



2022

**THERE'S
MORE TO OUR
FORESTS
THAN TREES**





OUR VISION

THE MARYLAND FORESTS ASSOCIATION ENVISIONS A FUTURE IN WHICH VIBRANT FORESTS ARE MAINTAINED THROUGHOUT THE STATE, PROVIDING DIVERSE ECONOMIC AND ENVIRONMENTAL BENEFITS TO ALL.

OUR MEMBERSHIP



FOREST
LANDOWNERS &
TREE FARMERS



FORESTERS & NATURAL
RESOURCE
PROFESSIONALS



HUNT CLUBS &
RECREATIONAL
GROUPS



LOGGING &
TRUCKING
COMPANIES



PRIMARY & SECONDARY
FOREST PRODUCT
MANUFACTURERS



CONCERNED CITIZENS,
ORGANIZATIONS &
STUDENTS

A MESSAGE FROM BETH AND JOE

Hello! We are the Maryland Forests Association. A key part of our job is to help build a better understanding among Marylanders of the importance of our forests and the work of scores of professionals all dedicated to assuring we can continue to enjoy the wood, clean water, wildlife and recreational opportunities from our forests.

Many believe that merely planting trees is the sole way to maintain our forests. While it has its benefits, this, alone, is not the total answer. We already have millions of acres of trees and it is far more important to ensure that the 187,000+ private forest landowners in Maryland can care for and manage their lands to meet their objectives, crucial to retaining forests in the state. Perhaps the most important element is it assures continued markets for the wood these landowners produce so that they have a financial reason to keep their woods, rather than sell them off for the higher yielding profits of development.

This message needs to be heard. To help put a “Face” or rather “Faces” on forestry, we have spent the past year traveling across the state creating profiles of people that contribute to sustainable forestry. The folks



featured in our public perception campaign, “Faces of Forestry,” each have a unique story and connection to the land.

In this publication, you will find some of our profile people and information on the state of our forests and forest products industry. As the reader, we hope you, too, will conclude that Maryland’s forests are indeed great for the environment and great for the economy. We are proud to represent forest product businesses, forest landowners, loggers and anyone with an interest in Maryland’s forests through the Maryland Forests Association!

Joseph M. Hinson, President

Elizabeth D. Hill, Executive Director

INTRODUCTION

From northern hardwoods high in the mountains to pine flats and cypress swamps, Maryland’s forests have it all and you can see it during a day’s drive.

As diverse as Maryland’s forests may be and even though forest cover is about 50 percent of our non-urban or undeveloped land in our state, people simply do not understand what forest management is and who does it.

Over the years, a number of studies have documented some of the challenges facing our forests, forest management and the forest industry in Maryland. Among the most recent are the 2020 Maryland Forest Action Plan and the 2021 Maryland Forestry

Economic Adjustment Strategy (EAS), produced by the MD Forest Service and its partners.

Both represent comprehensive examinations of the nature of the forest resources in Maryland and the challenges faced by those who manage or earn a living from those resources.

Our purpose in this printed extension of our “Faces of Forestry” project is not to simply reiterate the challenges. Rather, we want to highlight a few of them and then, more importantly, introduce you to those working to successfully address those challenges.

In essence, the collective management of our forest resources

seeks to find the sweet spot between assuring such environmental values as clean water, wildlife, scenery and recreation while allowing logging and the production of wood products to continue contributing to economically sustainable rural communities.

Finding this “sweet spot” doesn’t just simply happen. A lot of dedicated people, ranging from forest landowners, foresters, loggers, and specialists in recreation, wildlife or water resources, all combine their efforts toward this common goal.

Does this mean all problems are solved? Of course not, and we will describe what else must be done. The point is, there is a lot of good work being done by a lot of dedicated people. As citizens of Maryland, we think you deserve to understand that and there is more to Maryland’s forests than just the trees!

“WE ALL HAVE A GOAL OF PROTECTING THESE RESOURCES AND PASSING THEM ON TO THE NEXT GENERATION...THESE PEOPLE ARE THE TRUE STEWARDS OF OUR NATURAL RESOURCES.”

- SENATOR JACK BAILEY



KEY ISSUES

Lack of public understanding has led to poor utilization of an abundant natural resource.

<div>1</div> <p>Maryland grows more wood than it harvests, but the lack of timber markets hurts long-term forest quality.</p>	<div>2</div> <p>Urban wood waste is piling up, and is becoming a solid waste problem.</p>	<div>3</div> <p>Forest management and logging are poorly understood in Maryland.</p>
<div>4</div> <p>There is significant untapped potential for wood energy, but is hindered by detrimental policies.</p>	<div>5</div> <p>Limited recognition that active forest management generates environmental values.</p>	<div>6</div> <p>The term “Forest Health” is too broad and is often poorly understood or explained.</p>
	<div>7</div> <p>Support for new and expanded markets is needed for vibrant and resilient rural economies.</p>	

WHAT MUST BE DONE

A concerted effort is needed between the forest community and political leaders.

<div>1</div> <p>Secure funding for the Master Logger Program</p>	<div>6</div> <p>Address backlog of critical maintenance needed on State Forest Lands</p>
<div>2</div> <p>Refine Maryland Renewable Portfolio Standards thermal credits to allow wood as a standalone fuel</p>	<div>7</div> <p>Pursue a cost share program for loggers to implement Best Management Practices (BMPs)</p>
<div>3</div> <p>Pursue a cost share grant program for woody biomass facilities</p>	<div>8</div> <p>Increase public knowledge through demonstration sites and signs on State Forest harvest sites</p>
<div>4</div> <p>Continue funding the MARBIDCO WIPEI Program to support existing industry</p>	<div>9</div> <p>Address the inconsistencies in logging permits across counties</p>
<div>5</div> <p>Fully fund the Mel Noland Incentives Fund to support landowners</p>	<div>10</div> <p>Push for updated zoning regulations that allow for new and expanding forest product businesses</p>

MARYLANDERS LOVE THE FORESTS

but don't really understand them

Those fortunate few who spend their lives and careers working in the woods or helping care for them have a bit of an inferiority complex—hardly anyone understands what they do or why they do it.

This was made abundantly clear by a recent Hughes Center for Agro-Ecology study “Growing for Good” that noted, “Marylanders are uninformed about the forestry industry and woodland management. There is little understanding that wood is a renewable resource and forests are planted to be harvested and milled for products used every day.”

Ask a natural resource professional for the three key points that the average Marylander should know about forests and the answer would probably be pretty simple:

1. Forests grow all on their own,
2. Forests naturally change over time as they grow, and,
3. Humans can influence what grows, how fast and what the future forest will look like.

The concepts are simple, but the details can be a bit more complex.



**“MORE PEOPLE NEED TO
APPRECIATE THE FULL
ECONOMIC, SOCIAL, AND
ENVIRONMENTAL
CONTRIBUTION OF OUR
FORESTS, AND NOT JUST
PART OF THE STORY.”**

ALBERTO GOETZL

THE BASICS OF FOREST SUCCESSION

Walk away from a cleared area in Maryland, be it a farm field, a vacant lot in a city or an area that was recently logged, and it will soon revert to a forest, almost without exception.

Seeds blow in, squirrels bury nuts and birds drop fruit seeds—all become trees once they are exposed to sunlight, find a spot in the soil and get a little water.

Woods will occupy the site, but, over time, these woods will change, largely because the species that do best in

the full sunlight that characterized the open area give way to species that do well growing in the shade of the first trees to occupy the site.

Thus, an abandoned field that naturally seeded into sunlight loving loblolly pines will ultimately evolve into a hardwood stand with oaks, maples and other species that are more tolerant of shade.



Annual plants grow and are succeeded by grasses and perennials.

PIONEER SPECIES



Shrubs, then pines, and young oak and hickory begin to grow.

INTERMEDIATE SPECIES



The mature oak and hickory forest remains stable until the next disturbance.

CLIMAX COMMUNITY

Note: Graphics courtesy of OpenStax

You may be getting the picture—sunlight is the big factor in what will grow in a forest and how fast that growth may be.

And this is where humans come in. By controlling the amount of sunlight available to the trees, we can encourage species that we would like to grow and, to some extent, shape how fast they might grow.

Want a pure pine stand? Clearcut the existing forest, open the ground to full sunlight and mother nature will take care of the rest, so long as there is a source of pine seeds close by.

Want to increase the growth of young trees? Thin the stand to minimize competition for sunlight and concentrate it on the remaining trees. They will begin to grow faster.

Want to encourage oaks and hickory for wildlife? Partially cut the existing stand, leaving some oak and hickory trees to repopulate the area and fill in the spaces left by the trees you removed.

In our part of the world, control the sunlight and you can control the forest. It may take many years, but through human actions, we can reach a future condition that we find desirable.

