

**MARYLAND DEPARTMENT OF NATURAL RESOURCES**  
**FOREST SERVICE**

**MARYLAND'S STRATEGIC**  
**FOREST RESOURCE PLAN**  
**2006**

*Ensuring a Sustainable Forest Future*



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# MARYLAND'S STRATEGIC FOREST RESOURCE PLAN 2006

## ENSURING A SUSTAINABLE FOREST FUTURE

Prepared by the Maryland DNR – Forest Service in cooperation and with the concurrence of the Governor's Commission for Protecting the Chesapeake Bay through Sustainable Forestry.

### THE MARYLAND STRATEGIC FOREST RESOURCE PLAN

Forests are essential for our future well being. They make clean water, clean air, wood products, wildlife & fish habitat, and scenic beauty. This document delineates a common vision for Maryland's forest resources and lays out the framework for achieving that vision through the use of goals and objectives. The plan incorporates the range of trends and issues affecting Maryland's forests and their ecological, economic, and social implications. The Maryland Forest Service celebrates its Centennial Anniversary in 2006 by "Celebrating Our Past, Creating Our Future." We have come a long way since our inception and more than ever before the welfare of Marylanders depends, in large part, on the protection and management of our private and public forests. This plan is a call to our partners and stakeholders interested in addressing the challenges Maryland's forests face today and will likely encounter in the future. This plan is intended to address the charge of the Governor's Commission by articulating strategies for the development of a 21<sup>st</sup> century public-private partnership oriented conservation vision for Maryland.

### Previous Plans

This plan updates two previous Statewide Forest Plans, the first was published in 1988 and the second in 2000. Previous plans established a tradition of leadership and careful management of Maryland's forest resources by public and private forestland owners. This plan is intended to comply with and complement national policy and programs on sustainable forests for the United States.

### Planning Process

The plan process was coordinated with the Governor's Commission for Protecting the Chesapeake Bay through Sustainable Forestry in cooperation with the Maryland Department of Natural Resources Forest Service. Over the course of a six month period various experts representing conservation organizations, the forest products industry, State technical assistance groups, financial incentive programs, forestry related tax programs, and land use planners briefed the Commission. This input was instrumental in developing the plan. The committee compiled, analyzed and discussed how best to apply the information they gathered to set a course to insure sustainable forest resources for Maryland's future. The Commission members themselves represent a wealth of experience and expertise including land conservation easement acquisition, elected officials/legislators, primary forest product operator, sawmill entrepreneur, land use planning, private landowner interest, agricultural academia, industrial forester and legal interests.

## FOREST ASSESSMENT

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. Land in farms is now half of what it was in 1950, a loss of 2.1 million acres. 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. These new forests have offset much of the losses in forest land due to development. Third, Maryland forests have been conserved and protected by various public programs such as Program Open Space, the Forest Conservation Act (FCA), the Forest Conservation and Management Agreement Program (FCMA), and the Smart Growth and Rural Legacy Programs. If future growth is managed wisely, some of the negative impacts of urban sprawl will be minimized. Yet, despite these efforts, declines in forestland area have occurred and are likely to continue in the future, as development pressures increase on forest as well as farmland.

In Maryland, forest stands in which most of the stocking is in large trees suitable for sawlogs have increased in acreage since the last forest inventory of the State. These stands, which today grow on two-thirds of the timberland have many attributes that benefit wildlife: an understory with herbaceous plants and shrubs that provides food and cover, bole cavities and bark flaps for nesting and feeding sites, respectively, and large dead trees, both standing and on the forest floor. Also, people enjoy activities such as hiking and camping in stands dominated by large trees because they find them attractive and aesthetically pleasing.

