

Wisconsin's Trillion Tree Pledge 2021 Annual Report

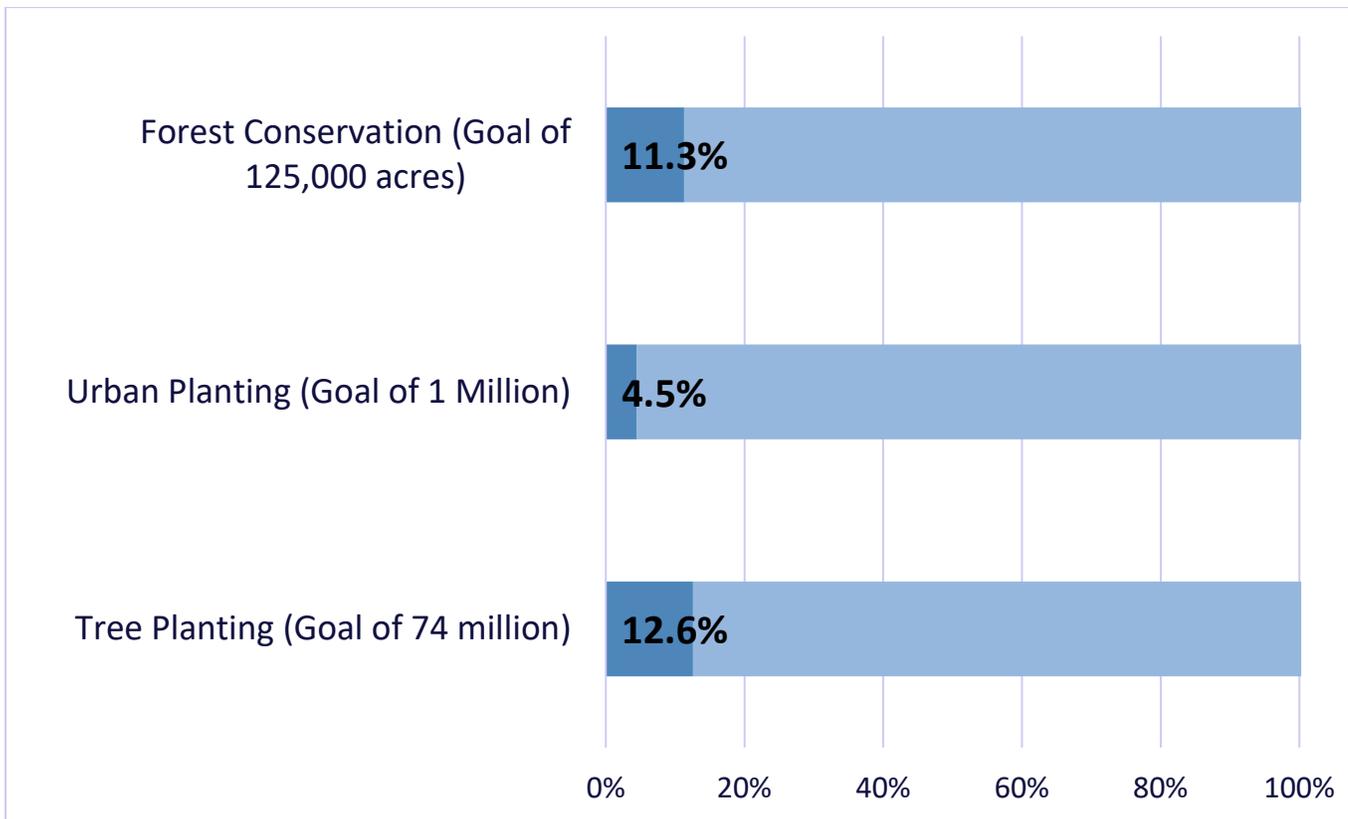


January-December 2021



On Earth Day 2021, the State of Wisconsin pledged to protect and conserve 125,000 acres of forestland and plant 75 million trees by the end of 2030 in collaboration with public, private and non-governmental partners as part of the U.S. Chapter of the Global Trillion Trees Initiative. Wisconsin’s pledge focuses on the stewardship of forests and trees in both rural and urban areas. Because urban forests are vital for the health of residents and the ecological and economic well-being of our communities, the pledge includes planting a million trees in Wisconsin cities, villages, and suburbs by 2030. Associated benefits of urban tree planting include improved public health, reduced city temperatures (heat islands), stormwater reduction, reduced heating and cooling costs, improved air quality, increased property values and other co-benefits. The pledge focuses on planting native species that ensure forests sustain environmental, social, and economic benefits.

