

V. Issues, Threats, and Opportunities

For the 2010 Forest Action Plan, the Delaware Forest Service (DFS) used two processes to identify the highest priority issues, threats, and opportunities for Delaware's forests. First, the DFS completed a comprehensive five-year strategic plan in 2008 through a facilitated process with forty participants representing a variety of stakeholders, including other public (state, federal, local) agencies, landowners, nongovernmental organizations, consultant foresters, forest industry, and recreationalists. Through this effort, stakeholders identified critical issues facing Delaware's forests and then defined goals and objectives for the DFS to address in the subsequent five years (2009-2013).

Second, Delaware's Forest Stewardship Committee participated in a facilitated process in 2009 to identify current issues, threats, and opportunities facing the state's forests. Beginning with the issues from the earlier strategic planning process, the committee identified additional issues, and then outlined specific threats and opportunities. The result was very similar to the outcomes of the 2008 strategic planning process.

Once the issues, threats, and opportunities were drafted, the DFS shared them with other stakeholders through presentations/site visits and electronically to determine if any changes were appropriate. The relatively small number of substantive edits were incorporated into the final list.

In 2010, four issues were identified—*Forest Health and Functionality*, *Forest Markets*, *Sustainable Forest Management*, and *Public Awareness and Appreciation of Forests*. In early 2019, in an effort to update the primary issues facing Delaware for the next ten years, an electronic survey was created and sent to hundreds of stakeholders. An overwhelming majority (92%) responded that there should be no deletions to the 2010 issues. A small percentage focused in on eliminating non-forest ecosystem services such as carbon credits because past efforts (e.g., Bay Bank) made little progress due to lack of interest. Additionally, when asked if there should be any additions to the 2010 issues, threats, or opportunities, about half of the respondents replied affirmatively and gave their suggestions.

Then in June 2019, Delaware's Forest Stewardship Committee participated in another facilitated process similar to that of 2009 to further identify current Delaware issues, threats, and opportunities facing the state's forests. The committee identified their own issues, and then outlined specific threats and opportunities. Once again, the results were very similar to the outcome of the electronic survey and, for that matter, also to the 2008 strategic planning process and subsequent 2010 Delaware forest resource assessment. Therefore, the DFS will use the same four primary issues as before but will incorporate virtually all the updated suggestions into the threats and opportunities sections. The four traditional Delaware forest resource issues will encapsulate all stakeholder concerns.





While Delaware has more forestland now than in 1900, its overall forested acreage is shrinking—primarily due to development.



ISSUE #1

Forest Health and Functionality

An adequate, healthy forestland base ensures the perpetual production of forest outputs—lumber and other wood products, wildlife habitat, recreational opportunities, water and air quality protection, carbon sequestration and storage, aesthetics, and energy savings through local climate modification.

Background

Forests provide an abundance of natural environmental and economic benefits and it is crucial that Delaware maintain a sufficient acreage of healthy forests to perpetuate these benefits. A full representation of various forest types (e.g., cypress swamps, pine forests, bottomland hardwoods, etc.) is needed to provide the habitat necessary for a diverse array of plant and animal species. Additionally, certain forests provide important environmental benefits such as improved water quality and quantity (e.g., wetlands, riparian buffers, groundwater recharge areas, Coastal Plain ponds, etc.). A sufficient base of working forests is necessary to supply the timber needed to support a viable forest industry. Furthermore, strategically located afforestation (forest expansion) can provide significant environmental benefits, such as connecting large forested blocks and creating or expanding forested corridors and buffers. Urban forests also provide numerous benefits and are important to a community's quality of life. Municipalities should include urban forestry management strategies in their long-term plans. In all cases—urban and rural—healthy forests are vital to maintain their sustainability. Landowners and foresters must work to ensure that Delaware's forests are as free from forest pests and invasive species as possible.

Future efforts must address all these factors to help ensure the long-term health and viability of Delaware's forests and help the DFS meet one of the U.S. Forest Service State and Private Forestry (S&PF) national priorities—*Protect forests from threats.*

THREATS

The long-term health and sustainability of Delaware's forests are threatened on multiple fronts: outright forest loss, fragmentation, and parcelization; exotic invasive plants, insects, and diseases; uncontrolled populations of native species; loss of forest diversity; and, in certain areas, wildfires.

