**Wisconsin Department of Natural Resources** DIVISION OF FORESTRY WISCONSIN'S TRILLION TREES **2024 ANNUAL REPORT DEPT. OF NATURAL RESOURCES** 

# WISCONSIN'S TRILLION TREES PLEDGE

**2024 ANNUAL REPORT** 

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n Earth Day 2021, Gov. Evers announced Wisconsin's Trillion Trees Pledge to plant 75 million trees and conserve 125,000 acres of forestland by the end of 2030. By the end of 2023, more than 32 million trees had been planted across Wisconsin by public and private landowners, communities, nongovernmental organizations and others. With the great strides that the Evers administration and partners had made in just three years,

In 2024, more than 119,000 trees were planted in urban areas, and another 10.5 million trees were planted in rural areas, bringing the total of trees planted to 42.7 million. Almost 43% of the state's goal has been achieved in the first four years.



In addition, more than 57,000 acres of forestland were conserved in 2024, bringing the total acres of forestland conserved to more than 76,000 acres – 61% of the conservation portion of the pledge. This accomplishment was largely due to the finalization of the historic Pelican River Forest conservation easements.

The Wisconsin Department of Natural Resources (DNR) and its many partners also completed supporting actions to maintain and grow Wisconsin's urban and rural forests. Accomplishments in 2024 included:

- » Working with students to collect tree seeds from school forests in preparation for Wisconsin's School Forest Program Centennial in 2027-2028.
- » Sharing new datasets on Wisconsin's urban forestry canopy to inform management decisions.
- Exploring the feasibility of constructing timber panels out of white pine for use in mass timber building projects.

#### **CONSERVING THE PELICAN RIVER FOREST**

Nearing 70,000 acres in size, the Pelican River Forest is one of Wisconsin's largest remaining forest tracts in private ownership. In April 2022, the DNR acquired a 12,419-acre conservation easement on the property, funded entirely by the Knowles-Nelson Stewardship Program. In January 2024, the DNR acquired an additional conservation easement on 54,898 acres, completing one of the largest conservation projects in state history. The additional conservation easement was funded entirely by the federal Forest Legacy Program.

Conservation easements are commonly used to protect privately-owned forests threatened by potential conversion to non-forest uses. Protecting the Pelican River Forest with a conservation easement allows the landowner to retain ownership of the property and keeps working forests working while providing the highest conservation value and benefit to the public. The Pelican River Forest will be open to the public in perpetuity for all five nature-based outdoor activities: fishing, hunting, skiing, trapping and hiking. Property management will be the landowner's responsibility, who must follow a forest management plan approved by the DNR. The DNR provides administrative oversight to ensure compliance with the conservation easement.

The Pelican River Forest is aligned with Wisconsin's Trillion Trees Pledge commitment to conserve 125,000 acres of forest-land by 2030. Combined, the Pelican River Forest's two conservation easements achieved 55% of the Governor's goal. In addition, the Pelican River Forest Conservation and Access Easement:

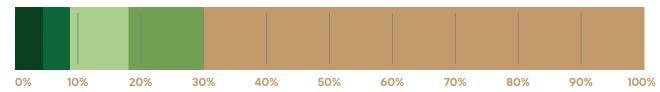
- Protects 58 miles of rivers and streams, of which more than 7 miles are Class I and II Wisconsin-designated cold-water trout streams.
- » Ensures the land remains forested and is sustainably managed as a working forest; the property is third-party certified under the Sustainable Forestry Initiative®, adhering to strict social and environmental standards.
- » Stores approximately 19 million metric tons of  $CO_2$  equivalent (MTCO<sub>2</sub>e); annually, it is estimated the property will sequester 125,000 MTCO<sub>2</sub>e over the first five years of management.
- » Permanently secures public access and opens 56 miles of roads designated for motorized vehicle use.
- » Connects important snowmobile/ATV/UTV trail routes to Oneida County's 1,100-mile trail network.
- » Protects the headwaters of the Wolf River, which supplies clean drinking water to more than 40,000 downstream users, cities and towns like Wausau, Merrill, Keshena and New London.

