

WISCONSIN COUNCIL ON
FORESTRY

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Biennial Report
2019–2020

This biennial report is required by state statute 26.02(2). The purpose is for the Council on Forestry to report on the status of the state § 26.02(2) (a) 1-10. Additionally, the Council chose to report on its accomplishments during the time period covered by this report.

The Council was assisted by the Wisconsin Department of Natural Resources – Division of Forestry (WWDNR) with drafting this report. Review and final approval was done by the Council at their May 2021 meeting.

The Council thanks the following for assistance in preparing this report: Brian Anderson, Mary Bartkowiak, Faye Bokelman, Dan Buckler, Collin Buntrock, Andrea Diss-Torrance, Rebecca Diebel, Ron Gropp, Kirsten Held, Kristin Lambert, Laura Lorentz, Bill McNee, Skya Murphy, Kyoko Scanlon, Jeff Simon, Nicolle Spafford, Jeff Stagg.

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EXECUTIVE SUMMARY

The Wisconsin Council on Forestry is a board appointed by the Governor and comprised of individuals representing the state's diverse forest stakeholders. Wisconsin State Statute 26.02 created the Council on Forestry with a charge to advise the Governor, the Legislature, the Department of Natural Resources, the Department of Commerce (now Wisconsin Economic Development Corporation), and other state agencies, as determined to be appropriate by the council, on the varied aspects of forestry in this state. The Council is required to prepare a biennial report on the status of the state's forest resources and forestry industry. This report is prepared in odd-numbered years for distribution to the governor and the appropriate standing committees of the state legislature. It covers the 24-month period ending on December 31 immediately preceding the date of the report. This report also provides the status of the state's resources and forest industry as required by state statute.

The Wisconsin forestry community's strength is rooted in the cohesiveness of its member's dedication to the stewardship of our forest resources, industry, workforce, and public and private forestland owners. Over time, this community has excelled at adjusting and maintaining the flexibility to adapt to diverse challenges. The Council on Forestry and our forest resource stakeholders continued to exhibit this strength over the 2019 - 2020 biennium.

Wisconsin's forests continue to evolve as well. Wisconsin forests are growing at a rate that significantly exceeds harvest. Between 2013 and 2019, average net annual growth exceeded harvests and other removals by 307 million cubic feet (mortality is taken into account when calculating net growth). Growing stock average annual mortality was 246 million cubic feet. Average annual removals were 255 million cubic feet, about 45% of average net annual growth. Overall growing stock volume on Wisconsin forest land has increased steadily since the first forest inventory in 1936 (7.6 billion cubic feet) to the 2019 inventory (23.2 billion cubic feet).

Wisconsin urban forests, include 554,868 acres of woody vegetation with that canopied acreage making up almost 29% of the state's urban lands, and about 1.6% of the state's total land. There are currently over 839,000 trees listed in the Wisconsin Community Tree Map, a compilation of tree inventories from around the state.

Challenges faced by our forests over this period included weather events, insects, and disease as well as invasive species. Statewide annual precipitation was the highest on record in 2019. High water levels have resulted in continuing, multi-species decline and mortality at many low-lying forest sites and along the edge of many lakes, rivers and ponds. On July 19-20, 2019 a pair of strong storm systems passed through Wisconsin and caused more than 286,000 acres of wind damage to forests in northern and central Wisconsin. The heaviest damage was associated with straight-line winds, but the storm systems also spawned a total of tornados. Top insect and disease related challenges include emerald ash borer, gypsy moth, oak wilt, and Heterobasidion root disease (HRD). Work continued with the prevention and control of invasive plants in Wisconsin's forests, both public and private. Efforts included education and outreach, support for weed management groups, and suppression and control of priority invasive plants.

The predominant forest product harvested from Wisconsin's forests is roundwood for pulp and paper. Saw logs are second in prominence followed by a variety of other forest products. Hardwood species comprise over 70% of total roundwood production in Wisconsin. The forest products industry in Wisconsin supports 63,624 jobs and generates \$24.3 billion in value to the state's economy. The pulp

and paper sector is the largest employer with 30,262 jobs followed by sawmills and other wood products with 27,618 jobs. These businesses generate over \$150 million in direct taxes.

Wisconsin's forest product industry creates high paying jobs. In all, the forest products industry contributes about \$4.2 billion per year in wages to Wisconsin's economy. Forest-based recreationists annually spend approximately \$2 billion within Wisconsin communities. This spending stimulates the economy further and it is estimated that forest-based recreation is a \$5.5 billion-dollar industry. Clean water and air are among other multitude of benefits of healthy managed forests.

Wisconsin's forests face urgent new challenges that threaten jobs as well as the health and productivity of one of the state's greatest natural assets. The effects of a changing climate are altering how our forests grow and develop and are forcing disruptions in how we manage forests. A globally changing economy and the Coronavirus pandemic have also created urgent challenges to the economic viability of our forestry sector:

- Prices for hardwood sawtimber, one of our staple forest products, have been depressed since the downturn of 2008.
- The prices and demand within our hardwood and softwood pulp sectors have been increasingly unstable in recent years.
- The recent closure of the Verso paper mills in Wisconsin Rapids (and Duluth, Minnesota) eliminated what had been a large and stable outlet for pulpwood for over a century. In addition to the direct loss of over 900 jobs.

Market growth for Wisconsin forest products could have significant economic opportunities in the state. These opportunities include job creation, business retention and growth, and captured value in underutilized forest resources. Bio-refining, emerging applications for nanocellulose, and growth in packaging grade papers show promise for the pulp and paper mills in the state. The development of new products and markets hold promise as viable opportunities, yet it is important to not lose sight of traditional or established products and industries. Mass timber products (e.g. cross-laminated timber), thermally modified wood, and engineered wood products present opportunities for sawmills and wood manufacturers to diversify their product offerings.

Urban forests in Wisconsin provide myriad ecological, social and economic benefits. Recent estimates show Wisconsin's urban forests annually remove 7,400 tons of air pollution valued at \$45.3 million, annually sequester 334,000 tons of carbon valued at \$43.3 million, store 11.4 million tons of carbon valued at \$1.5 billion and annually provide residential energy savings valued at \$81.5 million.