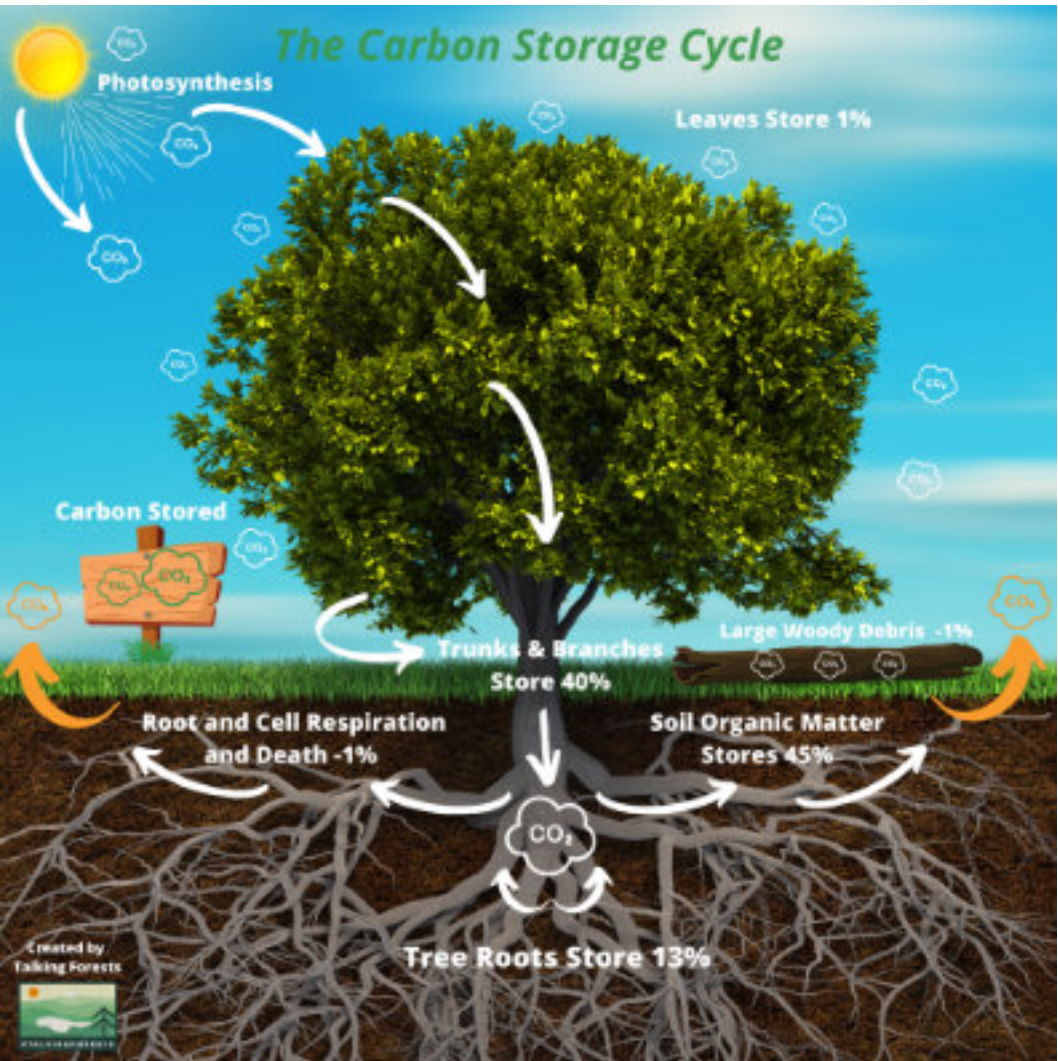


FORESTS AND CARBON SEQUESTRATION

Trees, as with all plants, breathe in carbon dioxide and exhale oxygen. Within the tree, carbon is mixed with water and nutrients to produce sugars and other compounds that fuel the tree’s growth. Through photosynthesis, trees store or sequester the carbon in their trunk, roots, and branches. There it stays,

safely removed from the atmosphere for the life of the tree.

When the tree dies, it decays and releases carbon dioxide and methane back into the atmosphere. However, we can postpone this process and extend the duration of carbon storage. If we harvest the tree



and build a house or even make a chair with the wood, the carbon remains stored in these products for far longer than the life of the tree itself!

This has tremendous implications for addressing the growing levels of carbon dioxide, which lead to increased warming of the earth’s atmosphere. It means harvesting trees for long-term uses helps mitigate climate change.

We can even take advantage of the fact that trees sequester carbon at different rates throughout their lifespan to maximize the carbon storage potential. Trees are more active in sequestering carbon when they are younger. As forests age, growth slows down and so does their ability to store carbon. At some point, a stand of trees reaches an equilibrium where the growth and carbon-storing ability equals the trees that die and release carbon each year. Thus, a younger, more vigorous stand of trees stores carbon at a much higher rate than an older one.

“THE LIFE CYCLE DOESN'T END WITH THE TREE. THE FURNITURE MADE AT SANDTOWN FROM RECLAIMED WOOD CONTINUES TO STORE CARBON INDEFINITELY, AND THAT'S A BEAUTIFUL THING.”

– BETH HILL



DID YOU KNOW WE ARE NOT RUNNING OUT OF TREES?

Are we running out of trees or are we destroying our forests? That is a question we get asked a lot.

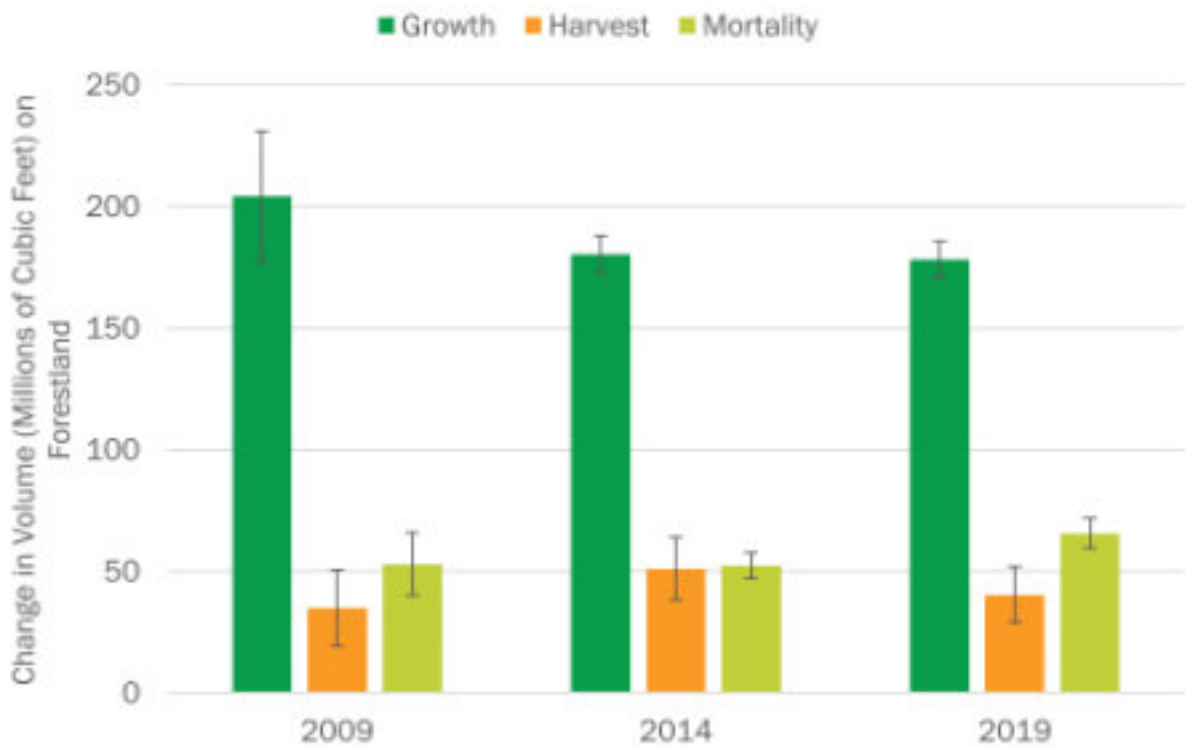
The simple answer is an emphatic “No.”

We are currently growing trees at about four times the rate they are being harvested. This means every acre that is cut will remain a forest.

In Maryland’s temperate, moist climate, trees naturally claim open land.

Most regenerate naturally. A few harvested acres are planted, mostly because the landowner or manager wants to favor a particular species, such as loblolly pine.

But make no mistake, as long as land is not converted to a non-forest use like a development, a logged area will grow back, and it will remain a forest.



Data Source: USDA FIA

That said, there are important changes going on in our forests. As noted in the Economic Adjustment Strategy:

“Trees are growing larger and forests are becoming denser. While larger trees may lead to higher-value wood, denser and overstocked forests can present potential forest health risks, such as disease, forest fire, or insect outbreaks. The data shows that timber inventory is growing; it is driven by a 75 percent increase in trees at least 13 inches in diameter between 1986 and 2019. Meanwhile, trees less than 13 inches in diameter declined 26 percent during the same period.”

The same study shows that, “The volume of timber in Maryland has grown 26 percent since 1986 despite an 11 percent decline in timberland acreage.” It is important to understand that the decline in forested acres is not the result of logging. Rather, this is timberland lost to other uses, mostly residential or commercial developments. Logging is most definitely not development!

+26%

IN TIMBER VOLUME



Data Source: USDA FIA

-11%

IN TIMBERLAND DUE TO CONVERSION TO OTHER LAND USES



Data Source: USDA FIA



TREE TUBES ARE USED TO PROTECT YOUNG WHITE OAK TREES FROM HUNGRY DEER



WHY DO WE NEED **TIMBER** MARKETS?

We need a market for small, low value wood all across the state such as once provided by the Verso paper mill in Western Maryland.

Larger timber remains in demand for hardwood lumber and that is being harvested. However, the smaller, suppressed, perhaps crooked or poor-quality trees that formerly would have gone to the paper mill are now being left in the woods. As such, they become the basis for the new forest that will grow there, and that forest will simply be older, larger versions of the trees that are left.

We desperately need a market for that wood so we can better encourage young, vigorous high-quality trees for our future.



PAUL M. JONES LUMBER COMPANY
Pictured: Kenny and Hunter Pusey



DELMARVA LUMBER OPENING
Pictured L-R: Secretary of DNR Jeannie Haddaway-Riccio, Ezra Rickards and his wife Dana, and Secretary of Commerce Kelly Schulz

Photo Credit: Stephen Badger/Maryland Department of Natural Resources

DID YOU KNOW A MANAGED FOREST IS A HEALTHY FOREST?