Forest Loss, Fragmentation, and Parcelization

Delaware's rural and urban forests face a multitude of challenges that threaten their long-term health. While Delaware has more forestland now than in 1900, its overall forested acreage is shrinking—primarily due to development. During the housing boom from 2002 and 2009, 6% of Delaware's forests (16,000 acres) were included in proposed developments. Not all of those projects occurred due to a downturn in the housing market, but it is very likely that most of those forests will either disappear or will be so fragmented that they no longer provide many of the natural benefits that all Delawareans now enjoy. Such a trend is not sustainable, and in the last several years the housing market in Delaware has improved again and even more unprotected forests are threatened with loss and fragmentation.

Furthermore, remaining forests are now in smaller blocks. The number of large, contiguous forested blocks (>250 acres) is decreasing. Many riparian forests have also disappeared or been reduced significantly such that waterways are no longer buffered. This presents challenges not only for forest management but for wildlife habitat, water quality, water retention and recharge. Fragmentation not only causes forest management challenges, it also produces other effects that are less evident. For instance, it increases the amount of forest “edge,” which often leads to the introduction of invasive plants and reduces the habitat for certain interior forest-dwelling species. In addition to a decrease in large, contiguous forested areas, there is also a loss of forested corridors (100- to 300-foot wide strips) that connect larger blocks of forestland. These areas provide protected travel routes for many wildlife species and are often located along waterways, thus also improving water quality.

Increased human population has produced more landowners and smaller forest ownerships. Today’s average forest ownership is less than 10 acres, compared to over 30 acres just four decades ago. This increasing number of forest landowners presents challenges to public agencies as they attempt to provide more assistance with fewer staff and shrinking budgets. Public managers will have to rely on new approaches and new partnerships to reach this growing landowner base. Smaller forested parcels also increase the chance for the establishment of invasive plants.

Invasive Species

While the overall impact of invasive species and non-native pests in Delaware’s forests is usually unnoticed, their cumulative effect is significant and growing.

Gypsy moth, Dutch elm disease, and chestnut blight are three examples of non-native species that have severely affected certain tree species within Delaware. Gypsy moth populations have decreased to virtually zero since 1996. However, their impact on oak forests in the late 1980s and early 1990s is still present today. The confirmed presence and establishment of the emerald ash borer (EAB) in Delaware in 2018/2019 is basically a death sentence for virtually all ash (*Fraxinus* spp.) trees in the state. This 2002 import from China has already killed more than 60 million ash trees in 35 states and continues to spread wherever ash trees are found. Although ash trees comprise about only 1% of Delaware’s natural forests, EAB is of particular concern in urban areas where extensive ash trees were extensively planted along roadways. Also, the Category I wetland type composed of black ash seepage swamps is of particular risk and concern.

There are several potential threats to Delaware forests in surrounding states that could have future severe impacts. The DFS, working with the U.S. Forest Service, APHIS, and the DDA Plant Industries Section, continues to monitor for these potential threats including the Asian longhorned beetle, sirex woodwasp, sudden oak death, and the European pine shoot borer. Likewise, invasive plants continue to spread throughout Delaware forests, particularly in urban areas and those on the rural/suburban fringe. Such species include multiflora rose, Norway maple, autumn olive, mile-a-minute weed, privet, Japanese stilt grass, and phragmites.



Sirex wood wasp



Autumn olive





Destructive Native Species

In addition to invasive species, there are also native threats to Delaware forests. An overabundance of white-tailed deer has degraded many forested areas, particularly hardwood forests in northern Delaware. While DNREC's Division of Fish & Wildlife has taken steps to curb this problem, there are still portions of the state that have significant deer overpopulations. The high deer population is compounded by a decline in the number of hunters in the state. Bacterial leaf scorch (BLS), once considered a relatively minor nuisance in urban forests, has now caused widespread death and decline to several red oak species throughout Delaware. The southern pine beetle also has the potential to destroy thousands of acres of valuable loblolly pine forests.



