THE MARYLAND FOREST CONSERVATION ACT:
the law that conserves forests during development

A TEN YEAR REVIEW
MD DNR Forest Service
September 2004
Summary

During the 10 years of implementing the Forest Conservation Act (1992 - 2002):

- Statewide, the effect of the Forest Conservation Act on development has resulted in the retention of 79,174 acres of forest, the planting of 13,611 acres of trees and the clearing of 42,906 acres. In other words, 65% of forest has been retained and 35% cleared.

- Statewide, 55,120 acres of retained and planted forest have been placed under long-term protection.

- The State Forest Conservation Program has retained 2,528 acres of existing forest on development sites, cleared 1,158 acres of forest and planted 643 acres.

- County Forest Conservation Programs have retained 54,741 acres of existing forest on development sites and cleared 29,320 acres, in other words, 65% of forest has been retained and 35% cleared.

- Municipal Forest Conservation Programs, in total, have retained 955 acres of existing forest, cleared 873 acres and planted 678 acres.

- The State Forest Conservation Program, in addition to review activities, also:
  - Held 118 workshops that were attended by 3,350 attendees for a total of 17,040 seat hours. Attendees included local government officials and staff, consultants, and others seeking information on forest conservation related topics.
  - Approved 366 professionals to perform forest stand delineations and forest conservation plans as Qualified Professionals.
  - Awarded $139,068 through the Urban & Community Forestry Grant Program to various groups for tree planting activities. Funding was made available through the State Forest Conservation Program Fee-In-Lieu Fund.
Why is there a Maryland Forest Conservation Act?

During the 1980’s, 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 three laws: the Chesapeake Bay Critical Area Law in 1984 to protect the Chesapeake Bay and its tributaries; the Nontidal Wetlands Law in 1990 to protect the state’s wetlands; and the Forest Conservation Act adopted in 1991 to stem the loss of forest in the State.

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 established 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 area 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. Identifying and mapping of these areas is part of the Forest Stand Delineation. Protection 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 plane 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.

10 Year Review - Forest Conservation Act’s Impact on Forest Cover Statewide

Since July of 1993, the Maryland Department of Natural Resources Forest Service (MD 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 MD DNR FS has compiled the information for the time period of January 1993 through June 2002 into a ten 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, 79,174 acres of forest were retained, 42,906 acres were cleared and 13,611 acres were planted.
- All Forest Conservation Programs, on average, retained 65% of existing forest on development sites and cleared 35%.
- County programs accounted for 69% of forest areas under review statewide.
- County Forest Conservation Programs, on average, retained 65% (54,741 acres) of existing forest on development sites and cleared 35% (29,320 acres).
- 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.
- The State Forest Conservation program has retained 23,479 acres (65%) of existing forest on development sites, cleared 12,713 acres (35%), 4,613 acres planted onsite and 1,580 acres of retained and planted forest has been placed in long-term protection.

Analysis of the data shows, as would be expected, that the highest number of acres of forest cleared and retained occurred in those counties with the highest number of acres under review.
- At the 10-year mark, Prince George’s and Charles Counties together accounted for nearly 40% of the total acres cleared.
- Prince George’s, Montgomery, Baltimore and Calvert Counties make up nearly half (47%) of the total number of acres retained.
- Prince George’s, Montgomery and Carroll Counties constitute half (47%) of the acres of new forest planted.

This marks a change from the first five years of the Act. At that point, Prince George’s, Montgomery and Charles Counties were responsible for the majority of all the forest retained, cleared and planted in the state. What has caused the change?

During the most recent five years, a number of innovative new programs to retain and plant forests started to show results. For example, Calvert County requires cluster subdivisions with the remaining acreage placed in easement. Baltimore County has various stream buffer requirements and Carroll County has planted large amounts of trees through their mitigation banking program. These programs have dramatically increased the number of acres of forest retained and planted in these counties.

The graphic representations of the data indicate that counties along the I-95/Rt. 301 corridor have the most forest conservation activity occurring; from this can be inferred that this area also has more development pressure then the rest of the State. So, forest conservation is not preventing development but working in tandem to conserve the State’s forest resources during development. Over the past 10 years, the Forest Conservation Act has enabled the retention and planting of 92,785 acres of forest land; 65% of existing forest has been retained. The ratio of acres of forest retained and planted vs. cleared is that nearly 2.2 acres are being protected for every acre cleared!

Maryland led the Nation with the adoption of a law to conserve forests during development and the result is exciting. A key factor needed to protect the Chesapeake Bay, forest cover, is being maintained without preventing land development.
Majority of forest area under development review occurred within the **Route 301/I95 Corridor**

**Acres of Existing Forest Under Review by County**
**Forest Conservation Programs 1993-2002**

42% occurred in 3 counties:
- **Prince George’s County**: 19,896.8 acres
- **Charles County**: 8,936 acres
- **Calvert County**: 8,090.7 acres
Majority of development-related clearing in Maryland occurred within the **Route 301 / I95 Corridor**

**Acres of Forest Clearing Approved Under County Forest Conservation Programs 1993-2002**

40% occurred within 2 counties:
- **Prince George's County**: 6,969.2 acres
- **Charles County**: 4,815.8 acres
Majority of forest retention also occurred within the same geographic area while a majority of planting occurred along the I95 corridor.

**Acres of Forest Retained Under County Forest Conservation Programs 1993-2002**

47% occurred within 4 counties:
- Prince George's County 10,127 acres
- Montgomery County 5,492.8 acres
- Calvert County 5,449.8 acres
- Baltimore County 4,677 acres
Acres of Forest Planted Under County Forest Conservation Programs 1993-2002

47% occurred within 3 counties:
- Montgomery County 1,445.5 acres
- Prince George’s County 1,234 acres
- Carroll County 1,203.2 acres
State Forest Conservation Program Highlights
FY 1993 - 2002

- A total of 310 Forest Conservation Plans (FCP) were reviewed and approved with 18,140 acres of forest being reviewed, 1,158 acres of forest proposed for clearing, 2,528 acres of forest proposed for retention and 643 acres proposed for planting.
- The State Forest Conservation Program Fee-In-Lieu Fund, (fees paid in lieu of mitigation planting), collected $215,648 of which $139,068 has been rewarded through the Urban & Community Forestry Grant Program, to various groups for tree planting projects.
- The State Forest Conservation Program has collected a total of $94,500 in enforcement fines.
- By 2002, 21 counties had adopted forest conservation ordinances; 12 municipalities were under the State Program; 9 jurisdictions were not exercising their authority and 2 counties and 18 municipalities were exempt.
- MD DNR FS staff held 188 workshops which were attended by 3,350 attendees for a total of 17,040 seat hours.
- Washington County’s Forest Conservation Fund Program received the 1998 Distinguished Achievement Award from the Chesapeake Bay Local Government Advisory Committee’s Innovative Awards Program for their use of fee-in-lieu funds on CREP sites.
- Since 1993, 366 individuals have become Qualified Professionals.
- **Assistance Provided to Local Programs included:**
  - Assisted in the development of local programs’ policies, procedures and guidelines such as Worcester County’s Voluntary Environmental Guidelines for Golf Courses and Carroll and Frederick Counties’ Forest Mitigation Banking Program policies.
  - Assisted the local jurisdictions in the development and adoption of their Forest Conservation Ordinances.
  - Reviewed proposed revisions to the forest conservation ordinances in sixteen counties and four municipalities, as these jurisdictions moved to further refine their existing forest conservation programs.
  - Provided technical assistance during the review of development proposals and plan and field reviews in sixteen counties and 14 municipalities across the state.
  - Assisted Frederick County in planting their fee-in-lieu funds on 170 acres of riparian buffer plantings along the Monocacy River.
  - Conducted training in Chesapeake City and Cambridge on the development of urban forest management plan in order for jurisdictions to manage their trees and forests.
  - Assisted the Towns of Vienna and North Beach in developing a forest conservation ordinance that combines forest conservation and critical area requirements.
- **Presentations:**
  - “Case Studies in Forest Conservation”, Reconnecting Landscapes – Rebuilding Forest Fragments in the Chesapeake Bay Watershed Conference, November 17-19, 1999, Annapolis, Maryland. Also contributed to the conference proceedings.
  - “Forest Conservation”, 2000 American Planning Association
National Planning Conference, April 15-19, 2000, New York, New York. Also contributed to the conference proceedings.


