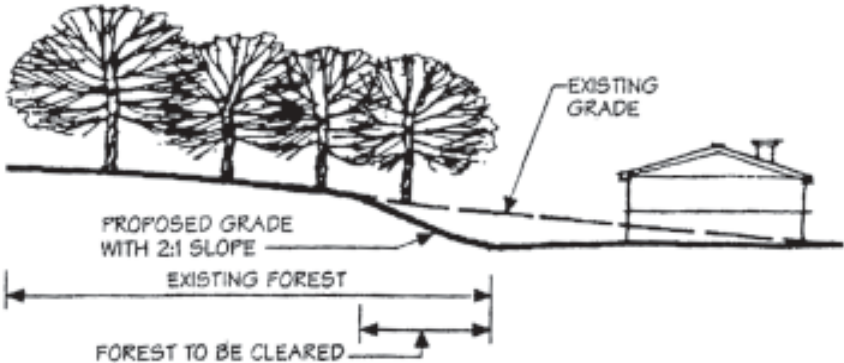


THE MARYLAND FOREST CONSERVATION ACT:

*the law that conserves forest
during development*



A FIVE YEAR REVIEW SUMMARY

Maryland Department of Natural Resources
Forest Service
July 2000



After Development

Area of Forest 42.75 acres
(in Net Tract Area)
Number of Homes 35



Why is there a Maryland Forest Conservation Act?

During the Eighties, a population increase in the State of Maryland led to the conversion of large tracts of agricultural and forest land to subdivision and commercial areas. In response to the intense development pressure on the environment, the State adopted two laws: the Chesapeake Bay Critical Area Law in 1984 to protect the Chesapeake Bay and its tributaries and the Nontidal Wetlands Law in 1990 to protect the state's wetlands. With public recognition and political support of the need to stem the loss of forest in the State, the Forest Conservation Act was adopted in 1991.

The Maryland Forest Conservation Act (Natural Resources Article 5-1601–1612, Annotated Code of Maryland) objectives are to:

- minimize the loss of forest land from development
- ensure that priority areas for forest retention and forest planting are identified and protected prior to development.

The Forest Conservation Act, which establishes standards for local authorities to enforce during development, is a means to protect not only forest and trees in developing areas but also any sensitive areas identified during the local planning or comprehensive land use plan adoption process. Standards established in the Act for identification, retention and replanting include those areas designated as sensitive areas under the Growth Management, Resource Protection and Planning Act of 1992. Sensitive areas include nontidal floodplains, streams and their buffers, steep slopes and critical habitats. Identification and mapping of these areas is part of the Forest Stand Delineation. Protection of these areas occurs through the establishment of long term protection agreements as part of the local approval of Forest Conservation Plans.

Successful forest conservation planning requires collaboration between professional foresters, planners, landscape architects, engineers, surveyors and developers, as well as two-way communication between applicants and plan approval authorities.

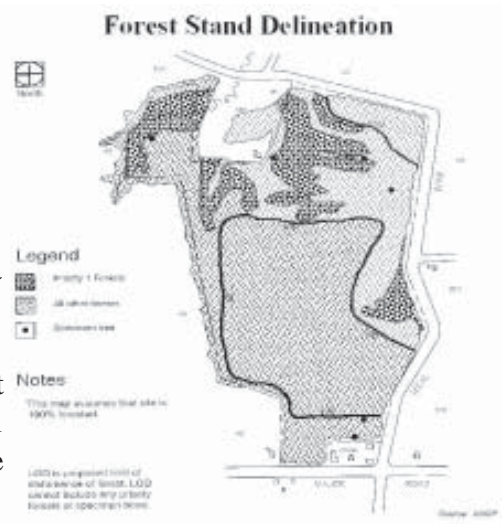
When does it apply?

Any activity requiring an application for a subdivision, grading permit or sediment control permit on areas 40,000 square feet or greater is subject to the Forest Conservation Act and will require a Forest Conservation Plan.

What is required?

The Forest Stand Delineation

identifies the existing forest cover and environmental features on the proposed development site. It is submitted at the initial stages of subdivision or project plan approval, before a grading permit application, or before a sediment control application is submitted. It is a snapshot, a 3-D narrative, that captures the project area from the ground plan up through the forest cover. When the Forest Stand Delineation is complete and approved, the information it provides can then be used to prepare the Forest Conservation Plan.