Wisconsin's forests are owned by a variety of public and private entities. An estimated 70 percent of forest land in Wisconsin (11.8 million acres) is privately owned, with family forest owner's owning an estimated 9.7 million acres. Corporations own an estimated 1.5 million acres, Native American tribes own 0.4 million acres, and other private owners, including conservation organizations and unincorporated clubs and partnerships, own an estimated 0.3 million acres. In Wisconsin the number of private forest landowners is increasing, but the acreage of private forest land may have plateaued.

Forest industry and other companies own 12% of Wisconsin's forests. Recent purchases of conservation easements using funds from the federal Forest Legacy Program (FLP) and the state Knowles-Nelson Stewardship Fund protected 14,350 acres of private timberland. In Wisconsin, working forest conservation easements on privately owned timberlands now protect over 290,000 acres; conservation values protected include critical wildlife habitat, lakes, rivers, and wetlands, along with providing public

access for recreation activities. A recent study on the economic contributions of land protected by conservation easements through suggests working forests conserved through working forest easements contribute substantially to rural economies.

Although many private individual owners hold forestland for uses other than producing forest products, 88% of family forest owners have cut and/or removed trees for sale or personal use within the last five years, and nearly the same percentage intend to cut and/or remove trees in the next five years. The top five issues that family forest landowners are most concerned about for their woodlands are high property taxes, trespassing or poaching, keeping the land intact for future generations, misuse of their forest, such as dumping, and unwanted insects or diseases.

Private forest landowners are encouraged to sustainably manage their woodlands through two property tax incentive programs, the Managed Forest Law (MFL) and the Forest Crop Law (FCL). The FCL program closed to new enrollments in 1985 after the Wisconsin State Legislature enacted the MFL program. The MFL program continues to grow each year. As of 2021, the program includes 50,806 MFL entries covering 3,475,333 acres. Of those lands, 29.4% (1,021,865, acres) are open to public access. There are 433 entries in the FCL program comprising 49,604 acres. All lands in FCL are open to public hunting and fishing.

The Urban Forestry grant program provides 50-50 cost-share funds to Wisconsin cities, villages, towns, counties, tribal governments, and 501(c) (3) nonprofit organizations to improve their ability to manage the community urban forest resource. A total of \$959,761.28 was awarded for priority projects in 2019 and 2020. The Urban Forestry grant program was oversubscribed in both of the last two years. In 2019 \$196,079.91, approximately 27% of eligible requests went unmet. In 2020 \$313,519.08, approximately, 43% of eligible requests went unmet.

The 2019-2020 biennium for the Council was a busy period of transition with leadership, new members, new strategic planning efforts, along with adjustments in 2020 for COVID 19 meeting logistics. To better fulfill the Council's role to advise the governor, legislature, Department of Natural Resources, and other state agencies on a host of forestry issues, the Council went through a strategic review and planning effort that began early in 2020. Top Five Strategic Council Goals:

- Enhance the Council on Forestry's profile and ability to be viewed as the source of expertise on broad forestry topics in Wisconsin.
- Explore options for stable state funding for forestry and the programs the WDNR's budget support.
- Raise awareness, and advocate for, the critical role our state's transportation infrastructure plays in supporting our timber industry.
- Promote the benefits of sound forest management and policies that provide ecological, economic, social and cultural benefits for present and future generations.
- Research, promote and support efforts to increase utilization of the State's forest products.

The Council continued to be an active voice on a number of issues weighing in with statements on a variety of topics including climate change, rural prosperity, state budget and funding, and water quality. In November 2020, The Council, with the WDNR and Wisconsin Economic Development Corporation (WEDC), embarked on an effort focused on cross-sector collaboration to engage stakeholders across Wisconsin's forest products economy to identify priorities that will help the state better understand and

capitalize on enhancing existing timber industries and establishing new market opportunities for Wisconsin's forest products. This effort will continue into the next biennium.

This report is available at: <https://councilonforestry.wi.gov/Pages/BiennialReport.aspx>

Respectively Submitted:



A handwritten signature in black ink that reads "Thomas J. Hittle".

Thomas Hittle
Council on Forestry Chair

A handwritten signature in black ink that reads "Matt Dallman".

Matt Dallman
Council on Forestry Vice Chair

CHAIR'S INTRODUCTION

Wisconsin's forest resources cover 17 million acres and includes millions of urban trees that together enhance our state's environmental quality, support our wood using industries, and overall add to all state resident's quality of life.

Our forests and forest industry are a significant part of our state's history and culture dating back well over 100 years. The appointment of E.M. Griffith as the first state forester in 1904 began the formal discussion and process of sustainable forest management in Wisconsin. Since then, strong partnerships between state, federal, and county forest and land and natural resource managers, private sector foresters, and forest industry representatives, along with a strong cohort of private forestland owners have tended our forestlands and urban trees with an uncompromised stewardship philosophy. Our forests today exhibit increasing trends of forested acreage with growth figures that exceed the volume we harvest to support our industries.

Serving on the Council, by appointment of the Governor, is an honor that requires a commitment of time, energy and willingness to address numerous challenges confronting Wisconsin's forests and forest owners. Council members are a dedicated and diverse group of individuals engaged in bringing forth a variety of perspectives. These diverse perspectives, combined with existing or newly discovered information, are the basis for solutions which benefit all forest users. The Council strives to strike a balance of addressing issues that span from being current and time sensitive to issues that are on the near horizon as well as topics that are perhaps well off in the future in an effort to meet our statutory charge of advising the Governor, Department of Natural Resources and other state agencies and legislators. The Council sees our role as including efforts to proactively assess a wide host of forestry issues so that we can inform and advise forestry stakeholders and policy makers on actions that can be taken now to mitigate negative or enhance positive long-term outcomes.

Council members volunteer a significant amount of time and energy to further Council efforts but could not be successful in our mission without the support provided by the Department of Natural Resources; support that starts with the Secretaries office, and the Chief State Forester and includes experts from a multitude of WDNR teams.

The Council also greatly appreciates participation and values the input offered by a wide variety of other forest stakeholders and would like to thank those who serve on Council committees and attended Council meetings to provide input and information.

