

**Brief Synopsis of Maryland Forestry Issues from Selected Sources
May 1, 2009**

Sources:

Maryland's Strategic Forest Resource Plan – 2006
No Net Loss of Forest Task Force -- January 2009
Guiding Maryland's Forest Community into the 21st Century – December 2000
Maryland's Green Infrastructure Assessment – May 2003
The Importance of Maryland's Forest: Yesterday, Today, and Tomorrow – September 2003
Forests and Land Use
Governor's Commission for Protecting the Chesapeake Bay through Sustainable Forestry
October 2006
Forest Inventory Analysis Findings (5th Statewide Inventory) - 1999
The State of Chesapeake Forests – September 2006
Maryland Sustainable Forestry Act of 2009 (SB 549)

NOTES:

In general, the number of bullet statements below each "Issue" gives a sense of how often the issue was mentioned collectively in the above source documents. For example, Issue #1 below was referenced (by far and away) more than any other issue, and the number of bullet statements is indicative of this.

All the bullet statements are direct quotes from the source document.

Issue Categories 1-7 come from the Maryland Strategic Forest Resource Plan (2006).

Finally, the Chesapeake Bay was highlighted in some fashion in most of the sources.

Issue Categories Identified

1. Managing The Impacts Of Changes In Maryland's Land Use And Forest Ownership
2. Enhancing Assistance To Maryland's Private Forest Landowners
3. Maintaining Maryland's Forest-based Economy
4. Minimizing The Threats Of Invasive Species, Pests And Pathogens To Maryland's Forests
5. Enhancing Maryland's Urban Forests
6. Conserving Maryland's Biological Diversity
7. Manage Recreational Use Conflicts In Maryland's Public Forests
8. Clean Air
9. Clean Water
10. Ecosystem Markets & Services/Climate Change
11. Wildfires
12. Administrative/Legal/Government

1. Managing The Impacts Of Changes In Maryland's Land Use And Forest Ownership

- Growing suburbs, second homes, and other land uses increasingly convert contiguous forested areas into smaller patches of forest and non-forest.
- The Task Force considered a No Net Loss goal to be primarily keeping the current acreage of forest in Maryland, but also discussed related issues of distribution in the state and quality of forests replacing those cleared. The impetus for maintaining the current area of forest in Maryland is related to the many benefits received from the forests, which depend on these distribution and quality factors.
- Today, Maryland has only two million acres of ecologically significant land that has not been consumed by some kind of human development. Of these two million acres of green infrastructure, almost three-quarters are unprotected. Billions of dollars are spent each year to construct or maintain the state's built infrastructure of roads, bridges and utilities that we depend on for modern life. By contrast, the state's green infrastructure, which exists naturally, is under tremendous pressure from development, yet is virtually ignored in public policy. Left unprotected, the remaining green infrastructure is vulnerable and will be further reduced and fragmented.
- The greatest threat to Maryland's forest base is the conversion of forestland to nonforest uses – a somewhat bureaucratic way of saying that the natural forest vanishes. But also, as residential and other development spreads across the landscape, the spatial configuration of the remaining natural forest changes.
- Forest Ownership Maryland's timberland is over three-quarters privately owned.
- Fragmentation and Parcelization In addition to the number of acres lost to development, the location, size, and number of owners of the remaining forests is critical to management.
- Development of forests due to uninformed local land use decisions leading to the parcelization and fragmentation of forests and conversion to non-forest uses.
- Generational change of ownership, which is currently underway, that often necessitates a sale of a portion or all of the owners forest land in order to offset attendant tax liability, thereby contributing to fragmentation and parcelization.
- DECLINES IN FOREST LAND AREA CONTINUE - Forests cover 41 percent of Maryland, or 2.6 million acres. This amount of forest cover is remarkable in a state that has seen tremendous population growth and economic development in recent years. There are three reasons for this high percentage of forested land. First, most of the population has been concentrated in and around Baltimore and Washington D.C., and a few other cities, leaving much of the state fairly rural. Second, there has been a sizable decrease in the amount of land used for farming. Although much of the lost farmland has been developed, some of it has been abandoned and has reverted to forest land through natural regeneration and tree planting. Third, Maryland forests have been conserved and protected by various public programs such as Program Open Space, the Forest Conservation Act (FCA), and the Smart Growth and Rural Legacy Programs.