Foresters have adopted “forest health” as a shorthand phrase to describe any forest that is susceptible to a wide variety of threats, from wildfire to exotic bugs. Useful as it may be to natural resource professionals, the term loses its value without a fuller understanding of it within the public and policy makers. Let’s try to explain it better.

When a forester walks through the woods, he or she notices things that may not be intuitively obvious. There

is a mental checklist, all of which add up to an assessment of that particular forest’s health. Are there vines within the stand that shouldn’t be there like Wisteria or Oriental Bittersweet? Is the annual growth appropriate to the age of the trees? Narrow growth rings in younger trees may be an indication that the stand is overcrowded and needs to be thinned. Old trees generally grow very slowly and that’s to be expected. Are there signs of insect activity or an abundance of rust cankers? Is the amount of green crown as a portion



EMERALD ASH BORER, COURTESY DR. JAMES ZABLOTNY, USDA APHIS

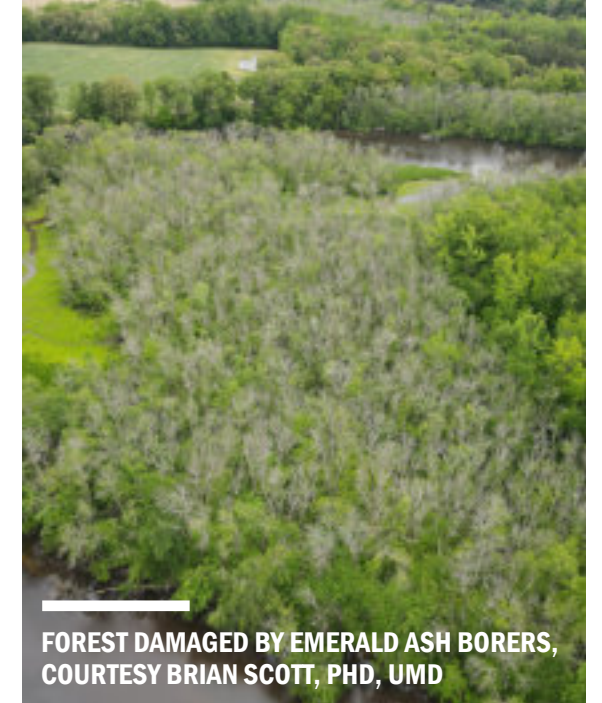
of the whole tree within expectations? Have deer removed all the young understory in a hardwood stand? Are there fuels which would allow a wildfire to spread into the crowns in pine stands? All of these conditions in a forest are important indicators of its health and variations from what might be expected or normal can be a trigger for corrective actions.

Fire deserves a special mention. Historically, in some forests, fire has been a constant and quite natural presence. But with spreading civilization, fire became a threat to lives and property, and, consequently, it became a public policy to control all of them. Now, we are learning we may have gone a bit overboard. By controlling all fires, we’ve allowed some forests to become unnaturally dense, leading to large, hard to control wildfires. We have also lost some tree or plant species that are actually dependent on fire for their perpetuation.

Now, we are slowly learning how to safely reintroduce fire into some forest ecosystems. That requires changing some long-held biases and a lot of education, but prescribed fires, oddly enough, is an important contribution to the health of some forests.



PINES KILLED BY SOUTHERN PINE BEETLES



FOREST DAMAGED BY EMERALD ASH BORERS, COURTESY BRIAN SCOTT, PHD, UMD



DID YOU KNOW WOOD WASTE IS A PROBLEM IN OUR URBAN AREAS?

IT'S PILING UP

Trees and waste wood are piling up. Tons of it, literally every day. Any time a tree dies and the homeowner has it removed, trees blow over in a storm, an old building gets torn down, or a wooden pallet is at the end of its usefulness, it becomes “waste wood.” It also becomes a problem, for all of it must be stored or disposed of, often in a landfill or even illegally dumped somewhere.



BUT THERE IS VALUE

Although it is called “waste wood,” it is not without value. In fact, “waste” is not an accurate term. It is simply wood in another form and, if you can connect it with a market, it has value and ceases to be considered waste.

The challenge is finding the need for it and figuring out how to economically transport it to a facility that can use it for construction lumber, furniture, energy, or lawn care products. In Maryland, some of this is happening, but not at a scale that allows us to use all the urban wood we produce.



Edrich Lumber, just west of Baltimore, accepts waste from tree care companies and turns them into lumber, stakes, and mulch.

EDRICH LUMBER

Sandtown Furniture in downtown Baltimore reclaims lumber from old buildings and uses it for beautiful furniture.

SANDTOWN FURNITURE



STAFF LOADING ROUGH SAWN LUMBER FOR A CUSTOMER, COURTESY NICK OSTER

Camp Small is a wood waste collection yard run by the Baltimore City Department of Recreation and Parks. Every day, city crews and contractors bring logs, chips, and brush that come from storm damage and removal of dead or hazardous trees. It is then processed into wood products as part of the Zero Waste Initiative.

CAMP SMALL

ONE THING I LIKE ABOUT **BURNING PELLETS**

IS I CAN CALL THE COMPANY AND ASK THEM
WHERE THE WOOD IS FROM. WHAT
PERCENTAGE FROM SAWDUST, FROM
CHIPS, FROM ROUND WOOD? THAT
TRANSPARENCY IN THE SUPPLY CHAIN IS
POSSIBLE BECAUSE IT'S A LOCAL PRODUCT.

THIS IS IN CONTRAST WITH **FOSSIL FUELS**

WHICH HAVE LONG SUPPLY CHAINS AND
FACELESS CORPORATIONS WHO TAKE
YOUR MONEY AND USE IT TO MAINTAIN
THE CLIMATE CHANGE DENIAL LOBBY.

JOHN ACKERLY

DID YOU KNOW BIOMASS CAN HELP MEET GREEN ENERGY GOALS?

Guess what? Wood burns! Who knew?

A long time ago, say about the dawn of history, our hominid ancestors made an important discovery—wood can burn and when it does, it can provide heat, light, cook our food and make the world a safer place to live.

It still can do all these things, proving that sometimes the old ways are still the best.

With all the concern over climate change and the need to increase our reliance on renewable energy instead of fossil fuels, energy from wood is truly the low-hanging fruit. A section from the EAS sums it up nicely.



“

Wood-fueled thermal facilities can use this wood waste to generate affordable and clean electricity, steam, heat, and biochar. The characteristics of wood and its energy properties make it particularly efficient for thermal or combined heat and power uses, while other renewable sources such as solar and wind have favorable characteristics for the electricity side of the energy supply. Another advantage of wood is its local nature; wood energy is typically used close to where it is generated, meaning that wood-based energy supports local jobs and avoids long transportation paths. Wood energy is a fuel source that provides on-demand energy that complements more variable production profiles of wind and solar energy. The local supply of wood presents opportunities for community-scale combined heat and power plants and medium-scale operations co-located with manufacturing.

— ECONOMIC ADJUSTMENT STRATEGY —

WHY ARE WE NOT TAKING ADVANTAGE OF WOOD ENERGY?

Over time, we seemed to have developed an ingrained bias against burning wood for energy.

There is both a paucity of supportive state policies and regulations as well as a patchwork of local zoning and permitting requirements that make it difficult to even consider this energy source in new construction or to retrofit old fossil fuel boilers.

The source of the opposition to wood energy is often based on misconceptions that wood energy cannot meet stringent air quality standards, that the sustainability of its supply is questionable, and that its life cycle costs exceed those of more commonly used combustion energy sources.

A long history of wood energy use in Europe, New England and even neighboring Pennsylvania provides evidence to the contrary. There, wood is commonly used to provide energy for schools, public institutions and residences.

A significant first step to expanding the use of wood for energy in Maryland is a relatively simple policy change.

Currently, Maryland’s Renewable Energy Portfolio Standard uses a limiting definition of qualifying biomass that makes it difficult for wood to compete against other forms of renewable energy.

To date, there have been no



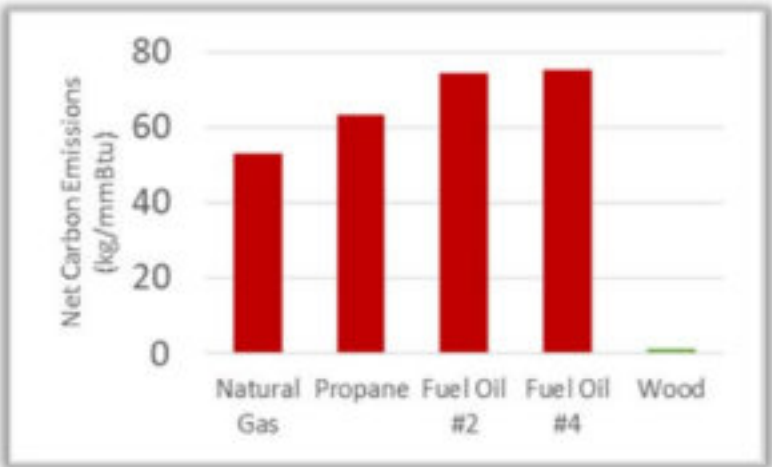
LOW VALUE WOOD TYPICALLY LEFT AFTER LOGGING WITHOUT A MARKET FOR BIOMASS ENERGY

applications to the Public Utilities Commission to approve renewable energy credits (RECs) from thermal biomass systems. It may be necessary to amend the law to make clear that thermal biomass systems

are qualified for RECs, provided they use qualified biomass for fuel. This would include systems that burn limbs, wood chips, and other wood that otherwise would become a waste product.

Woody biomass is the preferable choice for renewable thermal energy because it is abundant, inexpensive, price stable, clean, sustainable, and locally purchased energy source that displaces high-cost and high-emission fossil fuels.