COUNCIL CHARGE

The Wisconsin Council on Forestry was created by State Statute 26.02 in July 2002 to advise the governor, legislature, Department of Natural Resources, Department of Commerce, and other state agencies on a host of forestry issues in the state, including:

1. Protection of forests, from fire, insects, and disease
2. The practice of sustainable forestry, as defined in § 28.04 (1) (e)
3. Reforestation and forestry genetics
4. Management and protection of urban forests
5. Public knowledge and awareness of forestry issues
6. Forestry research

7. Economic development and employment in the forestry industry
8. Marketing and use of forest products
9. Legislation affecting management of Wisconsin's forest lands
10. Staffing and funding needs for forestry programs conducted by the state

COUNCIL MEMBERS *(During the term of this report)*

During the 2019-2020 biennium, Governor Evers appointed Tom Hittle as Chair of the Council on July 11, 2019 and Mr. Hittle selected Matt Dallman as Vice Chair. The Governor then also opened all positions for new applications and selected the current council members. Chair Hittle and Vice Chair Dallman would like to recognize the excellent Council leadership under preceding Chair Henry Scheinebeck and Vice Chair Jane Severt along with the service of departing Council members Richard Wedepohl, Ken Zabel, Troy Brown, and Senator Tom Tiffany.

Member Name	Representing	Terms Served
Tom Hittle (<i>Chair</i>)	Forest products company that manages forest land	2019 & 2020
Matt Dallman (<i>Vice Chair</i>)	Nonprofit conservation organizations	2019 & 2020
Henry Scheinebeck	Timber Producers Organization	2019 & 2020
Representative Jeff Mursau	Wisconsin Assembly	2019 & 2020
Kenneth Price	Forestry consultants	2019 & 2020
Jason Sjostrom	Industry that uses secondary wood	2019 & 2020
Senator Janet Bewley	Wisconsin Senate	2019 & 2020
Jordan Skiff	Urban and community forestry	2019 & 2020
Paul Strong	U.S. Department of Agriculture	2019 & 2020
James Hoppe	Pulp and paper industry	2019 & 2020
James Kerkman	Society of American Foresters	2019 & 2020
Rebekah Luedtke	County forests	2020
Heather Berklund	Chief State Forester	2020
Buddy Huffaker	Non-industrial, private forest land	2020
William Van Lopik	Conservation education	2020
Representative Beth Meyers	Wisconsin Assembly	2020
Michael Bolton	Labor unions affiliated with the forestry industry	2020
Adena Rissman	Interests of schools of forestry within the state that have curricula in the management of forest resources that are accredited by the Society of American Foresters	2020
Gary Halpin	Lumber industry	2020
Jane Severt	County forests	2019
Fred Souba	Chief State Forester	2019
Richard Wedepohl	Non-industrial, private forest land	2019
Ken Zabel	Conservation education	2019
Senator Tom Tiffany	Wisconsin Senate	2019
Troy Brown	Lumber industry	2019

2019-2020 Council on Forestry Accomplishments

The 2019-2020 biennium for the Council was a busy period of transition with leadership, new members, new strategic planning efforts, along with adjustments in 2020 for COVID 19 meeting logistics. The Council held 10 meetings over this period with meeting locations in Madison, Cable, and Stevens Point. In May 2020 meetings transitioned to online sessions mindful of COVID 19 precautions and state health orders. A variety of informational topics were covered over this period to inform Council members and their stakeholders, along with others who join in the public meetings. Council past meeting agendas, minutes, documents, and recordings for online meetings can be accessed on the Council's website here. <https://councilonforestry.wi.gov/Pages/MeetingsArchive.aspx> A sampling of topics follows:

- Forest Action Plan Updates
- WDNR Research Topics
- Wisconsin Forest Practices Study Outcomes and Follow Up
- State Forestry Related Budgets
- Federal Safe Routes Legislation
- Value Added Wood Manufacturing
- Biochar Technology, Products and Industry
- WDNR Forest Tax Section Updates
- Natural Resources Conservation Service (NRCS) Forestry Programs
- Carbon Credit Markets
- Northwoods Rail Transit and Lake States Shippers Association
- Effects of COVID on the WI Forest Industry, Loggers and Landowners
- Bat Habitat Conservation Plan (HCP) Development
- Environmental Justice
- Climate Change Efforts
- Blue Ribbon Panel on Rural Prosperity Efforts
- Wisconsin Paper Council and Caucus Updates
- Building with Mass Timber
- Forest Health and Storm Damage Salvage from the July 2019 Storm
- WDNR and Partner Private Forest Outreach Efforts
- Chequamegon-Nicolet National Forest Updates
- WDNR Silvicultural Guidance Team Efforts

In addition to these informational topics, in 2019 the Council formed five working, ad hoc committees to focus on topics the Council felt were important to Wisconsin forestry. These included working of rutting during harvest operations, road weight restrictions, wood marketing, water quality, and forest regeneration.

To better fulfill the Council's role to advise the governor, legislature, Department of Natural Resources, and other state agencies on a host of forestry issues, the Council went through a strategic review and planning effort that began early in 2020. It has been 17 years since the Council was established in State Statute and this effort was meant to assure that the Council is operating and focused on how best to achieve their mission and ensure the health and sustainability of Wisconsin forests.

The process consisted of establishing Strategic Goals, which are to be followed by Initiatives and Tactics that will be executed to achieve the Goals. This process set the Council's high-level priorities and ongoing focus. The Council will continue to address additional timely topics as they arise and deemed relative to our mission.

Council members submitted topics that each felt were of high importance to Wisconsin forestry and suitable for the Council to address. A total of 14 goal statements emerged from this discussion. Council members were asked to choose their top five priorities for the Council and then rank those in importance. The outcomes yielded the following:

Top Five Strategic Goals:

- Enhance the Council on Forestry's profile and ability to be viewed as the source of expertise on broad forestry topics in Wisconsin.
- Explore options for stable state funding for forestry and the programs the WDNR's budget support.
- Raise awareness, and advocate for, the critical role our state's transportation infrastructure plays in supporting our timber industry.
- Promote the benefits of sound forest management and policies that provide ecological, economic, social and cultural benefits for present and future generations.
- Research, promote and support efforts to increase utilization of the State's forest products.

The balance of the Strategic Goals not making the top five are listed below. The Council will continue to be mindful of opportunities to advance these topics and include considerations in efforts related to the top five goals.