# PLEDGE PROGRESS

### **URBAN TREE PLANTING**

Goal: 1 million trees

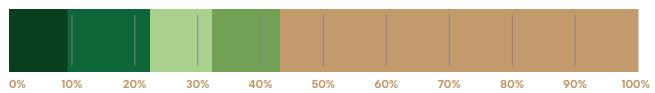
Accomplishment through 2024: 300,204 trees



### **RURAL TREE PLANTING**

Goal: 99 million trees

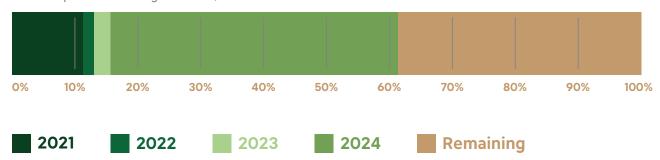
Accomplishment through 2024: 42,494,000 trees



#### **FOREST CONSERVATION**

Goal 125,000 acres

Accomplishment through 2024: 76,681 acres





In 2024, Gov. Tony Evers announced that Wisconsin increased its Trillion Trees Pledge from planting 75 million trees to planting 100 million trees by 2030. This new goal reflects Wisconsin's commitment of 75 million trees to the 1t.org pledge, as well as 25 million trees to the Great Lakes St. Lawrence Governors and Premiers' pledge (which entails planting 250 million trees collectively in the next 10 years). The state of Wisconsin, as a member of the U.S. Chapter of 1t.org, is committed to conserving, restoring and growing healthy and resilient forests and enhancing the countless benefits that Wisconsin's citizens enjoy from our forests.



In the fourth year of the pledge, nearly 10.7 million trees were planted across Wisconsin, including more than 119,000 trees in urban areas. To support urban tree planting, the DNR awarded \$4 million of Urban Forestry Inflation Reduction Act grant funds to local communities, tribal governments and nonprofit organizations to support projects that positively impact trees and people within disadvantaged communities in Wisconsin.

Of the 10.5 million trees planted in Wisconsin's rural areas, private nurseries supplied 4.1 million trees to landowners for their planting projects. The remaining 6.4 million tree and shrub seedlings were supplied by the DNR Reforestation program for conservation planting efforts – providing future forest products, improving wildlife habitat, preventing soil erosion,

creating natural beauty and increasing carbon sequestration. DNR seedlings found their homes on public and private lands, including:

- 2.5 million seedlings on private lands
- 2.2 million seedlings on DNR, federal, Tribal and other public lands
- » 52,000 seedlings on county forests
- 41,000 seedlings on school forests

The DNR Reforestation program also distributed 137 pounds and 106 bushels (848 gallons) of tree and shrub seed, or 15 million seeds, that were directly seeded on public and private lands. Based on projected survival rates, it is estimated that an additional 1.5 million seedlings resulted from these efforts.

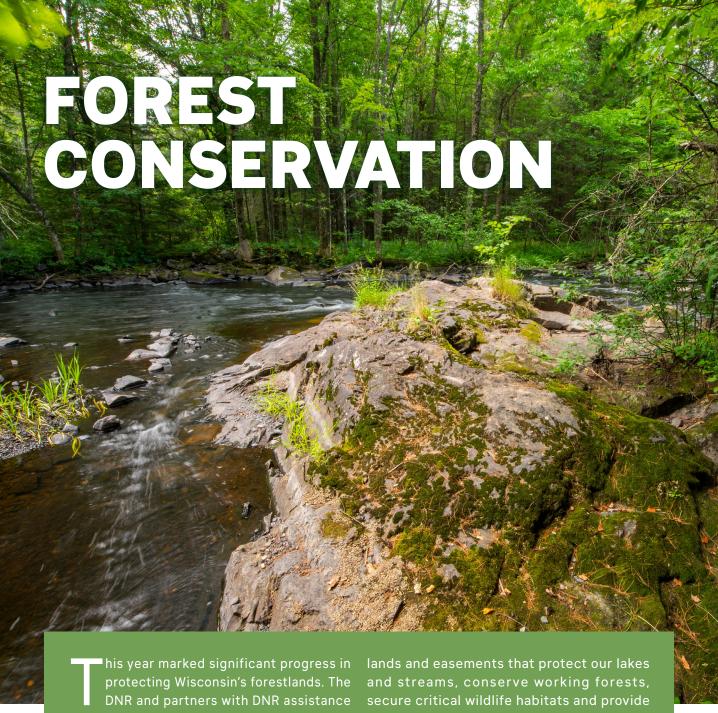


#### **PLANTING A LEGACY**

Jim Schiller keeps busy in his woods, from cutting timber to controlling invasive plants. At a spry 68 years, Jim says, "I see all these things I need to do, and I got to do them while I'm still young." He's been at it for over 30 years and has been planting trees lately.