The **Forest Conservation Plan** indicates the limits of disturbance for the proposed project and how existing forested and sensitive areas will be protected during and after development. It is similar to a sediment and erosion control plan which indicates how sediment will be retained onsite. The submittal components include tree protection specifications, mitigation planting plan, maintenance agreement and the long term protection agreement to be placed on the retained forest and mitigation areas. This plan is part of the site plan and construction bid document

package. A Forest Conservation Plan shall be submitted with the final subdivision or project plan, or application for a grading or sediment control permit.

There are exceptions to the Act. The applicability of the exceptions is determined by the local program or state program staff.



Who can do this work?

Forest Stand Delineations and Forest Conservation Plans must be prepared by a Maryland licensed forester, Maryland licensed landscape architect, or other qualified professionals. Qualified Professionals are required to have a natural resources background, have attended a course and are approved by the Department of Natural Resources.

5 Year Review - Forest Conservation Act's Impact on Forest Cover Statewide

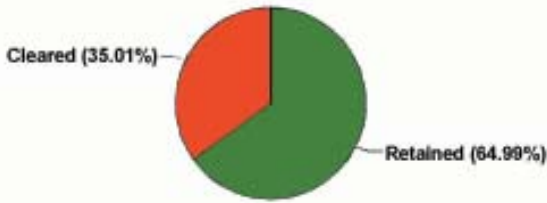
Since July of 1993, the Department of Natural Resources Forest Service (DNR FS) has received annual reports from local governments that contain data on the implementation of their locally adopted forest conservation programs. The data submitted includes: number, location, and types of projects; amount of acres cleared, conserved, and planted in connection with development projects; the amount of reforestation and afforestation fees and penalties collected and expended; and the costs of implementing the local program. The DNR FS has compiled the information for the time period of January 1993 through June 1997 into a five year summary of forest conservation activities statewide. The data analyzed focused on the amount of:

- 1) existing forest onsite prior to development
- 2) existing forest retained onsite after development
- 3) proposed mitigation onsite after development
- 4) forest placed under long-term protection

The Report found that:

- Statewide, 22,508 acres of forest were retained, 12,210 acres were cleared and 4,314 acres were planted.
- All Forest Conservation Programs, on average, retained 65% of existing forest on development sites and cleared 35%. County programs accounted for 93% of forest areas under review statewide.
- County Forest Conservation Programs, on average, retained 65% (20,933 acres) of existing forest on development sites and cleared 35% (11,279 acres). Of the 35% cleared, 14% (2,132.5 acres) were replaced by onsite reforestation planting.

Impact of Forest Conservation: Retained vs. Cleared Forest



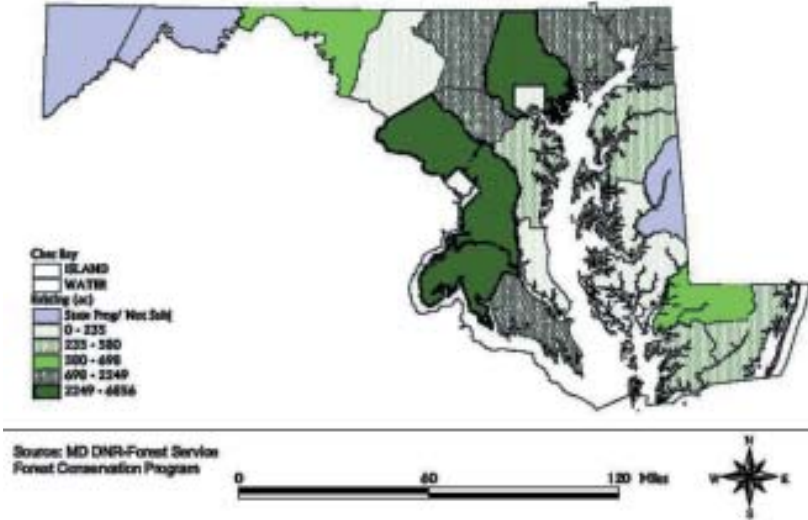
- Total amount of retained and planted forest placed under long-term protection through County Forest Conservation Programs is 26,822 acres.
- Municipal Forest Conservation Programs, in total, have retained 412 acres of existing forest, cleared 289 acres and planted 180 acres.