Forest Types

In addition to the acreage of forestland, it is also important to maintain a mixture of forest types. Statewide inventories ten years ago showed that certain types of forests were increasing, such as red maple and gum, while others were decreasing significantly, particularly softwood forests (such as loblolly pine, Atlantic white-cedar, and baldcypress). In the last ten years the trend in softwood decline has reversed somewhat, especially for loblolly pine, however, low-quality hardwoods still continue to increase. These changes have repercussions not only for timber production but also wildlife habitat. Some changes in forest cover are due to timber harvesting and land clearing while others are due to changes in hydrology, such as through channelization and ditching.

Urban sprawl continues throughout much of Delaware and has resulted in a significant increase in the wildland-urban interface (WUI).

Wildfire

While wildland fire is not a substantial threat in Delaware, it is a concern in certain landscapes and forest types. Urban sprawl continues throughout much of Delaware and has resulted in a significant increase in the wildland-urban interface (WUI). The susceptibility of many of the WUI areas (particularly coastal areas) to wildland fires has increased dramatically with the presence of the invasive common reed (*Phragmites australis*). Additionally, southern Delaware has large areas of loblolly pine forests. Young stands of loblolly pine are also prone to wildland fires before they naturally prune their lower limbs.

OPPORTUNITIES

Reduce Forest Loss, Fragmentation, and Parcelization

- Protect forested areas, particularly in high priority areas, through both public funding (Forest Legacy, USDA NRCS, Delaware Aglands and Forestland Preservation and Open Space Programs, county and local governments) as well as private funding (NGOs, land trusts, etc.). Conservation easements are an economic and effective way of protecting working forests.
- Maintain existing incentives for landowners to retain their forestland (such as property tax exemptions) and explore other incentives for landowners to maintain their forestland, such as rental payments to protect the high priority forests, other tax incentives, etc.
- Encourage state, county, and local governments to incorporate forests and forest benefits into land-use planning processes to help decrease the rate of forest fragmentation in the state.



- Work with local governments to include urban tree canopy goals in municipal plans and identify priority areas for maintaining and expanding urban forests.

Improve the Diversity of Forest Types

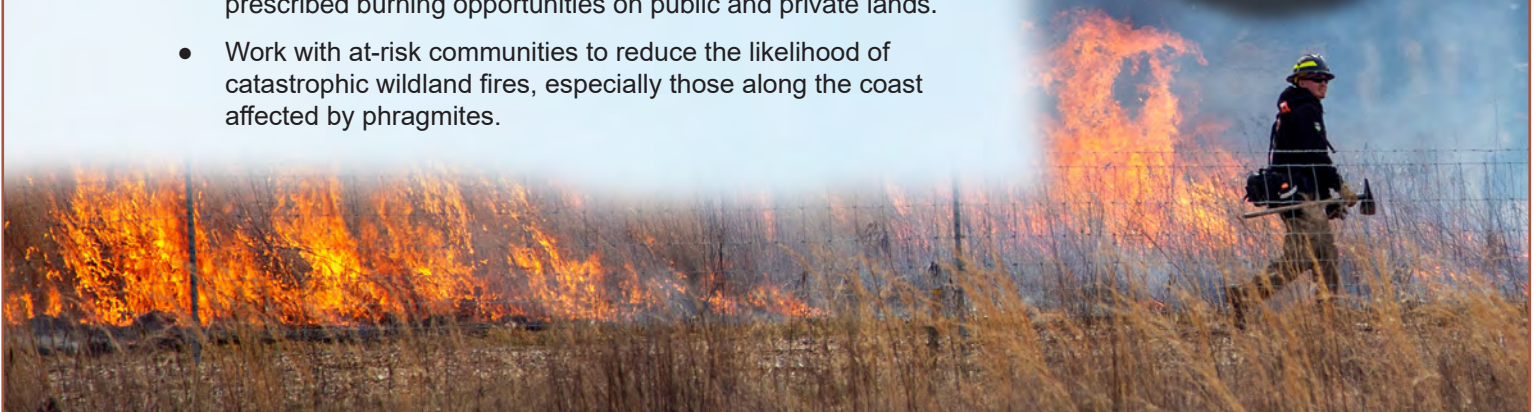
- Establish reasonable goals for maintaining/restoring a representation of diverse and historic native forest types (species) and types of forestland (upland, floodplain/wetland, headwaters forests) while balancing the interests of landowners and society.
- Partner with other agencies and organizations (e.g., The Nature Conservancy, Delaware Division of Fish & Wildlife, Delaware Wild Lands, Inc., U.S. Fish & Wildlife Service, etc.) to restore forest types.
- Encourage active forest management on state-owned forestlands to create a mosaic of size and age classes, species compositions, and stocking levels.

