

National Theme: Enhance Public Benefits from Trees and Forests

National Objectives:

- Protect and enhance water quality and quantity
- Improve air quality and conserve energy
- Assist communities in planning for and reducing wildfire risks (see Md Strategy II.B.4)
- Maintain and enhance the economic benefits and values of trees and forests
- Protect, conserve, and enhance wildlife and fish habitat (see MD Goal I.B.)
- Connect people to trees and forests, and engage them in environmental stewardship activities
- Manage and restore trees and forests to mitigate and adapt to global climate change

Maryland Issue III. Ensure Clean and Abundant Water

Forests are vital to providing clean and abundant water for Maryland. Our public lands are the source of fresh drinking water and more than a quarter of our fresh water flows from and is filtered by these lands. The threats of climate change, wildland fire, invasive pests, severe storm events, and increasing development pressures impact the quantity, availability, and quality of Maryland's water resources and the health of its watersheds. The Maryland Forest Service will promote the restoration and maintenance of watersheds to ensure abundant clean water, the protection of soils, and the health of aquatic and terrestrial ecosystems.

Goal III.A. Revitalize the Chesapeake Bay and other priority waters- Work with partners to identify and revitalize waterways critical to the social, economic, ecosystem health of communities.

Strategy III.A.1. Engage in collaborative partnerships that implement watershed-based approaches and can bolster and learn from other watershed organizations and efforts.

Example Tactics:

- Focus resources in targeted areas to bolster progress in important watersheds, develop innovative approaches, and expand information on using forests for watershed health.
- Use pilot projects to develop effective approaches for management challenges like urban watersheds or ecosystem-based management.

Strategy III.A.2. Protect 70% of Maryland streamsides and shorelines with riparian forest buffers.

Example Tactics:

- Coordinate and promote buffer restoration efforts among multiple agencies and organizations.
- Combine voluntary and regulatory approaches to maintain and expand forest buffers on streams and shorelines.
- Track progress in restoring riparian forest buffers by watershed and jurisdiction.
- Map unbuffered streams and shorelines, identify areas most critical for water quality improvements, and develop targeting at a scale useful for planning projects.
- Identify barriers to restoring forest buffers in priority areas, prioritize significance and approachability of barriers, and develop strategies to change or minimize barriers

Strategy III.A.3. Conserve forests important for water quality

Example Tactics:

- Expand awareness of programs and approaches available to conserve forests important for water quality

- Update targeting of forests that disproportionately contribute to water quality.
- Track progress of forest conservation through multiple land conservation efforts including purchase, donation, and effective regulation such as local zoning.
- Develop other alternatives to increase forest conservation.

Strategy III.A.4. Protect important aquatic habitats and water-dependent terrestrial wildlife

Example Tactics:

- Ensure that water quality targeting addresses the aquatic life aspect of water quality.
- Collaborate with Fisheries, Resource Assessment, and Wildlife units and MDE to develop long-term approaches for protecting priority habitats and sensitive resources.

Goal III.B. From Forest to Faucet – Connect people to healthy forests through clean drinking water initiatives in priority watersheds.

Strategy III.B.1. Identify priority watersheds and work with communities to improve source water protection through watershed forestry.

Example Tactics:

- Offer technical forestry assistance for forest management to protect drinking water supplies.
- Identify and address risks like wildfire that threaten community water systems and other important water resources.
- Use science to design new conservation strategies for drinking water protection/disinfection byproducts/interaction with filtration systems

Strategy III.B.2. Collaborate with watershed partners to restore watershed quality from the headwaters to rivers, through farms and working lands into urban centers.

Example Tactics:

- Share learning from watershed partnerships, pilot projects, and monitoring to encourage use and improve success of forest restoration for watershed health.
- Develop guidelines or best practices for incorporating forest restoration and conservation effectively into relevant land use planning for long-term improvement of streams and watersheds.

Goal III.C. Avoid water quality impacts from needed forest management activities through the effective and widespread use of harvesting BMPs

Strategy III.C.1. Expand awareness of BMPs

Example Tactics

- Provide logger and landowner education on efficient and effective use of BMPs
- Expand public awareness of need for BMPs and well-trained operators

Strategy III.C.2. Improve implementation of BMPs

Example Tactics:

- Collaborate with MD Dept. of Environment to support effective and efficient implementation of sediment and erosion control requirements.
- Improve capacity of operators to minimize impacts through appropriate equipment choice, using programs like the EPA LILAC low-interest loans
- Periodically assess effectiveness and implementation of BMPs.

Maryland Issue IV. Create Jobs and Sustainable Communities

The restoration and conservation of forests and working lands can provide jobs and support sustainable communities – generating economic value by sustaining green jobs, and producing timber and other forest products, food, and energy. Our forests are also of immense social

importance, enhancing rural quality of life, sustaining scenic and culturally important landscapes, oftentimes defining the essence of a community.

Goal IV.A. Use forests to support a robust and growing rural economy- Provide a variety of forest-based outputs that help maintain viable rural communities, allowing jurisdictions to realize benefits from open space and manageable demand for services.

Strategy IV.A.1. Aid rural communities in developing diverse natural-resource based economies centered on forest ecosystem restoration, renewable energy, and sustainable forest and agricultural products.

Example Tactics:

- Collaborate with local agencies and organizations to identify potential forest-based products and services that can be sustained with local resources and economic infrastructure.