Five Year Summary of Forest Acreage Under Review

	All Programs			
	State	Counties	Municipalities	Statewide
Existing	1,975	33,722	700	36,397
Retained	1,163	20,933	412	22,508
Cleared	642	11,279	289	12,210
Planted	325	3,808	180	4,313
Forest Cover Estimate*				
	2,597,260 ac			
% Land Area				
	41.6			
*Retention implies long term protection (LTP); additional onsite retention may have occurred without LTP.				
*Maryland Forest Resources inventory 1994-1995				

Further analysis indicates that:

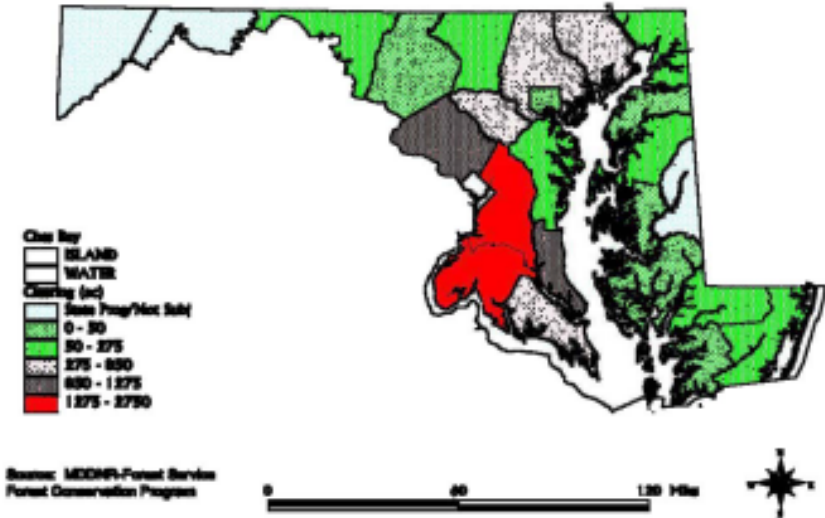
Acres of Existing Forest Under Review by County Forest Conservation Programs 1992-1997



Majority of forest area under development review occurred within the Route 301/Baltimore-Washington Corridor.

- C 52% occurred in 3 counties:
 - Montgomery County 3,776 acres
 - Prince George's County 6,856 acres
 - Charles County 4,672 acres

Acres of Forest Clearing Approved Under County Forest Conservation Programs 1992-1997

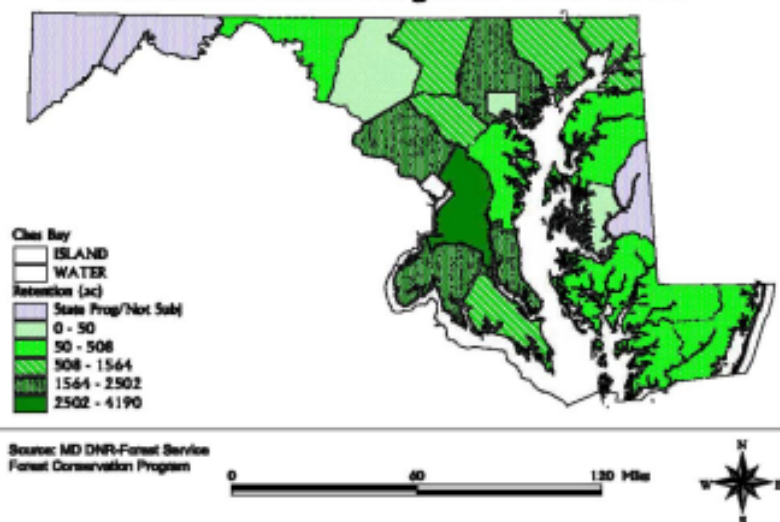


Majority of development-related clearing in Maryland occurred within the Route 301 / Baltimore-Washington Corridor.