WHY WOODY BIOMASS?



Carbon Emissions from Various Fuel Sources
Note: Emissions factors are calculated in accordance with EPA and IPCC, and are determined according to standard accounting practices for sale of carbon offsets on the voluntary market.



EXTERIOR VIEW OF MULTIPLY EXHIBIT AT THE SACKLER COURTYARD
THAT DEMONSTRATES THE USE OF CROSS-LAMINATED TIMBER
PHOTO CREDIT: ED REEVE

INNOVATION AND ENTREPRENEURS DRIVE FORESTRY’S FUTURE

As a society, we are always going to need products made from trees, whether it is lumber, paper or wood pellets for energy. Some of what we need will undoubtedly come from Maryland’s forests and we hope to increase that amount.

Whole communities in Maryland are traditionally heavily dependent on the forest industry as an economic and social foundation. However, studies have shown that many who work in the industry, whether they are loggers or work in a mill, view their generation as the last to hold those types of jobs. If we are to grow the industry, we must not only keep what we already have but constantly add to the mix of products.

We are already pretty good at that in Maryland. We have always had a few sawmills and, until 2018, a major paper mill along with a logging force to supply them.

We have always had a strong entrepreneurial spirit within the forest industry and individual firms within it have pioneered a lot of new products or expanded production and markets for old ones. We now ship pine shavings for animal bedding all across the country. We make wood pellets for bedding or energy, a product not made in Maryland two years ago. Edrich Lumber, just south of Baltimore, plans to enter the

market for thermally modified wood, greatly extending the useful life of products made from it.

Maryland is a well-known center of basic and applied research and development activities. The state is home to many federal laboratories, two of the nation’s largest research universities, and several corporate research centers. At one point, Howard County was home to the former Westvaco corporate research and development facility that focused on wood product utilization and related exploration.

While many of the research activities are related to fields outside of wood products, there are significant crossover areas related to material science, packaging, building products, energy, chemicals and reagents, nano-scale manufacturing, environmental products, and many others.

We are expecting great things from these efforts and we are beginning to get them. One team of Maryland researchers have now created a totally transparent “slice” of wood that is a much more durable form of glass. Who saw that coming?

WHERE WOOD GETS WEIRD

Transparent wood and wood stronger than steel. Who saw this coming?

Professor Liangbing Hu and his lab members created nearly transparent wood by replacing its lignin with clear epoxy. The result is a beautiful building material that retains its wood grain yet admits light like frosted glass and insulates better.

The lab also created wood that is stronger than steel at one-sixth the weight, and is literally bulletproof. This is done by removing the lignin, and compressing what remains under extreme pressure to create a rust-free structural material.

All this is the result of research by materials science and engineering Professor Hu, director of the Center for Materials Innovation at the University of Maryland. Hu is an

expert in nano-materials, which generally are manufactured to have special characteristics like ultra-strength or superconductivity based on their microscopic structure.

Hu got excited several years ago when he realized there was an almost infinite supply of natural nano-material that is both versatile and strong, and buried in the grain structure of wood. Since then, he has been developing different methods to access and exploit that hidden resource while developing surprising new applications that a UMD spin-off company, InventWood, is readying for market.

Excerpted from Maryland Today, produced by the Office of Strategic Communications, UMD, Feb. 2021



PHOTO CREDIT: US FOREST SERVICE



LOGGERS GIVING BACK

Loggers might be a little bit rough around the edges, but did you know that they have hearts of gold?

Meet the Mountain Loggers Group, a tri-state organization based in Maryland. Founded in 2006 as a co-op to support the forest products industry, the group has since progressed into a 501(C)3 nonprofit organization serving to help those in need.

The group has various fundraisers throughout the year, with the largest being the Log -a- Load for Kids auction held annually at the beginning of the Mountain State Forest Festival in Elkins, WV. All proceeds go to the West Virginia University Children's Hospital. This year the Mountain Loggers Group contributed \$105,301.15 to the hospital and even showed up with a

truckload of toys for the patients! Total contributions raised have exceeded \$2 million and have been used to construct a cafeteria and fund other expansions.

The group is among the top donors to the hospital. Danny Sines, President of the organization, says, "it's inspiring to see an industry come together for a good cause in a time that's been trying not only for the logging community but the country as a whole. Individuals and companies continue to give their time, product, and support to the cause."

The Mountain Loggers Group has a motto: "Trees are our renewable resource, but children are our most precious resource." It's evident that these guys don't do it for the recognition. They do it because they genuinely care.

NEW MILLS ON THE EASTERN SHORE

Starting in the 1960’s, the forest industry boomed on the Eastern Shore. Natural stands of pine, much of it growing on farm fields abandoned during the Great Depression, attracted large sawmills and paper companies. Many of them purchased land and intensively grew more pine on it as they were logged.

Pine trees grow fast on the Shore, but we logged them even faster. Then, the inevitable happened— there was less mature timber, which led to unsustainably high prices and mills began to close. Now, there are only four relatively small sawmills on the Eastern Shore and logging is perhaps a tenth of what it was in the mid-1970’s.

Just as inevitably, the trees came back. This was due to massive



reforestation efforts and natural regeneration on areas not planted. They also grew larger and more valuable. Now, there is an abundance of timber stands that are 20-50 years old. Many need thinning to maintain their growth and vigor and much of the timber removed in thinning stands of this age is tall and straight, with values exceeding that of lower grade pulpwood.

All of this has not gone unnoticed. Forest products companies are recognizing the opportunities and making the investments necessary to take advantage of this large volume of wood.

Over the past three years, one formerly shut down mill has reopened, and now running strong. A group of loggers are also building a mill solely to produce small poles. Another mill has expanded its ability to produce larger wood pilings, and local wood treating plants plan to expand their sales of locally produced pilings. Finally, an established mill has opened a plant to produce firewood from low-quality hardwoods for which there was previously no market and began to produce wood pellets for home heating.

So, once again, the wood business is thriving on the Eastern Shore, the product of responsible forest management from years ago.

ENVIRONMENTALLY-FRIENDLY TREATMENT LOOKS PROMISING

Sometimes adversity leads to inspiration. Such has been the case with Polo Pallets in Elkton, Maryland and their partnership with researchers from Virginia Polytechnic Institute (VPI) to remove a major barrier to exporting high value hardwood logs.

In the past, exporters and port authorities used the chemical methyl bromide to fumigate logs bound for overseas export. This practice killed any insects or pathogens that might have been hidden within the logs and prevented them from being introduced to areas where they did not previously exist.

Beginning in 1993, the United States began phasing out most uses of methyl bromide and the Port of Baltimore stopped using it completely several years ago. This effectively eliminated the export of logs from the port along with the market for high quality hardwood logs that would have been exported.

However, a team of researchers from VPI, Mark White and Zhangjing Chen, along with Ron Mack at the USDA began experimenting with a new way to achieve the same levels of pathogen control as fumigation but without potentially harmful chemicals. This new approach uses a vacuum chamber and steam to assure the logs are sanitized.

Now, they are on the verge of making the technology commercially available. In an effort to find new export markets, Don Beazley, the owner of Polo Pallets, is cooperating with VPI to ensure his high-value logs and pallets meet international pest control standards to be shipped over overseas.

The VPI team capitalized on the company’s proximity to the Port of Baltimore and is in the final stages of testing the process with the equipment located on the Polo Pallet plant site. All this holds the promise of putting more loggers and truckers back to work, reopening a market for high value logs and allowing landowners to be paid the full value of their timber.





**MEET THE
FACES OF
FORESTRY**



BRUCE BARNES

OWNER, BARNES LOGGING

Bruce's work is called Timber Stand Improvement for a reason. It's helping the forest along. He says, "after opening the canopy up, it doesn't take long to see the seeds begin to sprout ...once the sunshine can filter through." With loggers like Bruce on the frontlines of forest management and timber harvesting, our woodlands and natural resources have an ally and great steward to rely on.



ALBERTO GOETZL

PRESIDENT, SENECA CREEK ASSOC.

Al, a forest economist, understands forests are a dynamic system. As a young man, he questioned clearcutting. While pursuing a Master's Degree in Forestry at Duke University, he gained a deeper understanding of forest management. Knowing that forests are regenerative and sustainable, he sees an opportunity to use woody biomass as an energy source that could help phase-out fossil fuels in Maryland.

ANTHONY DIPAOLO

DISTRICT FORESTER, PIRELLE

Tony loves his role as a steward of the land - improving, protecting, and preserving it. He often wonders why anti-environment stereotypes are applied to foresters. He says "Why would we destroy something that we love?" He sees the forest industry as a "3-legged stool" - landowner, logger, and buyer - and believes forestry needs all three to exist and benefit the state's residents and its land for generations to come.



NICK, CHRIS, & T.J. GARMAN

GARMAN BROTHERS, INC.

Meet the 4th Generation of the Garman family to be in the lumber business. All three went off to college, but returned to operate the 5-acre sawmill site, which is surrounded by 100+ acres of forestland. The family manages the land in a responsible, regenerative way. They work with Scenic Rivers to protect the land so it can continue to serve as a living filter for the surrounding communities.



AGNES KEDMENEKZ

UMD EXTENSION EDUCATOR

If you ask Agnes what she likes about her job, her answer is simple: "Everything." She considers it a privilege to work with landowners, loggers, and foresters, all in the name of good forest stewardship. Working to pass a healthy, regenerative landscape forward is what inspires her in the work she loves. She has a deep appreciation for working with so many who "care about the land."



