

Maryland's Forest Conservation Act's Effect on Land Development



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Resources – Forest Service



The Chesapeake Bay Watershed
64,000 Square Miles of Land, Water, and People
to Better Bay Through Better Watersheds





Bay/Water Quality Oriented Legislation

- Chesapeake Bay Critical Area Law (1984)
 - protects the Bay and its tributaries
- Non-tidal Wetlands Law (1990)
 - protects wetlands
- Forest Conservation Act (1991)
 - protects forests

Landsat Imagery



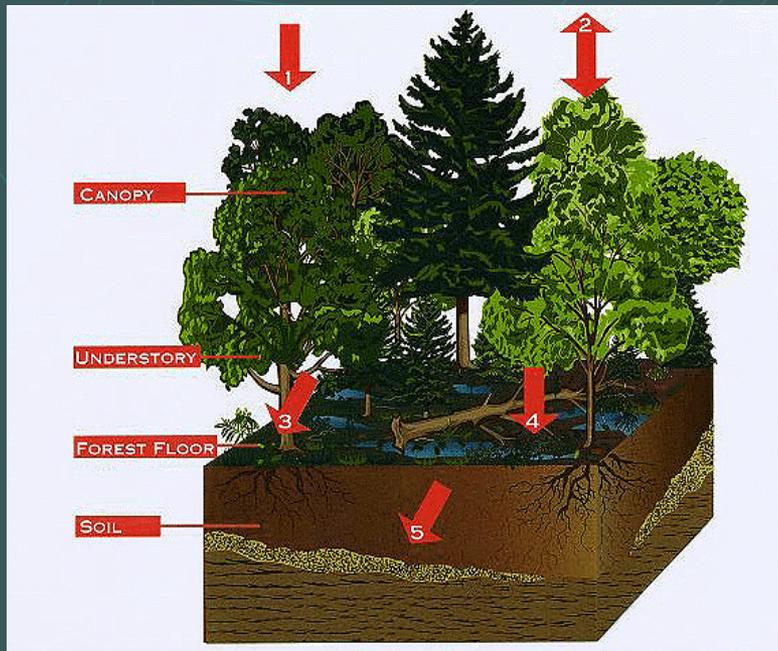


Maryland Forest Conservation Act of 1991

Objectives:

- Minimize loss of forest land from development
- Ensure that priority areas for forest retention and forest planting are identified and protected prior to development

Forests are important ...



1. Intercept rainfall ,
protect soils, provide shade
2. Transpiration, nutrient
storage, trap air pollutants
3. Filter sediment and other
chemicals
4. Infiltration, water and
nutrient storage
5. Biological removal of
nutrients and pollutants

Forests clean our water!

...in fact, economics is key!

In Baltimore-Washington
Corridor:



- Stormwater capacity of lost tree cover has been estimated at \$1 billion.
- Cooling costs for buildings are huge.
- Removal of air pollutants is lost.

Tree cover lost in the Bay watershed since 1973 resulted in a 19 percent increase in runoff.





Cover **IT** with ASPHALT

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A topographic map of Maryland is shown on the left side of the slide. A yellow line runs vertically through the state, and a white arrow points from this line towards the main text area.

The Forest Conservation Act is not a means to halt development

Maryland is a home rule state...
Local Jurisdictions create local Forest Conservation Programs "at least as stringent" as the State Program

Woodspring at New Market, Frederick County



Forest Conservation Thresholds are created for each land use category



● Agriculture and Resource Areas	50%
● Medium Density Residential Areas	25%
● Institutional Development Areas	20%
● High Density Residential Areas	20%
● Mixed Use and Planned Unit Developments	15%
● Commercial and Industrial Uses	15%

Urban,



Rural Development



Afforestation Requirement... must create forest up to this minimum

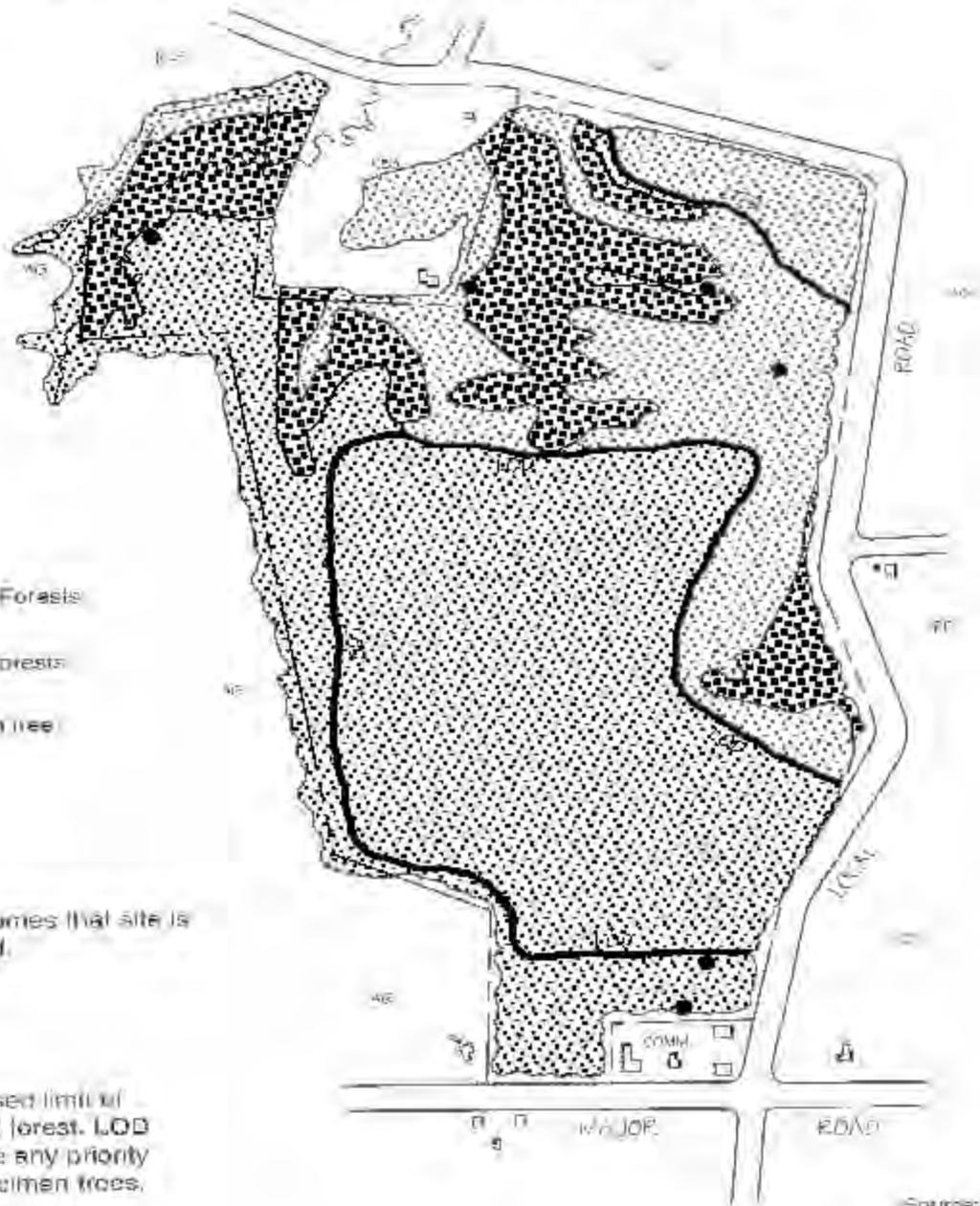


● Agriculture and Resource Areas	20%
● Medium Density Residential Areas	20%
● Institutional Development Areas	15%
● High Density Residential Areas	15%
● Mixed Use and Planned Unit Dev.	15%
● Commercial and Industrial Use Areas	15%

Forest Stand Delineation



North



Legend

-  Priority-1 Forests
-  All other forests
-  Specimen tree

Notes

This map assumes that site is 100% forested.