Since 2019, Jim has controlled invasive brush and planted hundreds of white oak, walnut and spruce seedlings in areas where overstory trees had been harvested. He could have allowed these areas to regenerate naturally; however, Jim laments, "I've had the property since 1992, and the forest is different now," referring to changes to forest health, species composition, and marketability of different species. Considering the changes he has seen and the changes that may come, Jim has chosen to plant additional tree species and trees from different genetic pools to improve the resilience of his woodlot, in which he has invested so much over the years.

Always looking ahead to the next project, Jim recognizes that he is safeguarding his woods for the next generations. Gazing over his latest tree planting, Jim comments, "I'll leave these deer exclusion cages on until the trees are 4-inch diameter... but I probably won't be around then. That will be for my grandkids."



conserved more than 57,000 acres of forestland through fee-title acquisitions and conservation easements. The Knowles-Nelson Stewardship Fund and the Forest Legacy Program are critical in supporting the DNR, county forests and non-governmental entities in their efforts to acquire lands and easements.

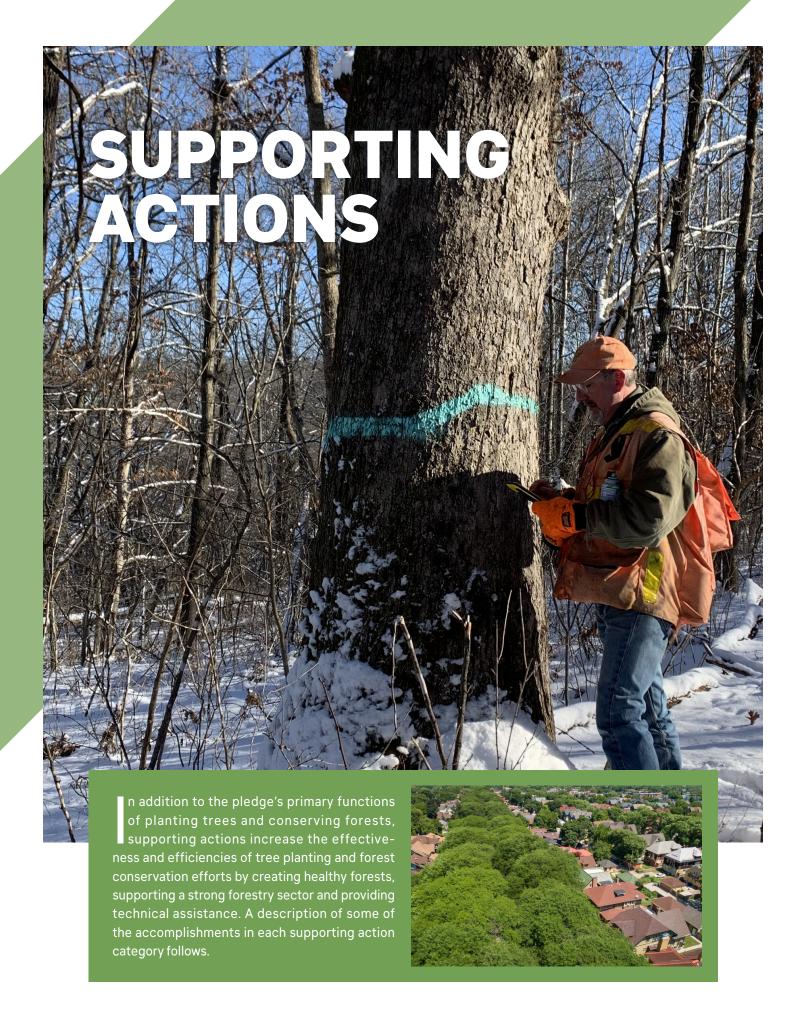
The Knowles-Nelson Stewardship Program, created in 1989, makes it possible for conservation organizations and the DNR to purchase

opportunities for outdoor recreation.

