2015 Maryland Forest Action Plan
Executive Summary-DRAFT 10-3-15

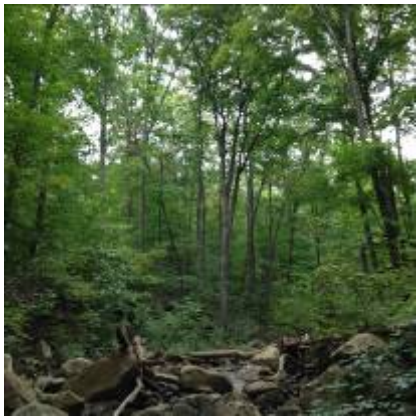
The 2015 Maryland Forest Action Plan lays out an updated five-year strategy. Consistent with the long-term nature of forests, the Plan takes a long-term approach to reaching desired conditions for Maryland's future forests. The Forest Assessment characterized a maturing forest base that supports considerable biological diversity, expanding potential for sawtimber and other wood products, greater tree growth than removal, net gains in carbon sequestration, and protection of water quality. Recent inventory data in Maryland showed increasing natural mortality, although growth is still almost twice the volume of losses. Forest land conversion to other uses is considered the greatest threat to many of these forest benefits, since forest land is being lost at almost 3% per decade, much more than is conserved. Forest health issues are of concern with the increasing trend of natural mortality and frequent finds of new pests, diseases, and exotic invasive plants.

The Strategy retained the five major areas for action from the 2010 Strategy: Sustaining Forests, Forest Health, Watershed Forestry, Community Forestry and Jobs, and Climate Change. **Progress** has been made in each category between 2010 and 2015:

Sustaining Forests: The 2013 Forest Preservation Act expanded landowner eligibility for incentives, committed to sustainable certification of State Forests, and codified no-net-loss goals. The Delmarva fox squirrel, listed as endangered since 1967, is in the de-listing process based in large part on sustainable management plans on State forest land. Habitat for declining warblers has expanded on public and private land.

Forest Health: Community planning and outreach helped limit risks and damage from emerald ash borer. Community Wildfire Protection Plan coverage expanded in several counties, Firewise Chipper Days helped reduce fuels and invasive plants.

Watershed Forestry: The Backyard Buffer program expanded to 16 counties, helping landowner plant seedlings by backyard streams. A landscape approach to reservoir forest management is being piloted in Western MD in partnership with PA and The Nature Conservancy.



Community Forestry and Jobs: Urban forestry expanded with the innovative Lawn to Woodland Program and new continuing education requirements for licensed tree experts.

Climate Change: The 2012 Plan for Maryland's Greenhouse Gas Emissions Reduction Act includes multiple forestry contributions. Partners collaborated to produce a landowner's guide, Helping Your Woodland Adapt to a Changing Climate.

Priorities for 2015 to 2020:

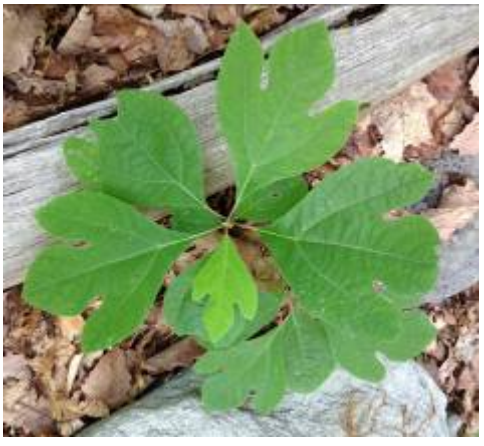
Sustaining Forests: To sustain forests on Maryland's working landscape, core programs for *forest management plans, tax incentives, and financial assistance* will remain critical to private landowners, who own the majority of the state's forests. State Forests will remain committed to *dual certification* for sustainable forest management, important for demonstrating sustainable practices and strategically addressing forest health and wildlife issues. Keeping and increasing other sustainably certified forests will require efforts to update stewardship plans for Tree Farm certification. *Streamlining forest harvest permitting* for forests with stewardship plans is a priority. Issues to address in the next five years include keeping a viable forest industry while protecting *declining bat populations* and *expanding young forest* habitat for declining bird populations.

Forest Health: Priorities will include keeping access to effective treatments of major *forest pests* such as emerald ash borer and hemlock woolly adelgid, increasing understanding of new threats like thousand cankers disease of walnut and invasive plants, and better supporting development of biocontrols. State lands will be used to strategically address forest health issues, including biocontrol release and recovery. Maintaining *readiness to address wildfire* and carry out prescribed fire remains a priority, and Maryland will add participation in the Firefighter Property Program to better meet equipment needs for state and local fire response.

Watershed Forestry: Chesapeake Bay commitments are reinforcing interest in riparian forest buffers and urban tree canopy, underscored by the 2013 Forest Preservation Act goal for maintaining 40% tree cover. New opportunities will be sought to expand rural and urban tree planting to meet a variety of water quality goals that also bring benefits for air quality and community livability. Revised training for forest harvest BMPs will be offered to assure that needed forest harvests maintain water quality.