- "Forest Conservation Toolbox”, Maryland Community Forest Council’s 8th Annual Community Forest Workshop, October 24, 2000, Westminster, Maryland. Also contributed to conference proceedings.


- "Forest Conservation Through the Maryland Forest Conservation Act”, 2001 National Urban Forest Conference, September 5-8, 2001, Washington DC. Also contributed to the conference proceedings.

- Maryland Municipal League’s April 2002 meeting, Annapolis, Maryland.


- Outreach Opportunities
  - Cosponsored “The Forest Conservation Act: Opportunities for Profit and Progress” with The Home Builders Association of Maryland, Maryland Chapter of the ASLA, American Society of Civil Engineers and Carroll Community College, 1998.
  - Cosponsored the National Arbor Day Foundation’s “Building With Trees Workshop” at the Patuxent Wildlife Visitor Center, October 15, 1998.
  - Contributed two articles, Maryland DNR-Concerns With Forest Stand Delineations, and MDNR Holds Woodland Symposium, the Maryland ASLA landscape architecture newsletter.
  - Cosponsored, Randall Arendt: Conservation Planning and Design within a Smart Growth Framework, at University of Maryland–College Park, April 18, 2001. Other cosponsors: MD Chapter of the American Society of Landscape Architects, UMD–Landscape Architecture Program, MD Chapter American Planning Association, Anne Arundel County – Office of Planning and the Chesapeake Trust.
  - The Forest Conservation Course, required by all professionals who wish to receive qualified professional status, was conducted jointly by MD DNR and 10 community colleges across the state with 159 attendees in FY94 and FY95. Since FY96, the 25 courses have been conducted solely by the community colleges and John Hopkins University with 300 attendees.

- Technology assistance
  - Revised the Forest Conservation Technical Manual to streamline the manual and reflect statutory amendments.
  - Developed The Forest Conservation Toolbox, a multi-paged brochure that discusses the various programs within the MD DNR Forest Service and how the programs can be combined. Copies were distributed statewide to all local governments with planning and zoning authority.
  - Conducted the 1998 and 2003 Survey of Qualified Professionals to evaluate the forest conservation course’s effectiveness, continuing educational needs, input as to customer service on a local and state level and fees generated in the private sector.
  - Cosponsored the Forest Conservation and Land Development Symposium
with the University of Maryland College of Agriculture held biennially from 1995 through 2001 (2003’s symposium was cancelled due to low registration). The symposium provided educational and technical information concerning compliance with the Forest Conservation Act and showcased forest conservation efforts.

- **Presented Excellence in Forest Conservation and Land Development Awards** which showcase development projects that exhibit best compliance with forest conservation goals and objectives at the biennial symposiums.

- **Additional activities include:**
  - In June 1993, the first issue of Forest Conservation Update newsletter was mailed and continued to be sent biannually through 2002.
  - Reviewed proposed revisions of the MD Department of Environment’s Sediment and Erosion Control Manual for FCA-related compliance issues.
  - Assisted other state and federal agencies, such as National Institute of Health, University of Maryland System, Towson University, Morgan State University, Martin State Airport, State Highway Administration with understanding and complying with the Forest Conservation Act.
  - Staff assisted with numerous continuing education seminars, classroom presentations in elementary and secondary schools science and environmental education classes, and at professional and local government (MACo, Soil Conservation District) conventions, etc.
  - Maintained a listing of Forest Conservation Service providers, including a list of licensed landscape architects, licensed foresters and other qualified professionals. The list, which contains 400 names, is available by county and type of work the professionals are willing to perform.
Qualified Professionals

The Forest Conservation Regulations, COMAR 08.19.06.01B, limit those individuals authorized to perform forest stand delineations and forest conservation plans to Maryland licensed foresters, Maryland licensed landscape architects and other qualified professionals approved by Maryland Department of Natural Resources Forest Service (MD DNR FS).

According to COMAR 08.19.06B (1)-(4) (amended July 1996),

An individual may be approved by the Department as a qualified professional if the individual:

1. Possesses the following education or experience requirements:
   a) A 4-year degree in the natural resources sciences, natural resource management, landscape planning, or environmental planning,
   b) 4-years of professional experience in natural resources sciences, natural resource management, landscape planning, environmental planning, or the equivalent as determined by the Department, or
   c) A graduate degree in natural resources sciences and 1-year professional experience;
2. Has shown the ability to meet the obligations required by the Department to prepare a forest stand delineation and a forest conservation plan; and
3. Has satisfactorily completed a forest conservation training program approved by the Department.

Previous to 1996 the requirements stated that a 4-year degree and 2-years experience or a master’s degree and 1-year experience in addition to the course were required.

Analysis of applications

An analysis of the qualified professionals’ applications indicate that a total of 416 applications for Qualified Professional status have been received with 366 (88%) being approved. Of the approved applicants, 306 (84%) applicants met the education requirements in contrast to 60 (16%) applicants that met the experience requirements. It should be noted that experience was not an option prior to 1996. Educational degrees were analyzed along with the field of study and 227 (74%) applicants received undergraduate degrees with the majority of applicants with degrees in Biology (59), Landscape Architecture (40) and Geography (29). The majority of graduate degrees were in Biology (14), Landscape Architecture (11) with a tie between Planning (10) and Natural Resource Management (10).

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<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Education</td>
<td>222</td>
<td>84</td>
<td>306</td>
</tr>
<tr>
<td>Experience</td>
<td>20</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>242</td>
<td>124</td>
<td>366</td>
</tr>
</tbody>
</table>

This does not include Maryland licensed foresters or Maryland licensed landscape architects.

<table>
<thead>
<tr>
<th>Experience 1998-2002</th>
</tr>
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<tbody>
<tr>
<td>Civil Engineering</td>
</tr>
<tr>
<td>Surveyor</td>
</tr>
<tr>
<td>Arborist</td>
</tr>
<tr>
<td>Forestry</td>
</tr>
<tr>
<td>Environmental Science</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Undergraduate degrees

Graduate degrees
Analysis of the 2003 Qualified Professional Survey

In the spring of 2003, a survey was mailed to the Maryland Qualified Professionals in order to learn more about the practicing professionals such as the number of plans completed per year, their experiences with the local jurisdictions and their place of business. Of the 340 surveys mailed, 66 were returned completed (a 22% response rate) and 50 were returned undeliverable.