The federal Forest Legacy Program, established in 1990, identifies and protects environmentally important private forestlands threatened with conversion to non-forest uses. In 2024, the program was instrumental in purchasing the easement for the second phase of the Pelican River Forest (see sidebar on page 5), which totaled 54.898 acres.







#### SUSTAINABLE FORESTRY

Independent, third-party certification ensures that forests are responsibly managed and safeguards environmental, social and economic benefits. Three major land management programs administered by the DNR are verified under third-party forest certification programs.

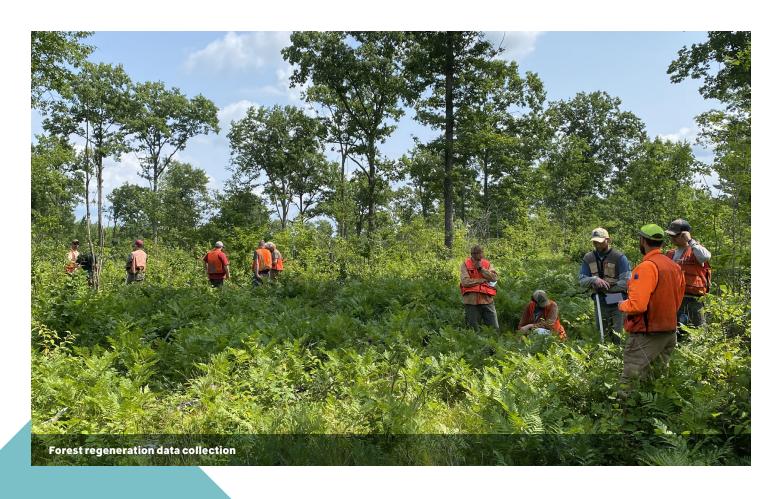
- More than 1.5 million acres of DNR-managed state lands are dual certified under the Forest Stewardship Council® and Sustainable Forestry Initiative® standards, and more than 75,000 acres of state lands managed by the Board of Commissioners of Public Lands are certified under the American Tree Farm System®.
- » Another 2.4 million acres of county forest lands are certified under the Forest Stewardship Council® and/or the Sustainable Forestry Initiative®.
- » Additionally, 2.5 million acres of private lands under the Managed Forest Law Program Group Certificate, administered by the state, are dual certified under the American Tree Farm System® and Forest Stewardship Council® standards.

#### NURSERY DEVELOPMENT

The DNR Reforestation program produces seed-lings in conjunction with private nurseries to meet demand from Wisconsin's tree-planting community while maintaining its ability to increase production at other state-owned nursery facilities. The seed for state nursery production is procured from sources throughout the state to foster genetic diversity in seedlings. This necessitates that the Reforestation program maintains a network of statewide seed collection stations and trained staff to ensure that fresh quality seed is purchased and ready to go into storage or be sown.

#### DATA AND TECHNOLOGICAL TOOLS

Wisconsin has several forest inventory programs that provide valuable data for rural and urban forest management. Forest inventory data provides objective information on the diversity, health and size of forests. Wisconsin's forest inventories are the state's primary data source for many national and global forest assessments.











#### **COLLECTING SEED FOR TOMORROW'S SEEDLINGS**

In August, a crew of DNR Reforestation technicians and contracted laborers gathered at the DNR's Greenwood Seed Orchard near Hancock, Wisconsin, to collect jack pine cones. University of Wisconsin (UW) System research specialist Stuart Seaborne works closely with Wisconsin's Tree Improvement Program and leads the collection efforts.

To collect the seed, branches were trimmed from the trees to make the seed accessible and easier to harvest. Workers then clipped or stripped the cones from the branches. By the end of the week, more than 62 bushels of seed had been harvested. When cleaned, 16.74 pounds of seed resulted. The Reforestation program tested the seed, finding an 84% germination rate that should yield approximately 714,000 jack pine seedlings.