2021 Progress towards Wisconsin’s Trillion Tree Pledge



Tree Planting

Over 9.3 million trees were planted in 2021 during the first year of Wisconsin's Trillion Tree Pledge. The Wisconsin Department of Natural Resources (DNR) Reforestation Program supplied over 4.8 million tree and shrub seedlings for tree planting efforts on public and private lands in 2021. Highlights include:

- 2.7 million seedlings were planted on private lands
- 1.1 million seedlings were planted on DNR lands
- Over 500,000 seedlings were planted on county forests
- Over 42,000 seedlings were planted on school forests
- Over 45,000 seedlings were given away to students on Arbor Day

The DNR's Reforestation Program also distributed 349.67 pounds and 134 bushels (1,072 gallons) of seeds, or approximately 31.4 million seeds, resulting in 3.5 million trees based on current survival rates.

While partners purchased trees from the DNR, they also planted over 1 million trees purchased from other sources. Wisconsin communities planted more than 45,000 trees, about 2,800 of which were helped by Urban Forestry grants.

Forest Conservation

The State of Wisconsin, in collaboration with public, private, and non-governmental partners, is pledging to conserve 125,000 acres of forestland.



Photo Courtesy of Nick Morehouse

At Devils Lake State Park in 2021, 15,500 oaks, black walnut, and shagbark hickory were planted in a 6-acre former agricultural field. The goals of the planting are to maintain the forests in the area, create wildlife habitat, and produce future forest products.



Photo Courtesy of Nick Morehouse

In 2021, the DNR acquired a 12,497-acre conservation easement in Oneida County. Partners conserved an additional 1,600 acres of forestland throughout Wisconsin. To achieve the ambitious goal of preserving 125,000 acres of forestland over the next 10 years, we rely on continued financial support from the Knowles-Nelson Stewardship Fund and the Forest Legacy Program to acquire lands by the DNR, County Forests and non-governmental entities. The Knowles-Nelson Stewardship Program, which started in 1989, makes it possible for conservation organizations and the DNR to purchase land that protects our lakes and streams, conserves working forests, secures critical wildlife habitats, and provides opportunities for outdoor recreation. The Forest Legacy Program started in 1990, identifies and protects environmentally important private forestlands threatened with conversion to non-forest uses.

Supporting Actions

In addition to the pledge's primary actions of planting trees and conserving forests, it also includes many supporting actions which help enable tree planting and forest conservation to occur more effectively and efficiently by creating healthy forests, supporting a strong forestry sector, and providing technical assistance.

Sustainable Forestry

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 nearly 70,000 acres of state lands managed by the Board of Commissioners of Public Lands are certified under the Forest Stewardship Council®. Another 2.3 million acres of county forest land are certified under one or both standards. Additionally, 2.5 million acres of private lands under the Managed Forest Law Program, administered by the state, are dual certified under the American Tree Farm System® and Forest Stewardship Council® standards. Independent, third-party certification ensures that forests are responsibly managed and safeguards environmental, social and economic benefits. By sourcing products from certified forests, publishers, building contractors and manufacturers, the DNR can ensure that these parties do not contribute to deforestation or other harmful land management practices.

Nursery Development

The DNR's Reforestation Program continues producing seedlings in conjunction with private nurseries to supply demand from the tree planting community while maintaining its ability to increase production at other state-owned nursery facilities. The seeds for state nursery production are procured from sources throughout the state to foster genetic diversity in seedlings, seed storage and preservation.

Discussions also occurred last year between the DNR, urban forestry groups and private nurseries to encourage nursery capacity growth, as it takes many years to develop trees for purchase.

Finally, communities across the state continued to build or expand their own gravel beds with the purpose of growing their own bare root stock. The gravel beds allow bare-root trees to develop an abundant root system, ultimately making tree planting easier and less expensive.

Data and Technological Tools

Wisconsin has several forest inventory programs that provide valuable data regarding rural and urban forest management. The DNR implements the U.S. Forest Service's Forest Inventory and Analysis Program at a double spatial intensity, reducing error and increasing tree numbers' accuracy, including stocking to identify cover types that are understocked. 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. The inventory data for Wisconsin forests provides objective and credible information on the status, conditions, and trends in



Photo Courtesy of Jeremiah Auer

Lifting spruce trees at Wilson State Nursery in Boscobel, Wisconsin. The reforestation team distributed 425,618 white and black spruce in 2021.

Wisconsin's forests and is the primary official data source to a number of national and global assessments.

The Forest Regeneration Monitoring Program was initiated in 2018 to better assess the status and progression of naturally regenerating forests across the state. The first three-year data collection was completed in 2020 and the second cycle started in 2021. The information collected allows better tracking of long-term changes to our forests and will help create forestry policies and guidelines to ensure the long-term sustainability of the forest resource. The data from the program also will aid in the development of other key products that may further improve forest management in Wisconsin.