- Maryland's Forest Community is facing serious challenges during the 21st Century, most notably increased sprawl development patterns attendant to an expanding population. It is imperative that Maryland conserve and manage its renewable forest resources for future generations. This will require bold and progressive action...
- **CONCERNS AND OBSERVATIONS** - The challenge for the future is to protect this valuable forest resource from the pressures of a growing population and from introduced pests and diseases, and invasive plants, while ensuring the continued delivery of the many goods and services that Maryland residents have come to expect from the State's forest land.
- **CHESAPEAKE FORESTS ARE INCREASINGLY THREATENED BY CONVERSION TO DEVELOPMENT** - While forests now cover 58%, or 24 million acres, of the Chesapeake Bay watershed, the watershed loses 100 acres of forestland each day. If current trends continue, an additional 9.5 million acres of Chesapeake forests will be threatened by conversion to residential development by 2030.
- **CHESAPEAKE FORESTS ARE MORE HEAVILY FRAGMENTED THAN EVER BEFORE** -- Currently 60% of the Bay watershed's forests are fragmented—crossed by roads or power lines, or near developed areas. Forests covering larger, undisturbed areas provide healthier habitat.
- **SHIFTING OWNERSHIP TRENDS THREATEN SUSTAINABLE MANAGEMENT ON PRIVATE LANDS** -- In many areas, sustainable management is critical to ensuring the long-term provision of forest benefits to the Bay watershed. Changing ownership trends and a lack of incentives for sustainable management have resulted in private forests being managed primarily for short-term economic gains, not managed at all, or sold for development. Private owners, particularly families, hold nearly 80% of Chesapeake forests. The number of family forest owners in the Bay watershed has reached 900,000, a 25% increase within the previous decade. More than 70% of family forest owners in the Chesapeake Bay watershed are older than 55; as the owners age, the watershed will face its largest ever intergenerational transfer of land. Average parcel size has decreased by 24%.
- **SB 549 - SECTION 4.** That the Department of Natural Resources shall monitor forest retention and restoration by encouraging local jurisdictions to report data to the State with the geospatial location of forest retained or restored through the implementation of the Forest Conservation Act, the Chesapeake and Atlantic Coastal Bays Critical Areas Protection Program, local comprehensive plans, and any programs that impact urban and community forestry.
- Forest fragmentation in the Chesapeake Bay region is occurring chiefly from residential and commercial land development. Tools such as zoning and subdivision regulation, laws concerning public infrastructure, and forest conservation and mitigation laws can help reduce these impacts. These tools can be structured to limit forest losses to the necessary consequences of economic growth without causing avoidable loss and fragmentation of the Bay's forests and ecosystems.

2. Enhancing Assistance To Maryland's Private Forest Landowners

- Therefore, it is necessary to give more forest landowners the assistance and knowledge they need to sustainably manage their woodlots in conjunction with a sustainable forest stewardship plans.
- Lack of public education and awareness of the benefits of sustainable forestry and the importance of its contributions to the Chesapeake Bay's ecological and economic well being.
- CHESAPEAKE FORESTS LACK REGIONAL CONSERVATION PLANS -- Where conservation does occur, it is often haphazard, nonstrategic, and on a small scale. A lack of public awareness and policy has resulted in insufficient financial support
- SB 549-To help facilitate their respective outreach efforts to encourage forest land owners to Develop forest stewardship and other forest conservation Management plans;
- SB 549 - SECTION 3,... to develop a Forest Stewardship Plan on all appropriate State-owned forest lands .On the completion of the plan or plans, the Department of Natural Resources is encouraged to share the findings and recommendations with other units of State government and local governments that own forest lands for possible emulation of the plans by other government entities.
- SB 549 - SECTION 10.... That the General Assembly encourages the forest conservancy district boards and the University of Maryland Cooperative Extension to work together in formulating a strategy to help facilitate the State's compliance, from a private forest land owner outreach perspective, with the 2007 Forestry Conservation Initiative.
- Many private forest landowners are not fully aware of the economic value of their forests, and may not be managing for the long-term sustainability of the forest landscape. Incomplete knowledge may lead landowners to make choices that lead to the land no longer being utilized for forests, or that reduce its productivity and diversity. Technical assistance and cost-share programs can help private forest landowners manage their lands and promote sound forestry practices

3. Maintaining Maryland's Forest-based Economy

- More than 1,500 wood using companies support a \$2.2 billion industry and over 14,000 jobs, of which no less than 2,500 are directly linked to timber produced by Maryland's forests. The wood products industry is the largest employer in the far Western Region and second leading employer on the Lower Eastern Shore, and in many areas represent the single largest sector of manufacturing jobs. Additionally, more than 11 million people annually enjoy Maryland's 500,000 acres of public lands for a wide array of recreational and tourism activities.
- Loss of forest industry due to decreasing and changing markets for forest products leads to decreasing timber values and lack of markets for non-industrial private forest landowners, which in turn leads to no alternative to land use change (e.g., loss of forest land).