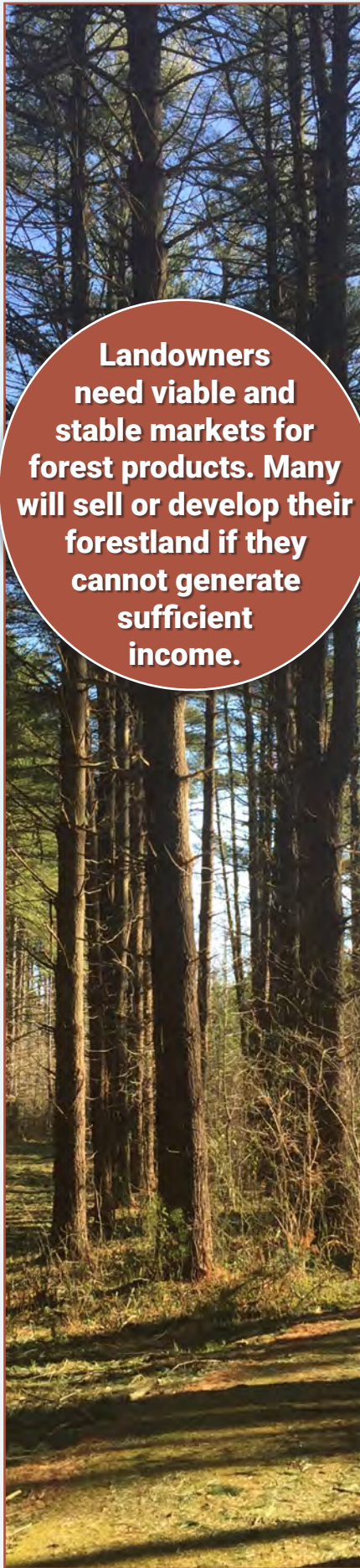
Control Native Pests and Non-native Invasive Species

- Continue monitoring for both native destructive forest pests (southern pine beetle) and non-native (such as the gypsy moth) through aerial and ground surveys and attempt to eliminate any “hot spots” before they spread and cause significant damage and loss.
- Work with state and federal partners to quarantine and eliminate, if possible, initial populations of potentially damaging forest pests.
- Address non-native and invasive species outbreaks and occurrences by working with other government agencies and nongovernment organizations, such as the Delaware Invasive Species Council (DISC).
- Support efforts to control deer populations, including Quality Deer Management and the Deer Management Advisory Committee.

Reduce Wildfire Risks

- Ensure that volunteer fire companies, the first responders to wildland fires in Delaware, are well trained and equipped to fight wildland fires.
- Utilize prescribed fire to reduce the likelihood of wildfires and to improve wildlife habitat and forest management. Create a state-wide partnership and develop cooperative agreements between agencies to efficiently and more safely expand prescribed burning opportunities on public and private lands.
- Work with at-risk communities to reduce the likelihood of catastrophic wildland fires, especially those along the coast affected by phragmites.





Landowners need viable and stable markets for forest products. Many will sell or develop their forestland if they cannot generate sufficient income.

ISSUE #2

Forest Markets

Adequate and diverse forest markets are available to landowners to satisfy their forest management goals.