- Engage partners in the water community so the role forestry plays to maintain our state's water resources is recognized.
- Play an active role in developing and sharing science, tools, policy, and planning strategies to manage for potential climate change impacts.
- Promote the health and economic benefits to WI residents from forests and urban tree cover.
- Act as a conduit to share science and information with forest stakeholder groups to increase forest and industry adaptive capacity to respond to change and stressors.
- Promote management and solutions to mitigate impacts of invasive species on forest composition and regeneration.

- Be an influential part of the discussion on deer populations in order to have forestry considered in deer population management.
- Build shared value and identity around the economic and other benefits that forest-based recreation provides to communities.
- Advocate for career and profitable business opportunities in the timber industry.
- Illuminate the important economic and ecological values stewarded by private woodland owners.

The Council formed five Committees centered on the top five strategic goals, weaving in initiatives started in 2019. Committees, led by Council members include outside forestry community members from a variety of organizations including The Wisconsin Paper Council, Wisconsin Woodland Owners Association, LEAF Program, Wisconsin Green Fire, Domtar, Wildlife Society, Dovetail Partners, Sustainable Forestry Initiative, University of Minnesota, and the Great Lakes Timber Professionals Association.

Over this two-year period the Council weighed in on a number of issues with authored letters. These included:

- January, 2019 [Forestry Funding](#) – Joint Finance Committee
- May, 2019 [Knowles Nelson Stewardship](#) – Joint Finance Committee
- October, 2019 [Safe Routes Act](#) – Senator Baldwin
- January, 2020 [Lake States Forestry Research Collaborative](#) – General Support Letter
- February, 2020 [Water Quality and Forestry](#) – Governor, Speaker’s Task Force on Water Quality
- July, 2020 [Climate Change](#) – Governor’s Climate Change Task Force
- September, 2020 [Rural Prosperity and Forestry](#) – Blue Ribbon Commission on Rural Prosperity
- November, 2020 [Forestry Funding](#) – Governor

The Council was also fortunate to have Governor Evers, Secretary Cole and Deputy Secretary Beth Bier address the group during this period.

Over the last two years, the forestry community and Council were also active in the development of the [State Forest Action Plan](#); a plan that gives voice to the goals of our broader forestry community.

In November 2020, the Council, with the WDNR and Wisconsin Economic Development Corporation (WEDC), embarked on an effort focused on cross-sector collaboration to engage stakeholders across Wisconsin’s forest products economy to identify priorities that will help the state better understand and capitalize on enhancing existing timber industries and establishing new market opportunities for Wisconsin’s forest products. Ultimately this effort is anticipated to facilitate a Regional Economic Development Diversification Summit (REDS) process through the U.S. Economic Development Administration (EDA). A REDS is designed to help local and regional stakeholders leverage federal programs to advance locally-identified economic development priorities. The REDS process aims to catalyze project implementation, utilizing regional partners’ Comprehensive Economic Development Strategies (CEDS) and identified initiatives. Following the Governor’s [request](#) an initial meeting was held in December with the WDNR, WEDC, Regional Planning Commission representatives, EDA staff and Senator Baldwin’s staff. A [white paper overview](#) of this effort is posted on the Council’s website.

2019-2020 Report Content Required by State Statute

1. The magnitude, nature, and extent of the forest resources in Wisconsin

Forest Resources

Of Wisconsin's 35 million acres of land, approximately 17 million acres are forested. Forest area in Wisconsin has been steadily increasing for decades due mainly to the conversion of marginal agricultural land back to forests. Currently forests cover 49% of the total land area of the state. Urban forests (the trees and green space in communities and other built areas) cover an additional 554,868 acres or about 1.6% of the total state land area.

Acres of forest land by forest type

The most abundant forest types in Wisconsin are hardwood forest types. Oak hickory, maple-beech-birch and aspen-birch forest types are the most common. Oak-hickory accounts for 4.5 million acres followed by maple-beech-birch with 3.8 million acres and aspen-birch with 2.9 million acres. While most of Wisconsin's forests are hardwood types, there are also significant softwood types occupying large areas, especially in the north and central parts of the state. Red pine, eastern white pine, tamarack, black spruce, Northern white-cedar and jack pine are the most common conifer forest types.

Species composition by forest type

- The maple-beech-birch forest type is the most common type in the northern part of the state accounting for 28% of all forestland in the region. A predominance of hard and soft maples and basswood characterize this type. Northern red oak, white ash, eastern hemlock, yellow birch and quaking aspen are also common. Maple-beech-birch supports a variety of understory plants and animals.
- Second to maple-beech-birch in the northern part of the state is the aspen-birch forest type. About 23% (2.6 million acres) of the Northern Mixed Forest region is in aspen-birch. Common tree species in this forest type include quaking aspen, bigtooth aspen, paper birch, red maple and balsam fir.
- The Northern Mixed Forest is distinguished in large part by the prevalence of conifers. The most common conifer forest type is spruce-fir accounting for 11% (1.3 million acres) of the Northern Mixed Forest. Spruce-fir forests are fairly diverse and can occur in many moisture regimes. They are the most common wet forests in the north and often surround and blend into bogs. Common tree species in spruce-fir forests include northern white-cedar, tamarack, black spruce, balsam fir and white spruce.
- Nine percent (1.0 million acres) of the Northern Mixed Forest in Wisconsin is pine forest type. Red pine, eastern white pine and jack pine are the most common species that occur in Wisconsin. Forest character can vary from jack pine barrens to red pine plantations and from thick stands of young white pine to old growth stands with pines several hundred years old. Other than pines, common associates of pine forests are eastern hemlock, red maple, quaking aspen, sugar maple and balsam fir.
- The most common forest type in the Southern Broadleaf Forest is oak-hickory. It represents about 51% (2.8 million acres) of the forests in the southern part of the state. Dominant tree species in oak-hickory forests include northern red oak, red maple, white oak, northern pin oak, black oak, basswood, shagbark hickory and bur oak.
- The elm-ash-cottonwood forest type generally is a lowland type that makes up a slightly higher percentage of the southern forests (12%) compared to the north (10%). However, the

Northern Mixed Forest contains a larger acreage of this type (1.0 million acres compared to about 0.6 million acres in the south). Common species in this forest type are black ash, green ash, silver maple and red maple.