In Maryland, about 20 percent of the forest stands are of pole timber size. Trees in these young stands are not sufficiently mature to produce large amounts of nuts and seeds, and often form dense overstories that inhibit the growth of understory vegetation. Stands classified as sapling-seedling and nonstocked decreased from 20 percent of timberland in 1976 to 12 percent in 1999. Typically found in such stands are early successional, pioneer tree species as well as a variety of herbaceous and shrub plants that need full sunlight to survive. These stands provide unique nesting and feeding opportunities for wildlife. Besides offering diverse habitat for wildlife and providing a steady flow of wood products, forests that contain all stand-size classes might be more resistant to devastating outbreaks of insects and diseases.



Red fox, Vernon Burns, USFWS



Maryland's forests now contain more large trees with increased volume. Average tree volume per acre more than doubled from 964 cubic feet in 1950 to 2,194 cubic feet in 1999. During the most recent inventory period, growing-stock volume increased by 7 percent, with the portion suitable for sawlogs increasing by 14 percent to 16.2 billion board feet. Also during this period, the average number of trees per acre that are 5 inches or more in diameter (at 4-1/2 feet above the ground) has remained unchanged at 159, though average diameter has increased from 9.3 to 9.6 inches. Yellow-poplar leads in volume followed closely by red maple.

## MARYLAND FORESTS AT THE CENTENNIAL

This assessment provides the status of Maryland's forest resources from ecological, economic, and social perspectives. The information imparted in this report represents the foundation upon which the statewide forest planning process was constructed. Beyond documenting the initial data collection and analysis stage of the forest planning process, the Maryland Forest Service as well as the Commission members identified trends and issues that would likely need to be addressed to support sustainable forestry in Maryland for the future.

### **Identifying And Prioritizing Trends, Challenges And Issues That Forests And Forestry Will Face**

As a second step towards developing the statewide forest plan, input from citizens, businesses, government agencies and non-governmental organizations identified and prioritized the most important trends and issues Maryland's forests and forestry will likely encounter over the next century.

### **Developing Objectives And Actions To Address Each Trend And Issue**

Objectives were developed for each trend and issue to provide a benchmark for future efforts. The objectives are specific to the trends and issues, yet broad enough to capture the variety of interdisciplinary actions needed to meet the objective.



Cutover photo circa 1906 and regrowth photo circa 2000 on Potomac Garrett State Forest..

## CONTENTS OF THE STATEWIDE FOREST RESOURCE PLAN

The plan includes a common vision for Maryland's forests based on goals and assumptions for state-wide sustainable forestry. Each trend and issue addresses relevant ecological, economic, and social implications and provides a strategic objective. Electronic publishing allows the plan to be a dynamic and living document. Periodic updates to the assessment, planning, and implementation plans for sustainable forestry are long-standing traditions. The plan can be found on the Maryland DNR Forestry Web site [www.dnr.md.gov/forests](http://www.dnr.md.gov/forests).

### Vision of the Statewide Forest Resource Plan

#### Vision

Our vision is a Maryland that honors the inter-connectedness of life by striving in all of its actions to safeguard and steward its natural resources now and for future generations.

#### Mission

To restore, manage, and protect Maryland's trees, forests, and forested ecosystems to sustain our natural resources and connect people to the land.



Swallow Falls, Tom Darden

The Maryland Forest Service is committed to working in partnership to protect and sustainably manage Maryland's public and private forest lands for the citizens of Maryland.

From its inception, the statewide forest planning process has been driven by a strong commitment to sustainable forestry. While individual definitions of sustainability differ slightly in their details, there is generally broad-based support that sustainable forestry focuses on meeting the needs of current generations, while protecting the ability of future generations to meet their own needs. This definition, combined with the following principles or goals for sustainable forestry, has guided the planning process.

## GOALS OF THE STATEWIDE PLAN

### **Forests Are Conserved, Healthy, Protected From Land Use Change, Pathogens, and Managed According To Sound Stewardship Practices.**

Forest management is practiced on both public and private lands to ensure the forestland base and associated benefits are maintained for current and future generations. Forest management practices are guided by the most current science and are applied based on the desire to maintain the full range of forest ecosystem values, including habitat for diverse species, water quality protection, clean air, carbon sequestration, temperature moderation, soil erosion control, recreational opportunities for all user groups, and scenic beauty.