Background

A stable, robust, and diverse market for forest products—not just for high-quality timber but also for poor-quality species and non-timber markets, such as carbon—contribute to Delaware’s economy and help ensure long-term sustainable forest management. Furthermore, landowners must have the ability to generate income from their forestland, otherwise they are much more likely to convert their forestland to other non-forest uses such as development. The major component of a successful mix of forest markets is a strong, stable market for traditional forest products (pulpwood, sawtimber, etc.), including markets for low-value timber. However, markets for non-wood products are important to provide a diverse suite of income opportunities for landowners. To foster these markets, it is critical that current, comprehensive inventories of the forest resource are available.

Lack of robust and diverse markets is not only a threat to forest landowners but to our forests. Policies that foster diverse and robust forest markets are necessary to retain forestland, particularly privately-owned forests, for the longterm. Without a thriving wood products market, Delaware cannot achieve one of the S&PF national priorities—*Conserve and manage working forest landscapes for multiple values and uses*—or the longterm, sustainable management of its forests.

THREATS

Markets for traditional forest products (pulpwood and sawtimber) have decreased dramatically in Delaware and the Delmarva Peninsula and there is a continued lack of markets for low quality hardwood timber. There is a potential for new markets for non-consumptive uses (carbon, wetland mitigation, etc.) but these have yet to develop fully.

Lack of Traditional Forest Markets

Delaware’s landowners need viable and stable markets for their forest products. Many landowners will sell or develop their forestland if they cannot generate sufficient income through forest management activities. The economic downturn ten years ago further accelerated the decline of traditional forest products markets on the Delmarva Peninsula. Combined with a national decline in lumber prices due to the collapse of the real estate market and the overall economy, timber prices in Delaware declined as much as 50%. More recently, however, the economy has improved, and housing starts are increasing again. However, the number of sawmills is less than half of the total from 25 years ago and this includes the closure of the largest pine sawmill in the region. Delaware is currently not in a good position to take advantage of a growing economy and an increased demand for wood products. A timely revival of the forest products industry is necessary to protect many of Delaware’s working forests from conversion to non-forest uses. It is important that Delaware work with surrounding states to maintain existing markets and foster new ones for traditional forest products.

Few Markets for Non-wood Forest Products

Markets for non-wood products are very important. Currently, hunting leases are the primary non-wood market for many forest landowners. However, markets continue to emerge for carbon sequestration and storage, wetlands mitigation and even endangered species mitigation and other “ecosystem services” but much work remains to bring them to fruition.

Poor Markets for Low-quality Wood

A healthy forest market should also provide demand for all types of timber—not just the high-quality species and stems—thereby helping landowners to sustainably manage their forests. Currently, there is an overabundance of low-quality hardwood in Delaware. This lack of market has contributed to the proliferation of low-valued red maple and gum forests because these species are often not removed during timber harvests. Bioenergy is a developing market that could provide new demand for low-quality hardwoods, but Delaware’s existing incinerator law severely restricts the use of wood for bioenergy purposes. Developing markets for these species would help foresters and landowners establish a better mix of tree species, both for wood production and wildlife habitat.

Periodic Forest Biomass Inventories

To maintain and expand forest markets, it is essential that a state and/or region have accurate estimates of the forest resource and the amount of wood (and other products) that the forest can produce sustainably. Encouraging new markets is only viable if there is a sufficient forest base to sustain both new and existing markets. Fortunately, the U.S. Forest Service completed a study in 2012 entitled *Greater Delaware Area Forest Biomass Resource Analysis* that showed there is an ample supply of wood in Delaware to support a thriving forest products industry. Such a study should be commissioned on a regular basis to confirm that wood resources are being managed sustainably in Delaware.

OPPORTUNITIES

Accurate Forest Biomass (Wood) Inventories

- Improve and refine the state’s forest inventory by working with the U.S. Forest Service and other partners to develop better acreage estimates of the various forest types/species (e.g., loblolly pine, baldcypress/Atlantic white-cedar, red and white oak, etc.) and the amount of wood available for various markets such as low-quality hardwoods for bioenergy.
- Work with neighboring states to consider the region’s (Delmarva Peninsula) wood supply when developing potential forest markets to ensure that any new wood markets are properly sized to the supply available and do not degrade the long-term sustainability of the forests.
- Commission periodic studies of biomass availability in Delaware and the surrounding region.