JACK BAILEY

SENATOR, DISTRICT 29

Family, farm, and forest are at the center of it all for Senator Jack Bailey, and have made him who he is today. His connection to the land has been a lifetime in the making. As a young man, he worked alongside a forester marking timber and learned about sustainable management of forests through timber harvests. MFA is glad to have a friend in Annapolis with such a love and passion for the outdoors and natural resources.



DEBBIE SIMPKINS

PROGRAM DIRECTOR, LEAD MD

Debbie's roots in forestry and understanding of land stewardship led her to the career she enjoys today. If someone has a "yearning for lifelong learning," she says, then participating in LEAD Maryland is a must. The fellowship program teaches people from all sectors to be advocates for their industry or cause. With more advocates in forestry and natural resources, these sectors will not only survive but thrive.



KEITH OHLINGER

OWNER, PORCH VIEW FARM

Keith has put his livelihood at stake for the good of the earth by trying to build a sustainable system through silvopasture. Planting trees is good, but he has become frustrated because few look at the realities of the farming life and "no one is looking at the economics." His goal is to create a "Garden of Eden that ...enhances the local ecology, supports people, and makes a profit." For him, forestry anchors all that he does.

DON GROVE

WASHINGTON COUNTY TREE FARMER

Don and his wife Linda have found immense satisfaction in managing their forest for wildlife, timber production, and recreation. A lack of markets is a concern for them. As Linda points out, "There is no easy way for us to market our trees." Don says, there's not a whole lot we would have done differently." Their one regret is wishing they got started earlier. They are longtime members of MFA.



CHUCK LEWIS

DAUGHTERS RIDGE TREE FARM

Chuck does not just see his 40 acres. Instead, he sees a contiguous 100 acres with his neighbors and tries to look at the forest on every scale. "It's important to be working together in an era of parcelization to make logging worthwhile." Daughters Ridge was recently chosen as Maryland Tree Farm of the Year.



DANNY SINES

OWNER, GENERATION III LOGGING

Whether in the nonprofit world or in the woods, Danny tries to abide by his father's advice: "Do everything responsibly and the right way and leave things better than when we came." This is a motto he and his company live by. Today, he leads the family operation and strives to "direct the timber industry in a more sustainable way, looking to create new markets and establish a more regenerative approach to logging."



DOUG WOLINSKI

PRESIDENT, EDRICH LUMBER, INC.

This Baltimore County sawmill has evolved into an efficient, zero-waste operation. Doug spent six years learning the business before suddenly taking over the reins. He found that utilization is vital to the company that is constantly evolving to produce an array of environmentally friendly products from local wood.



MIKE HUNEKE

SCOUT MASTER, TROOP 124

Mike has a passion for bringing his love of education and forestry together. For him, Broad Creek Memorial Scout Reservation in Harford County is more than a Boy Scout camp. It's the basis for life lessons from the woods to the real world. It is "for young people that pass through to have life-changing experiences where they develop the ideals of Scouting; things like character, citizenship, fitness, and leadership."



DON BEAZLEY

OWNER, POLO PALLET & MILL CREEK LUMBER

When you pick up something at your local store, the pallet beneath it is an afterthought. However, as Don knows, "pallets move the world." For 15 years, his 12,000 SF facility in Elkton has turned logs into a forestry product that helps goods move across the country and the world, from port to truck to warehouse to store.

JOHN ACKERLY

FOUNDER, ALLIANCE FOR GREAT HEAT

John practices what he preaches, with solar panels for electricity and a pellet stove running at home 24/7 for heat. His home uses little gas or electricity from the grid. He says, "wood and pellets are winners for renewable heating." Twice as many homes could be heated with wood and pellets, just from natural mortality, residues, and wood disposed in landfills. He cites EPA data estimating 8 million tons of wood end up in landfills each year.



WAYNE GILCHREST

FOUNDER, SASSAFRAS ENVIRONMENTAL EDUCATION CENTER

Nature knows no boundaries, political or otherwise. "We all breathe the same air." That credo drives Wayne in his role as an environmental educator. He explains to kids how they can paddle anywhere in the world from Turner's Creek. "You can paddle to India or China or Annapolis," he says. We all have waterways and forests that are our responsibility, which is what Wayne instills in his students.



CRAIG LAIRD

CO-OWNER, LAIRD LOGS, LLC

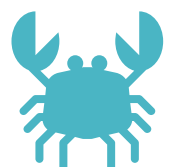
Laird Logs is 4 generations strong and still scaling & grading logs. Craig estimates 12 million board feet of timber moves through their log yards annually. To Craig, ensuring the future of our woodlands for regenerative, sustainable forestry products is a generational endeavor. He worries about disease and blights that devalue the forest and feels landowners need to be educated about the benefits of harvesting timber.

DID YOU KNOW?

The forestry sector in Maryland is **10x** larger than the seafood sector!



\$3.5 Billion vs. **\$350 Million** contributed to the state economy.



Source: 2018 Beacon Study on the Impact of Resource Based Industries on the Maryland Economy



MATT WHITBECK
SUPERVISORY WILDLIFE BIOLOGIST
AT BLACKWATER REFUGE

DID YOU KNOW MANAGING FOREST AGE DIVERSITY IS IMPORTANT FOR WILDLIFE MANAGEMENT?

For Matt Whitbeck, wildlife biologist at Blackwater National Wildlife Refuge in Dorchester County, Maryland, there is “always something fascinating on the landscape.” Managing and keeping a healthy landscape for wildlife and people to enjoy is the purpose of a wildlife refuge like Blackwater, and Whitbeck has enjoyed every minute of working in this environment.

He’s always been an outdoors person and as he puts it, his family “couldn’t drive by a brown sign” pointing toward a park, wildlife refuge, WMA, or NRMA. Whitbeck’s roots to the

woods and wildlife were set early and his travels through academia and the workplace spread wide, from Arizona to Texas to Alaska to Cambridge. Regardless of miles traveled, he knew he wanted to do something with natural resources management.

Originally from Massachusetts, he ended up in Arizona for an undergraduate degree from Prescott College in 1995. While gaining experience through internships at refuges, he’d work on fishing boats in Alaska to earn enough money to continue his time as a refuge intern.



Whitbeck’s graduate studies at Texas A&M University resulted in a position at Anahuac National Wildlife Refuge, working with tidal wetlands, where he stayed for 12 years before moving to Blackwater National Wildlife Refuge in Cambridge, Maryland. Both he and his wife, the volunteer coordinator for the refuge, ended up calling Blackwater home after she had a stint at Eastern Neck, yet another national wildlife refuge that can be discovered in Maryland.

Founded in 1933, Blackwater is where Whitbeck “quickly realized that we need active forest management” for successful wildlife management. Seeing the incredible range of bird species, from wood thrush to prairie warbler, the well-traveled biologist learned the “mosaic of age classes”

among trees that our feathered friends require. While forest interior dwelling species, or FIDS, such as a barred owl may prefer mature forests, a northern bobwhite quail likes to call young forest stands home.

Creating habitats for this diversity of wildlife is a challenge the wildlife biologist enjoys, and working with people like the Forestry Advisory Group helps Whitbeck work with the forest products industry to put good habitat on the ground for wildlife. The “dynamic” relationship between marshland and forest keeps him on his toes. “One thing that has become more and more apparent to me over time is that habitats and associated wildlife change over time,” Whitbeck says.

The need for hands-on, active forest management has never been clearer than in the face of sea-level rise and resulting ghost forests, stands of dead trees known as snags that haunt the Blackwater landscape everywhere. These “shrinking forests” are part of one of the refuge’s most important roles, according to Whitbeck — getting people out to see nature and the firsthand effects of sea-level rise, and that it’s real. “This is still a changing landscape,” he says, citing the continual spread of the invasive wetland grass *Phragmites* and the marshland that is sliding upslope.

Appreciating the broad natural history of the refuge and how things are changing informs Whitbeck in his work and partnerships to preserve as best as possible this landscape shifting before his very eyes. “Resource managers have to deal with this,” Whitbeck says when discussing climate change and its real-time impacts such as sea-level rise and its signature ghost forests.

Whether it’s working with the U.S. Army Corps of Engineers on dredge placement/marsh restoration projects, or the MD Forest Service on timber harvests and forest management, he knows “very little gets done without partners.” The Conservation Fund, Audubon Maryland-DC, Maryland Forests Association, Ducks Unlimited, The Chesapeake Conservancy, and The Nature Conservancy are all key partners Blackwater refuge staff work with frequently.

Friends of Blackwater is one of Whitbeck’s most vital allies in working on the refuge. Founded in 1987, they play “a critical role” in everything from fundraising to environmental education for Blackwater and nature’s foot soldiers like Matt Whitbeck.

“I love working in the Chesapeake because there are so many people doing good things,” says Whitbeck. It’s this critical mass of people working toward shared goals that makes striving for healthier forests and good land stewardship within the Bay watershed a pursuit of passion for him. In the end, “there is something for everybody and programs for all people” at Blackwater and Whitbeck is proud to be a steward for the refuge, from marshland to mixed forest stands, and all it has to offer.



**“WE NEED ACTIVE FOREST
MANAGEMENT FOR
SUCCESSFUL WILDLIFE
MANAGEMENT”**

— MATT WHITBECK



DONNA DEAR & PAULETTE GREENE
OWNERS OF MT. PLEASANT ACRES FARMS



DID YOU KNOW GETTING BACK TO NATURE CAN PROVIDE A SPIRITUAL EXPERIENCE?

“Divine intervention,” says farm owners Donna Dear and Paulette Greene when it comes to their investment and acquisition of Mt. Pleasant Acres Farm in Caroline County. Tucked away in Preston, the farm and forestland they’ve been stewards of for decades has special meaning and significance beyond its natural beauty and bounty.