LOD is proposed limit of disturbance of forest. LOD cannot include any priority forests or specimen trees.

Forest Conservation Plan



North

Legend



Stream with buffer and floodplain



Steep slopes



Wetlands with buffer



Forests to be retained

Notes

1. Cluster development can be designed to avoid priority retention areas and to protect large areas of forests.
2. Cluster development may use smaller lot sizes, alternative housing types, and reduced paving.

Total Tract Area	192.70 acres
Area in Open Spaces	137.30 acres
Area in roads	5.00 acres
Number of Lots	40
Average Lot Size	1.24 acres



For Land Use Categories...

- Must make every reasonable effort to minimize the cutting and clearing
- The Forest Conservation Plan shall provide for Reforestation or
- Payment into the Forest Conservation Fund at a rate of .10 cents per square foot of the area required to be planted
- Mitigation Banking is also available in some areas

North River Forest, Anne Arundel County





Applicability

The Forest Conservation Act applies to:

- any public or private subdivision plan or application for a grading or sediment control permit
- by any person, including State or local government
- on areas 40,000 square feet or greater.





Definition of Forest

- Areas having at least 100 trees per acre of which at least 50% have a 2 inch or greater diameter at breast height
- Forest areas that have been cut but not cleared



Exemptions from FCA

- Highway Construction falls under a separate law requiring one to one replacement (NR Article Section 5-103)
- Activities within the Chesapeake Bay Critical Area
- Commercial Logging on property that will not be subject to development within five years
- Agricultural activities not resulting in land use change
- Clearing of permitted public utility rights-of-way

A vertical strip on the left side of the slide shows a topographic map of a forested area. A yellow line runs vertically through the map, likely representing a project path or boundary. The map features contour lines and various shades of brown and green, indicating terrain and vegetation.

Further Exemptions from FCA

- Activity on a single lot of any size or linear project not coming under authority of Public Service Commission and does not result in the clearing of more than 40,000 square feet of forest
- Mining – surface non-coal, strip and deep coal
- Real estate transfer not resulting in a change in land use
- Areas under FAA restrictions
- Intra-family use with less than 40,000 square feet of clearing

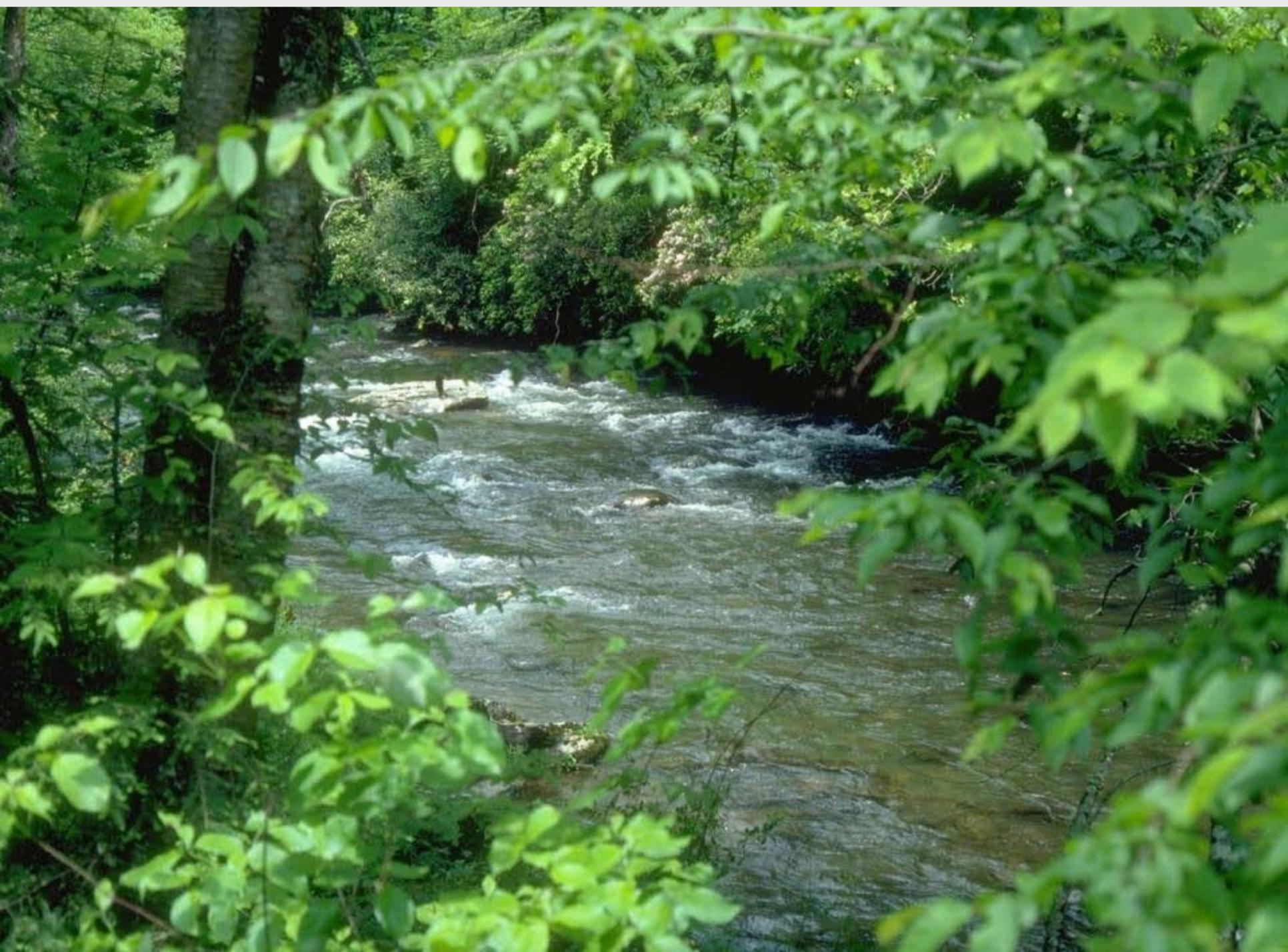
Environmentally Sensitive Development





Priority Areas

- Streams and their buffers
- Wetlands
- Steep slopes
- Erodible soils
- Large contiguous forest blocks









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graph TD; A[REGULATED ACTIVITY] --> B[FOREST STAND DELINEATION]; B --> C[PRELIMINARY FOREST CONSERVATION PLAN]; C --> D[FINAL FOREST CONSERVATION PLAN]; D --> E[PERMITS ISSUED]; E --> F[REFORESTATION OR AFFORESTATION]; F --> G[MINIMUM 2-YEAR MAINTENANCE AND MONITORING AGREEMENT]; G --> H[LONG-TERM PROTECTION AGREEMENT];
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REGULATED ACTIVITY

**FOREST STAND
DELINEATION**

30 days for review

PRELIMINARY FOREST CONSERVATION PLAN
Public notice is required for projects under state review. A hearing may be requested.