Question 2: Have you done any FSD or FCP in the past year? If so, how many FSD? How many FCP? An average of 11 FSD and 11 FCP are completed in the past year per Qualified Professionals. The number of FSD ranged from 2 – 36 and the number of FCP ranged from 2 – 40. (Per 46 responses; this does not include those that responded as government reviewers).

Question 10: How would you characterize your place of business or firm? a) Landscape Architecture, b) Environmental Consultant, c) Engineering, d) Forest Industry, e) Local Government

The sixty four responses state the following types of firms: Environmental Consultant (18), Engineering (17), Local Government (12), a combined Landscape Architecture/Environmental Consultant/Engineering (6), a combined Landscape Architecture/Environmental Consultant (4), Landscape Architecture (2), Forest Industry (2), a combined Engineering/Local Government (1).

Question 1 & 6: On a scale from 1-5 (1 is the most negative rating and 5 the most positive): how would you rate your overall experience with local reviewers?

<table>
<thead>
<tr>
<th>County</th>
<th>Rating (# responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anne Arundel</td>
<td>3.0 (11)</td>
</tr>
<tr>
<td>Baltimore</td>
<td>3.5 (10)</td>
</tr>
<tr>
<td>Calvert</td>
<td>5.0 (2)</td>
</tr>
<tr>
<td>Caroline</td>
<td>3.8 (8)</td>
</tr>
<tr>
<td>Carroll</td>
<td>3.5 (6)</td>
</tr>
<tr>
<td>Cecil</td>
<td>3.6 (8)</td>
</tr>
<tr>
<td>Charles</td>
<td>4.0 (1)</td>
</tr>
<tr>
<td>Dorchester</td>
<td>3.5 (4)</td>
</tr>
<tr>
<td>Frederick</td>
<td>3.7 (6)</td>
</tr>
<tr>
<td>Harford</td>
<td>3.6 (14)</td>
</tr>
<tr>
<td>Howard</td>
<td>4.0 (17)</td>
</tr>
<tr>
<td>Kent</td>
<td>4.0 (17)</td>
</tr>
<tr>
<td>Montgomery</td>
<td>3.7 (21)</td>
</tr>
<tr>
<td>Prince George’s</td>
<td>3.3 (3)</td>
</tr>
<tr>
<td>Queen Anne’s</td>
<td>3.3 (3)</td>
</tr>
<tr>
<td>St. Mary’s</td>
<td>3.3 (3)</td>
</tr>
<tr>
<td>Somerset</td>
<td>4.5 (4)</td>
</tr>
<tr>
<td>Talbot</td>
<td>4.5 (4)</td>
</tr>
<tr>
<td>Washington</td>
<td>4.5 (4)</td>
</tr>
<tr>
<td>Wicomico</td>
<td>4.5 (4)</td>
</tr>
<tr>
<td>Worcester</td>
<td>4.5 (4)</td>
</tr>
</tbody>
</table>

Of the 66 returned surveys, 46 included this information. Some surveys indicated multiple responses.

All the counties received a rating of 3 or higher indicating that the qualified professionals have general satisfaction or better with the local government reviewers. Prince George’s, Howard and Montgomery Counties had the highest number of responses with a majority of those ratings being in the 4 – 5 range.

Questions 12 & 13: What is your company’s standard fee for a Forest Stand Delineation (FSD)? What is the standard fee for a Forest Conservation Plan (FCP)?

<table>
<thead>
<tr>
<th></th>
<th>1-10 acres</th>
<th>11-50 acres</th>
<th>50+ acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSD range</td>
<td>$1,410</td>
<td>$2,477</td>
<td>$3,071</td>
</tr>
<tr>
<td></td>
<td>$300 - $2500</td>
<td>$400 - $5500</td>
<td>$700 - $10,000</td>
</tr>
<tr>
<td>FCP range</td>
<td>$1,311</td>
<td>$2,000</td>
<td>$2,653</td>
</tr>
<tr>
<td></td>
<td>$300 - $3,000</td>
<td>$400 - $5,500</td>
<td>$700 - $6,000</td>
</tr>
</tbody>
</table>

Of the 66 returned surveys, 31 included information about standard fees.

The highest fees were found in Prince George’s and Charles Counties while the lowest appear to be found in Caroline and Talbot Counties. (Only 1 survey was returned indicating the fees in Caroline and Talbot Counties.)

A conclusion could be drawn by the responses to Question 2 and Questions 12 & 13 that the number of qualified professionals (31) each completing 11 FSD per year has a potential to generate between $480,810 and $1,047,211 of income per year. The same number of qualified professionals each completing 11 FCP yearly has a potential to generate between $447,051 to $904,673 of income per year.
Summary of Legislative Changes to the Forest Conservation Act & Regulations

From FY93 - FY02, there has been legislative activity in the form of 22 Senate Bills and 28 House Bills proposed to amend the MD Forest Conservation Act. Out of 50 attempts, only 7 were adopted. The following is a description of the adopted changes to the statute and regulations.

Amendments to the Forest Conservation Act

**Senate Bill 915 Forest Conservation Requirements - Local Programs**

**Effective June 1, 1993**

NRA 5-1603 Local Forest Conservation Program
* Allows local forest conservation programs to use clustering and other innovative land use techniques to protect and retain forests and sensitive areas.
* Allows for the recovery of all costs incurred in the administration of the local forest conservation program.

Added Section 2 which establishes an Advisory Group on Forest Conservation that will serve through May 31, 1994.

**House Bill 360 Forest Conservation Requirements - Paved Surfaces - Waiver**

**Effective October 1, 1994**

NRA 5-1603 Local Forest Conservation Program
* Waives forest conservation requirements for areas previously developed and covered by paved surfaces at the time of subdivision, grading, or sediment control permit application.

**House Bill 63 Forest Conservation - Navigable Airspace - Exemption**

**Effective May 1995**

NRA 5-1602 Applicability of Subtitle
* Adds to the list of exceptions: the cutting or clearing of trees that affect navigable airspace as per FAA requirements.

**Senate Bill 33 Forest Conservation**

**Effective October 1, 1997**

NRA 5-1601 Definitions
* Adds to definitions: forest mitigation banking and linear project.
* Revises definitions: net tract area and reforestation.

NRA 5-1602 Applicability of subtitle
* Adds the extension of Critical Area forest protection methods outside of critical area.
* Revises the single lot exception to include linear projects.

NRA 5-1603 Local Forest Conservation Program
* Allows the State when administering the forest conservation program in place of the local jurisdiction to recover administration costs.

NRA 5-1604 Forest Stand Delineation
* Establishes alternative methods of forest stand delineations such as simplified forest stand delineations and other substitute plans.

NRA 5-1606 Afforestation; Forest Conservation Thresholds
* Revises the afforestation requirements to not include linear projects.

NRA 1607 Preferred Sequence for Afforestation and Reforestation
* Revises the preferred sequence for afforestation and reforestation to include the use of forest mitigation banks.
* Adds coastal bays and their buffers to priority areas for retention and protection and priority areas for afforestation and reforestation.
* Adds forest areas in 100 year floodplains to priority areas for afforestation or reforestation.

**House Bill 1183 Coastal Bays Protection Program - Worcester County**

**Effective June 1, 2002**

* Creates a Coastal Bay Protection Program similar to the Chesapeake Bay Critical Area Law in Worcester County. This Bill may exempt the land that falls under this criteria from FCA compliance.
Senate Bill 895  
* Forest Retention Banks - Pilot Program  
Effective July 1, 2002

NRA 5-1610.2  
* Establishes a 2-year pilot program, effective only in Carroll and Frederick County, in which a landowner can use forested stream buffers established under the federal Conservation Reserve Enhancement Program to create forest retention banks.