The DNR implements the USDA Forest Service's Forest Inventory and Analysis program at a double spatial intensity, meaning that twice as many plots are established and revisited than the national baseline. Similarly, the Urban Forest Inventory and Analysis program is implemented at five times spatial intensity. The state also coordinates the Wisconsin Continuous Forest Inventory program on all state forests, with one plot per 160 acres of State Forest land. These projects allow the DNR and partners to analyze trends in growth, removals, mortality and many other characteristics of our forests.

The Forest Regeneration Monitoring program was initiated in 2018 to assess the regeneration of recently harvested public and private forests across the state. Stands are remeasured every three years, with new stands incorporated each year. The 2024 measurement season marked the beginning of the third data collection cycle.

This means recently harvested stands are now being visited and sampled for the third time. Data collected using the Forest Regeneration Metric will track long-term changes in regeneration and help create policies to ensure the long-term sustainability of Wisconsin's forests.

The Wisconsin Forest Inventory and Reporting System (WisFIRS) enables foresters to store data collected in the field and is used to plan and track completed activities. The system allows foresters and habitat managers to plan for future plantings and report accomplishments.

In 2024, the DNR published a new dataset of tree canopy and land cover across Wisconsin's urban areas. This dataset aids in the identification of places lacking tree canopy and can also be used in more advanced analyses to understand where more trees could work best for creating additional canopy.



### SCIENCE AND TECHNICAL ASSISTANCE

Many agencies and programs across Wisconsin offer scientific research and technical assistance for forest conservation, regeneration and tree planting efforts. The UW System is an international leader in forestry and horticultural research. UW-Madison's Division of Extension conducts important research and provides extensive technical assistance.

The DNR is working with the USDA Forest Service and other partners to establish two large-scale research projects that will investigate the use of assisted migration for seed sources to increase the adaptation and resilience of future Wisconsin forests to a changing climate. The Desired Regeneration through Assisted Migration project is investigating whether seedlings of both native

and non-native tree species can be successfully used in reforestation efforts using current best management practices. Seedlings have been sourced from areas that currently experience climates similar to those expected in Wisconsin in 50 and 100 years. Seed sources and species that are successful could be used in future forest regeneration efforts in the state. Site preparations for this study were well underway in 2024; the planting of seedlings at five sites in the northern half of the state is set to begin in May 2025.

The second project is the Adaptive Silviculture for Climate Change (ASCC) study, located in the Driftless Area. This is a multi-state collaborative project between lowa, Wisconsin and Minnesota that will study the long-term ecosystem responses to a range of climate adaptation strategies in the oak-hickory forests of the Driftless Area. The Driftless ASCC project is part of a larger network of research sites in different forest ecosystems throughout the United States and Canada. The primary goal of ASCC is to provide forest managers with robust examples of how to integrate climate change adaptation into silvicultural decision-making and on-the-ground actions, including tree planting and assisted migration practices.

The DNR is partnering with the UW Environmental Spectroscopy Laboratory and the USDA Forest Service to develop and test methods for mapping lingering green ash from hyperspectral imagery taken from a plane. In the spring and summer of 2023, imaging surveys were flown over sites scattered across southeastern Wisconsin, comprised mainly of southern hardwood communities of floodplains and swamps. The image acquisitions covered an area of more than 15,500 acres (24 square miles) at 1-meter nominal resolution. Preliminary analyses have suggested methods for identifying green ash and distinguishing it from other native tree species. Work on this project is ongoing; in 2024, it was focused on refining models and generating maps of lingering ash through ground-truthing identified ash individuals within each imaging transect.