### **Forests Provide A Diverse Range Of Native Plant and Animal Species and Their Habitats.**

Maryland's forests contain healthy, viable populations of forest-dependent species. Forest community types representing a range of successional stages are maintained to ensure the availability of diverse habitats for species.

### **Forests Are Productive, Providing Raw Material For Consumers And Economic Stability For Local Communities.**

Maryland's forests are kept well stocked with merchantable timber to provide an adequate supply of forest products for Maryland consumers. Currently harvested volumes are approximately 200 million board feet yearly, and yet annual growth exceeds removals by at least 25%. Sustainable forestry practices on both private and public lands maximize residual stand quality and promote abundant regeneration of a range of species. Sound forest management supplies local mills and manufacturers with a range of species for fabrication of diverse wood products. Forests provide income to landowners and a reliable, enduring source of employment for local communities.

### **Forests Provide Multiple Recreational Opportunities.**

Maryland's forests provide opportunities for diverse forms of recreation. These opportunities are expanded, subject to the limitations imposed by available land and fragile habitats, in response to increasing demand.

### **Forestry Educational Outreach Is The Key To An Informed Public**

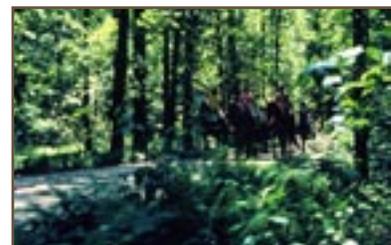
Eighty percent of Maryland's 5.6 million population lives in or very close to metropolitan areas. A significant number of these people have limited knowledge of the land and the resulting environmental benefits attributed to our natural resources. It is incumbent upon the Maryland Forest Service in partnership with other environmental stakeholders to provide programming and activities that educates the general public on the many societal and environmental benefits originating from or connected to our forests and associated natural resources.



River otter, Ron Singer, USFWS



Paw Paw Overlook, Tom Darden



Cedarville SF, Tom Darden

## THE VALUE OF PARTNERSHIPS

The future of Maryland's forests will require a shared responsibility. Sustainable forestry will be achieved through cooperative planning and concerted action by all stakeholders, including private non-industrial landowners, the forest products industry, environmental advocacy groups, and non-government and government agencies at all levels. Effective, collaborative partnerships will be critical to the development of the actions and tools needed to ensure that Maryland's forests provide the benefits for current and future generations. Educational outreach is a crucial component in conveying this message.

### Next Steps

The Statewide Strategic Forest Resource Plan provides a unified vision and framework of common goals and objectives to move towards a desired future condition of sustainable forestry in Maryland. The next step is to define the challenges, prioritize actions or strategies to achieve the objectives and begin implementation of the plan. Our success will depend on our ability to bring together those who are in a position to identify and implement actions in order to gather information, share existing strategies and identify new strategies for pursuing each goal and objective while considering implications. Key individuals, organizations and local land use planning agencies are encouraged to work with the Maryland DNR-Forest Service to champion the development of actions needed to address the trends and issues. Key categories are described below, along with examples of the trends and issues from the Statewide Forest Resource Plan.

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

Patterns of land use and forest ownership directly influence the long-term management of Maryland's forests and the many economic, social and ecological benefits that those forests provide. Growing suburbs, second homes, and other land uses increasingly convert contiguous forested areas into smaller patches of forest and non-forest. Forest fragmentation and parcelization have significant impacts on a broad range of concerns, including: fire control and protection of life, property and resources in the wildland-urban interface; habitat fragmentation and loss of biodiversity; the ability to successfully manage forests for sustainability and productivity; costs of community services and the health of local and state economies. Our



Woodspring at New Market, Frederick County  
Developer: Seawright Corporation (submitted photo)

ability to preserve the many benefits of our forests depends on how we plan to prevent and manage the impacts of the increasing changes in land use and forest ownership.