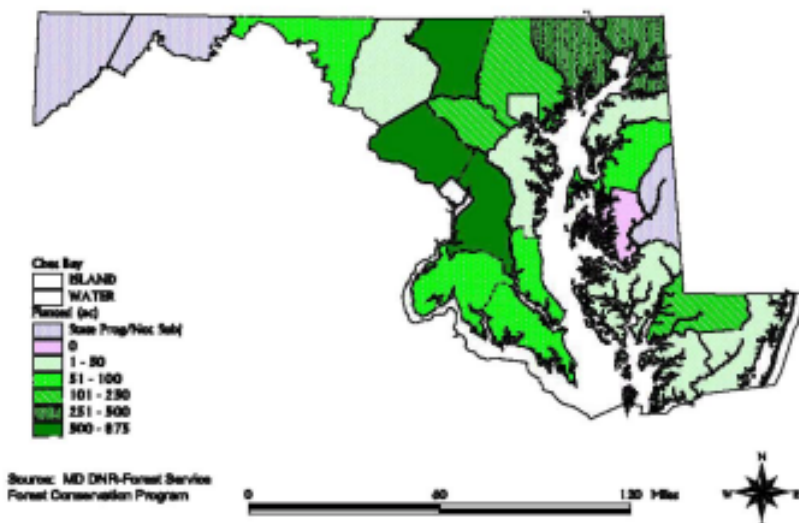
- 55% occurred within the same three counties:

Montgomery County	1,253 acres
Prince George's County	2,197 acres
Charles County	2,705 acres

Acres of Forest Retained Under County Forest Conservation Programs 1992-1997



Acres of Forest Planted Under County Forest Conservation Programs 1992-1997



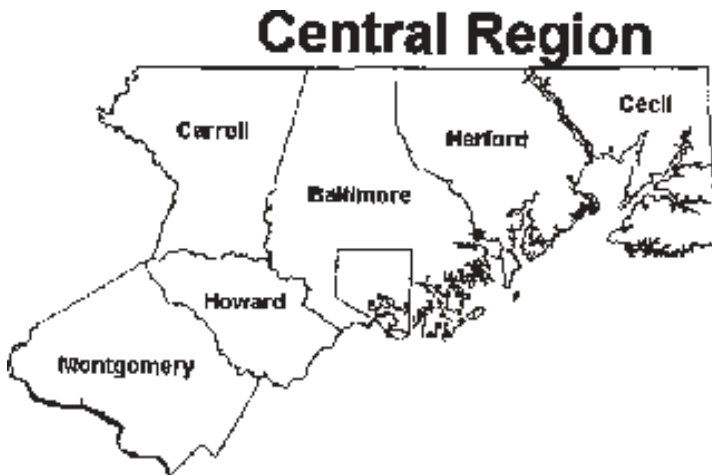
Majority of forest retention and planting also occurred within the same geographic area and three counties.

- 43% of retention and 56% of planting statewide:

Montgomery County	2,502 acres retained	874 acres planted
Prince George's County	4,190 acres retained	632 acres planted
Charles County	2,279 acres retained	77 acres planted

Statewide Comparison by Region

A comparison of the forest conservation programs in the four DNR FS regions indicates that Southern Region counties retained 60% of existing forest and at the same time cleared the highest amount of forest (6,888 acres) associated with land development activities. The Central Region planted more forest (2,500 acres) while Western Region had the highest ratio of planting to clearing (0.9:1). The following is a breakdown of the results on a regional basis.



Central Region (Baltimore, Carroll, Cecil, Harford, Howard and Montgomery Counties)

Baltimore County	(total forest coverage: 125,149 acres; 33% of land area)
Existing forest	3,361 acres
Retained forest	2,305 acres
Cleared	845 acres
Planted	239 acres

Carroll County (total forest coverage: 71,931 acres; 25% of land area)

Existing forest	1,243 acres
Retained forest	962 acres
Cleared	236 acres
Planted	642 acres

Cecil County (total forest coverage: 89,577 acres; 40% of land area)

Existing forest	1,521 acres
Retained forest	829 acres
Cleared	214 acres
Planted	259 acres

Harford County (total forest coverage: 107,159 acres; 38% of land area)

Existing forest	1,418 acres
Retained forest	893 acres
Cleared	502 acres
Planted	269 acres

Howard County (total forest coverage: 52,500 acres; 33% of land area)

Existing forest	1,492 acres
Retained forest	823 acres
Cleared	621 acres
Planted	234 acres

Montgomery County (total forest coverage: 92,260 acres; 29% of land area)

Existing forest	3,776 acres
Retained forest	2,502 acres
Cleared	1,253 acres
Planted	874 acres

** Bold indicates the most activity in the region.



Eastern Region (Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico and Worcester Counties)

Dorchester County (total forest coverage: 125,235 acres; 35% of land area)

Existing forest	86 acres
Retained forest	77 acres
Cleared	4 acres
Planted	21 acres

Kent County (total forest coverage: 41,800 acres; 23% of land area)