Strategy IV.A.2. Create green jobs and promote a diverse forest products industry to support sustainable rural communities.

Example Tactics:

- Develop innovation grants or low-interest loans for forest products businesses.
- Integrate forest products into Buy-Local campaigns

Strategy IV.A.3. Improve social acceptance of needed forest and tree management practices

Example Tactics:

- Increase use of forest-related curricula by schools
- Provide interpretation for practices applied on Demonstration Forests and other DNR forest lands
- Implement forest practices on school properties to improve resource sustainability and serve as demonstration areas for classes (“tending the forest garden”)
- Implement forest management on local government or other lands to serve as demonstration areas for citizens

Strategy IV.A.4. Provide accessible forest-based recreation that maintain healthy forests and support healthy lifestyles

Example Tactics:

- Collaborate with stakeholders, agencies, and organizations to develop plans, projects, and maintenance guidelines that improve safety and maintain important environmental functions.

Goal IV.B. Support Livable Green Communities – Support both rural and urban communities to create green jobs and connect people with the forests and natural systems on which their quality of life depends.

Strategy IV.B.1. Provide urban and community forestry assistance to cities, suburbs, and towns to enhance and restore open space and expand urban tree canopy to improve human and community health.

Example Tactics:

- Work with the Maryland Urban and Community Forestry Committee to identify approaches and actions to improve urban forests.
- Provide technical assistance on assessing urban tree and forest canopy, developing canopy goals, and targeting new areas for tree planting.
- Track urban tree canopy goals and quantify benefits of planted trees with science-based assessment tools.
- Provide opportunities for volunteer tree planting and supporting tree planting on public lands.

Strategy IV.B.2. Share urban forestry and agroforestry techniques and tools and continue working with municipalities to establish and maintain local urban forestry programs.

Example Tactics:

- Assist communities with creating and maintaining programs that establish, maintain, and replace urban trees and forests.
- Expand options and techniques for successful urban tree planting and maintenance.

Strategy IV.B.3. Develop tools to help communities strategically connect open spaces to build a functioning green infrastructure.

Example Tactics:

- Develop and share information and tools to help local leaders and planners strategically protect parks, riparian areas, source water protection areas, and wetlands.
- Integrate land planning, management, and conservation to build an interconnected green infrastructure that provides ecosystem services, recreation opportunities, and a high quality of life for urban and suburban citizens.

Maryland Issue V. Make Landscapes More Resilient to Climate Change

Climate change is one of the great challenges facing modern society, and has the potential to dramatically reshape how the Maryland Forest Service will deliver on its mission of sustaining the health and diversity of Maryland's forests. Managing landscapes to be more resilient to climate change will require an adaptive management approach based on maintaining ecosystem health, diversity and connectivity. Specific management approaches include planting more diverse species, conserving migration corridors, and assisted migration of species. Experimentation, learning from experience, monitoring actions, and changing methods and techniques will help managers adjust actions as conditions change.

Goal V.A. Engage in Leadership for Climate Change by working with partners as a leader to convene, connect, restore and maintain focus on climate change priorities on a landscape scale.

Strategy V.A.1. Develop and improve strategies on mitigation and adaptation in collaboration with other state and federal agencies and other stakeholders, supporting Maryland's Climate Action Plan.

Example Tactics:

- Participate in coordination and tracking of actions related to Maryland's Climate Action Plan
- Identify opportunities to better implement actions through existing forestry programs

Strategy V.A.2. Increase the use of woody biomass to create local, renewable energy – such as combined heat and power – while also restoring forest health.

Example Tactics:

- Develop new silvicultural techniques and management guidelines;
- Promote energy efficient, light-on-the-land harvesting, handling, and processing technologies for woody biomass; and
- Facilitate new uses and technologies for converting woody biomass into energy and other bio-based products.

Strategy V.A.3. Improve sustainable operations through green infrastructure development, efficiencies and energy savings.

Example Tactics:

- Implement DNR Green Procurement policies and energy efficiency measures.
- Use energy efficient designs for facility upgrades or rehabilitation.

Goal V.B. Promote Sustainable Forest Management and Operations in Response to Climate Change – work with partners to enhance opportunities for sustainability in forest management and urban communities.

Strategy V.B.1. Apply a climate change mitigation strategy to sustainable forest management

Example Tactics:

- Deploy the needed information and technology on the growth, resilience, and adaptability of forests considering climate change effects
- Increase CO₂ sequestration in forest biomass and carbon storage in durable wood products through varied approaches, from optimizing growth to extended rotations
- Implement pilot projects for carbon sequestration on public and private lands to optimize benefits of fee-in-lieu mitigation or other funding sources, supporting green infrastructure expansion, reforestation offsets under RGGI, and anticipating wetland migration
- Provide information on landowner opportunities for carbon sequestration, tax incentives, and markets, targeting properties with forest stewardship plans
- Promote and track mitigation and energy conservation through urban tree canopy expansion and tree planting programs like Marylanders Plant Trees

Strategy V.B.2. Apply a climate change adaptation strategy to sustainable forest management

Example Tactics:

- Avoid epidemics and forest dieback by managing for diverse and resilient forests and reducing stresses from deer and invasive species (plants, pests, diseases)
- Identify sensitive species and plan for continuity of habitat (restoration, refugia, replication, and relocation if needed)
- Assure representation of species and habitats and protection during land management activities
- Design mitigation plantings to support adaptation needs (like forest diversity or afforesting stream buffers) to the extent possible