**FINAL FOREST
CONSERVATION
PLAN**

45 days for review

PERMITS ISSUED

**REFORESTATION OR
AFFORESTATION**

**MINIMUM 2-YEAR
MAINTENANCE AND
MONITORING AGREEMENT**

**LONG-TERM PROTECTION
AGREEMENT**

Ten Years of Implementation 1993 - 2002



Forest Conservation Program
MD DNR-Forest Service



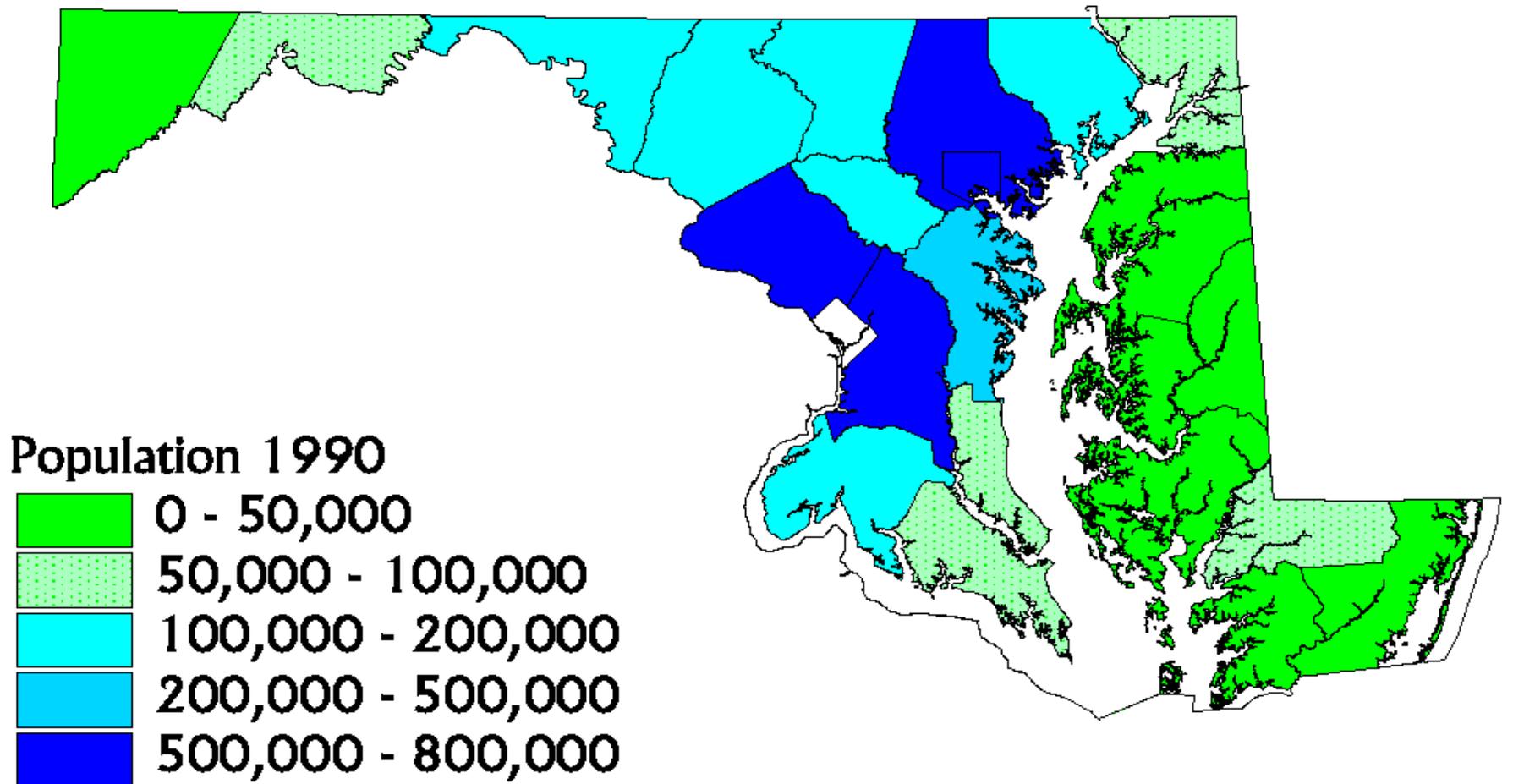
Analyzed

Annual reports received from 21 counties for fiscal years 1993-2002

Including data on:

- existing forest onsite prior to development
- existing forest retained onsite after development
- proposed mitigation onsite after development (afforestation/reforestation)
- forest placed under long term protection