Each took a circuitous route to get here. Ohio native Dear served 27 years in the military from Vietnam to the first Gulf War, rising to the rank of Sergeant Major. Greene went from New York City onto graduate school at Western Carolina University in Cullowhee, NC then to Alabama, only to end up living on Eastern Shore farmland right beside what was her great grandparents’ land.

From ages 4 to 10, Greene grew up running around the land that sits next to Mt. Pleasant and where a working garden and greenhouse are now in progress. The woods that lie behind that farmland is where she explored nature with her cousins, eating

everything in sight that she could get her hands on and watching her cousins climb trees. This wooded wonderland and farm was a mystical place Greene never wanted to leave.

Dear is no stranger to farm life herself having grown up on a 300-acre farm in Ohio, where her family raised cattle and pigs and grew corn among other crops. After serving our country so bravely for so many years, it was getting back to this landscape and nature that she wanted most. Growing up in a time when “all the community raised the children” and in an “environment where black children mattered,” Dear and Greene seek to use Mt. Pleasant Acres Farm as a way to help today’s disenfranchised youth learn about nature, from forest to farmland.

Twenty seven must be their lucky number, with Dear serving that many years in the military and their ownership of Mt. Pleasant spanning the same exact number of years. Over that time, the farm went from an investment to creating a space for

education and empowerment of youth, encouraging disenfranchised communities to get involved in environmental issues and activism.

Weekend gatherings at the farm allow everyone to enjoy an “agro-ecology experience,” as Greene puts it. When seeing how “disassociated from realities” so many children are nowadays, she knows Mt. Pleasant is desperately needed. Greene has always been connected to youth, whether as a key part of a community center in New York City where the legendary Kareem Abdul-Jabbar would visit, or as District Commissioner for the Boy Scouts during her time spent in Alabama.

Mt. Pleasant reaches beyond just disenfranchised children, providing

the same sort of opportunity for collaboration, education and empowerment for the community. Working with Black Dirt Farm Collective, Greene and Dear hosted a 4-day event with 100 people from as far away as Mississippi, holding workshops in the woods to look at the intersection of farm and forests with discussions of edible plants in the forest, what’s safe and not safe to eat.

There are even deeper life lessons to learn at Mt. Pleasant once visitors discover the forest’s ties to Harriet Tubman and the Underground Railroad. Within this forest lies what is known as the Witness Tree, a towering tulip poplar with many stories to tell. Somewhere on this surrounding land that the Witness

Tree looks over, as part of a larger 2,167 acre parcel, Harriet Tubman led her father, mother, and brothers to escape on the Underground Railroad. Dear and Greene say more than one group of visitors have described a warmth in the woods around this tree, a sense of “spirituality exuding from the tree.”

Using Mt. Pleasant, Greene and Dear are able to bring this history to life and these efforts will only grow further in the years ahead. They have partnered with Morgan State University on a schematic master plan for the property to look at its place in a Harriet Tubman Byway plan. Also, MD Forests Association is assisting with future environmental education and outreach plans at the farm including an interpretive trail to be created through a timber harvest by Eastern Shore Forest Products, as well as an edible agroforestry planting in partnership with the MD Forest Service. The farmers have already collaborated on planting projects with the Chesapeake Bay Foundation and Shore Rivers, as well as having input on local watershed health through Envision the Choptank.

Sharing the “mystique of the forest” and lessons of living off the land that great Americans like Harriet Tubman had to learn the hard way are what Dear and Greene are eager to offer to youth and the community at large. This special space can help “get away from the sirens and get out and into yourself,” says Dear. There’s no better place to witness all of this than Mt. Pleasant Acres Farm.



DONNA AND PAULETTE DISCUSSING AN AGRO-FORESTRY PROJECT WITH FRANCIS SMITH, A DNR FOREST SERVICE NATURAL RESOURCE PLANNER

DID YOU KNOW WORKING FORESTS HELP KEEP FARMS IN FAMILIES?

The name Clagett and farmland are synonymous. Robert Y. Clagett was born and raised on a 300-acre farm in Prince George's County, and those wide-open natural spaces have been a constant in his life. Having raised everything from tobacco to grass-fed cattle to hay, he says, "once farming is in your blood, you can't get it out."

After returning home to the family farm from college, his agribusiness career began immediately with early stints at Southern States Cooperative, including working at a grain elevator in Lothian. From there, it was on to Chaney Enterprises as a Farm Manager for their Environmental Division.

In 1998, he joined the Prince George's County Soil Conservation District, where he served as a Conservation Engineer and made quite an impact over 21 years. Initially, Clagett conducted site investigations, surveying, design, engineering, and construction of Best Management Practices for runoff on construction sites and farms. He soon managed all the agricultural land management programs, as well as a farming equipment rental program.

Yet another hat he wore in his time there was as legislative liaison at the state and county level for winery and

agritourism bills and property tax credits for preservation programs.

Land conservation was where Clagett found his calling. He recruited, promoted, and administered several programs at SCD, including the MD Agricultural Land Preservation Program and Rural Legacy Program. Over the two decades, he was with the county, Clagett was behind many firsts at the Soil Conservation District.

He created the Historic Agricultural Resource Preservation Program for the County Council and placed the first-ever preservation easement on a PG County farm. Another of Clagett's groundbreaking endeavors was developing and managing the county's first soil health and carbon sequestration demonstration farm. All of these efforts had the overarching goal of conserving working open spaces and agricultural land. Over his time at the Soil Conservation District, Clagett worked to conserve over 5,000 acres of farm and open space in Prince George's.

His focus on farms has not wavered since then. He has transitioned to his own agricultural consulting business while also working in land and farm sales with his father at Realty Navigator. In 2019, Clagett started up Land Management Solutions, based out of Brandywine. Through Land



YATES CLAGETT
OWNER OF BALD EAGLE FARM

Mgt. Solutions, he advises farm and property owners on generating revenue from nontraditional farm resources, as well as consulting on all aspects of land management and conservation programs.

He's never lost sight of conserving a working farm or forest, whether it was as past president of the Prince George's County Farm Bureau or as former vice-chair and chair of the Southern Maryland Agricultural Development Commission. Today, he owns and operates 300 acres at Bald Eagle Farm, what he calls "a little chunk of heaven in an urban county."

Bald Eagle has been in the Clagett bloodline for close to 100 years, but his father ended up building a home there in the early '70s, and Clagett "just fell in love with it." The Clagett

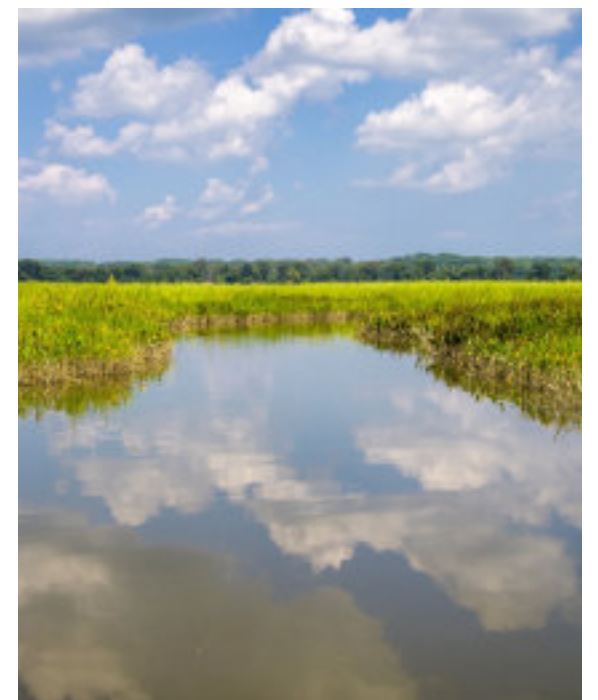
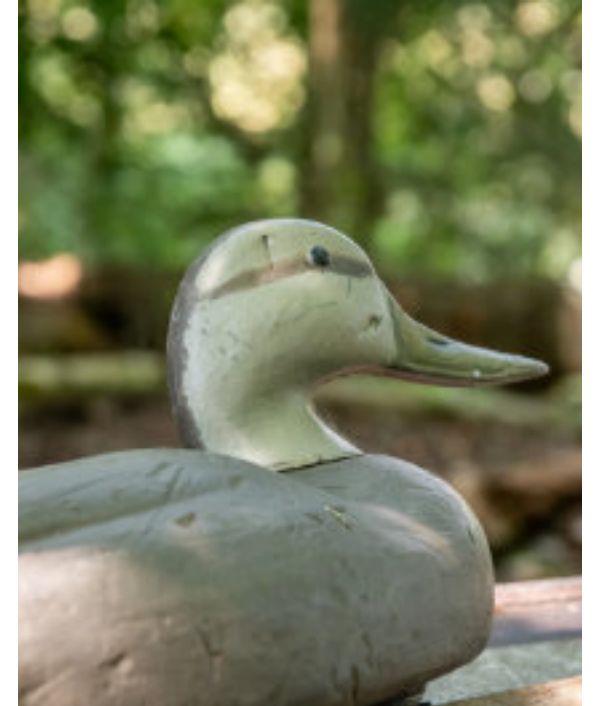
roots are in tobacco, with his grandmother's family coming from Germany as tobacco buyers and his descendants establishing a tobacco auction warehouse in Upper Marlboro.

Being essentially the only farmer in the family, he learned from tobacco sharecroppers and other farmers and went from growing a row of tobacco to acres upon acres. "The farm became a part of me," says Clagett. With the entire farm in a rural legacy easement, it's a part of Clagett that will never be lost. Considering "there are no 300-acre farms on the Patuxent anymore," he has done everything conservation-minded on the farm. His soil hasn't even been turned over in almost 20 years.