Existing forest	236 acres
Retained forest	219 acres
Cleared	6 acres
Planted	39 acres

Queen Anne's County (total forest coverage: 60,812 acres; 26% of land area)

Existing forest	513 acres
Retained forest	460 acres
Cleared	64 acres
Planted	80 acres

Somerset County (total forest coverage: 88,148 acres; 43% of land area)

Existing forest	236 acres
Retained forest	187 acres
Cleared	49 acres
Planted	1 acres

Talbot County (total forest coverage: 42,670 acres; 25% of land area)

Existing forest	6 acres
Retained forest	2 acres
Cleared	4 acres
Planted	0 acres

Wicomico County (total forest coverage: 111,940 acres; 47% of land area)

Existing forest	698 acres
Retained forest	360 acres
Cleared	263 acres
Planted	105 acres

Worcester County (total forest coverage: 159,716 acres; 53% of land area)

Existing forest	577 acres
Retained forest	363 acres
Cleared	213 acres
Planted	31 acres

This analysis of Eastern Region local county programs is not completely comparable among counties due to some counties not adopting forest conservation programs in 1993. Those that did not adopt programs had their land development activities reviewed under the state forest conservation program and are reported with the state program analysis.

** Bold indicates the most activity in the region.



Southern Region (Anne Arundel, Calvert, Charles, Prince George's and St. Mary's Counties)

Anne Arundel County (total forest coverage: 113,391 acres; 43% of land area)

Existing forest	580 acres
Retained forest	308 acres
Cleared	272 acres
Planted	48 acres

Calvert County (total forest coverage: 77,623 acres; 57% of land area)

Existing forest	3,108 acres
Retained forest	1,916 acres
Cleared	1,192 acres
Planted	70 acres

Charles County (total forest coverage: 178,099 acres; 61% of land area)

Existing forest	4,672 acres
Retained forest	2,279 acres
Cleared	2,705 acres
Planted	77 acres

Prince George's County (total forest coverage: 129,119 acres; 42% of land area)

Existing forest **6,856 acres**

Retained forest **4,190 acres**

Cleared 2,197 acres

Planted **632 acres**

St. Mary's County (total forest coverage: 123,940 acres; 54% of land area)

Existing forest 2,249 acres

Retained forest 1,564 acres

Cleared 522 acres

Planted 70 acres



Western Region (Allegany, Frederick, Garrett and Washington Counties)

Frederick County (total forest coverage: 135,577 acres; 32% of land area)

Existing forest **28 acres**

Retained forest **46 acres**

Cleared **2 acres**

Planted **4 acres**

Washington County (total forest coverage: 108,962 acres; 37% of land area)

Existing forest 660 acres

Retained forest 508 acres

Cleared 70 acres

Planted 61 acres

*Allegany and Garrett are exempt from the Forest Conservation Act because these counties have more than 200,000 acres of forest.

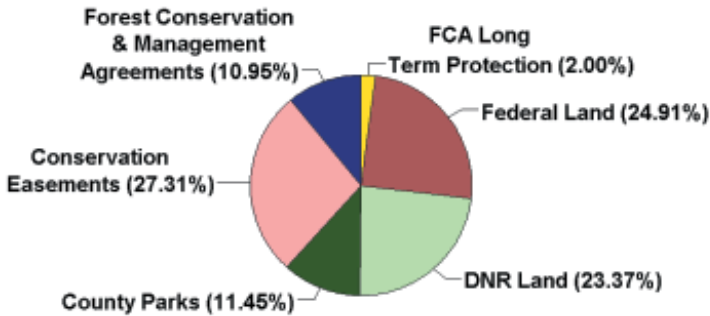
** The total forest coverage data and percentage of land area in forest cover was obtained from the DNR Forest Resource Inventory 1994-1995.

*** Bold indicates the most activity in the region.

The total area of forest statewide that has been placed under long term protection as a result of county review is 26,822 acres. This number includes estimates of protection made by our staff in the absence of reported values, and was derived from the sum of retained and planted acres. This area represents 1.64 % of the land in counties already protected from development by various means in five years compared to 2.00% of all Forest Conservation Programs’ protected lands.

The total amount of protected forest conservation land can be broken down by region: Central Region counties protected 8,473 acres (42% of the total), Eastern Region protected 1,843 acres (9% of the total), Southern Region protected 9,212 acres (46% of the total) and Western Region protected 638 acres (3% of the total).