Population by County

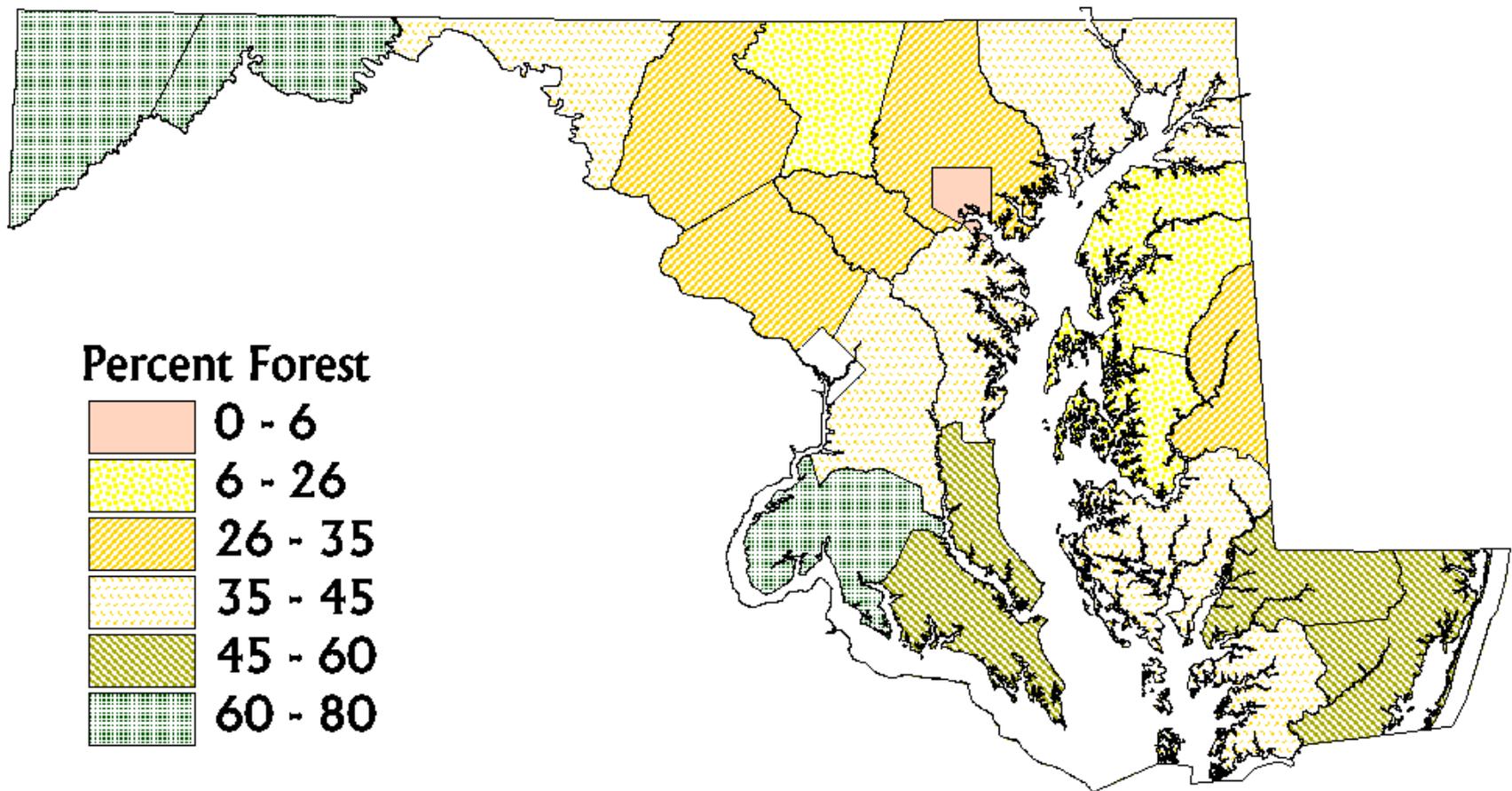


Source: US Census 1990

0 60 120 Miles

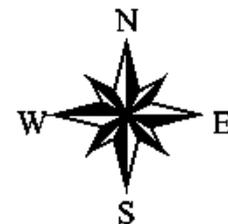


Percent Land Area in Forest



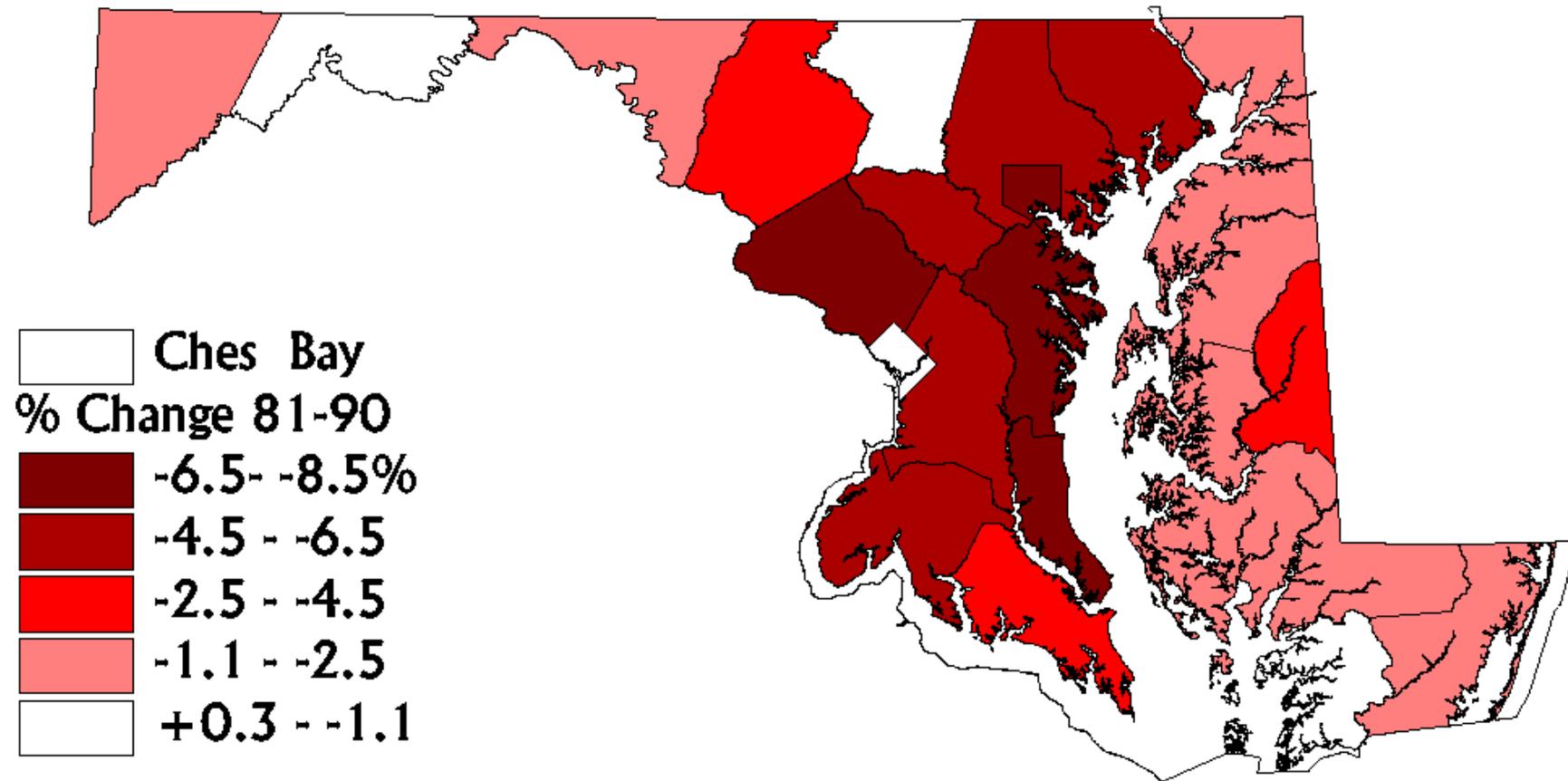
Source: Md Forest Resource Inventory (MD-DNR 1994-95)
and Land Use/Land Cover (Md OP 1994)

0 60 120 Miles



Forest Land Use 1981 - 1990

Percentage Change

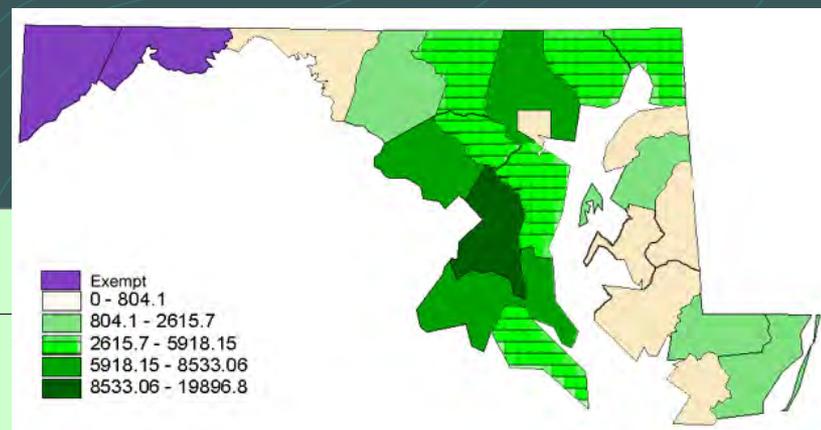
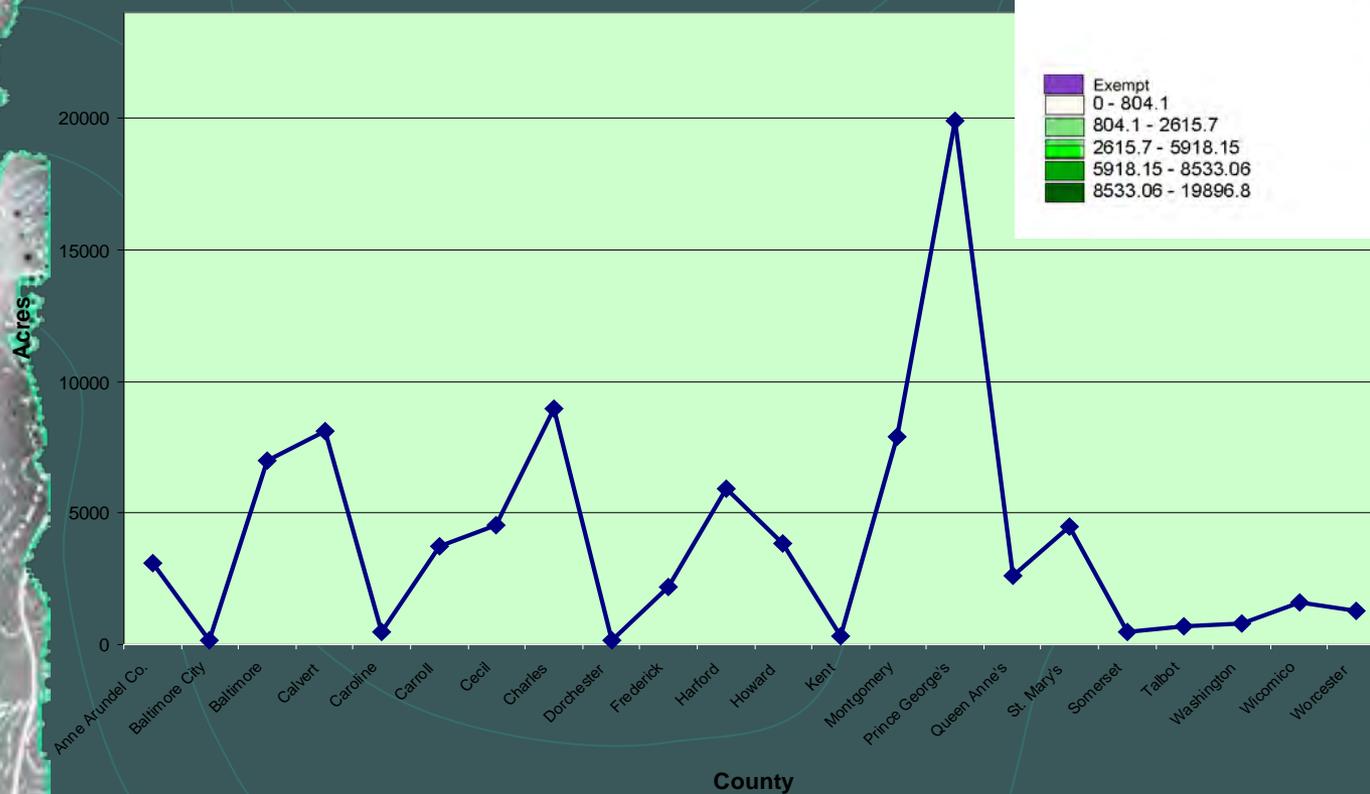