Another conserved and valued part of his land is the 130-acre marsh and 100+ acre forest that sits on his property. Clagett has a forest stewardship plan for his woodlands and hopes to eventually harvest some of the valuable timber on his property, saying, "we take our timber for granted. Monetizing property is important, and logging is a part of that." Clagett is in the process of planning a timber sale on his property and notes that it is a "challenging process in an urban county where working forests aren't as understood or accepted as working farms."

Clagett knows that harvesting timber can keep the farm in the family and that forest resources are a renewable, regenerative asset and "just a different kind of crop." After graduating from the MD LEAD Foundation fellowship program and visiting a timber harvest site in Garrett County, Clagett was struck by the value his family had on the farm in some of the mature trees in his forest. He understands the importance of trees as a harvestable crop—it is the perfect marriage between forest and farmland, one sustaining the other.

Monetary benefits and producing fiber is great, but Clagett also points to the amazing wildlife habitat that active forest management and timber harvesting can produce. Big trophy bucks and great geese, and duck hunting opportunities are some of his rewards for a properly conserved land. Hearing the gobble of a turkey or the call of an owl instead of cars whizzing by sums up the beauty of undisturbed rural lands — from farms to forests — under the conservation and watchful eye of good stewards like Yates Clagett.



DID YOU KNOW LOTS OF WORK GOES INTO PLANNING A TIMBER SALE?

Ask Karen Gailey of BJ Forestry Services LLC about timber harvests and she'll tell you, "It's all a process." From beginning to end, there are multiple steps to be taken and a lot of work just to get to the point of starting to cut timber. And it's a multi-step process that Gailey absolutely loves being a part of.

The West Virginia University forestry graduate ended up as a private consulting forester in Southern Maryland after spending her early years with the love of her life out west working seasonal forestry gigs before working with the Maryland Forest Service once settling back home on the East Coast.

Though she was born and raised in Baltimore, Gailey played outside

whether "rain, sleet or snow" and she knew early on she needed a job outside. Calling herself the oddball in a family of city folks, "the thought of working inside turned my stomach," Gailey says.

That stomach-turning scenario never came to pass, as she spent her early working years as a seasonal employee with the U.S. Forest Service, working in a national forest in California as well as on a fire crew in Idaho. Gailey lived in Idaho for 4-5 years with her husband while both worked with the U.S. Forest Service. They settled down back on the East Coast, where she worked with the Maryland Forest Service as the forester for St. Mary's County for 8 years.



KAREN GAILEY
OWNER OF BJ FORESTRY SERVICES

While holding her newborn and watching another one of her 3 kids get on the school bus, Gailey soon realized she was missing out on time with her children and decided to go part time with the Maryland Forest Service before venturing out on her own. “I wanted to work on my own and needed to do it for myself,” she says.

27 years later and Gailey is still going at it with BJ Forestry Services. A lot of her time is dedicated to timber sales, which entails everything from preparing sediment control plans to locating property lines to marking timber sale boundaries. When it comes to marking the trees, “that’s the real fun,” says Gailey, noting that there is a ton of work before that step. Questions she must answer before getting out under the forest canopy include finding out if

landowners have management plans, is there enough buyable volume, or is the site in a Critical Area and are there rare species to protect?

Marking boundary lines often takes a tremendous amount of time, and sometimes Gailey must become an online sleuth hunting down land deed details. Occasionally, properties have been in family hands for a long time and she’ll actually see handwritten property maps/ boundaries or plats. She is grateful for all the years working in the woods and meeting many friendly, enthusiastic landowners.

There is a lot of time and thought that goes into the harvests Gailey works on, and her customers know it, with many who first contacted her 15 years ago recently following up again

for another property visit and harvest guidance. As the forest stand regenerates, it provides a cycle of harvests for the landowner and an opportunity for Gailey to do what she loves: talk trees and timber.

With all those steps mentioned above, it could be a year before loggers actually start cutting, says Gailey. Everything is done through a bid process and she advises landowners to get paid in full if the harvest involves hardwood species or clear cutting of pine. Asked about her preferred tree work, she points to hardwood instead of softwood, where she’s had her fill of run-ins with chiggers.

As the cutting is going on, Gailey will be there making sure everyone knows the boundaries, ensuring that the Timber Sale Agreement and Sediment Control Plan are being followed, that the site is stabilized once the logging is completed and of course checking in with the landowner. “It’s about making the owner happy,” she says.

Part of making owners happy and managing a sustainable woodland is the selective harvest of hardwood stands. When clear cutting does occur in hardwoods, natural regeneration is usually plentiful. However, planting can always be done if natural regeneration fails or if a certain species is desired. In most cases, pine regenerates well, but planting may also be done in stands that are clear cut. Usually about 622 trees per acre are planted to regenerate the stand.

The woods of Southern Maryland have kept Gailey plenty busy and it’s a place she’s happy to call home and her very own outdoor office. “There’s never been a need to go farther,” she adds.



TOM JOHNSON

OWNER OF EASTERN SHORE
FOREST PRODUCTS



DID YOU KNOW MD'S LARGEST FOREST PRODUCT MANUFACTURER DOESN'T PRODUCE LUMBER

"I started out in this business at age 14, selling firewood around town. Of course, I was too young to drive, so my parents helped me deliver the wood." This is how Tom Johnson, owner of Eastern Shore Forest Products, described his earliest business experience. Now his company enjoys a national market for its wood products and is the single largest forest product manufacturing firm in Maryland.

"The firewood business led to a short stint as a contract logger for a paper company. It was during this time that I took note of what a shame it seemed to leave so much debris in the woods after each job was completed." This concern became

the idea for Tom to develop products and markets for what was otherwise going to be wasted. "At the time, the poultry industry was growing to meet increased consumer demand and had a large need for bedding for all the birds. We figured out how to make a suitable bedding product from the waste and ultimately set a path to continuously improve both the product and our abilities to service our customers."

This dedication to improving products and customer service has led Eastern Shore Forest Products to become one of the largest producers of animal bedding in the US, having multi-state processing facilities that ship to all of the lower 48 states.





Today the company produces not only animal bedding but also wood pellets for fuel, mulches, and specialty soils as well as bundled firewood. “Our company’s forestry division is charged with not only procuring the raw materials for our products but also a host of landowner services including timber stand improvements and wildlife habitat creation,” Tom notes.

“None of this would have worked had it not been for the blessing of having great people. We have some of the smartest, most dedicated people imaginable. If it does not go right the first time, these folks persevere till we do get it right. There is truly a team effort here to not only raise the bar for customer satisfaction but to

try and make our operations enjoyable places to work. I am thankful each day for the opportunity to be in the presence of and to be chosen to help lead these great people.”

Tom has a knack for taking closed operations and either converting them to another purpose or reopening them. Either way, his operations represent new jobs and revenues in smaller, rural communities. Nowhere is this more evident than in Federalsburg, Maryland, where a closed facility that once produced such products as Stove Top Stuffing now produces small bundles of top-quality, kiln-dried firewood for consumer use.

He and his wife, Anita, have long been supporters of education and were instrumental in starting the “Salisbury School Education Foundation” in support of the Salisbury School which daughter Lindsey, now a recent University of Virginia graduate, attended. “Life has been good to me and my family, for sure, and now I feel I’m at the stage where I need to give back. I can’t think of a better way than to provide good jobs along with opportunities for personal and professional growth to my employees. That’s what gets me going every morning.”

Tom also recognized he’s had a lot of partners and help throughout his career and in the success in his business. “My parents, my business associates, those who work with forest landowners and support the forest industry have all been vital to our operations. We couldn’t do what we do without them.”





CHARLES & ANNETTA ENLOW
SLEEPY HOLLOW FARM

DID YOU KNOW THERE ARE OTHER PRODUCTS THAT BENEFIT FROM FOREST MANAGEMENT?

Charles and Annetta Enlow have been walking the woods and tapping maple trees for syrup for 12 years, but their ties to the farmland of Garrett County go back 18 generations combined.

Their family is a success story of sustainable non-traditional forestry products, but it wasn't a straight and direct path getting there. They started out as dairy farmers, farming jointly with Charles' parents on land his family had been a part of since possibly the late 1700s. Charles' parents retired in 2010, but Charles and Annetta kept dairy farming, with around 40 head of cattle on the family's 300 or so acres.

At the same time, Charles went to work with the county roads department while Annetta continued with the milking and dairy chores until they sold the dairy cows in 2017. "Money was tight and we needed to diversify to find other ways to make the farm more profitable," she says.

One way to boost the farm profits was a new crop from the least likely of places: the forest. Since their woodland contained a high percentage of maple trees, they decided to venture into the maple syrup business. A part of the property that's now being tapped was a registered Tree Farm prior to them

buying it, so the trees and land were already being properly managed. With their eyes on a sweet sugary prize nestled in the forest, they had the land selectively timbered to leave only the maple trees behind. "They did a really good job," Enlow says when talking about the timber harvesting.

Charles' family had always tapped maples on their land, but it was for their own use. Charles and Annetta saw it as a sustainable, renewable product that offered a potential new niche, value-added crop that not many other family farms could say they can offer. "When we decided to get into it, we wanted to be licensed so we could legally sell our products," she says. After contacting the state, who then developed a new set of rules for the Enlows since had it been so long since any new maple syrup producers had applied, they were on their way. "It was a learning process for everyone," Enlow adds.

Twelve years later and the family taps 5,000 trees a year now. It all starts in the early part of February, when the trees are first tapped. Sap is collected through a tubing system and stored in stainless steel milk tanks, and not the traditional buckets, though the Enlows have 3 sap buckets right outside of their sugar camp for nostalgia. Charles'



parents and grandparents used buckets, “and if they’re running good, it would take less than a day to fill them,” says Annetta.