- About 10% (0.6 million acres) of the forestland in the Southern Broadleaf Forest is in the maple-beech birch forest type. Species composition is similar to the northern maple-beech-birch forest with sugar maple and basswood being the dominant species. However, there is less hemlock, yellow birch and quaking aspen and an increased occurrence of oaks in the south compared to the northern forests.
- Other forest types of note in southern Wisconsin are white-red-jack pine (0.7 million acres) and aspen-birch (0.3 million acres).

Age class by forest type

Most forests in Wisconsin are 41-80 years old. Approximately 11% are 20 years old or younger and 6% are more than 100 years of age. The forest types proportionally best represented in the younger age class are aspen, oak-hickory, and pine; the latter two predominantly associated with dry sites. The forest types proportionally best represented in the over 100 age classes are oak-hickory, maple-beech-birch and pines.

Volume by species

In 2019, there were 23 billion cubic feet of growing stock volume, of which 6.7 billion or 29% were conifer and 16.6 billion or 71% were hardwood. The highest volume softwood species were eastern white pine, red pine, and northern white-cedar. The highest volume hardwood species were sugar maple, red maple, northern red oak and quaking aspen.

Growth, removals, mortality volume by species

Wisconsin forests are growing at a rate that significantly exceeds harvest. Between 2013 and 2019, average net annual growth exceeded harvests and other removals by 307 million cubic feet (mortality is taken into account when calculating net growth). Growing stock average annual mortality was 246 million cubic feet. During the period between inventories, average annual net growth was 562 million cubic feet. Average annual removals were 255 million cubic feet, about 45% of average net annual growth.

Changes in forest composition

Most of the major trends in Wisconsin forests have remained relatively constant since periodic inventories by the Forest Service began in 1936. Relative proportion of various forest types have changed significantly over the last 70 years. Hardwood succession is very apparent. Since the first official statewide forest inventory in 1936, aspen-birch forest area has decreased steadily.

Since 1936, maple-beech-birch, elm-ash-cottonwood, and oak-hickory forests have increased steadily. Conifer forest area has also increased. Wisconsin forests have increased in age over the past 40 years. In 1968, only 23% of the forests in Wisconsin were over 60 years old. By 2019, the percentage had increased to 52%. Forests more than 100 years old remained at about the same percentage: 6% (887,000 acres in 1968) and 6% (1,090,378 acres in 2019), an increase of 203,378 acres.

Most forest types followed the same pattern as total forest land. The exceptions were the elm-ash cottonwood and white pine forest types which have each maintained about the same percentage of total forest land over 60 years during this time period.

Overall growing stock volume on Wisconsin forest land has increased steadily since the first forest inventory in 1936 (7.6 billion cubic feet) to the 2019 inventory (23.2 billion cubic feet).

Between 2003 and 2018, overall growing stock volume in Wisconsin's forests has increased by more than 16%, or over 3.0 billion cubic feet. Maples, northern red oaks, ashes and white and red pines are some of the commercially important species whose growing stock volume increased. Paper birch, aspen, silver maple, black oak, and jack pine volumes decreased between 2003 and 2018 inventories.

Urban Forest Resources

Wisconsin urban forests, defined here as the area within incorporated cities and villages, include 554,868 acres of woody vegetation, according to a recent Urban Tree Canopy (UTC) assessment based on 2013 aerial imagery. That canopied acreage makes up almost 29% of the state's urban lands, and about 1.6% of the state's total land. The WDNR plans to expand the UTC assessment in the future to look at multiple years' imagery to detect change over time.

Insight into municipally managed urban trees is provided by the Wisconsin Community Tree Map, a compilation of tree inventories from around the state. There are currently over 839,000 trees listed in the database. While diversity across all taxonomic ranks is poor (for example, the three most common genera make up 55.7% of all trees), more recent plantings demonstrate a greater diversity (the top three genera compose 39% of trees planted in the last decade).

The Urban Forest Inventory and Analysis (UFIA) program in Wisconsin is a partnership between USFS and WDNR to establish permanent plots across all urban ownerships. The first field plots were established in 2015 and over seven years, around 1,300 plots will be established in census-defined urban areas of the state. Each of the sites will then be revisited every seven years, enabling the assessment of composition, health, threats and land use of the urban forest over time.

Because residential areas contain most of Wisconsin's urban trees (69%), six-thousand surveys were sent to urban landowners across four cities and their suburbs: Milwaukee, Madison, Green Bay and Wausau. The survey – jointly administered by WDNR, UW-Madison, UW-Extension and USFS – received more than 1,700 responses, providing insights about homeowners' attitudes toward tree care, risks and benefits. Some of the key findings include:

- People value both the personal and community benefits from trees on their properties
- There is a need to address landowners' concerns about property damage
- Interpersonal communication is the most preferred way to learn about urban tree care
- Promoting tree planting requires different strategies for urban versus suburban landowners

Forest Health

Detection, monitoring, and management efforts continued regarding forest insects, diseases, and invasive plants that pose significant threats to the health of Wisconsin's forests. Highlighted below is the status of several key forest health issues.

Weather

Statewide annual precipitation was the highest on record in 2019 (44.6 inches) and was over ten inches greater than in a near-average 2020. Five of the ten wettest years on record in Wisconsin have occurred since 2010 (source: NOAA National Centers for Environmental Information, Climate at a Glance). High water levels have resulted in continuing, multi-species decline and mortality at many low-lying forest

sites and along the edge of many lakes, rivers and ponds (Figure A). Concurrent insect infestation contributed to this mortality in many areas.



Figure A. Heavy tree mortality on a Manitowoc County lowland site where standing water was present on July 31, 2019. Note the surviving trees on higher ground and in the adjacent stand.

Exceptionally cold temperatures in late January and early February 2019 were as low as -49°F in the village of Butternut (Ashland County). Temperatures were cold enough to significantly reduce populations of many insect pests and cause tree root injury if little snow cover was present. Large temperature fluctuations in the late winter and early spring of 2020 may be responsible for the widespread death of many balsam fir trees.

On July 19-20, 2019 a pair of strong storm systems passed through Wisconsin and caused more than 286,000 acres of wind damage to forests in northern and central Wisconsin (Figure B). The heaviest damage was associated with straight-line winds, but the storm systems also spawned a total of 15 EF-0 (light) and EF-1 (moderate) tornadoes (source: National Weather Service).