Source: Maryland Office of Planning
Land Use/Land Cover data for 1981
and 1990

0 60 120 Miles



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

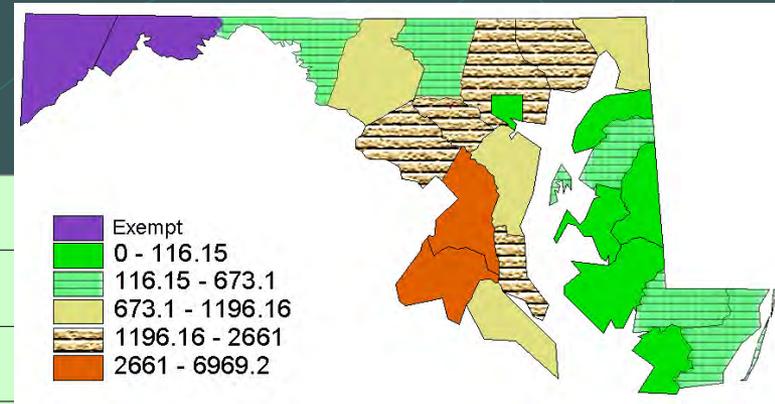
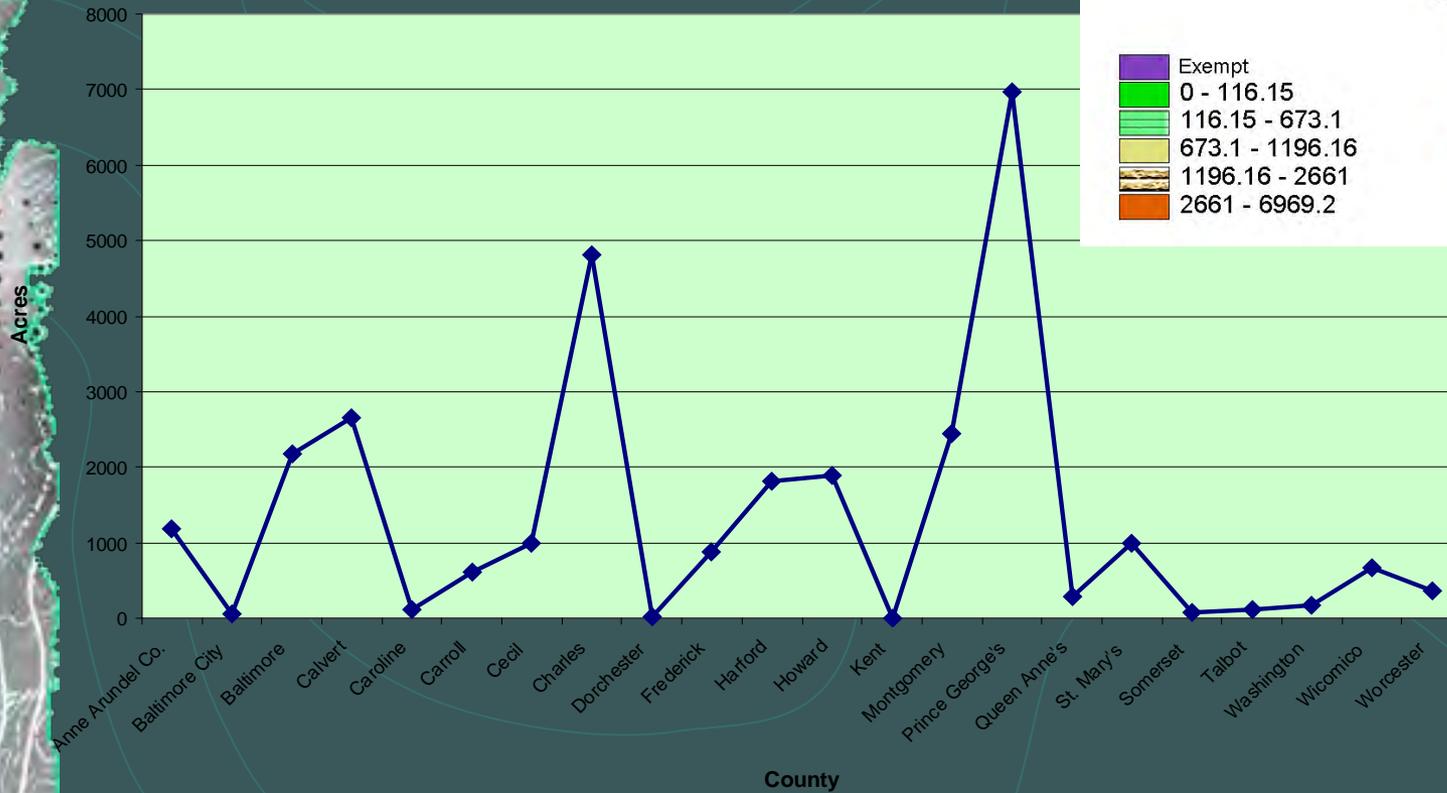


A vertical strip on the left side of the slide shows a topographic map with contour lines and a yellow line representing a corridor. The rest of the slide has a dark teal background with light blue contour lines.

Existing Forest Under Review

- Majority of forest area under development review occurred within the Route 301/Interstate 95 corridor
- 42% occurred within 3 counties
 - Calvert County 8,090 acres
 - Charles County 8,936 acres
 - Prince George's County 19,896 acres