Improve Traditional Forest Markets

- Work with economic development and natural resource agencies, landowners, buyers, loggers, and wood producers and processors both in Delaware and neighboring states to maintain and support the traditional forest product markets.





- Seek to expand complementary markets, such as poultry bedding, to keep pace with the demand of expanding agricultural commodity markets.
- Tap into the expertise of the Governor's Council on Forestry to promote and attract new forest industry to Delaware in anticipation of the upcoming expansion of the Port of Wilmington that could potentially greatly expand wood product imports and exports.

Create/Expand Non-traditional Forest Markets

- Work with local artisans and entrepreneurs to develop niche markets using wood locally harvested in Delaware.
- Encourage the use of urban waste wood to take advantage of a diversity of species and large trees removed from communities due to decline, sidewalk/road conflicts, and mortality.

Develop New Bioenergy Markets

- Develop new markets for the abundance of low-valued timber in Delaware and throughout the Delmarva Peninsula.

Non-wood Ecosystem Services Markets

- Promote and facilitate non-consumptive forest markets—such as carbon credits for forest management and urban forests (not just afforestation), endangered species banks, and wetland mitigation banks—commonly referred to as ecosystem services. Support programs that help aggregate private landowners for potential ecosystem service payments.
- Support state and regional policies for ecosystem services that include forests and reward forest management, such as for carbon credits (including the Regional Greenhouse Gas Initiative [RGGI]).

ISSUE #3

Sustainable Forest Management

Delawareans must sustainably manage their rural and urban forest resources.

Background

Ultimately, we must not only maintain sufficient forest acreage but also sustainably manage those rural and urban forests if Delawareans are to enjoy all the many natural benefits we receive from forests. Furthermore, most of these forests are, and will continue to be, privately owned (or in the case of urban forests owned by homeowners or communities). Therefore, these landowners must have the knowledge, ability, and assistance to manage their forests so that we all benefit. Furthermore, owners often need financial assistance to help them complete important management activities. Technical (foresters and arborists) and financial assistance not only benefit the forest landowner, but also help ensure that our rural and urban forests are thriving and providing the numerous benefits we all enjoy for future generations. Without sustainable management, we cannot meet the S&PF national priorities to *Conserve and manage working forest landscapes for multiple values and uses* and *Enhance public benefits from trees and forests*.

THREATS

Many of Delaware's urban and rural forests are not sustainably managed. Their owners either do not seek or are not aware of available professional forestry assistance. Furthermore, many owners require financial assistance to help them manage their forests. This problem not only affects the individual landowner but affects the long-term viability of Delaware's forests. Fortunately, the percentage of Delaware's forests that are not well managed is decreasing. Efforts to educate communities, landowners, and forestry operators (loggers, equipment operators, timber buyers, etc.) about forests and forest management are making an impact, however, there is room for improvement.

Lack of Technical Assistance

Many forest owners do not utilize professional forestry assistance. For instance, less than one-half of Delaware's timber harvests currently utilize a professional forester, and this is the case throughout the country. While foregoing the expertise of a professional forester does not always result in poor forest management, many times it produces poor quality forests, such as high-graded forests (only the best timber is harvested, and after repeated high-grade harvests, only poor quality specimens remain). This situation is compounded in Delaware by a lack of markets for poor-quality timber. Urban and community forests face challenges similar to rural forests. Many cities and towns do not have sufficient expertise to inventory their street trees and other publicly-owned forests or develop a management plan that outlines their long-term goals and objectives for these areas. Community leaders and citizens need access to technical assistance to help them understand the importance of forests not only aesthetically but for the numerous environmental benefits they provide (such as, improved water quality and quantity, enhanced recreational experiences, reducing energy costs, and reduced stormwater runoff). By working with professional foresters, landowners and communities can develop long-term plans for their forests, including comprehensive inventories and management plans.