House Bill 470  
* Forest Conservation  
Effective October 1, 2002

NRA 5-1605 (d)  
* Clarifies the forest conservation plan’s review time frame as determining the plan to be complete only.

NRA 5-1607 (e)  
* Adds the State as also requiring protective agreements as part of the forest conservation program.

NRA 5-1610 (c)  
* Clarifies that all enforcement funds collected are deposited in the Forest Conservation Fund.

Revisions to the Forest Conservation Regulations

MD Register Volume 25, Issue 8 April 10, 1998 pg. 624-634  
* Effective June 5, 1998

COMAR 08.19.01 General  
* Removes the edition number that is referenced with the Forest Conservation Manual.

* Adds definitions for forest mitigation bank, forest mitigation bank agreement, and forest mitigation bank plan.

* Deletes definition for linear project, net tract for linear project, and reforestation.

* Revises the application section to include the extension of Critical Area forest protection methods outside of critical area as part of the critical area exemption.

* Revises the mining Natural Resources Article references to Environmental Article.

COMAR 08.19.02 State Review and Approval of a Local Program  
* Removes the date referenced that a local jurisdiction’s forest conservation program must be submitted for Department review and approval.

* Adds simplified forest stand delineation or substitute plan as an alternative form of forest stand delineation wherever forest stand delineation is mentioned.

* Revises the amount of time fee-in-lieu money can remain in the fund and the manner in which it is returned to the applicant.

* Adds forest mitigation bank requirements (ie long-term protection, priority areas, submittal requirements)

* Revises the biennial review section to include the reporting of forest mitigation bank applications.

COMAR 08.19.03 Model Forest Conservation Ordinance  
* Adds definitions for forest mitigation bank, forest mitigation bank agreement, forest mitigation bank plan, and linear project.

* Revises definitions for net tract area and reforestation.

* Revises the application section to include the extension of Critical Area forest protection methods outside of the project’s critical area as part of the critical area exemption, and linear projects to the single lot exemption.

* Revises the mining and nontidal wetland Natural Resources Article references to Environmental Article.

* Adds forest management plan and amended sediment and erosion control plan to the forms of declarations of intent.

* Revises the simplified forest stand delineation language to include other appropriate documents that may substitute for a forest stand delineation if certain criteria are met.

* Adds the purchasing of forest mitigation bank credits as an alternative to payment into local forest conservation fund wherever the fund is mentioned. (i.e. forest conservation plans, reforestation)


* Adds coastal bays and their buffers to the priority for retention areas.

* Removes the sequence for afforestation and reforestation and replaces it.

* Adds to the priority for afforestation and reforestation.

* Revises the time frame that fee money can remain in the fund and adds forest mitigation bank as an alternative to payment.

* Revises the annual report to include forest mitigation bank requirements.

COMAR 08.19.04, State Forest Conservation Program  
* Revises the mining and nontidal wetland Natural Resources Article references to Environmental Article.


* Adds coastal bays and their buffers to the priority for retention areas.

* Adds the purchasing of forest mitigation bank credits as an alternative to payment into local forest conservation fund wherever the fund is mentioned. (i.e. forest conservation plans, reforestation)

* Adds to the priority for afforestation and reforestation
* Revises the amount of time fee-in-lieu money can remain in the fund and the manner in which it is returned to the applicant.
* Adds forest mitigation bank requirements (ie long-term protection, priority areas, submittal requirements)
* Adds enforcement provisions regarding violations, noncompliance and enforcement of forest mitigation banks’ long-term protection agreements and sets penalty.

COMAR 08.19.06 Additional Requirements for State and Local Programs
* Adds enforcement provisions regarding violations, noncompliance and enforcement of forest mitigation banks long-term protection agreements and sets a penalty.

**MD Register Volume 28, Issue 12 June 15, 2001 pg.1124 - 1128**
Effective August 20, 2001

COMAR 08.19.01 General
* Revises the definition for lot
* Revises the single lot exemption to read residential construction activity on a lot.

COMAR 08.19.02 State Review and Approval of a Local Program
* Revises the local authority’s forest mitigation bank program to remove the extra planting required in order to debit prior to 2 years.

COMAR 08.19.03 Model Forest Conservation Ordinance
* Revises the definition for lot
* Revises the single lot exemption to read residential construction activity on a lot.
* Revises the time frame money is to remain in the fund from one year or two growing seasons to two years and three growing seasons.
* Removes from the forest mitigation banking language the requirement of extra planting in order to debit prior to 2 years.

COMAR 08.19.04 State Forest Conservation Program
* Revises the preliminary forest conservation plan submittal procedure to allow this information to be submitted with the final forest conservation plan.
* Revises the public notice requirement to occur after the forest conservation plan is determined to be complete.
* Revises the public information hearing language to reflect the public notice language.

COMAR 08.19.05 Forest Conservation Maintenance and Management Agreements
* Adds the requirement for the recordation of a legally binding protective agreement.

COMAR 08.19.06 Additional Requirements for State and Local Programs
* Adds the process of “unqualifying” professionals.
* Updated the geographical regions listed in this section to reflect current DNR Forest Service regions.
* Removes the required time frame for statewide forest resource inventories.

---

**Before:**
April 1994
Scotchtown Hills Elementary School, Laurel, Prince George’s County
Photo, Marian Honeczy, MD DNR Forest Service

**After:**
November 1995
Scotchtown Hills Elementary School, Laurel, Prince George’s County
Photo, Marian Honeczy, MD DNR Forest Service
## Enforcement Action

<table>
<thead>
<tr>
<th>PROJECT TYPE</th>
<th>LOCATION</th>
<th>STATUS</th>
<th>VIOLATION</th>
<th>ACTION TAKEN</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>Pr. George's Co.</td>
<td>case closed 12/17/98</td>
<td>no fcp approval prior to construction</td>
<td>mtg with owner</td>
<td>fcp submitted and paid fee-in-lieu</td>
</tr>
<tr>
<td>Private</td>
<td>Worcester Co.</td>
<td>case closed 3/12/99</td>
<td>single lot exemption</td>
<td>no action taken</td>
<td>due to multi-environmental laws violations court-ordered mitigation fulfilled our requirements</td>
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<tr>
<td>Private</td>
<td>Worcester Co.</td>
<td>case closed 3/12/99</td>
<td>intra-family transfer exempt.</td>
<td>no action taken</td>
<td>investigation inconclusive</td>
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<tr>
<td>Subdivision</td>
<td>Worcester Co.</td>
<td>case closed 5/14/99</td>
<td>clearing within easement</td>
<td>letter to homeowners to replant</td>
<td>replanting passed planting inspection</td>
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</tbody>
</table>