Community Forestry and Jobs: New laws and regulations are expanding focus on *arborist training and tree cover data* for local planning. Opportunities to continue funding for innovative *tree planting* programs to expand urban tree canopy will be sought, building on the Tree-Mendous and Gift-of-Trees programs and efforts of the state's volunteer District Forestry Boards. Developing new markets for *biomass* and improving use of under-utilized urban waste wood will continue to be pursued.

Climate Change: Maryland will address climate resiliency through regional partnerships and coordinated state initiatives. Commitments to meet Greenhouse Gas Reduction Act mitigation will be tracked for rural tree planting, urban tree planting, forest management, and biomass projects. With projected variability in rainfall and storms, maintaining readiness will be a priority for wildfire, storm response, and prescribed fire for native forest types.



NATIONAL PRIORITIES: Maryland Highlights, 2010-2015

National Priority 1: CONSERVE AND MANAGE WORKING FOREST LANDSCAPES FOR MULTIPLE VALUES AND USES

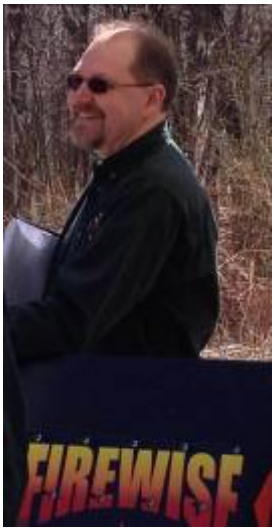
Maryland's Forest Management Is Helping Rare Species and Reducing Regulation

Maryland's commitment to sustainable forest management is paying off with better habitat and reduced regulation. The Delmarva fox squirrel (DFS) has been listed as endangered since 1967, triggering harvest restrictions in forests on the Lower Eastern Shore to comply with the US Endangered Species Act. Beginning with Chesapeake Forest on the Shore and a partnership with the Conservation Fund, Maryland has pursued dual certification of its State Forests, undergoing audits from both the Sustainable Forestry Initiative and the Forest Stewardship Council. The 2013 legislation for the Forest Preservation Act solidified this commitment. The management plan for the certified forests on Chesapeake Forest and Pocomoke State Forest on the Shore delineated large areas to be managed as mixed pine hardwood suitable for future habitat for DFS. The management approaches and commitments to careful management for suitable wildlife habitat are central factors in the process now underway to de-list the previously endangered Delmarva fox squirrel. Thanks to the public commitment to multi-resource management and sustainable certification, private landowners will have fewer impediments to managing their working forests. De-listing also can increase flexibility in restoration options and re-locating animals to expand populations, so both wildlife and people can benefit.

Other efforts are underway to avoid future listing of threatened or endangered species. Green Ridge State Forest and other Western Maryland State Forests include areas suitable for golden-winged warblers. These birds depend on an increasingly rare habitat in the State, young forests. Other projects to develop habitat for cerulean warblers are underway, habitats that will need mature trees but also more open canopies. National Fish and Wildlife Foundation grants and a partnership with Indiana University of Pennsylvania are helping support work, which also includes goals for private lands. Work includes timber stand improvements and thinning in overly dense forests. Carefully designed harvests are helping keep our local wood products flowing, and building good habitat for the future too. Stay tuned to see how this work will be affected by rules designed to protect the northern long-eared bat, hard-hit by white-nose syndrome.

National Priority 2: PROTECT FORESTS FROM THREAT

Maryland is Fighting Invasive Species on Multiple Fronts



Maryland, like many other states, is experiencing growing problems from invasive pests, plants, and diseases, and is responding with a multi-faceted approach, much of it funded with assistance from federal partners.

Fuel reduction projects have sought to simultaneously reduce invasive plants, particularly those that increase flammability of the landscape or are ladder fuels, like many vines. Fire managers looked for those opportunities, and are helping us manage smarter with limited resources. The Chipper Days in targeted Firewise priority communities are popular with homeowners, and make it easier for them to carry out the work that will reduce fuels, maintain defensible space around houses in the wildland urban interface, and remove invasive vines and plants.

Emerald ash borer has spread widely in Maryland, and proactive response through grant funding has resulted in 9 community response plans, greater capacity in partner jurisdiction to limit risks to their citizens, and trees treated in several communities while it was still an option. County fair-goers in Allegany County were particularly appreciative this summer. The ash trees at the Allegany County Fairgrounds are the major source of shade for exhibitors and campers; the trees that were able to be treated in spring 2015 will be greeted with relief for years to come, even as the ash dwindles in the surrounding landscape.

We've learned a lot of lessons on how to protect our biodiversity hotspots from invasive threats through a partnership with Wildlife and Heritage Service. WHS's BioNet mapping was used to identify biodiversity hotspots, and areas of concern with invasive species were identified. The patterns of invasion in the hotspots were different than some of our more disturbed landscapes, spottier and requiring more protection of non-target plants. We learned that not all contractors were well equipped to fine-tune their control efforts, that early detection was even more critical than usual, and volunteer help would be needed in identification and followup. Maryland has since passed invasive species legislation limiting distribution of the most problematic species, and requiring labeling of others to increase public awareness of problems and alternative plants. Wildlife and Heritage Service also has developed a Statewide Eyes program to help scout for invasive plants. The understanding built through the hotspots project emphasized the need, and informed the design of these efforts.