- A declining forest products industry due to burdensome regulation, sprawl and lack of statewide support.
- SB 549 - to help fund a forest marketing and utilization program in the department to provide financial assistance to help Support, stimulate, and market innovative and creative ways to enhance the production of value-added wood products.
- SB 549 - SECTION 8. ... That the Department of Natural Resources, in cooperation with the Maryland Higher Education Commission and any interested institution of higher education, may develop a program that creates a wood technology institute specializing in 21st-century workforce training in the fields of wood technology, manufacturing, construction, and renewable energy generation.

4. Minimizing The Threats Of Invasive Species, Pests And Pathogens To Maryland's Forests

- Invasive exotic species present what may be the greatest threat to the long-term health and sustainability of Maryland's forests. Human activities such as trading of goods, travel, gardening, and recreation have resulted in the introduction of many non-native plant and animal species to the state. The Maryland Departments of Agriculture and Natural Resources have identified invasive insects and disease-causing organisms as major threats to our State's forest resources.
- Forest Health -- In Northern and Western Maryland, thousands of acres of forest have suffered varying degrees of gypsy moth defoliation and an estimated 428 million board feet of oak timber has been lost. These forests are regenerating but with new tree species less amenable to wildlife and less valuable as timber.
- Forest Diversity – Many experts feel the proliferation of non-native species is the single greatest threat to biodiversity worldwide, second only to habitat destruction by man.
- Loss of Forest Health. - Insects and Disease (e.g. Gypsy Moth, Emerald Ash Borer, Hemlock Wooley Adelgid, Sudden Oak Death, etc.); Exotic and Invasive plant species; Lack of regeneration due primarily to an overpopulation of White-tailed Deer; Lack of Urban Tree Canopy.
- HABITAT HEALTH AND DIVERSITY IN CHESAPEAKE FORESTS ARE DECLINING -- An upsurge in invasive species, overbrowsing by deer, forestland fragmentation, forest homogeneity and the suppression of fire are key factors in the degradation of native habitat diversity.

5. Enhancing Maryland's Urban Forests

- The majority (86%) of Maryland's population of 5.5 million people live in urban areas despite the fact those urban areas only cover 14.1% of the State. Forty percent of Maryland's urban areas are covered by Urban Tree Canopy (UTC) representing 11.1% of Maryland's total tree cover and forests in these urban settings strongly influence the local environment, quality of life and economy. Invasive pests, pathogens and exotic species, the social and economic benefits of forests to communities, and the long-term management of such forests are at the forefront of Maryland's urban forestry issues.

- The Urban Forest - Maryland is home to about 4.8 million people. It is ranked 14th in the nation in population, and it has the 6th highest population density with an average of 489 people per square mile statewide. Nearly 80% of Marylanders live in the greater metropolitan areas of Baltimore and Washington. The forests of these communities are invaluable assets.
- PEOPLE AND FORESTS - The size of the population and how people live on the land are significant forces in shaping the forest. The Nation's fifth most densely populated state with 5.3 million people, Maryland has seen its population more than double since 1950. As mentioned earlier, despite the State's high degree of urbanization, large areas of natural vegetation remain in Maryland in part because the population is not equally distributed.
- SB 549 - to provide financial assistance, as provided in the State budget, for the administration of an urban and community Forestry program ... including: increasing the number of communities with Tree canopy goals; facilitating compliance with the Chesapeake Bay program's forestry targets; supporting the use of urban tree canopy Expansion for air quality improvement purposes; and helping achieve implementation of regional Greenhouse gas initiative offset opportunities in urban areas;
- SB 549 - SECTION 5. ..That the Department of Natural Resources shall work with the Chesapeake Bay Trust and other appropriate entities to develop a strategy that better coordinates the State's urban tree canopy efforts.