Protected Lands by Various Means



The DNR FS is responsible for ensuring that State-funded and State agency projects comply with the FCA through the review of their development projects.

- Analysis of the State program data indicates that:
 - 1,163 acres (68%) of existing forest was retained on development sites,
 - 642 acres cleared, and 325 acres planted on state reviewed projects.

Upon examination of the data, it is revealed that a majority of the projects occurred in the Eastern region, in particular Caroline County, due to the absence of a local forest conservation program. A comparison of Caroline County projects to all other state funded or state agency projects reveals that projects within the county have retained 79% of existing forest, cleared 21% of forest, and replanted 38% of forest through reforestation and afforestation mitigation that was required for the development activities.

Summary

During the time frame of this report, 36,397 acres of forest were reviewed for development purposes statewide. Without the Forest Conservation Act a majority of that forest may have been lost and little if any replanted. Because of the Forest Conservation Act, however, **22,508 acres of forest have been retained, and 4,313 acres of forest planted, while 12,210 acres of existing forest have been cleared.** In many instances, more forest has been retained than required by the law. Thus, through required and voluntary actions, **65% of existing forest on development sites have been retained and 35% cleared.** In the absence of the FCA legislation, a much smaller percentage of forest would have remained on site, and likely very little if any planted in association with development projects. The net result is that Maryland has retained more forest than it has lost to development, and thus maintained a key factor in the protection of the Chesapeake Bay.

The following jurisdictions in the state have planning and zoning authority. All these jurisdictions have a Forest Conservation Program or are part of the State's or county's program (see the key). The information for this report was obtained from these jurisdictions.

Anne Arundel County

Annapolis

Baltimore City

Baltimore County

Calvert County

Chesapeake Beach

North Beach*

Caroline Countyj

Denton

Federalburgj

Goldsboroj

Greensboroj

Hendersonj

Hillsboroj

Marydelj

Prestonj

Ridgelyj

Carroll County

Hampstead ^

Manchester ^

Mount Airey ^

New Windsor ^

Sykesville ^

Taneytown ^

Union Bridge ^

Westminster ^

Cecil County

Elkton

Perryville

Ceciltown ^

Charlestown ^

Chesapeake City ^

North East ^

Port Deposit ^

Rising Sun ^

Charles County

Indian Head

LaPlata

Dorchester County

Brookevillej

Cambridgej

Church Creekj

East New Market ^

Eldorodoj

Galestownj

Hurlockj

Secretaryj

Viennaj

Frederick County

Frederick City

Brunswickj

Burkittsvillej

Emmitsburg

New Market

Middletownj

Myersvillej

Rosemontj

Thurmontj

Walkersvillej

Woodsboroj

Harford County

Aberdeen

Bel Air

Havre de Grace

Howard County

Kent County

Betterton

Chestertown

Galena

Millington

Rock Hall

Montgomery County
Gaithersburg
Rockville
Barnesville
Brookville
Laytonsville
Poolesville
Washington Grove

Prince George's County
Laurel

Queen Anne's County
Barclayj
Centreville
Church Hillj
Queen Annej
Queenstown
Sudlersvillej
Templevillej

St. Mary's County
Leonardtwn

Somerset County
Crisfield ^
Princess Anne ^

Talbot County
Easton
Oxford
St. Michaelsj
Trappej

Washington County
Boonsboro ^
Clear Spring ^
Funkstown ^
Hagerstownj
Hancock ^
Keedysville ^
Sharpsburg ^
Smithburg ^
Williamsport ^

Wicomico County
Delmar ^
Fruitland ^
Hebron ^
Mardela Spring ^
Pittsville ^
Salisbury ^
Sharpstown ^
Willards ^

Worcester County
Berlin ^
Ocean Cityj
Pocomoke City ^
Snow Hill ^

Key:

*Town expanded Critical Area
Program to include entire town
limits

jIncluded within County program

^ Included within State Program

Robert L. Ehrlich, Jr., Governor
Michael S. Steele, Lt. Governor
C. Ronald Franks, Secretary
W. P. Jensen, Deputy Secretary
Steven W. Koehn, Director, Forest Service

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The Mission of the Maryland Department of Natural Resources

To inspire people to enjoy and live in harmony with their environment, and to protect what makes Maryland unique - our treasured Chesapeake Bay, our diverse landscapes, and our living and natural resources.

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