The sap collected then goes through reverse osmosis to take a lot of the water out of the sap so there’s less to boil down. After that, it goes into an evaporator to boil down to the final product of maple syrup. When it’s in the boiling stage, there are two pans that the syrup flows through before getting to true maple syrup. The Enlows have all of this on a computer system where it automatically draws off the syrup when it’s the right temperature, though they still check it manually to make sure it contains the right amount of sugar.

Once they have finished that process, they store it all in 40-gallon barrels and Annetta bottles it out as needed. She also cooks up the syrup to make candy, granulated maple sugar, maple peanuts, maple fudge, “and whatever you can think of to make with maple,” she says.

Surprisingly, their maple syrup farm is primarily red maple, with only about 20% of trees being sugar maple. With red being the dominant species tapped and less sugar content than sugar maple, it takes close to 100 gallons of sap to make 1 gallon of syrup. Either way, “all those little drips really add up,” says Enlow. She says sap production doesn’t seem to slow as their trees age, which makes perfect sense. Sap and the flow of

nutrients up and down a tree is needed more and more as a tree ages and gets bigger and bigger. “Trees pull the sap up from the ground and use the nutrients to produce leaves and we catch the sap before it goes back into the ground. We’re basically using what the tree is getting rid of,” says Enlow. Freezing temperatures at night and warm days are the best for sap flow. Whenever the weather warms up in the spring is when the syrup farm operations slow down. “Usually by the first of April we’re finished,” she says, so it is very weather dependent. Everything they produce is sold through the year and by the middle of February they are tapping a new supply. A lot of their product is sold right off their porch through an honor system, as well as at various festivals that they attend.

Weather is their biggest challenge as far as the tree’s ability to produce steady sap flow as well as being able to check their vacuum system and tubing that runs throughout the syrup farm for collection. During syrup season, everything is run through this vacuum system and in order to keep the vacuum up and going, there can’t be any leaks in the lines. Thanks to local wildlife like squirrels, deer and bears, “we are constantly walking in the woods looking for leaks,” she says.

Tapping trees with snowshoes is just a given with Garrett County winters. Annetta points out how snowshoes and branches sticking up through a layer of snow can make for a bit of a hassle. However, “if we wait until the snow melts, we will miss a couple of good runs,” she says. Thank

goodness they have family that are willing to help with the operation.

Keeping busy all times of the year is nothing new for the Enlow family. With her and husband Charles, as well as their son Levi, 18, and daughter Cristy, 16, and Charles’ parents William and Kristen Enlow, maple syrup is definitely a family business, and their taps look like they’ll keep on flowing for years to come. Yes, there certainly is more to the forest than just trees. With proper management it produces the products that we all need and love.





WILL PHILLIPS (RIGHT) & JAMES BATTAGLIA (LEFT)
SANDTOWN FURNITURE

DID YOU KNOW THE LIFE CYCLE OF WOOD DOESN'T END WITH THE TREE?

What started as volunteering on a Habitat for Humanity house project in the West Baltimore neighborhood of Sandtown led to a whole new pursuit of passion for former Under Armour employee Will Phillips.

As he became more involved in the demolition and rebuilding of 100-year-old rowhomes, he began to notice "all this beautiful old structural lumber that was cut from trees 100+ years ago." That's all it took, and Phillips was hooked. What someone saw as destined for the dumpster, he saw as a forestry product full of beauty and potential to reuse and extend its life cycle.

"Without even really knowing if it should be flooring or cabinetry or furniture, I just started salvaging it and started storing a bunch of it and pulling nails out of it and trying to figure out what it should be," says Phillips.

He connected with a partner who had a woodshop and good design sense, and they ended up building a couple of pieces and taking them to farmers markets under the Jones Falls Expressway/Rt 83 in Baltimore City. "We made some little business cards and a little fake it until you make it catalog," Phillips says. Immediately, people were drawn to the idea of salvaged wood. "From the very beginning, it struck a chord in people," he adds.

Alongside his partner James Battaglia, who leads product and design at Sandtown, Phillips has taken a side hustle in 2010 and turned it into a full-time career with endless potential for expansion, including a new 32,000 sqft-plus woodshop and gallery that embodies everything about the company and its wood-based ambitions. The company also operates a separate 18,000 square foot facility in Port Covington, used for milling and drying wood. Though their space has grown immensely from the little 6,000 sqft shop they started in, they still strive for the same resonance with customers.

"We still try to make sure we are creating that emotional connection where people buy a piece from us, and they get to be a part in the history, in the story, and understanding where it came from; understanding that it's a piece of Baltimore that got repurposed," says Phillips.

Going from one of the largest sports apparel makers in the nation to repurposing salvaged waste wood into quality furniture came down to Phillips' "genuine interest in the idea of creating something special, valuable, beautiful out of what would otherwise be waste." It was his fascination with the life cycle of wood, as simple as that sounds; from a seedling sprouting to what becomes a centuries-old tree, from



the passing of that tree providing the wood transformed into lumber at the center of centuries-old homes in cities like Baltimore.

Phillips enjoys "the beauty underneath, that element of surprise and the variation in wood" harvested from what would be otherwise bound for the landfill. "Just the joy of that process, seeing what the wood is and seeing what it can be. Every time you do it, it's a little bit different," he says.

For the first eight years of Sandtown Furniture Company, they used nothing but salvaged pine, which had a rustic feel and a distinct aesthetic. Eventually, to expand the business and satisfy their creative interests, they "felt like getting into new woods was really important for Sandtown."

White oak, ash, and walnut are now part of their hardwood lumber feedstock as they've gotten into more downed tree salvaging versus reclaimed pine lumber from buildings. "James is a really good designer and these new species have given him the chance to take our product design to a whole new level. It's awesome to see how much our product has evolved over the last couple of years," adds Phillips.

The Sandtown co-founder points to Camp Small, a woodlot in Baltimore City that salvages all the trees that the city cuts down, as crucial in expanding their wood offering and building the knowledge they needed to succeed. "They were super helpful in getting us to the point where we

understood how to look at a log and then how to mill them up," he says.

Another great partner that came much later in the company's history is Next One Up, a nonprofit organization in Baltimore City that works with young men from 6th grade through 12th grade. "They give these guys a lot of support academically, help them as they find their way," says Phillips. And he knows firsthand, as their first full-time hire at the company's sawmill came to them from Next One Up. Despite having someone with no initial training as a sawmill operator, Phillips explains that if the person has the right personality and is the right fit, "that we can teach that stuff. We're optimistic about the partnership we have with Next One Up," he says.

The way Phillips sees their woodworking, every piece is a work of art. There are the custom builds that his business partner James Battaglia does, as well as what's crafted by the incredible production team they have. "Every one of those is a creative endeavor to figure out how you treat the wood, marry the boards up, line the grain up," he says.

Phillips and Battaglia are most proud of the team they have, what Phillips calls a talented and committed group that is in it for the right reasons. With the tremendous amount of work they've done sourcing new wood and expanding their products and designs, he is excited for the future despite the ongoing covid pandemic. "We came into 2020 with a really clear plan and a really clear vision, and we didn't pivot. For us, staying

the course and seeing that vision through was the best path," says Phillips.

Part of that vision is the new facility Sandtown Furniture Company is moving into in March, which was built back in 1885 and sat vacant for 10 years. "It's this beautiful old brick building, a full city block long, with 50-foot ceilings and old arched windows. It needed a lot of love but we're so excited to reveal the space once it's finished. It's an embodiment of what we do on a really grand scale," he says.

One side of the new home for the furniture maker will be an 8,000 sqft retail showroom and gallery, with only a floor-to-ceiling glass wall separating the showroom from the woodshop, where customers can watch furniture makers live in action. Visitors will be able to shop for premium furniture in a polished well-lit space while looking through the glass to the other side where "sawdust is flying, and the production team is cranking," Phillips exclaims.

The company hopes to be running the sawmill five days a week by the end of 2022 and continues to work to spread the wisdom of wood as a forestry resource and natural building material. The life cycle doesn't end with the tree. The unique furniture made at Sandtown from reclaimed wood continues to store carbon indefinitely, and that's a beautiful thing. "We're always open, we're always available, and if you want to come see a real wood shop in action, then we're here for that," says Phillips.

SUMMARY

An African proverb notes it takes a village to raise a child, a testament to the collective, cooperative efforts by the villagers needed to provide for, nurture, protect, educate, and help achieve the full potential of all the children who live there.

The analogy is easily extended to the forests. Given the variety of values that forests provide—wood, wildlife, recreation, water, and scenery—it is no wonder that it takes a wide variety of skills, training, and interests among those who help our forests reach their full potential. Applying these by those who have them is

what forest management is all about.

Have we achieved all we need to do to meet our goals for Maryland’s forests? Of course not.

While we have hopefully shown some of the bright spots and introduced some incredible stewards of our forests, there is more work to be done. We need formal recognition that wood energy will be crucial for Maryland to meet renewable energy goals. And we can do so without reducing the forests’ innate ability to remove carbon from the atmosphere and store it.

Consistency in forest regulations across the counties would be a great help in encouraging an adequate logging industry. State lands must provide timber in amounts equal to their proportional ownership in rural areas. We need to promote new products and find ways to economically put urban wood waste within the supply stream of those who can make useful products from it.

This work brings into play another important partner in the forest management equation. That is the collective body of Maryland’s

policymakers, from the Governor to the Legislature to local elected officials. Just as foresters, wildlife biologists, and recreation managers play key roles in forest management, policymakers through their understanding of our forests, the issues facing forest managers, and the actions they take, can shape our forests just as directly as a full logging crew. The “village” needs their support, too.



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