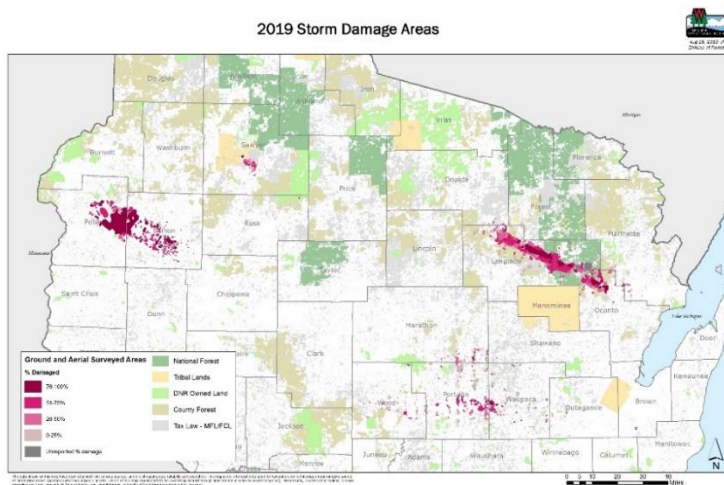


Figure B. Areas damaged by the July 19-20, 2019 storm systems are shown in purple.

Emerald Ash Borer

By the end of 2020, emerald ash borer (*Agrilus planipennis*, EAB) had been found in 58 of Wisconsin's 72 counties (detections at the municipal level are indicated in green, Figure A). State agency staff continue to track the spread of EAB across the state: WDNR and UW Extension staff confirm samples or images of EAB sent by the public and DATCP posts these municipal level confirmations on the [Wisconsin EAB website](#). This invasive beetle is widespread across the southern third of the state. Decline and mortality of ash species is common in this area and both have increased in acreage and severity since mapping of damage began in 2012 (Figure B). In 2019, the damage category of >95% mortality was added where EAB had largely eliminated ash >1 inch DBH from a region. By the end of 2020, >95% of ash trees have been killed by EAB in the first and second tier of counties along Lake Michigan from Fond du lac and Sheboygan south to the border with Illinois. Ash mortality in excess of 50% is typical in southwestern counties. In northern Wisconsin, populations of EAB still appear to be uncommon and scattered and very little EAB related decline of ash has been observed there.

Releases of three biological controls continued at EAB-infested sites on state and municipal properties in 2019-2020 (Figure A). All are tiny parasitoid wasps that specialize on EAB. One of the species released, *Tetrastichus planipennis* has been recovered from release sites in nine eastern counties as of December 2020 indicating successful establishment. Native *Atanycolus sp.* parasitoids have also been found parasitizing EAB larvae at some surveyed sites.

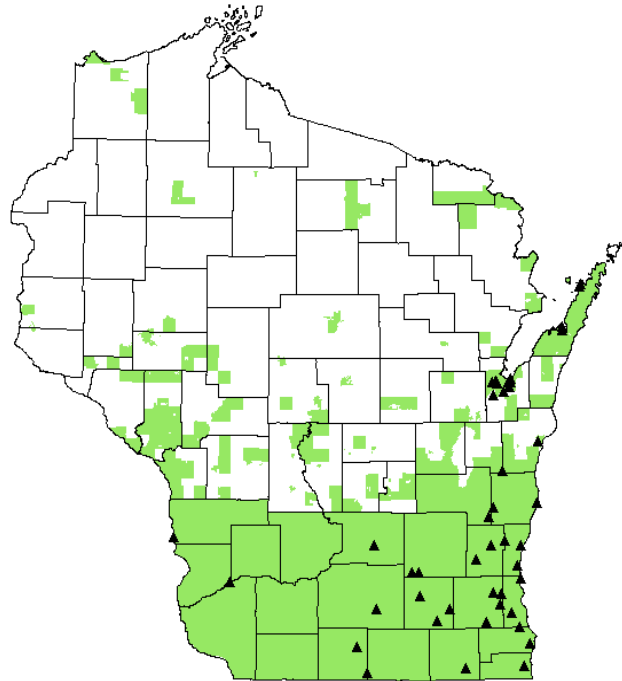


Figure A. As of December 2020, EAB has been confirmed in municipalities indicated in green. Triangles indicate release sites of EAB biological controls

Regulation of EAB remained stable in Wisconsin in 2019 and 2020. The entire state had been placed under quarantine by the federal and state governments in 2018, which allowed free movement of ash and ash wood throughout the state except for Tribal lands (which are independently regulated) and where the gypsy moth quarantine regulates wood movement. Shipment of ash logs and other products out of state to non-quarantined destinations required the receiver to have a compliance agreement with USDA APHIS specifying precautions that would be taken to prevent introduction of the pest. Presence of the quarantines kept the regulation of EAB in NR 40 suspended as quarantines take precedence. EAB is proposed for removal from NR 40 regulation in the next update of that rule planned to start in 2021.

A multi-year revision of the WDNR EAB silviculture guidelines was completed and released in 2020. These guidelines are a resource for site assessment and silvicultural management, and are periodically updated due to EAB spread, regulatory changes, and new silvicultural and scientific studies.



Figure B. Acres of damage to ash caused by EAB from 2012, when damage was first mapped on the landscape scale, to 2020. Orange bars represent acres with >50% decline of ash, red bars represent acres with >50% mortality, and black bars represent cumulative acres where >95% of ash have died. Quinn Chavez, USDA FS

Gypsy Moth

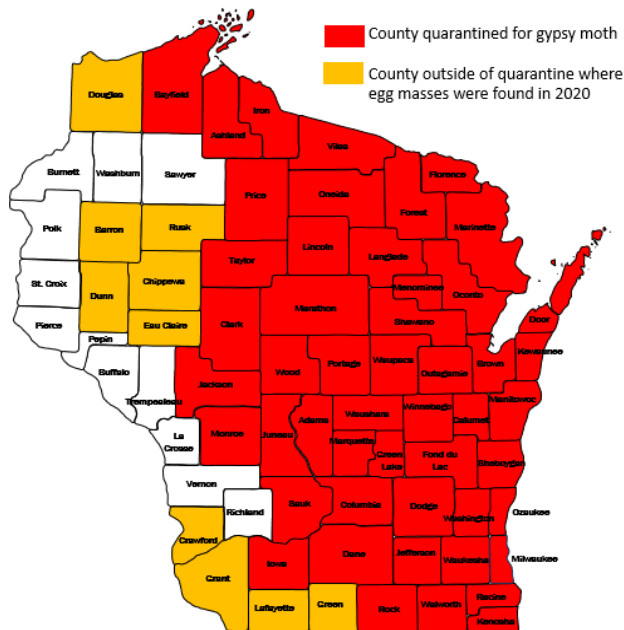


Figure C. Wisconsin counties quarantined for gypsy moth (in red) and those outside the quarantine where egg masses were found in 2020 (in yellow).