Lack of Financial Assistance

Financial assistance is also necessary to help landowners and communities sustainably manage their forests. Forest landowners typically only receive revenue sporadically from timber harvests and often it is many years, if not decades, between timber harvests—particularly for landowners of small woodlots. Financial assistance, such as cost shares for forest management activities, helps ensure that landowners can and will complete non-income generating activities, such as timber stand improvement, wildlife habitat enhancement, and water quality protection activities. Furthermore, many owners acquire woodlands that have been poorly managed in the past. As these landowners begin to re-establish sound management practices in their newly acquired woodlands, they often find that the cost of these practices can be quite substantial, depending on the degree of neglect or mismanagement in the past.



Aerial herbicide applications are eligible for state forestry cost-share assistance programs.

Likewise, funding also benefits cities and towns—often providing the money needed to purchase trees for planting, complete an inventory of the community's trees, or secure an arborist for pruning and other tree care matters. Often, urban forestry budgets are the first to be cut or reduced during difficult economic times. Financial assistance combined with technical advice is a cornerstone for sound forest management. Despite uncertain budgets, it is important that Delaware work with a variety of organizations (federal, state, private) to continue providing not only technical but also financial assistance to landowners to help ensure the long-term sustainability of our rural and urban forests.

OPPORTUNITIES

Rural Forest Management and Assistance

- Continue providing technical forestry assistance to landowners for a variety of forestry issues and coordinate with other natural resource professionals (such as wildlife biologists and hydrologists) to provide comprehensive landowner assistance.
- Seek ways to reach more landowners to offer professional forestry assistance.
- Explore the possibility of providing assistance to landowners on a landscape scale, such as in a watershed, to help achieve larger-scale goals.
- Maintain and expand cost-share programs to help landowners complete forest management activities and enhance their forests (e.g., timber production, wildlife habitat enhancement, water quality protection, etc.).
- Maintain existing programs to encourage long-term forest management (e.g., property tax exemptions, etc.) and explore opportunities for new incentives.
- Consider new incentives and programs to encourage good forest stewardship among the increasing number of landowners with small woodlots (less than 10 acres).

Urban Forest Management and Assistance

- Continue providing technical forestry assistance to municipalities and civic associations to develop long term plans for their urban forests, including a comprehensive inventory, maintenance plan, and tree canopy goals.
- Seek opportunities to reach more communities and civic associations to provide professional urban forestry assistance to them.
- Maintain and expand funding to support urban forest management activities such as tree planting and tree maintenance projects.
- Consider methods to provide a certified arborist/urban forester for all municipalities.



ISSUE #4

Public Awareness and Appreciation of Forests

Delawareans must understand and appreciate the importance of forests and forest management.

Background

Everyone—landowners, homeowners, community and civic leaders, students—must appreciate and understand that forests and their proper management are necessary for our quality of life. Credible, current, easy-to-understand information and ongoing education, both student and adult, are needed for the general public to understand the broad array of natural benefits that forests provide, the intricacies of forest management, and the techniques and practices necessary to achieve the goals of management. Often, sound management techniques are not aesthetically pleasing, and this issue must be addressed in forest management education. If the public does not appreciate and understand forests and forest management, we cannot meet the S&PF national priorities—*Conserve and manage working forest landscapes for multiple values and uses, Protect forests from threats, and Enhance public benefits from trees and forests.*

THREATS

There is a lack of public awareness and appreciation of Delaware’s forests and forest management. While most citizens appreciate forests, many do not understand the wide range and depth of benefits our forests provide. Furthermore, many Delawareans do not understand that forest conservation and sustainable forests require public investment as well as both financial and technical assistance. Readily available information, through a variety of avenues (e.g., internet, public workshops, etc.), on a variety of topics (e.g., forest health, forest management, urban forests, etc.) and for a variety of audiences—landowners, homeowners, community leaders, legislators, students, etc.—is necessary to raise public awareness and understanding. Reaching the entire public is a difficult task, so a strategic, prioritized approach is necessary.

Student/Teacher Education

Despite ongoing efforts and recent successes, many students are not exposed to a comprehensive forestry and natural resource curriculum. Often their exposure is limited to only a few disjointed forestry issues and concepts, and many times their lessons focus on forests that are outside of Delaware or even the United States. Similarly, opportunities for teachers and other educators to learn about forests and forestry in Delaware are very limited both during their formal education and continuing education experiences. To increase student understanding of forests and forest management, teachers must first understand these issues.