A novel way of sharing technical information is through SilviCast, a podcast devoted to silviculture: the science, the practice and the art of forestry. It explores current topics in forest management, highlights innovative practices and interviews practitioners and researchers to solve the challenges faced by today's managers. The goal is to help foresters translate current research into reality. The show is tailored specifically for foresters and other land managers, whether it's listening at the office or in the truck on the way to the field. Silvicast is a UW-Stevens Point Wisconsin Forestry Center project and is hosted by DNR's silviculturists Greg Edge and Brad Hutnik. Recent episodes related to tree planting include "An Old-New Idea: Cluster Planting," a look at the Euro-



## TESTING SWAMP WHITE OAK AT THE OCONTO COUNTY FOREST

In the spring of 2024, DNR forester Steve Kaufman worked with Oconto County Forestry and contractors to plant a 115-acre green ash stand with over 80,000 swamp white oaks and 300 sycamore seedlings. This project was completed with funds from the U.S. Environmental Protection Agency's Great Lakes Restoration Initiative.

Different ages, sources and stock types of swamp white oak were planted at the site to determine their effect on survival and success in converting the forest stand to oak, which may be more resilient to future disturbances. Swamp white oak was selected due to its ability to handle wetness, competition and deer browse. Several natural swamp white oaks were on the site before the planting.





pean practice of planting trees in small functional groups, and "Ash: A Lingering Hope," exploring the current state of emerald ash borer resistance breeding. SilviCast is entering its sixth season and has been downloaded more than 60,000 times by listeners from at least 64 countries.

## TREE PROTECTION THROUGH MANAGEMENT

DNR Forest Health staff monitor pests, diseases and invasive plants in public and private forests. They share guidance on prevention and management to minimize losses from these threats. Staff also work with the Reforestation program to ensure all planting stock produced by the state nursery is healthy and free from diseases that could emerge when seedlings are planted.

DNR Forest Health staff continue to work on determining the effectiveness of new oak wilt management methods. Oak wilt is a serious disease, mostly of red oak species in Wisconsin, that results in significant tree mortality. More tools are needed to contain the belowground spread of the disease to minimize the mortality of oaks. Minimizing the impacts of oak wilt is critical to maintaining healthy oak stands in Wisconsin. Results about the effectiveness of the girdleherbicide oak wilt management method were published, and a new research project is underway to evaluate the effectiveness of rapid-response treatment of single-infected oak trees.

European spongy moth caterpillars were present in very high numbers again in 2024, but wet spring weather promoted several diseases that resulted in major caterpillar mortality. Spongy moths feed on more than 300 species of deciduous and evergreen trees. Trees can typically recover from defoliation, but repeated years of defoliation combined with other stressors, including drought and two-lined chestnut borer, can lead to tree decline and mortality. To minimize the impacts of this current outbreak, the Spongy Moth Resource Center webpage was overhauled to provide easier access to management advice for forest landowners. DNR Forest Health staff conducted a variety of outreach activities, including sharing management information at landowner conferences and releasing additional videos demonstrating spongy moth management techniques.

## FOREST PRODUCT MARKETS AND INNOVATION

Healthy markets are vital to sustainable forest management and keeping forests as forests. Wisconsin's 1,000 forest product manufacturers help maintain forest health by generating economic revenue, incentivizing forest management and discouraging land use changes. A lack of demand for forest resources would reduce the capacity to manage and promote healthy forests for the future.

The DNR Forest Products Services program offers technical assistance and training to businesses

interested in utilizing and marketing sustainable forestry products. In 2024, the Forest Products Services program hosted local use dimension lumber courses to certify 71 individuals to mill, grade and sell dimension lumber. This unique program allows Wisconsin sawmills to mill structural framing lumber for residential construction using native species without the need for a grade stamp. This certification program supports markets with locally produced wood products that aim to sequester more carbon via wood product utilization, industry growth and sustainable forest management.

The Forest Products Services program continued work with the biochar trial at Wilson State Nursery in Boscobel to support new market development in Wisconsin. The trial was included in a USDA Forest Service publication regarding biochar production.

Urban wood is also a focus. Last fall, DNR Forest Products Services staff participated in the Urban Wood Fest in Milwaukee. The event had a variety of booths showcasing the work of local woodworkers and organizations, including a DNR booth sharing information on urban wood utilization. Visitors enjoyed live woodworking demonstrations, portable sawmill operations and a biochar demonstration, which offered hands-on insight into the many uses and benefits of urban wood.