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





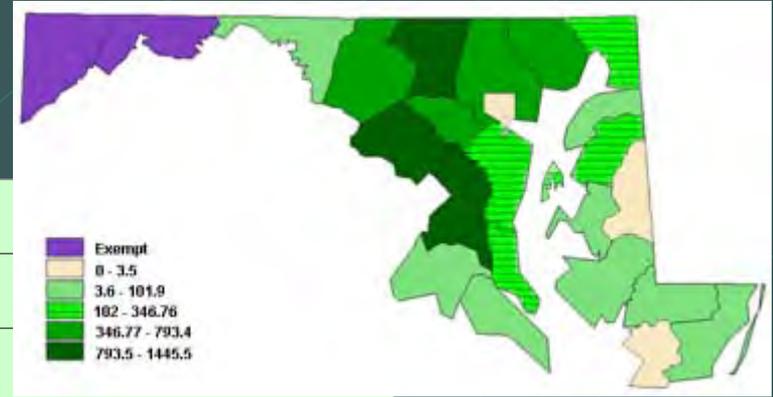
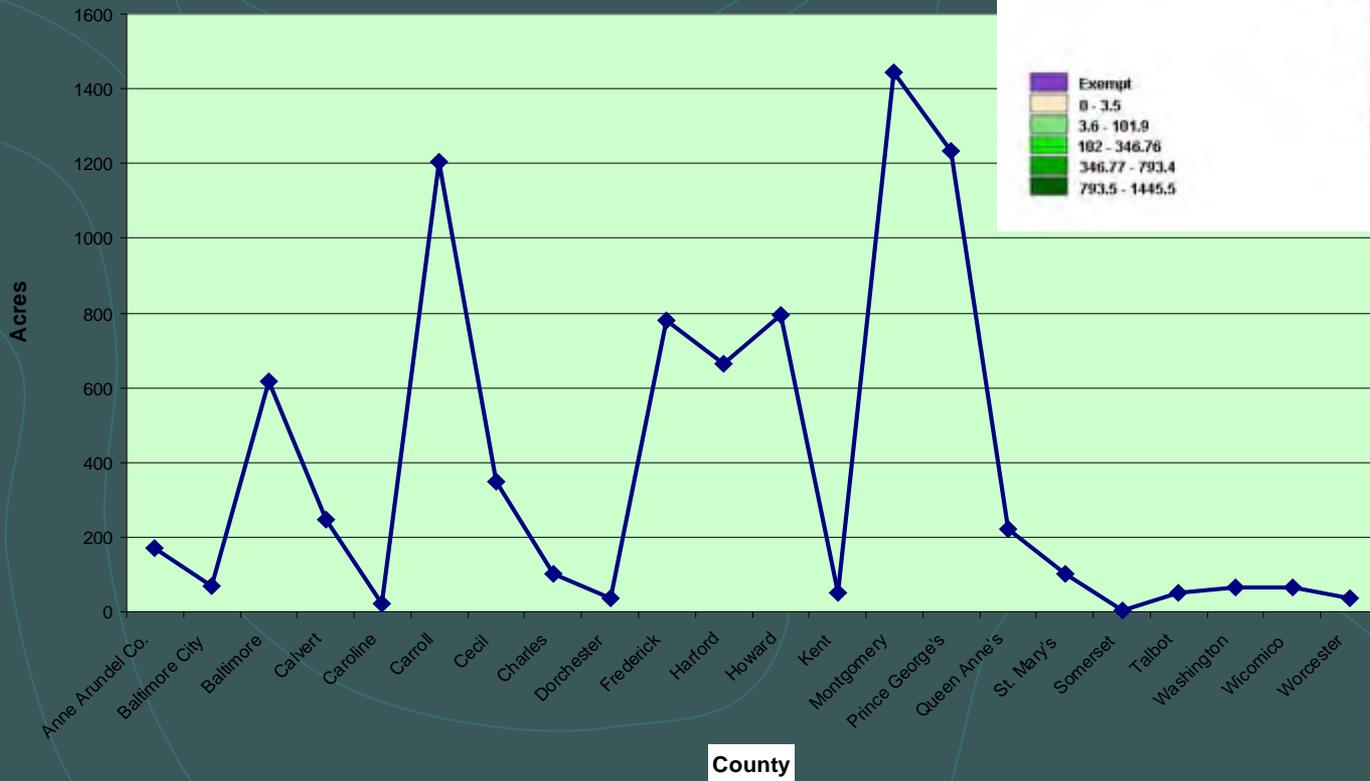
Forest Clearing

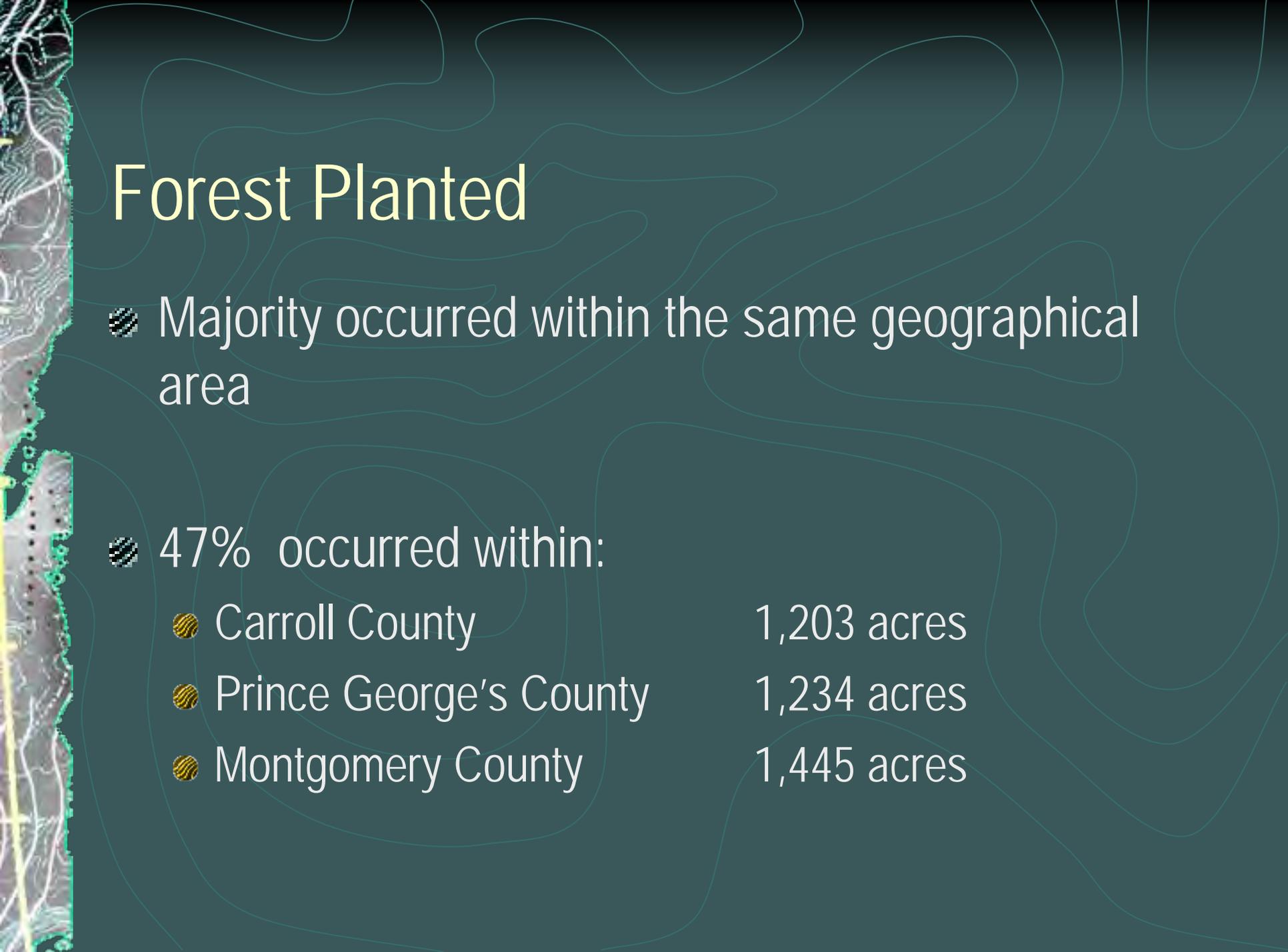
- Majority of development –related clearing occurred within the same geographical area
- 40% occurred within:
 - Charles County 4,815 acres
 - Prince George's County 6,969 acres