- Maryland's forest land shrinks annually by 7,000 plus acres.
- The average size forestland tract today is 17 acres.
- Number of private forest land owners has grown to 130,600

### Enhancing Assistance To Maryland's Private Forest Landowners

Forestland ownership strongly influences the condition of forests in Maryland, the nation's fifth most densely populated state. Non-industrial private landowners own 76% of Maryland's forestland, and the number of private forest landowners continues to increase. Between 1950 and 1999 Maryland has lost 7,230 acres of forest land annually while the number of non-industrial private owners increased from 35,000 to 130,600 statewide. More recently the rate of forestland conversion is much worse. According to the Maryland Department of Planning, from 1985 to 1997 Maryland lost 14,278 acres of forests annually. As a result, it has become increasingly challenging to provide professional forest management assistance to forest landowners. Currently, 10% of landowners have a management plan or receive professional assistance when managing their forest. Therefore, it is necessary to give more forest landowners the assistance and knowledge they need to sustainably man-

age their woodlots in conjunction with a sustainable forest stewardship plans. Sample trends and issues related to this category include:

- Rising forestland property taxes are impacting short and long term forest management decisions.
- With the increasing number of private woodland owners, it is becoming more difficult to provide professional forest management guidance, and therefore more private forestry assistance is needed to ensure the sustainability of Maryland's forests.
- Demographics of forest landowners are changing, presenting a challenge to the management of rural contiguous forests.
- Ecosystem services provided by private forest land owners are becoming increasingly recognized for their societal benefits, thusly1 deserving financial compensation.

### Maintaining Maryland's Forest-based Economy

Maryland's forests are important in local, state, and global economies, supporting employment opportunities, investment in forest improvement practices, and venues for landowners. Forestry also plays a significant role in the ecological and social benefits derived from the existence of a healthy and diverse 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.

Maryland's emerging issues, including forest certification, sustainable energy, and environmental standards, need attention to maintain healthy communities. Strategies to maintain Maryland's forest-based economy will be required as the globalization of the economy increases. Sample trends and issues related to this theme include:

- Global demand for forest products requires timber companies to make decisions within the context of a worldwide market.
- Sustainable management certification is emerging, and the global market for sustainable forest products may give certified Maryland forests a strategic competitive advantage.
- Wood biomass has the potential to serve as an energy source for Maryland.

Maryland Forestry and Wood Products Industry Value-Added Economic Activity (in Millions)				
	Timber Management & Harvesting	Primary Wood Manufacturing	Secondary Wood Manufacturing	Total
Central	\$13.53	\$20.71	\$193.14	\$227.37
Eastern	\$63.54	\$19.59	\$37.87	\$121.00
Southern	\$13.00	\$11.70	\$70.12	\$94.83
Western	\$15.38	\$183.16	\$35.31	\$233.85
State	\$105.95	\$248.76	\$404.53	\$759.23

Source: The economic Importance of the Maryland Forest Products Industry, 1996



### **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. Once established, populations of some exotic insects and diseases quickly increase because natural control agents are absent or ineffective. As a result, exotic pests have changed, and will continue to change, entire ecosystems by displacing native flora and fauna. In recent times, significant increases in the movement of people and trade goods around the world have coincided with the transport of plant and animal species to new ecosystems where they often cause significant damage. 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. In response to this threat, we have coordinated our scientific, management, and partnership resources in an Emergency Response Plan for Invasive Forest Pests. The plan is intended to identify agency roles and a plan of action for early detection, rapid response, control, and management.



Leslie J. Mehrhoff, University of Connecticut

Sample trends and issues related to the spread of invasive and exotic pest and pathogens include:

- Forest disturbance patterns are changing.
- More people are purchasing forest lands.
- Motorized recreation is becoming more popular and serving as vectors in the spread of pests and pathogens.
- More trails are being created and used contributing to the spread of pests and pathogens.