### Enforcement Actions 1998

<table>
<thead>
<tr>
<th>PROJECT TYPE</th>
<th>LOCATION</th>
<th>STATUS</th>
<th>VIOLATION</th>
<th>ACTION TAKEN</th>
<th>NOTES</th>
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<tr>
<td>State</td>
<td>Pr. George's Co.</td>
<td>case closed 12/17/98</td>
<td>no fcp approval prior to construction</td>
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<td>fcp submitted and paid fee-in-lieu</td>
</tr>
<tr>
<td>Private</td>
<td>Worcester Co.</td>
<td>case closed 3/12/99</td>
<td>single lot exemption</td>
<td>no action taken</td>
<td>due to multi-environmental laws violations court-ordered mitigation fulfilled our requirements</td>
</tr>
<tr>
<td>Private</td>
<td>Worcester Co.</td>
<td>case closed 3/12/99</td>
<td>intra-family transfer exempt.</td>
<td>no action taken</td>
<td>investigation inconclusive</td>
</tr>
<tr>
<td>Subdivision</td>
<td>Worcester Co.</td>
<td>case closed 5/14/99</td>
<td>clearing within easement</td>
<td>letter to homeowners to replant</td>
<td>replanting passed planting inspection</td>
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### Enforcement Actions 1999

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<th>ACTION TAKEN</th>
<th>NOTES</th>
</tr>
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<tbody>
<tr>
<td>Shopping Center</td>
<td>Hagerstown</td>
<td>case closed 5/9/00</td>
<td>no fcp approval prior to construction</td>
<td>complaint letter with fine imposed issued 4/6/99 stop work letter issued 4/8/99</td>
<td>$25,500 penalty paid ($1,000 a day)</td>
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<tr>
<td>Restaurant</td>
<td>Ocean City</td>
<td>case closed 12/11/00</td>
<td>no fcp approval prior to construction</td>
<td>complaint letter with fine imposed issued 4/22/99; OAH Hearing</td>
<td>$15,000 penalty paid ($1,000 a day) per Circuit Court decision</td>
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</tbody>
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### Enforcement Actions 2000

<table>
<thead>
<tr>
<th>PROJECT TYPE</th>
<th>LOCATION</th>
<th>STATUS</th>
<th>VIOLATION</th>
<th>ACTION TAKEN</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golf Course</td>
<td>Caroline Co.</td>
<td>case closed 12/6/00</td>
<td>no fsd or fcp submittal</td>
<td>complaint letter issued with fine imposed 7/15/99</td>
<td>$12,500 penalty paid and $12,500 in planting required as result of settlement</td>
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<tr>
<td>Private</td>
<td>Caroline Co.</td>
<td>case closed 9/00</td>
<td>no fsd or fcp submittals</td>
<td>complaint letter issued with fine imposed 7/27/99</td>
<td>no penalty determined</td>
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<tr>
<td>Student Housing</td>
<td>Wicomico Co.</td>
<td>case closed 5/23/00</td>
<td>no fcp approval prior to construction</td>
<td>complaint letter with fine imposed issued 7/27/99.</td>
<td>$6,000 penalty paid</td>
</tr>
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<td>Student Housing</td>
<td>Pr. George's Co.</td>
<td>case closed 3/3/00</td>
<td>no fcp approval prior to construction</td>
<td>complaint letter with fine imposed issued 8/18/99</td>
<td>$15,000 penalty paid</td>
</tr>
<tr>
<td>PROJECT NAME</td>
<td>LOCATION</td>
<td>STATUS</td>
<td>VIOLATION</td>
<td>ACTION TAKEN</td>
<td>NOTES</td>
</tr>
<tr>
<td>--------------</td>
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<td>--------------------------------------------------</td>
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<tr>
<td>Industrial Park</td>
<td>Dorchester Co.</td>
<td>case closed 10/24/00</td>
<td>no fcp approval prior to construction</td>
<td>complaint letter issued 7/16/00</td>
<td>$7,000 penalty paid</td>
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<tr>
<td>Private</td>
<td>Caroline Co.</td>
<td>case closed 5/15/01</td>
<td>no fcp approval prior to construction</td>
<td>complaint letter with fine imposed issued 7/18/00</td>
<td>$26,000 penalty paid</td>
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<td>School</td>
<td>Dorchester Co.</td>
<td>case closed 3/30/01</td>
<td>no fcp approval prior to construction</td>
<td>complaint letter issued 3/19/01</td>
<td>no penalty determined</td>
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</table>

**Enforcement Actions 2002**

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Status</th>
<th>Violation</th>
<th>Action Taken</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>Harford Co.</td>
<td>case closed 9/4/02</td>
<td>no fcp approval prior to construction</td>
<td>complaint letter with fine imposed issued 7/24/01</td>
<td>$40,000 penalty paid</td>
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<tr>
<td>State</td>
<td>Anne Arundel Co.</td>
<td>case closed 6/10/02</td>
<td>no pre-construction mtg. prior to construction</td>
<td>complaint letter with fine imposed issued 9/4/01</td>
<td>$5,000 penalty paid</td>
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<tr>
<td>Federal</td>
<td>Montgomery Co.</td>
<td>case closed 3/20/02</td>
<td>no fcp approval prior to construction</td>
<td>complaint letter with fine imposed issued 12/12/01</td>
<td>$5,000 penalty paid</td>
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**Enforcement Actions 2003**

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Status</th>
<th>Violation</th>
<th>Action Taken</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>State</td>
<td>Anne Arundel Co.</td>
<td>case closed 5/6/03</td>
<td>no fcp amendment approval prior to clearing</td>
<td>complaint letter with fine imposed issued 9/23/02 OAH conference</td>
<td>$7,500 penalty paid and $2,500 held in abeyance as result of settlement</td>
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<tr>
<td>State</td>
<td>Anne Arundel Co.</td>
<td>case closed 10/3/02</td>
<td>cleared beyond tree protection</td>
<td>complaint letter with fine imposed issued 9/23/02</td>
<td>$1,860 penalty paid</td>
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</tbody>
</table>

fcp - forest conservation plan  
fsd - forest stand delineation  
mtg. - meeting  
Co. - county
Appendix A:

Analysis of State Forest Conservation Program
Forest Conservation Review in State Forest Conservation Program during fiscal years 1993-2002 resulted in:

- average of 61% of existing forest onsite is retained onsite
- average 33% of existing forest onsite is cleared
- average 6% more existing forest is retained than required
- average 2.2 times as much forest is planted and retained as cleared

- during the first 5 years 36,397 acres of existing forest were reviewed compared to 2,217.66 acres during the next 5 years,
  (This reflects the State Programs’ review of local programs projects from 1993-2000)
- per the 5 Year Report an average of 58% forest was retained and 33% cleared, and 9% more existing forest retained than required

State Forest Conservation Program reviews projects that are State funded, by a federal or State agency, on State land and projects in jurisdictions without a local forest conservation program.