Villages of Elk Neck, Cecil County



Acres of Forest Planted Under County Forest Conservation Programs 1993-2002



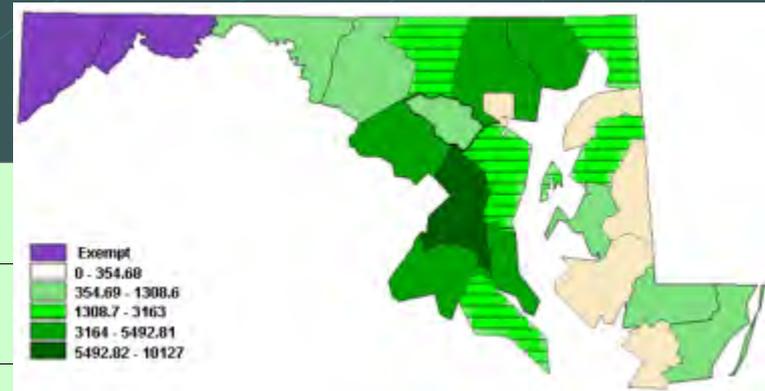
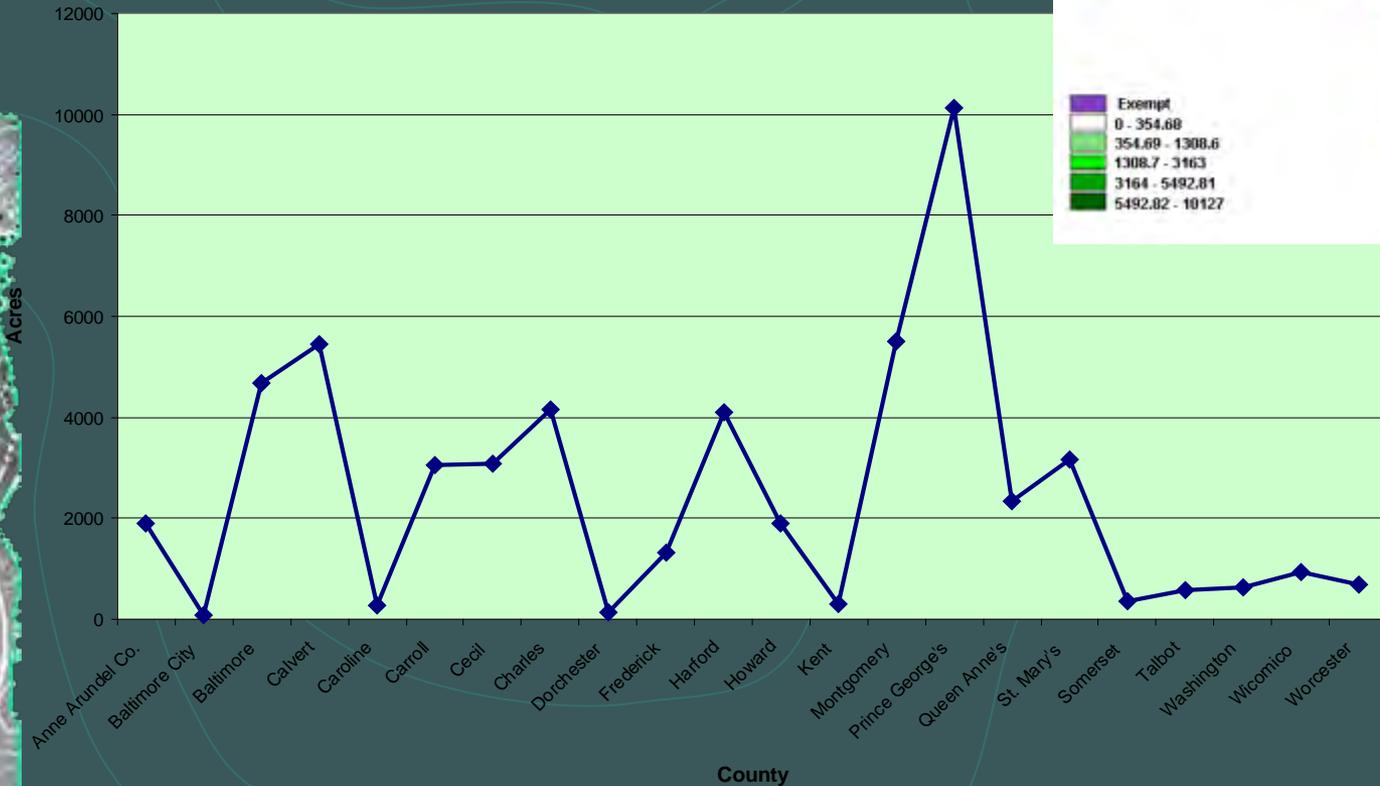


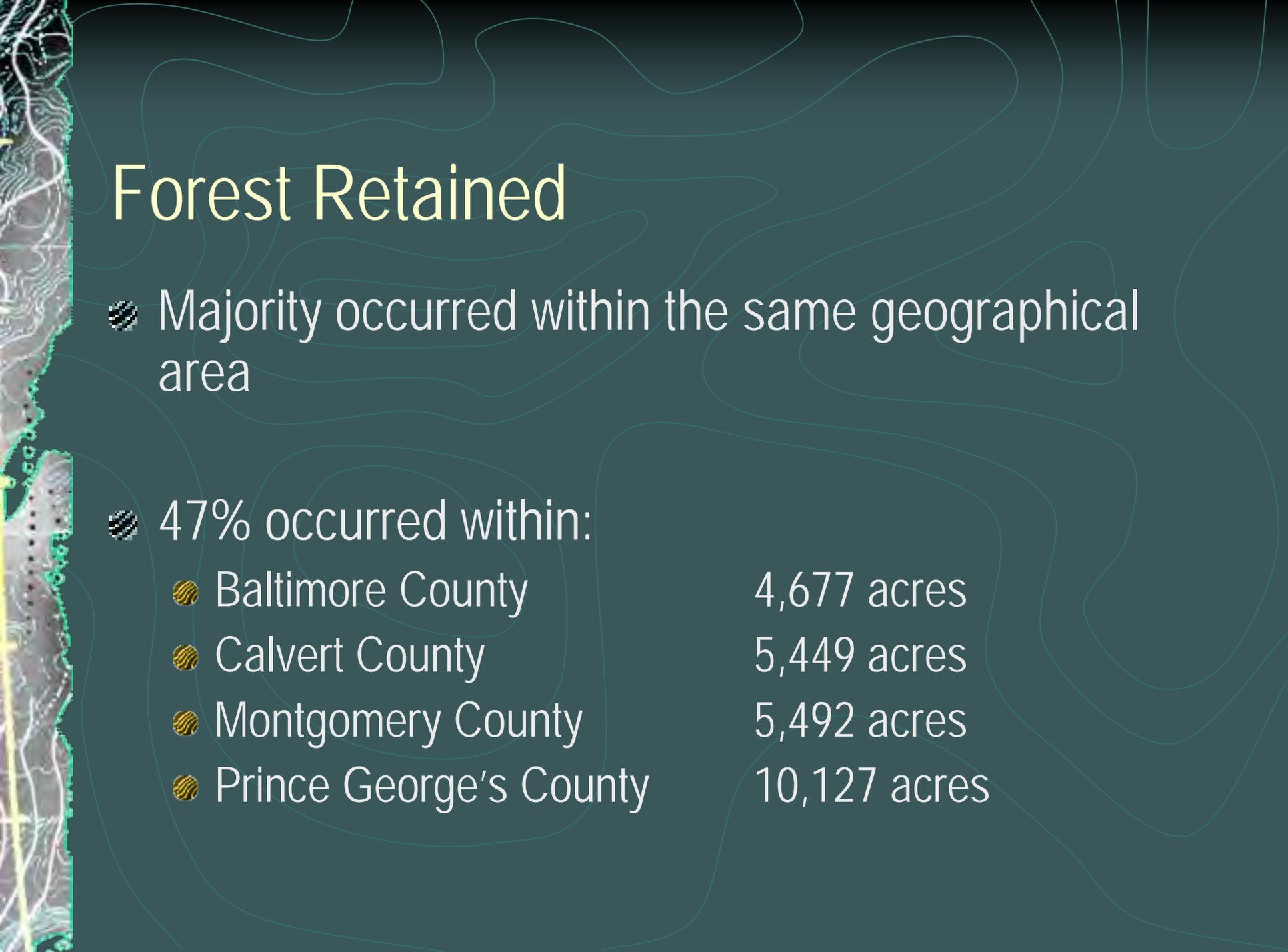
Forest Planted

- Majority occurred within the same geographical area
- 47% occurred within:
 - Carroll County 1,203 acres
 - Prince George's County 1,234 acres
 - Montgomery County 1,445 acres



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





Forest Retained

- Majority occurred within the same geographical area

- 47% occurred within:

Baltimore County	4,677 acres
Calvert County	5,449 acres
Montgomery County	5,492 acres
Prince George's County	10,127 acres