National Priority 3: ENHANCE PUBLIC BENEFITS FROM TREES AND FORESTS.

Maryland's Tree Planting bolsters water quality, air quality, and quality of life.

Programs focused on tree planting are transforming pieces of Maryland's landscape. The innovative Lawn to Woodland program partnered with the National Arbor Day Foundation, offering homeowners with more than an acre of lawn to plant with free trees, planting, and early maintenance. The 2013 Forest Preservation Act expanded flexibility of mitigation programs, freeing funding to help people expand forest and reduce "mindless mowing". Homeowners will be enjoying the increased shade, beauty, privacy, and wildlife habitat for decades to come.

Tree planting is critical to meeting State water quality goals for the Chesapeake Bay Total Maximum Daily Load, particularly through forest buffers and urban tree canopy. Allegany County in western Maryland relied on forest buffer planting more than many jurisdictions, and has made great progress. A combination of technical assistance from MFS and other partners, and state implementation funding through the Governor's Stream Restoration Challenge helped them meet water quality goals and restore their local streamsides, with a lot of help from local students and volunteers. These projects are teaching as well as restoring.

Baltimore County has long been a leader in sustainable forestry, and has broken new ground yet again with the Prettyboy Resource Collaborative. It is taking a landscape approach to identify opportunities for cooperative stewardship. The Prettyboy Watershed Association is working with County, State, and federal partners to develop a framework for aggregating markets and services in ways that make sense for smaller landowners. Stewardship funding has supported forest health assessments for some areas where large forest patches are owned by many different landowners. The health assessment has helped many landowners understand the need for deer management, invasive species control, and forest thinning. Many landowners own less than 20 acres, and would be challenged to attract bids to make thinning, forest stand improvements, or regeneration harvests affordable. That can change when several landowners sign up for similar work, making it worthwhile for contractors to carry out projects. Currently, mapping is identifying potential for market aggregration in the watershed, and pilot projects will follow. It will be a project to watch!

APPENDIX D: Tree and Forest Canopy Cover in Maryland by Jurisdiction

Jurisdiction	MD Dept. Planning (MDP) Land Area ACRES	UMD Canopy Cover Base Year	UMD Estimated Total Canopy Cover ACRES	Percent Tree and Forest Canopy Cover %	Est. Urban Tree Cover (US Census Urban Areas 2010) ACRES	Estimated Forest Cover from UMD Data ACRES	Percent Forest Canopy Cover (>1 ac. patch) %
Allegany	271,462	2011	216,366	79.7%	12,431	200,237	73.8%
Anne Arundel	265,536	2007	155,233	58.5%	82,176	124,460	46.9%
Baltimore	382,912	2007	188,012	49.1%	74,138	141,188	36.9%
Calvert	136,416	2011	86,832	63.7%	20,894	76,593	56.1%
Caroline	204,429	2011	71,552	35.0%	1,729	65,035	31.8%
Carroll	286,464	2007	102,548	35.8%	17,179	81,225	28.4%
Cecil	221,613	2011	100,594	45.4%	16,068	89,063	40.2%
Charles	292,960	2011	203,009	69.3%	22,278	190,409	65.0%
Dorchester	346,093	2011	132,485	38.3%	1,848	119,538	34.5%
Frederick	422,541	2011	180,006	42.6%	22,504	144,562	34.2%
Garrett	414,144	2011	302,245	73.0%	1,213	291,077	70.3%
Harford*	279,738	2011	115,053	41.1%	33,311	93,370	33.4%
Howard	160,474	2007	81,572	50.8%	43,208	62,066	38.7%
Kent	177,299	2011	52,322	29.5%	466	44,123	24.9%
Montgomery	314,400	2009	157,230	50.0%	88,637	108,967	34.7%
Prince George's	308,922	2011	160,628	52.0%	85,606	126,978	41.1%
Queen Anne's	238,022	2007	75,538	31.7%	3,704	65,751	27.6%
St. Mary's	228,595	2011	141,944	62.1%	19,021	130,297	57.0%
Somerset	204,621	2011	85,529	41.8%	1,153	75,652	37.0%
Talbot	171,866	2011	57,937	33.7%	1,764	47,430	27.6%
Washington	292,979	2011	142,898	48.8%	11,440	116,544	39.8%
Wicomico	239,642	2011	115,331	48.1%	10,998	101,629	42.4%
Worcester	299,699	2011	157,792	52.7%	4,826	148,240	49.5%
Baltimore City	51,802	2007	14,143	27.3%	14,143	4,102	7.9%
Maryland	**6,212,629**		**3,096,799**	**49.8%**	**590,735**	**2,648,535**	**42.6%**

**Excludes Aberdeen Proving Ground and Edgewood Arsenal*

Source: UMD from LiDAR and 1m NAIP imagery