<table>
<thead>
<tr>
<th>Forest</th>
<th>State Program</th>
<th>Statewide Total</th>
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<tbody>
<tr>
<td>Existing</td>
<td>38,614.66</td>
<td>128,629.74</td>
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<tr>
<td>Retained*</td>
<td>23,478.83</td>
<td>79,174.13</td>
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<tr>
<td>Cleared</td>
<td>12,713.27</td>
<td>42,905.65</td>
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<tr>
<td>Planted</td>
<td>4,612.86</td>
<td>13,610.62</td>
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2002 Data* 2,081,182** % Land Area 37.8%

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP
*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.
**Statewide estimate minus Allegany and Garrett Counties
Appendix B:

Analysis of Individual County Forest Conservation Programs
Forest Conservation Review in Anne Arundel Co. during fiscal years 1993 through 2002 resulted in:

- average 62% of existing forest onsite is retained onsite
- average 38% of existing forest onsite is cleared
- average 1.74 times as much forest is planted and retained as cleared
Forest Conservation Review in Baltimore City during fiscal years 1993 through 2002 resulted in:

- average 66% of existing forest onsite is retained onsite
- average 35% of existing forest onsite is cleared
- average 3.3 times as much forest is planted and retained as cleared
- during the first 5 years 75 acres of existing forest were reviewed compared to 69.6 acres during the next 5 years
- per the 5 Year Report an average of 40% forest was retained and 60% cleared

<table>
<thead>
<tr>
<th>Forest</th>
<th>Baltimore City</th>
<th>All Counties</th>
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<tbody>
<tr>
<td>Existing</td>
<td>144.6</td>
<td>88,186.7</td>
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<tr>
<td>Retained*</td>
<td>96.05</td>
<td>54,740.7</td>
</tr>
<tr>
<td>Cleared</td>
<td>50.15</td>
<td>29,319.9</td>
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<tr>
<td>Planted</td>
<td>70.17</td>
<td>8,319.7</td>
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</table>

2002 Data* 3,755.3  2,081,182**

%Land Area 7% 37.8%

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP
*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.
**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Baltimore Co. during fiscal years 1993-2002 resulted in:

- average of 67% of existing forest onsite is retained onsite
- average 31% of existing forest onsite is cleared
- average 2% more existing forest is retained than required
- average 2.4 times as much forest is planted and retained as cleared

- during the first 5 years 3,361 acres of existing forest were reviewed compared to 3,622 acres during the next 5 years
- per the 5 Year Report an average of 68.5% forest was retained and 25% cleared, and 6.3% more existing forest retained than required

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP
*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.
**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Calvert Co. during fiscal years 1993 through 2002 resulted in:

- average 67% of existing forest onsite is retained onsite
- average 33% of existing forest onsite is cleared
- average 2.1 times as much forest is planted and retained as cleared

-during the first 5 years 3,108 acres of existing forest were reviewed compared to 4,983 acres during the next 5 years

-per the 5 Year Report an average of 62% forest was retained and 38% cleared

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP

*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.

**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Caroline Co. during fiscal years 1993 through 2002 resulted in:

- average 69% of existing forest onsite is retained onsite
- average 31% of existing forest onsite is cleared

-during the first 5 years 192 acres of existing forest were reviewed compared to 279 acres during the next 5 years
-per the 5 Year Report an average of 79% forest was retained and 21% cleared

**Forest Acreage Under Review**

<table>
<thead>
<tr>
<th>Year</th>
<th>Existing</th>
<th>Retained</th>
<th>Cleared</th>
<th>Planted</th>
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<tbody>
<tr>
<td>1993</td>
<td></td>
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**Forest Acres**

<table>
<thead>
<tr>
<th>FY00 &amp; 02 data not reported</th>
<th>FY01 negligible</th>
</tr>
</thead>
</table>

**Impact of Forest Conservation**

Retained vs. Cleared Forest

- Retained 79%
- Cleared 21%

**Forest**

- Existing
- Retained
- Cleared
- Planted

**Caroline**

- FY00 & 02 data not reported
- FY01 negligible

<table>
<thead>
<tr>
<th>Forest Acreage Under Review</th>
<th>FY00 &amp; 02 data not reported</th>
<th>FY01 negligible</th>
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<tr>
<th>Forest</th>
<th>Caroline</th>
<th>All Counties</th>
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<tbody>
<tr>
<td>Existing</td>
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<tr>
<td>Retained*</td>
<td>261.6</td>
<td>54,740.7</td>
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<tr>
<td>Cleared</td>
<td>115.75</td>
<td>29,319.9</td>
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<td>Planted</td>
<td>21.46</td>
<td>8,319.7</td>
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</table>

2002 Data* 63,610.0 2,081,182**

% Land Area 31% 37.8%

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP

*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.

**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Carroll Co. during fiscal years 1993 through 2002 resulted in:

- average 82% of existing forest onsite is retained onsite
- average 17% of existing forest onsite is cleared
- average 1% more existing forest is retained than required
- average 6.9 times as much forest is planted and retained as cleared

-during the first 5 years 1,243 acres of existing forest were reviewed compared to 2,464 acres during the next 5 years
-per the 5 Year Report an average of 77% forest was retained and 19% cleared, and 4% more existing forest retained than required

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP
*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.
**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Cecil Co. during fiscal years 1993 through 2002 resulted in:

- average 68% of existing forest onsite is retained onsite
- average 22% of existing forest onsite is cleared
- average 10% more existing forest is retained than required
- average 3.4 times as much forest is planted and retained as cleared

-during the first 5 years 1,521 acres of existing forest were reviewed compared to 3,009 acres during the next 5 years
-per the 5 Year Report an average of 55% forest was retained and 14% cleared, and 31% more existing forest retained than required

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP

*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.

**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Charles Co. during fiscal years 1993 through 2002 resulted in:

- average 46% of existing forest onsite is retained onsite
- average 54% of existing forest onsite is cleared

- during the first 5 years 4,672 acres of existing forest were reviewed compared to 4,264.66 acres during the next 5 years
- per the 5 Year Report an average of 46% forest was retained and 54% cleared

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP
*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.
**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Dorchester Co. during fiscal years 1993 through 2002 resulted in:

- average 78% of existing forest onsite is retained onsite
- average 10% of existing forest onsite is cleared
- average 12% more existing forest is retained than required
- average 6.9 times as much forest is planted and retained as cleared

-during the first 5 years 86 acres of existing forest were reviewed compared to 94.34 acres during the next 5 years
-per the 5 Year Report an average of 90% forest was retained and 5% cleared, and 5% more existing forest retained than required

-Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP

*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.

**Statewide estimate minus Allegany and Garrett Counties

<table>
<thead>
<tr>
<th>Forest</th>
<th>Dorchester</th>
<th>All Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing</td>
<td>180.34</td>
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<tr>
<td>Retained*</td>
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</table>

2002 Data* 126,759.5 2,081,182**

% Land Area 36% 37.8%
Forest Conservation Review in Frederick Co. during fiscal years 1993 through 2002 resulted in:

- average 60% of existing forest onsite is retained onsite
- average 40% of existing forest onsite is cleared
- average 2.4 times as much forest is planted and retained as cleared

<table>
<thead>
<tr>
<th>Forest</th>
<th>Frederick</th>
<th>All Counties</th>
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<tr>
<td>Existing</td>
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<tr>
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<td>1,308.6</td>
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<tr>
<td>Cleared</td>
<td>881.4</td>
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<tr>
<td>Planted</td>
<td>778.6</td>
<td>8,319.7</td>
</tr>
</tbody>
</table>

2002 Data* 145,432.3  2,081,182**
% Land Area 34% 37.8%

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP

*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.

**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Harford Co. during fiscal years 1993 through 2002 resulted in:

- average 69% of existing forest onsite is retained onsite
- average 31% of existing forest onsite is cleared
- average 2.6 times as much forest is planted and retained as cleared

- during the first 5 years 1,418 acres of existing forest were reviewed compared to 4,500 acres during the next 5 years
- per the 5 Year Report an average of 77% forest was retained and 19% cleared, and 4% more existing forest retained than required

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP

*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.