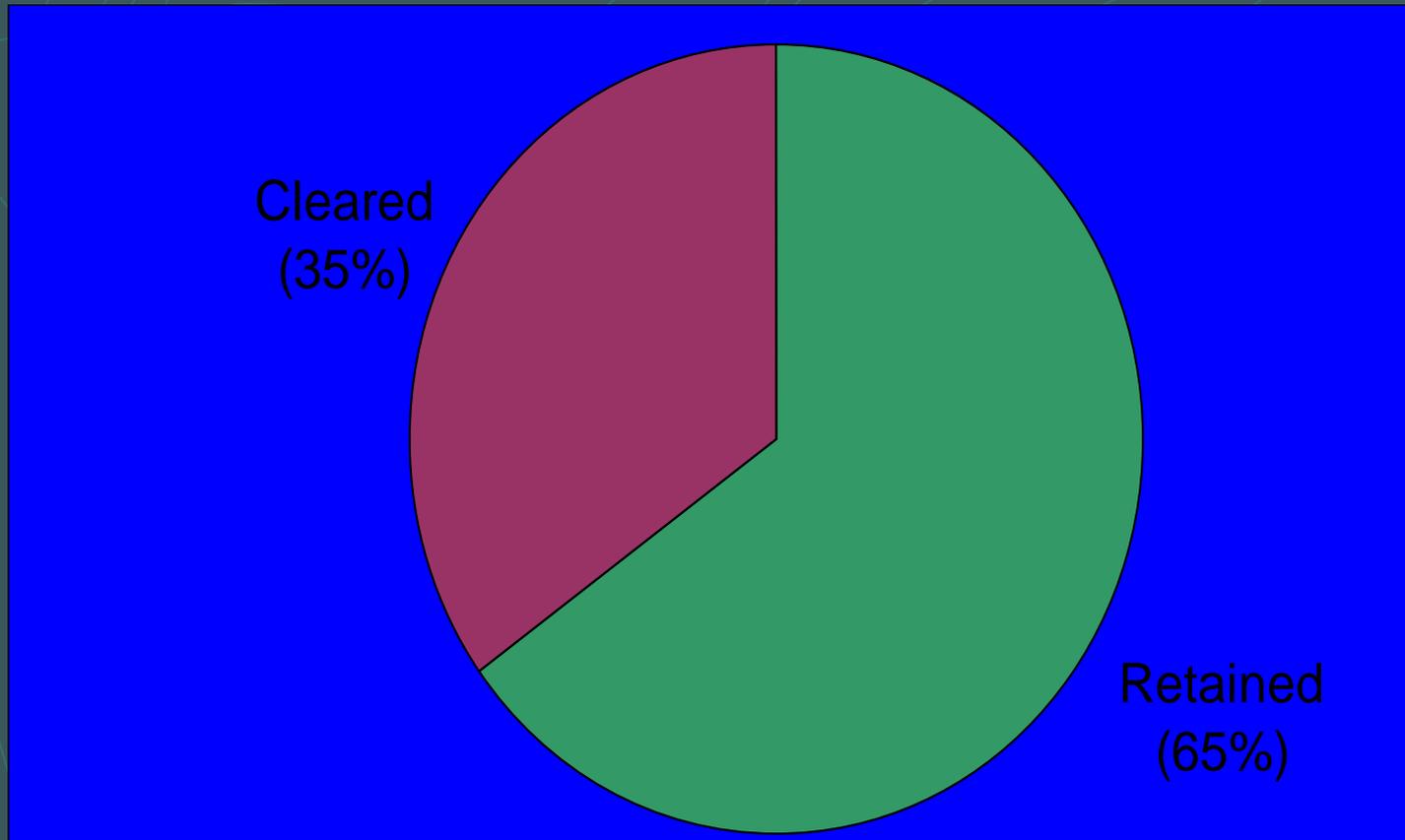
Ten Year Summary of Forest Average Under Review

	All Programs Statewide 1993-2002			
	State	Counties	Municipalities	Statewide
Existing	38,615	88,187	1,828	128,630
Retained	23,479	54,741	955	79,174
Cleared	12,713	29,320	872	42,906
Planted	4,613	8,320	678	13,611
Forest Cover Estimate: 2,081,182 acres; 37.8%				
+ Retention implies long-term protection (LTP); additional onsite retention may have occurred without LTP.				
* Maryland Generalized Land Use/Land Cover Statistics, Maryland Dept. of Planning				

Metro Green Line, Prince George's County

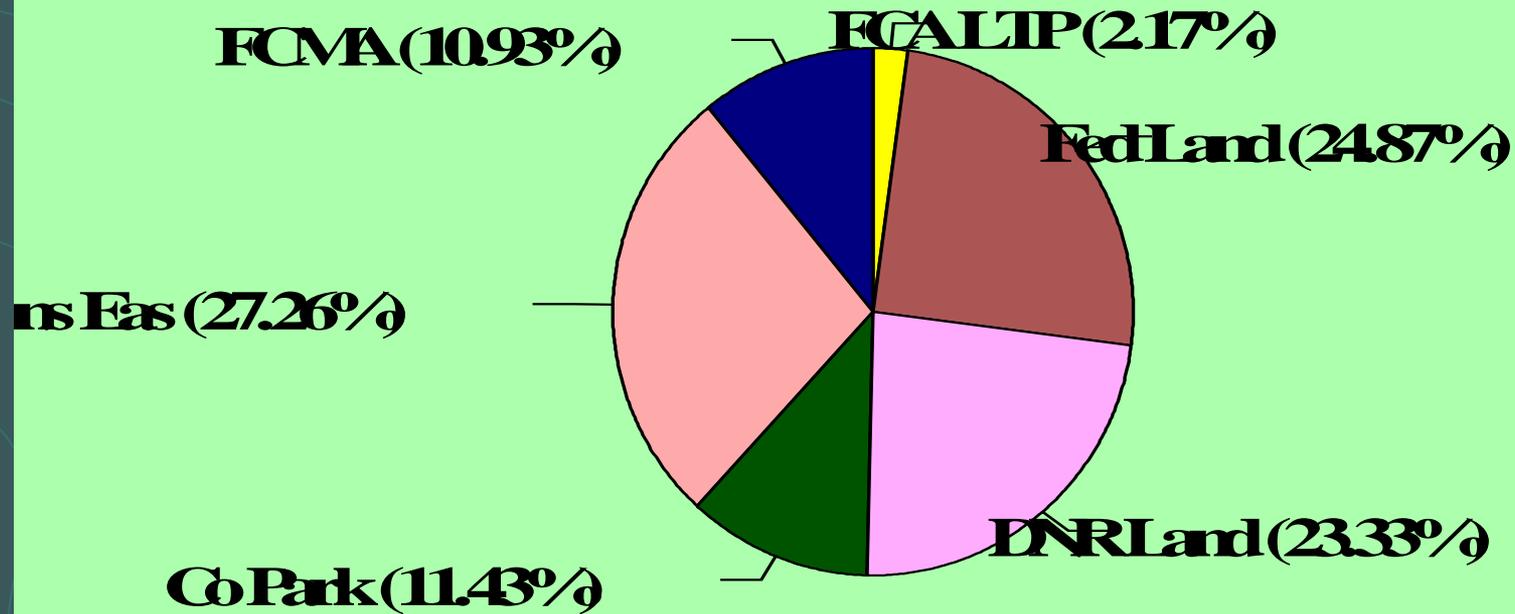


Impact of Forest Conservation: Retained vs. Cleared Forest



Protected Lands

by Various Means





Urban & Community Forestry Grants

- Provide funding through mitigation funding sources.
- These are reimbursable, matching grants that are awarded to towns, counties, HOA, schools, etc. for tree planting projects on public lands.

Rum Pointe Golf Club, Worcester County



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- Since 1998, over \$200,000 in grants have been awarded to 27 communities to assist in the planting of 2200 trees, 1800 seedlings and 180 shrubs.

Environmentally Sensitive Development



image provided by





MARYLAND
DEPARTMENT OF
NATURAL RESOURCES

Robert L. Ehrlich, Jr., *Governor*

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