### **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. Pressures placed on these urban forests increase as the state's population increases, highlighting the need to understand the extent of urban forests in the state and, in turn, ensure their long-term health and viability. 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. Sample trends and issues related to this category include:

- Maryland is becoming more urbanized, resulting in the need to manage our urban forests to handle the increase in pressure being placed on them.
- Development is increasing, expanding the extent of urban forests and decreasing large blocks of forests.
- Invasive insect species threaten urban forests, while invasive, exotic plant species planted in urban areas are a concern for surrounding rural areas.
- There is a growing need for cities, towns and local municipalities to adopt UTC goals to mitigate urban environmental concerns such as heat island effect, air quality, noise abatement, property values, crime and quality of life.
- Protection and management of municipal watershed is a growing concern.

### Conserving Maryland's Biological Diversity

Increasing demands placed on Maryland's forests present a challenge to the conservation of biological diversity in the state. Taking measures to conserve biodiversity can ensure protection of the functions and values of our forests. Therefore, a better understanding of the biodiversity of Maryland's forests can aid in effectively managing and addressing issues such as old growth and endangered and threatened species. A key step to this protection is to have a better understanding of the biodiversity of Maryland's forests so that we can more effectively manage and address such issues as threatened and endangered species, old growth forests, wildlands designations. Sample trends and issues related to this category include:

- The list of threatened and endangered species is growing.
- Stands of old forest are rare.
- Criteria and indicators for sustainable forestry have been developed.
- MD DNR currently has 44,000 acres designated as wildland which is ten percent of state owned land.

### 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. Careful planning will be critical to meet these diverse and often competing needs and to minimize conflicts with forests. Sample trends and issues related to this category include:

- Increased demand for forest-based recreation and associated services increases the complexity of managing conflict among forest users.
- Today's mix of forest uses demands the coordination of forest management and recreational activities.
- The amount of forestland open for public use is decreasing, impacting the future of public hunting, fishing, and other forms of recreation.
- Conflicting use of forests is a public debate.
- The increased popularity of motorized recreation in forested areas is leading to increased conflict among forest users.



Hiking in Cedarville State Forest, Tom Darden



ATVing in Green Ridge State Forest, Tom Darden

**This plan identifies seven primary areas and strategies to effectively address needed future focus that will bring about desired outcomes.**

### **I. Land Use Change / Forest Loss**

- Partner with Maryland Agricultural Land Preservation Foundation (MALPF), Rural Legacy and other local land preservation programs to work with Department of Planning, Maryland Department of Agriculture, Department of Assessments & Taxation and local governments to develop new programs and support existing local forest conservation programs, land acquisitions and easement preservation goals. Use the Local Land Preservation, Parks & Recreation Plan (LP-PRP) process to promote the development of these goals that are competitive and financially attractive to forest land owners.
- Continue to promote perpetual conservation easement programs such as Program Open Space (POS).
- Develop a private landowner enhancement incentive program to curb the conversion of the forest land and improve forest health.
- Encourage jurisdictions to develop and follow comprehensive plans that specifically address the long term protection and management of forested working landscapes.
- Continue to champion working forests as an important component of conservation landscapes in combination with protecting ecological function in core protected areas.
- Bolster Conservation Easement Acquisition Programs that are paramount in curbing the current decline of our forest land base.
- Work with state and local governments to enhance existing forest land tax reduction programs and develop new incentives for the expansion and retention of the forest land base.
- Propose legislation that would broaden the purpose and intent of existing land conservation programs by placing greater emphasis on the conservation of working landscapes.

### **II. Forest Health, Pests, Pathogens & Ecosystem Sustainability**

- Monitor and reduce forests threats from invasive species, fires, and other threats.
- Work with partners to develop and implement emergency action plans to minimize impacts of forest threats.
- Review & consider stricter State laws relating to invasive species in Maryland.
- Use forest certification to assure forest sustainability and monitoring occurs, first on publicly managed forests and then on private forest lands

### **III. Sustainability of Forest Resource Economies**

- Work with Department of Business and Economic Development (DBED) to complete a regional forest economic assessment to determine the viability of forest resource economies.
- Explore innovative approaches to seek forestland owner cooperatives to achieve forest certification on private land.
- Develop proposals that would recognize and promote the importance of conserving working landscapes for the myriad of energy-related benefits.