**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Howard Co. during fiscal years 1993 through 2002 resulted in:

- average 49% of existing forest onsite is retained onsite
- average 49% of existing forest onsite is cleared
- average 2% more existing forest is retained than required
- average 1.4 times as much forest is planted and retained as cleared

- during the first 5 years 1,492 acres of existing forest were reviewed compared to 2,368 acres during the next 5 years
- per the 5 Year Report an average of 55% forest was retained and 42% cleared, and 3% more existing forest retained than required

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP

*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.

**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Kent Co. during fiscal years 1993 through 2002 resulted in:

- average 94% of existing forest onsite is retained onsite
- average 2% of existing forest onsite is cleared
- average 4% more existing forest is retained than required
- average 49 times as much forest is planted and retained as cleared

-per the 5 Year Report an average of 93% forest was retained and 2.4% cleared, and 5% more existing forest retained than required

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP

*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.

**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Montgomery Co. during fiscal years 1993 through 2002 resulted in:

- average 70% of existing forest onsite is retained onsite
- average 30% of existing forest onsite is cleared
- average 2.8 times as much forest is planted and retained as cleared

- during the first 5 years 3,776 acres of existing forest were reviewed compared to 4,109 acres during the next 5 years
- per the 5 Year Report an average of 66% forest was retained and 33% cleared, and 1% more existing forest retained than required

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP

*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.

**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Prince George’s Co. during fiscal years 1993 through 2002 resulted in:

- average 51% of existing forest onsite is retained onsite
- average 35% of existing forest onsite is cleared
- average 14% more existing forest is retained than required
- average 1.6 times as much forest is planted and retained as cleared

-during the first 5 years 6,856 acres of existing forest were reviewed compared to 13,040.8 acres during the next 5 years
-per the 5 Year Report an average of 61% forest was retained and 32% cleared, and 7% more existing forest retained than required

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP
*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.
**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Queen Anne’s Co. during fiscal years 1993 through 2002 resulted in:

- average 89% of existing forest onsite is retained onsite
- average 11% of existing forest onsite is cleared
- average 8.8 times as much forest is planted and retained as cleared

- during the first 5 years 513 acres of existing forest were reviewed compared to 2,102.7 acres during the next 5 years
- per the 5 Year Report an average of 88% forest was retained and 12% cleared

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP

*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.

**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in St. Mary’s Co. during fiscal years 1993 through 2002 resulted in:

- average 71% of existing forest onsite is retained onsite
- average 22% of existing forest onsite is cleared
- average 7% more existing forest is retained than required
- average 3.3 times as much forest is planted and retained as cleared

- during the first 5 years 2,249 acres of existing forest were reviewed compared to 2,237 acres during the next 5 years
- per the 5 Year Report an average of 70% forest was retained 23% cleared, and 7% more existing forest retained than required

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP
*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.
**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Somerset Co. during fiscal years 1993 through 2002 resulted in:

- average 78% of existing forest onsite is retained onsite
- average 15% of existing forest onsite is cleared
- average 7% more existing forest is retained than required
- average 5.3 times as much forest is planted and retained as cleared

- during the first 5 years 236 acres of existing forest were reviewed compared to 218 acres during the next 5 years
- per the 5 Year Report an average of 79% of forest was retained and 21% cleared

<table>
<thead>
<tr>
<th>Forest</th>
<th>Somerset</th>
<th>All Counties</th>
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<tbody>
<tr>
<td>Existing</td>
<td>454.4</td>
<td>88,186.7</td>
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<td>354.6</td>
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<td>Cleared</td>
<td>67.95</td>
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<td>Planted</td>
<td>3.5</td>
<td>8,319.7</td>
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2002 Data*  
%Land Area 40% 37.8%

*Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP
*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.
**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Talbot Co. during fiscal years 1993 through 2002 resulted in:

- average 82% of existing forest onsite is retained onsite
- average 16% of existing forest onsite is cleared
- average 2% more existing forest is retained than required
- average 5.4 times as much forest is planted and retained as cleared

Forest Acreage Under Review

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<thead>
<tr>
<th>Year</th>
<th>Forest Acres</th>
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<tr>
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<tr>
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<td>2002</td>
<td>50</td>
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<table>
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<th>State Program</th>
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<td>1994</td>
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<td>2002</td>
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</table>

Forest Conservation Review in Talbot Co.

- Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP
- Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.
- Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Washington Co. during fiscal years 1993 through 2002 resulted in:

- average 79% of existing forest onsite is retained onsite
- average 21% of existing forest onsite is cleared
- average 4 times as much forest is planted and retained as cleared

-per the 5 Year Report an average of 77% forest was retained and 11% cleared, and 12% more existing forest was retained than required
Forest Conservation Review in Wicomico Co. during fiscal years 1993 through 2002 resulted in:

- average 58% of existing forest onsite is retained onsite
- average 42% of existing forest onsite is cleared
- average 1.5 times as much forest is planted and retained as cleared
- during the first 5 years 698 acres of existing forest were reviewed compared to 925 acres during the next 5 years
- per the 5 Year Report an average of 52% forest was retained and 38% cleared, and 10% more existing forest was retained than required

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP

*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.

**Statewide estimate minus Allegany and Garrett Counties
Forest Conservation Review in Worcester Co. during fiscal years 1993 through 2002 resulted in:

- average 53% of existing forest onsite is retained onsite
- average 28% of existing forest onsite is cleared
- average 19% more existing forest is retained than required
- average 2 times as much forest is planted and retained as cleared

-during the first 5 years 577 acres of existing forest were reviewed compared to 714.6 acres during the next 5 years
-per the 5 Year Report an average of 63% forest was retained and 37% cleared

+Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP

*Maryland Generalized Land Use/Land Cover Statistics, Maryland Department of Planning, water classification not included.

**Statewide estimate minus Allegany and Garrett Counties
Appendix C:

Analysis of Individual Municipal Forest Conservation Programs
**Municipalities Summary**

Ten year summary of forest acreage under review:

**Anne Arundel** -
Annapolis - not reporting ‘93, ‘00, ‘01

<table>
<thead>
<tr>
<th>Forest</th>
<th>Annapolis</th>
<th>All Municipalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing</td>
<td>71.14</td>
<td>1,828.38</td>
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<tr>
<td>Retained</td>
<td>24.26</td>
<td>954.60</td>
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<tr>
<td>Cleared</td>
<td>46.98</td>
<td>872.48</td>
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<td>Planted</td>
<td>7.98</td>
<td>678.06</td>
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</table>

Land Area (ac): 4,886 acres

**Cecil** -
Elkton -

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<thead>
<tr>
<th>Forest</th>
<th>Elkton</th>
<th>All Municipalities</th>
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</thead>
<tbody>
<tr>
<td>Existing</td>
<td>191.7</td>
<td>1,828.38</td>
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<tr>
<td>Retained</td>
<td>113.2</td>
<td>954.60</td>
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<tr>
<td>Cleared</td>
<td>83.8</td>
<td>872.48</td>
</tr>
<tr>
<td>Planted</td>
<td>17.9</td>
<td>678.06</td>
</tr>
</tbody>
</table>

Land Area (ac): 5,183.9 acres

**North East** - only reported in 2001, delegated authority to County in 2002

<table>
<thead>
<tr>
<th>Forest</th>
<th>North East</th>
<th>All Municipalities</th>
</tr>
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<tr>
<td>Existing</td>
<td>30.2</td>
<td>1,828.38</td>
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<tr>
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<td>10.3</td>
<td>954.60</td>
</tr>
<tr>
<td>Cleared</td>
<td>19.9</td>
<td>872.48</td>
</tr>
<tr>
<td>Planted</td>
<td>0.0</td>
<td>678.06</td>
</tr>
</tbody>
</table>