Finally, the Wisconsin Field Inventory and Report System (WisFIRS) enables foresters to store data collected in the field, used to plan and track completed treatments. These programs provide high-quality data for all of Wisconsin's forest types and allow foresters and habitat managers to plan for future plantings and report accomplishments.

Science and Technical Assistance

Many agencies and programs within Wisconsin offer key scientific research and technical assistance for forest conservation, regeneration and tree planting efforts. The University of Wisconsin 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 has numerous programs engaged in forestry research and



Photo courtesy of Brad Hutnik

A 2009 Lower Wisconsin State Riverway tree planting of sycamore and other bottomland tree species is being tracked to inform lowland tree planting opportunities in the future. Projects like this enhance both climate change adaptation and mitigation.

technical assistance for forest management and tree plantings, such as the Forest Economics and Ecology Section and the Urban Forestry Program. The Urban Forestry program helps “plant” sustainable urban forestry practices through guidance, training events, conferences, and grant funding. These programs have collaborated on climate change field guides for [northern](#), [southern](#) Wisconsin forests and the [Driftless Adaptive Silviculture for Climate Change Project](#). The Driftless Project is an innovative multi-State partnership and long-term study testing silvicultural strategies to sustainably manage Driftless Area oak forests under a changing climate. The project goals are to introduce forest managers to climate change tools and approaches and provide examples of how to integrate climate change adaptation into forest management planning and on-the-ground actions.

Tree Protection through Management

The DNR’s forest health staff monitors pests, diseases and invasive plants in public and private forests. They share guidance on prevention and management to minimize losses from these threats. Staff members also work with the reforestation program to ensure all planting stock produced by the state nursery is healthy and carries no infection that could emerge when seedlings are planted in more challenging natural conditions.

While healthy forests can typically survive some damage from native pests without the need for intervention, invasive pests, diseases and plants can cause significant damage if preventative action is not taken. The DNR dedicates funds for invasive species management on public lands. The Weed Management Area-Private Forest Grant Program assists weed management groups in addressing invasives plants through grants that cover up to 75% of eligible costs. Additional state programs provide treatment funds for private landowners (e.g., the Wisconsin Forest Landowner Grant Program), local governments and community organizations (e.g., urban forestry grants). Technical assistance to these audiences is available.

Forest Product Markets and Innovation

Healthy markets are vital to sustainable forest management and keeping forests as forests. Wisconsin’s 1,200 forest product manufacturers help maintain forest health by generating economic revenue, which incentivizes forest management and discourages land-use changes.

A lack of demand for forest resources will reduce the capacity to manage and promote healthy forests for the future. The DNR Forest Products Services Program offers technical assistance to businesses interested in implementing sustainable forestry practices. The program also explores and promotes markets with locally-produced wood products that aim to sequester more carbon via wood product utilization, industry growth and sustainable forest management.

Environmental Education

Wisconsin supports environmental education by annually funding forestry education programs administered by the Wisconsin Center for Environmental Education through the UW-Stevens Point. The funding supports a K-12 forestry education program known as LEAF, Wisconsin's implementation of Project Learning Tree (a national environmental education program that uses trees and forests as the vehicle to teach students how to think critically about the environment) and the Wisconsin school forest program, a network of outdoor classrooms. Additionally, a curriculum was developed by the Wisconsin Center for Environmental Education and DNR urban forestry staff to help teachers and students map trees on their school campuses.

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 department collaborates with partners throughout the state to celebrate Arbor Day every April and raise awareness of trees and forests' importance to the state and its residents. To support schools with their Arbor Day programs, for the past 40 years, the DNR has supplied free tree seedlings to fourth-grade classrooms. Lastly, many projects receiving DNR grants (e.g., from the urban forestry program) include educational components.

Conservation Finance

The DNR supports several donation programs that aid forest conservation and tree planting efforts. There are dedicated gift funds from private 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.

Partners

The State of Wisconsin works across multiple agencies and with many government, non-profit and private partners to safeguard Wisconsin’s natural resources and serve its citizens. Some of these participating agencies and partners are listed below.

- Department of Natural Resources
- Department of Administration
- Department of Transportation
- Department of Agriculture, Trade and Consumer Protection
- Department of Workforce Development
- Board of Commissioners of Public Lands
- Wisconsin County Forest Association
- University of Wisconsin System
- Wisconsin Technical College System
- Nature Conservancy
- Council on Forestry and associated forest community and industry representatives

In 2021, the DNR partnered with the Alliant Energy to commit to planting 1 million trees in Iowa and Wisconsin over the next 10 years.