**IV. Forest Ecosystem Goods & Services include carbon sequestration, protection of RT&E species, clean air, non-game wildlife habitat, biodiversity, outdoor recreation, wetland mitigation and transferable development rights.**

- Identify the key goods and services provided by Maryland forests.
- Work with the forests research community to develop models that assign values to each key good and service that can be easily understood by the public.
- Work with Federal, State and local governments, NGO's and private foundations to adopt and implement programs to compensate private forest land owners for providing ecosystem services.
- Recommend the current Administration and Maryland's Congressional Delegation work together to secure additional funds in the next Farm Bill for forestry-related projects and programs.

**V. Connecting People to the Land**

- Work with NGO's to promote the value of key forests ecosystem goods & services.
- Link key forest ecosystems good and services with the restoration of the Chesapeake Bay.
- By 2010, work with at least 5 local jurisdictions and communities in each county to complete an assessment of urban forests, adopt a local goal to increase urban tree canopy cover and encourage measures to attain the established goals in order to enhance and extend forest buffer functions in urban areas.
- Encourage increases in the amount of tree canopy in all urban and suburban areas by promoting the adoption of tree canopy goals as a tool for communities in watershed planning.
- Coordinate with Maryland State Department of Education, Maryland Cooperative Extension, Maryland Association of Forest Conservancy District Boards and Non-Government organizations to create and implement forestry training programs.

**VI. Public Forests Lands**

- Use the Chesapeake Forest sustainable management approach as a model to achieve dual certification on the entire 200,000 acres of DNR managed State Forest Land.
- Consider third party contractors for managing State Forests and land under public/private partnerships such as Chesapeake Forests. The benefits of this approach with a continued reduction of the State workforce include a specialized workforce with greater flexibility to produce annual work plans that capitalizes on fluctuating market conditions by merchandising products. This partnership also results in closer working relationships with logging contractors who will adapt to seasonal environment limitations resulting in increased revenues while protecting the land. An approach of this nature provides for independent audits resulting in greater fiscal oversight.
- Provide adequate resources to sustainably manage State Forest Lands .
- Make use of competitive and targeted easement programs such as, though not limited to, the USFS Forest Legacy Program, Program Open Space, Rural Legacy, NOAA's, and MALPF as one of the major public mechanisms for retaining the forest land base.
- Consider fee simple acquisitions for high priority forest lands that are adjacent to or in-holdings to State Lands that aide or enhance overall management of the desired land use for its designated objectives.

- Complete a Comprehensive State Forest Assessment to collect, compile, analyze, classify, and manage the data necessary for sustainable forest management and third party certification of all 200,000 acres of Maryland State Forest land.
- Evaluate the findings and recommendations of the DNR “Old Growth Committee” and take appropriate action.

## **VII. Partnering**

- DNR-FS will develop partnership with DBED to determine long-term goals for regional resource economies.
- DNR-FS will bolster partnerships with Conservation Easement Acquisition organizations to identify forested tracts to enroll them into long term protective agreements such as local land trusts, TNC, Trust for Public Lands, The Conservation Fund, MET, and Maryland Agricultural and Resources Based Industry Development Corporation (MARBIDCO).
- Promote forestry within the agriculture community as another way for farmers to increase the profitability of their farms.
- Integrate forestry into outreach and technical assistance targeted to farmers both through soil conservation districts and cooperative extension programs.
- Create a task force of Ag and Forestry experts to examine ways to ensure that state programs and regulations are more consistent between forestry and farming.
- Encourage forestry and agriculture leaders to work cooperatively.

## Conclusion

In Maryland, sustainable forestry means ensuring healthy and protected forests, a thriving and diverse forest ecosystem, a productive and stable forest products economy, a strong and broadly-shared conservation and stewardship ethic and a forest resource that provides a wide variety of recreational opportunities.