Gypsy moth is established in the eastern two-thirds of the state, 50 of Wisconsin's 72 counties are quarantined for this invasive pest (Figure C). In 2020, Wisconsin's DATCP Slow the Spread (STS) program found reproducing but isolated populations in 10 non-quarantined counties, which is typical in recent years. Those locations will be treated to reduce populations to levels where they cannot contribute to spread. Normally, a county is quarantined only when the STS program no longer treats reproducing populations detected there. While there were no counties added to the quarantine between 2015 and 2020, in large part due to the STS program, DATCP is in the process of proposing to USDA APHIS to regulate Eau Claire and Richland in spring 2021.

Gypsy moth populations have remained low in 2019 and 2020, no damage was

mapped in 2019 and only 18 acres were in 2020. Increasing sightings of larvae in 2020 suggest the population may be rising however, and forest health staff alerted foresters and community foresters to be watchful for indications of developing outbreaks. In 2020, guidance on community organization of aerial sprays to suppress gypsy moth or other forest defoliators was posted. This completes guidance for all gypsy moth control options for woodlot owners, communities and homeowners available through the [Wisconsin Gypsy Moth Portal, https://gypsymoth.wi.gov](https://gypsymoth.wi.gov).

Oak Wilt

By 2018, oak wilt (*Bretziella fagacearum*) was generally present in 47 counties, found in one or more sites in 17 counties and not found in 8 counties; 4 in the north and 4 along the Lake Michigan shore line from the Door Peninsula south to Calumet/Manitowoc counties (Fig C). Oak wilt was detected in Sheboygan County for the first time in 2017, and in Bayfield and Douglas counties in 2018. Management of oak wilt focuses on prevention as containing underground spread through a stand by trenching is expensive. State, county, and private lands entered in the Managed Forest Law program must consider precautions to prevent overland transmission of oak wilt during harvests in oak stands. These oak harvesting guidelines were revised in 2016 allowing some flexibility in oak harvesting during the restricted period, based on stand-specific situations. In 2015, the department began a study to determine if oak wilt infections could be contained using herbicides to produce a break in the root grafts between infected and healthy trees. This study will take five years to complete and it is hoped it will provide an alternative option to trenching or uprooting trees for woodlot managers.

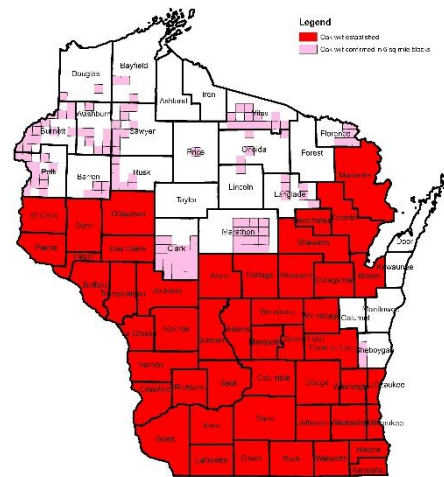


Figure C. 2018 distribution of oak wilt

Heterobasidion Root Disease

Heterobasidion root disease (*Heterobasidion irregulare*, HRD), (formerly known as annosum root rot) one of the most destructive conifer diseases, was first detected in Wisconsin in 1993 in Adams County and has since been found in 28 counties (Figure D). The disease was found for the first time in Monroe County in 2018. Most infections in Wisconsin have been in red and white pine plantations, but mortality has also been observed in spruce plantations. Management focuses on prevention of infection during thinning as it is very hard to control once in a stand. The Stump

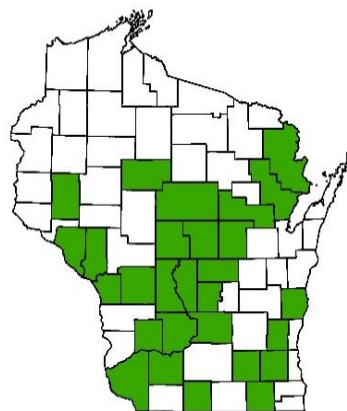


Figure D. Wisconsin counties where HRD has been confirmed (Dec. 2018)

Treatment Guidelines to Reduce the Risk of Introduction and Spread of HRD were revised with an advisory committee in 2018. The revised guidelines allow more flexibility in implementing preventative treatment based on some stand-specific situations. State land managers are required to consider infection risk and treatments to prevent infection during harvesting if the stand is mostly pine and/or spruce, is within 25 miles of an existing infection, and is cut April – November. Private landowners are urged to do similarly.

Terrestrial Invasive Plants

Work continued with the prevention and control of invasive plants in Wisconsin's forests, both public and private. Efforts included education and outreach, support for weed management groups, and suppression and control of priority invasive plants. (For more information on management and regulation of invasive species, see dnr.wi.gov; search: invasive plants.)

Department of Natural Resources Forest Health staff coordinated with partners to provide educational opportunities to foresters, loggers, and landowners on the use of best management practices to help contain the spread of invasive forest plants. Staff also assisted property managers with invasive plant surveys and control efforts on State Forests.

As part of WFLGP, the Weed Management Area-Private Forest Grant Program was administered to Weed Management Groups (WMG) throughout Wisconsin. WMGs controlled invasive plants on non-industrial private forest lands through outreach and education, inventory, control of invasive plants, post-treatment monitoring and preparation of property management plans for invasive plants. Additionally, US Forest Service grant dollars were used to supplement state dollars that assist public and private landowners control pioneer populations of invasive plants in their forests.