Landowner/Homeowner Education

Studies continue to show that only a fraction of forest landowners (including community forest owners/managers) and homeowners participate in forestry education opportunities or are aware of the professional assistance available to them. Similarly, the DFS has found that its programs continually reach the same small minority of landowners and communities. The DFS and its partners must find new methods to reach (and interest) the vast majority of forest and tree owners who have little or no forestry knowledge.



Public Understanding and Support for Forests and Forest Management

For forestry programs—state forestry agencies, forest/open space protection, landowner assistance, those offered by NGOs, etc.—to survive and thrive, the public must understand and lobby for forests and forestry. Public support leads to well-funded forestry programs and organizations. As the state and other governments face increasing budget pressures, public support for forestry is required to provide the various programs described within this assessment and corresponding strategy.

Delaware's Diversity of Land Use Ideas

Ten years ago, the Forest Stewardship Committee identified another item to consider during the assessment process, specifically Delaware's diversity or perhaps better stated, the wide diversity of strong ideas and interests regarding land and its use in this small state. While this item did not warrant stating it as a separate issue, the committee believed that it was important that the DFS and its partners were cognizant of the issue as it could impact future activities. This idea still holds true today, a decade later. There is an attitude of "downstate versus upstate" for areas south and north of the Chesapeake and Delaware (C&D) Canal. This arose from the urbanized, industrial areas in the north versus the more rural, agrarian economy in the south. This attitude has moderated with the increasing development in the southern part of the state, particularly along coastal areas. Nonetheless, there is still an urban versus rural mentality in many areas of Delaware. The dramatic increase in development has also exposed another somewhat contentious argument in the state: many Delawareans strongly endorse private property rights. However, the rapid increase in development and suburban sprawl has caused some Delawareans, particularly the newest arrivals to our state, to support tougher land use law and zoning, and this conflict is likely to continue into the future. While these opposing attitudes exist, none rise to the level of extreme. In fact, there is often an aversion by Delawareans to confrontation and "making enemies." Perhaps this is a result of Delaware's small size—everyone knows everyone else or their friend or relative, so confrontation is avoided. Nevertheless, this diversity provided the foundation for the laws and regulations that govern Delaware's forests and it will impact any future efforts to revise or develop new policies.



OPPORTUNITIES

Student Education

- Encourage a comprehensive forestry/natural resource curriculum within schools, from elementary through high school, including the possibility of required classes for students in natural resource studies.
- Offer a variety of educational opportunities for all grades—that are correlated to state educational standards—from Smokey Bear to Arbor Day to Project Learning Tree (PLT), as well as encourage outdoor classrooms at schools and assist with incorporating these classrooms into the schools' curriculum, such as tree planting projects, monitoring water quality, etc.
- Continue to support natural resource educational programs outside of traditional school programs, such as Envirothon, Science Olympiad, and forestry-related 4-H programs.



Teachers/Educators

- Continue to work with partners to integrate PLT and its related curricula (Project Wet, Project Wild) into teacher continuing education courses and into teacher curriculum at local colleges.
- Partner with other organizations to increase natural resource learning opportunities outside the classroom, including outdoor classrooms on-site and the State Forest Education Centers.
- Explore avenues to reach more teachers and educators with forestry and other natural resource educational materials.



Forest Landowners

- Provide educational opportunities for landowners, including new methods and approaches such as the electronic media and other landowners (e.g., Tree Farmers), to reach the large majority of forest landowners who have little or no forestry knowledge.
- Explore opportunities to provide forest management information to new landowners (such as when they purchase the property).



Communities and Municipalities

- Provide urban forestry education to municipal leaders and civic groups to increase their understanding of urban forests and the numerous environmental benefits they provide so they include trees and other “green infrastructure” in their planning and budgeting processes.
- Explore opportunities to provide urban forestry educational opportunities to civic associations.



General Public

- Maintain and execute a DFS marketing plan that includes forestry education and promotes successes.
- Continue providing the general public with specific, message-focused educational opportunities in forestry.
- Highlight and promote success stories for rural and urban forestry.