People rely on forests for their livelihood, recreation, spiritual renewal, a vast array of forest products, and essential ecological functions that preserve clean air and water, as well as diversity of life. To ensure that our children and grandchildren are able to experience forests that are as healthy, useful, and abundant as they are today, it is imperative that we work together to ensure our forests are managed sustainably across the landscape.

Consistent with previous Maryland forest assessments and plans, this plan frames the future of Maryland's forests around sustainability. Maryland is committed to meeting the needs of the present without compromising the ability of future generations to meet their own needs, the underlying definition of sustainability. Ensuring a sustainable future requires addressing ecological, economic, and social dimensions with respect to our forests and doing so in the context of strong partnerships among the wide array of organizations that can help steward our forests and address the many challenges and opportunities of the present and the future. Maryland's Strategic Forest Resource Plan provides a framework for our collective and ongoing commitment to sustainable forestry.

Please visit the following web site to view and download the Maryland Strategic Forest Resource Plan, or for more information about sustainable forestry in Maryland: [www.dnr.state.md.us/forests](http://www.dnr.state.md.us/forests).

For a hard copy please contact, Maryland DNR – Forest Service, 580 Taylor Ave, E-1, Annapolis, Maryland 21401 or call 1-410-260-8531

## **Glossary of Terms**

**Biodiversity** – the variety of life in all its forms and all its levels of organization. Biodiversity refers to diversity of genetics, species, ecosystems, and landscapes.

**Dual Certification** – The Sustainable Forestry Initiative (SFI) & the Forest Stewardship Council are two prominently recognized forest certification models that set standards and guidelines to identify forestland well managed toward a goal of sustainability. SFI is supported by the American Forest & Pulpwood Association and SFC is supported by environmental groups with funding from the Ford Foundation.

**Ecosystem Services** – Critical ecosystem functions provide a wide range of economic, environmental and aesthetic goods and services. Healthy forest ecosystems purify air and water, mitigate droughts and floods, cycle and remove nutrients, sequester or store carbon, generate fertile soils, provide wildlife habitat, maintain biodiversity, pollinate crops, and provide aesthetic, spiritual, and cultural values.

**Forest Certification** – is a voluntary market mechanism through which forests are certified against a strict set of environmental and social standards, and all producers and manufacturers along the supply chain are certified to ensure that the final product bearing the FSC logo actually originated from a certified forest.

**Fragmentation** – the subdivision of large natural landscapes into smaller, more isolated fragments. Fragmentation affects the viability of wildlife populations and ecosystems.

**Invasive / Exotic species** – any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem; and whose introduction does or is likely to cause economic or environmental harm or harm to human health.

**Local Land Preservation, Parks & Recreation Plan** – are County land use plans that delineate specific objectives of the 2005–2006 land preservation, parks and recreation planning process that focus on three principal elements: parks and recreation, agriculture, and natural resources;

**Parcelization** – is the change in ownership patterns when larger forested tracts are divided into smaller parcels owned by several owners.

**Private Forests** - Forestland larger than one acre in size owned by an individual, business or corporate entity.

**Public Forests** - Forestland larger than one acre in size owned by the State of Maryland, County or Municipality.

**Sustainable Forestry** – implements forestry practices and guidelines that meet the needs of the present without compromising the ability of future generations to meet their own needs by practicing a land stewardship ethic which integrates the reforestation, managing, growing, nurturing, and harvesting of trees for useful products with the conservation of soil, air and water quality, wildlife and fish habitat, and aesthetics.

**Urban Forestry** - Urban forestry is the care and management of tree populations in urban settings for the purpose of improving the urban environment. Urban forestry advocates the role of trees as a critical part of the urban infrastructure.

**Wood Biomass** – any fuel source that is a woody plant material. Today wood counts for only a fraction of the energy used for modern world heating, cooking, and lighting. Wood biomass is a renewable source that grow back to be used again.