Land Area (ac): ****

**Perryville** - delegated authority to county in 2002

<table>
<thead>
<tr>
<th>Forest</th>
<th>Perryville</th>
<th>All Municipalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing</td>
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<td>1,828.38</td>
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<tr>
<td>Retained</td>
<td>18.2</td>
<td>954.60</td>
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<tr>
<td>Cleared</td>
<td>11.0</td>
<td>872.48</td>
</tr>
<tr>
<td>Planted</td>
<td>12.7</td>
<td>678.06</td>
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</tbody>
</table>

Land Area (ac): 1,401 acres

**Dorchester** -
Cambridge - not reporting FY93 - FY96

<table>
<thead>
<tr>
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<th>Cambridge</th>
<th>All Municipalities</th>
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</thead>
<tbody>
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<td>0.5</td>
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<td>Cleared</td>
<td>10.04</td>
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<tr>
<td>Planted</td>
<td>10.59</td>
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Land Area (ac): 4,356 acres

**Frederick** -
Frederick -

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<tr>
<th>Forest</th>
<th>Frederick</th>
<th>All Municipalities</th>
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<tr>
<td>Existing</td>
<td>210.92</td>
<td>1,828.38</td>
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<tr>
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<td>90.32</td>
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<tr>
<td>Planted</td>
<td>356.25</td>
<td>678.06</td>
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Land Area (ac): 13,311.9 acres

**Harford** -
Aberdeen - only reported in FY97

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<tr>
<th>Forest</th>
<th>Aberdeen</th>
<th>All Municipalities</th>
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<tr>
<td>Existing</td>
<td>38.1</td>
<td>1,828.38</td>
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<tr>
<td>Retained</td>
<td>29.4</td>
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<tr>
<td>Cleared</td>
<td>8.7</td>
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<tr>
<td>Planted</td>
<td>2.9</td>
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Land Area (ac): 3,839 acres

**Bel Air** -

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<th>Bel Air</th>
<th>All Municipalities</th>
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<tbody>
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<tr>
<td>Retained</td>
<td>67.2</td>
<td>954.60</td>
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<tr>
<td>Cleared</td>
<td>27.7</td>
<td>872.48</td>
</tr>
<tr>
<td>Planted</td>
<td>5.9</td>
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Land Area (ac): 1,855.9 acres

**Havre de Grace** -

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<th>All Municipalities</th>
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<td>1,828.38</td>
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<tr>
<td>Retained</td>
<td>35.8</td>
<td>954.60</td>
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<tr>
<td>Cleared</td>
<td>35.8</td>
<td>872.48</td>
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<tr>
<td>Planted</td>
<td>20.5</td>
<td>678.06</td>
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Land Area (ac): 3,475 acres

**Montgomery** -
Gaithersburg - not reporting FY96 & 97

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<th>All Municipalities</th>
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<tr>
<td>Existing</td>
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<td>1,828.38</td>
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<tr>
<td>Retained</td>
<td>187.5</td>
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<td>Cleared</td>
<td>203.3</td>
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<tr>
<td>Planted</td>
<td>98.1</td>
<td>678.06</td>
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</tbody>
</table>

Land Area (ac): 6,409 acres

**Rockville** -

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<th>Forest</th>
<th>Rockville</th>
<th>All Municipalities</th>
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<tr>
<td>Existing</td>
<td>234.8</td>
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<td>Planted</td>
<td>26.2</td>
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</table>

Land Area (ac): 7,679.9 acres

**Prince George's** -
Laurel - not reporting FY99-01

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<td>Planted</td>
<td>23.0</td>
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</table>

Land Area (ac): 1,919.9 acres

**Queen Anne's** -
Centreville - only reported FY97 - 99

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<tr>
<th>Forest</th>
<th>Centreville</th>
<th>All Municipalities</th>
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<td>872.48</td>
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<td>0.0</td>
<td>678.06</td>
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</table>

Land Area (ac): 1,542.8 acres
The following municipalities have either submitted a report of no Forest Conservation reviews or did not submit a report:

**Allegany** - Exempt

**Anne Arundel** - Highland Beach - Exempt

**Calvert** -
- Chesapeake Beach - Adopted
- North Beach - Exempt

**Caroline** -
- Denton - Adopted
- Federalsburg - CA/FCA Program
- Goldsboro - State program review
- Greensboro - Adopted
- Henderson - Not exercising planning & zoning
- Hillsboro - Not exercising planning & zoning
- Marydel - Not exercising planning & zoning
- Preston - State Program review
- Ridgely - State Program review

**Carroll** -
- Hampstead - Assigned
- Manchester - Assigned
- Mount Airy - Assigned
- New Windsor - Assigned
- Sykesville - Assigned
- Taneytown - Assigned
- Union Bridge - Assigned
- Westminster - Assigned

**Cecil** -
- Cecilton - Assigned
- Charlestown - Adopted
- Chesapeake City - Assigned
- Port Deposit - State Program review
- Rising Sun - Adopted

**Charles** -
- Indian Head - Adopted
- La Plata - Adopted
- Port Tobacco - Exempt

**Dorchester** -
- Brookview - Not exercising planning & zoning
- Church Creek - Not exercising planning & zoning
- East New Market - Assigned
- Eldorado - Not exercising planning & zoning
- Galestown - Not exercising planning & zoning
- Hurlock - State Program review
- Secretary - State Program review
- Vienna - Assigned

**Frederick** -
- Brunswick - Assigned
- Burkittsville - Assigned
- Emmitsburg - Assigned
- New Market - Adopted
- Middletown - Assigned
- Mount Airy - Assigned
- Myersville - Assigned
- Rosemont - Assigned
- Thurmont - Assigned
- Walkersville - Assigned
- Woodsboro - Assigned

**Garrett** - Exempt

**Howard** - No Municipalities

**Kent** -
- Betterton - Assigned
- Chestertown - Adopted
- Galena - Assigned
- Millington - Assigned
- Rock Hall - Assigned

**Montgomery** -
- Barnesville - Adopted
- Brookeville - State Program review
- Laytonsville - Adopted
- Poolesville - Adopted
- Washington Grove - Adopted

**Queen Anne’s** -
- Barclay - Not exercising planning & zoning
- Church Hill - State Program review
- Queen Anne - State Program review
- Queenstown - Adopted
- Sudlersville - State Program review
- Templeville - Not exercising planning & zoning

**St. Mary’s** -
- Leonardtown - Adopted

**Somerset** -
- Crisfield - Assigned
- Princess Anne - Assigned

**Talbot** -
- St. Michael’s - State Program review
- Trappe - State Program review
- Oxford - Adopted

**Washington** -
- Boonesboro - Assigned
Clear Spring - Assigned
Funkstown - Assigned
Hancock - Assigned
Keedysville - Assigned
Sharpsburg - Assigned
Smithsburg - Assigned
Williamsport - Assigned

Wicomico -
  Delmar - Assigned
  Fruitland - Assigned
  Hebron - Assigned
  Mardela Springs - Assigned
  Pittsville - Assigned
  Salisbury - Assigned
  Sharptown - Assigned
  Willards - Assigned

Worcester -
  Berlin - Assigned
  Ocean City - Adopted
  Pocomoke City - Assigned
  Snow Hill - Assigned
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