6. Conserving Maryland's Biological Diversity

- Increasing demands placed on Maryland's forests present a challenge to the conservation of biological diversity in the state.
 - The list of threatened and endangered species is growing.
 - Stands of old forest are rare.
- FOREST COMPOSITION IS CHANGING - Combined oak species represent 28 percent of total volume, down from 45 percent in 1950. The portion of total volume in red maple increased from 8 to 13 percent from 1950 to 1999. The decrease in the proportion of oak has been attributed to many factors, among them; the high mortality of oak species following gypsy moth infestations, deficits in oak reproduction due to deer browsing, and selective harvests of oak over other species.
- SB 549 - prevent or control large degradation caused by natural threats.

7. Manage Recreational Use Conflicts In Maryland's Public Forests

- More people than ever before are using Maryland's forests for a wide array of recreational activities, leading to increased conflicts among forest users. With the increase in popularity of motorized forms of recreation, such as off-highway vehicles (ATV's, snowmobiles, etc.), conflict with non-motorized forest uses increases, as do concerns over safety and environmental impacts.
- Uncontrolled and unsustainable recreation (e.g. ATVs).

8. Clean Air

- Forests play a key role in global and sinks of carbon dioxide emissions....Along with carbon dioxide, trees remove nitrogen dioxide, carbon monoxide, sulfur dioxide, ozone, and particulate matter from the air.... Since 1992, ozone damage in Maryland has been monitored through the Forest Health Monitoring System but the extent to which ozone is affecting forest health and ecosystem diversity remains unclear.

9. Clean Water

- In 1991, the National Atmospheric Deposition Program found that Maryland is located in or near the region of highest levels of acid precipitation in the United States. Maryland also receives higher levels of sulfate and nitrate in the form of precipitation than the rest of the country.
- Lack of adequate streamside forest restoration.

10. Ecosystem Markets & Services/Climate Change

- SB 549 - to help the department, in cooperation with appropriate public and private sector entities, develop and expand:
 1. a forest mitigation banking system;
 2. a carbon credit or carbon sequestration Program;
 3. a clean water credit trading system;
 4. an environmental services credit trading Program; and
 5. a renewable energy credit trading system; and
- SB 549 - SECTION 9. ...That Maryland's green power goal for procurement of renewable energy by State government be met, to the extent practicable, through the provision of financial and other incentives intended to promote in-State production of renewable energy, with due consideration afforded to biomass-fueled facilities.

11. Wildfires

- Water filtering through burned areas washes nutrients out of the soil and into waterways often changing the chemistry of the water. Ironically, fish are more likely to suffer from fire than are other animals. Maryland averages roughly 5,000 wildfires annually. The acreage of forest, marsh, and grasslands burned is between 8,000 and 9,000 acres. The top three causes (65%) of wildfire in Maryland are arson, debris burning, and children.

12. Administrative/Legal/Government

- Lack of comparable public financial incentives, including favorable tax treatment, for forest landowners to improve the management of their lands or diversify their forest holdings.

- Burdensome state and local forestry regulations (as evidenced by A Guide to Maryland Regulation of Forestry and Related Practices prepared by DNR in December 2001).
- Virtually non-existent forestland conservation easement protection under the Maryland Agricultural Land Preservation Foundation (MALPF) despite clear statutory intent to the contrary.
- Lack of sufficient forestry resources/staffing, resulting in an inability to effectively manage public forests, deliver technical assistance to private forest landowners and effectively fight wildfires.
- Management for short-term returns rather than long-term investing.
- Inadequate representation of Maryland's forest community within State, federal or local non profit policy forums.
- SB 549 - SECTION 2.... creative, tax-related strategies intended to help promote the retention and improved management of the State's privately owned forest lands.
- More aggressive funding for State and Private Forestry agencies from the USDA Forest Service or the Maryland DNR. Forestry threats cannot be addressed without adequate forestry staffing. The Maryland DNR Forest Service staff has been reduced by approximately 35% over the past five years. Without adequate staffing to deliver technical assistance there is diminished capacity of addressing threats to Maryland's forests. Not being able to fill vacancies over long periods of time is a legacy that will have very long-term consequences. Younger workers are not being hired to replace older workers as they retire or go to other jobs. As Forest Service staff continues to be reduced the state has less and less institutional capacity to deal with threats.
- A strategy for the conservation of forested lands in the Chesapeake Bay region must address tax treatment of forested land. Taxes can affect forest management practices and influence landowner decisions to maintain land in forest use or to convert it for residential or commercial development. With 80 percent of the forest land in private ownership, and with increasing trends toward parcelization, aging of forest landowners, and conveyance to a new generation of forest owners, tax approaches could profoundly affect the fate of these lands.