An ongoing study for the Forest Products Services program is the feasibility of Eastern white pine in cross-laminated timber panels. The lumber, which was sawn by Krueger Lumber, was delivered to Michigan Technological University, where panels will be constructed under industry standards. Once the panels are prepared, tests will be conducted at Michigan Technological University and the USDA Forest Service's Forest Products Lab in Madison to determine the feasibility of use in commercial applications.













### **ENVIRONMENTAL EDUCATION**

The DNR supports environmental education through program funding and partnerships. Annually, the DNR funds the Wisconsin Center for Environmental Education at UW-Stevens Point. The funding supports a K-12 forestry education program known as LEAF, Wisconsin's implementation of the Project Learning Tree program that uses trees and forests to teach students how to think critically about the environment. Funding also supports the Wisconsin School Forest Program's network of outdoor classrooms.

The DNR also provides annual funding to the Forest Exploration Center to manage a state-owned

property in Milwaukee County for forestry education, helping to reconnect Wisconsin's largest urban population with our natural resources.

The DNR collaborates with partners throughout the state to celebrate Arbor Day every April, raising awareness of the importance of trees and forests to the state and its residents. For more than 40 years, the DNR has supported schools in their Arbor Day programs by supplying free tree seedlings to fourth-grade classrooms. In 2024, 49,000 seedlings were given away to fourth graders. Many projects receiving DNR grants also include educational components.

#### **CONSERVATION FINANCE**

The DNR has several donation programs that aid forest conservation and tree-planting efforts. There are dedicated gift funds from individuals or companies for tree planting and a general "Forest for the Future" gift fund for small donations that support tree planting. Each of these gift funds targets tree-planting activities on state lands.

2024 was the second year that the DNR participated in the "Run for the Trees: Happy Little 5K." This virtual race program is inspired by artist Bob

Ross, with a portion of the proceeds going to tree planting and forest health efforts in Wisconsin state parks, forests, trails and recreation areas. The "Happy Little 5K" began in 2019 when the Michigan DNR, Bob Ross Inc. and hundreds of volunteers partnered to plant trees in locations across Michigan. The program has since expanded to 13 states, and in 2024, 946 people participated in the race representing Wisconsin, raising more than \$16,000.





achieve Wisconsin's Trillion Trees Pledge.

Key participating agencies and partners include:

- » Wisconsin Department of Natural Resources
- **»** Wisconsin Department of Administration
- » Wisconsin Department of Transportation
- » Wisconsin Department of Agriculture, **Trade and Consumer Protection**
- » Wisconsin Department of Workforce **Development**

- » Wisconsin Technical College System
- » The Nature Conservancy
- » Wisconsin Council on Forestry and associated forest community and industry representatives
- » Alliant Energy Foundation
- » Milwaukee Metropolitan Sewerage District
- » Wisconsin DNR Green Tier Charter for **Climate Action participants**
- » Wisconsin School Forest Program
- » LEAF Wisconsin's K-12 Forestry Education **Program**

To garner the interest and involvement of all Wisconsin citizens in the Trillion Trees Pledge, the DNR created an interactive Wisconsin Tree Planting Map, where landowners can submit the locations of their planted trees to be counted towards the goal. In 2024, tree planters submitted 68,475 trees through the map, of which 46,112 were supplied by the state nursery program and the remainder provided by other nurseries. When submitting trees to the map, landowners are asked to provide additional information about the plantings, including the number, type and source of trees.

The Alliant Energy Foundation funded the planting of 583 trees through the Trees Forever program. Alliant Energy, Trees Forever and communities in Wisconsin work together to plan, fund and implement community tree-planting projects. The program is designed to encourage energy efficiency, environmental awareness and community stewardship.

This year, LEAF – Wisconsin's K-12 Forestry Education Program joined the DNR's Reforestation program to collaborate with Wisconsin's School Forest program to involve students in seed collection efforts. This effort served two purposes. Students were able to learn about tree reproduction, tree growth and the role forests play in sustainability. In addition, the seeds collected will be used to grow seedlings to help celebrate the Wisconsin School Forest Centennial in 2027-2028. The goal is to collect tree seeds from school forests now to have seedling stock ready to be planted back into school forests for the Centennial.







PHOTOS FROM LEAF — WISCONSIN'S K-12 FORESTRY EDUCATION PROGRAM



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