Inventory and control of invasive plants on state forests and other forested state properties was conducted to promote forest regeneration. Invasive plant control was performed or administered by WDNR Forestry across approximately 4,255 acres of state land in the reporting years.

2. Current use of forest products and the benefits to the state

The predominant forest product harvested from Wisconsin's forests is roundwood for pulp and paper. Saw logs are second in prominence followed by a variety of other forest products including, roundwood for composite panels, fuelwood, woody biofuels, posts, poles, and pilings. Hardwood species comprise over 70% of total roundwood production in Wisconsin.

The forest products industry in Wisconsin supports 63,624 jobs and generates \$24.3 billion in value to the state's economy. The pulp and paper sector is the largest employer with 30,262 jobs followed by sawmills and other wood products with 27,618 jobs. Further, these businesses generate over \$150 million in direct taxes.

A steady flow of products from well managed forests provides for a strong economy through the direct jobs that exist in the forest products industry. The timber production industry provides for primary, secondary and reconstituted wood products. Wisconsin's forest product industry creates high paying jobs. In all, the forest products industry contributes about \$4.2 billion per year in wages to Wisconsin's economy.

Other amenities provided by the forest are difficult to put a value on but are significant. Forest-based recreationists annually spend approximately \$2 billion within Wisconsin communities. This spending stimulates the economy further and it is estimated that forest-based recreation is a \$5.5 billion-dollar industry (WEDI, 2004). Clean water and air are among other benefits of healthy managed forests that are difficult to quantify.

Urban forests in Wisconsin provide myriad ecological, social and economic benefits. Recent estimates show Wisconsin's urban forests annually remove 7,400 tons of air pollution valued at \$45.3 million, annually sequester 334,000 tons of carbon valued at \$43.3 million, store 11.4 million tons of carbon valued at \$1.5 billion and annually provide residential energy savings valued at \$81.5 million. The structural value of the urban forest (the cost to replace the trees) is estimated at \$19.3 billion.

3. Projected future demand and benefits for forest products

Paper demand has historically grown with population growth but has experienced rapid change in the past two decades due to growth in e-commerce and digital communications, globalization and advancements in product development.

Although pulp and paper markets continue to be challenged by the growing presence of new facilities in countries such as China, India and Brazil, it is important to realize that paper manufacturing is comprised of four basic types, or grades: communications, packaging, specialty, and tissue. Communications includes all manner of "ink on paper" uses for the product from copier paper to books to notebook paper to advertising and information purposes. Packaging papers are those that facilitate the safe, hygienic and appropriate delivery of all manner of products. Specialty grades include a myriad of targeted uses capturing the versatility of paper, and tissue includes personal and institutional uses of tissue products, for both the home and away-from-home uses. Communication grades are being challenged by the digital revolution, but analysts and customers continue to rely on paper for a broad range of information-transfer purposes. Meanwhile, packaging, specialty and tissue paper manufacturing are regularly reporting stable, and in some cases, growing markets and continued profitability.

Demand has been growing for the high-quality paper and specialty products that Wisconsin produces. China, who has been a net importer of fine writing paper, has begun to export fine writing paper, which has generated increased competition for Wisconsin's paper industry. Furthermore, the rapid decline of printing and writing paper markets due to the COVID-19 pandemic resulted in the idling of the Verso pulp and paper mill in Wisconsin Rapids, the state's largest market for pulpwood in terms of volume. Recently the state has seen significant investment and conversions into packaging by the industry. If the paper industry remains competitive in global markets, it should be able to grow and provide markets for Wisconsin wood. The paper industry's adoption of bio-refining and the continued diversification into stable or growing market sectors, such as specialty products and packaging, will be key to the long-term survival of the pulping industry in today's global market.

During 2008- 2009 economic recession the housing slump impacted sawmills and veneer plants in Wisconsin with some of the lowest lumber prices in recent history. In recent years demand for these products has improved, and as a result, Wisconsin's wood industries have experienced positive market impacts. Kitchen cabinets and wood flooring continue to provide steady markets to

Wisconsin companies, but these markets have still not fully recovered and face increasing competition with wood substitutes. Industrial wood products such as pallets, railroad ties, and crates continue to move products world-wide and as such provide a stable market for low grade wood products.

International markets have expanded market opportunities for many Wisconsin companies, particularly to serve the high-end furniture sector. Nationally, the volume of hardwood lumber exports has increased by nearly 55% since 1999. Furthermore, international forest product exports from Wisconsin total more than \$2.2 billion. The development of export opportunities to regions such as Southeast Asia and the Middle East, in addition to the growth of existing markets in China and North America, have contributed to this increase. However, Wisconsin exporters face challenges and uncertainty due to global economic pressures and the impact of tariffs on wood product exports to China. Continued assistance by the state to help companies move into these foreign markets is needed to help Wisconsin family-owned businesses take advantage of these opportunities and capture wider markets for their product offerings.

Wisconsin has high quality hardwoods and a rich species mix that will continue to be in demand for solid wood products. For example, Basswood has grown in popularity as a solid choice for wooden blinds, Ash demand has increased in Asian markets and white oak remains a popular species in the European market and also domestically for barrel staves and rift and quarter sawn products. There are discussions about exploring opportunities for market growth and production of products such as mass timber and thermally modified wood in Wisconsin to make industry more diverse and adaptable in an ever-changing dynamic forest products market.

4. Types of owners, forms of ownership and reasons for ownership

Wisconsin’s forests are owned by a variety of public and private entities. An estimated 70 percent of forest land in Wisconsin (11.8 million acres) is privately owned, with family forest owner’s owning an estimated 9.7 million acres. Corporations own an estimated 1.5 million acres, Native American tribes own 0.4 million acres, and other private owners, including conservation organizations and unincorporated clubs and partnerships, own an estimated 0.3 million acres.

Ownership of the 17.0 million acres of rural forest land in Wisconsin:

Public	
National Forest	8.5%
Other federal	1.2%
State	6.8%
Local government	13.8%
Private*	
Tribal	2.4%
Misc. corporate	10.4%
Individuals/Families	57.2%

*The Forest Inventory and Analysis (FIA) program has changed its tracking from previous years where “Forest Industry” is now narrowly defined as mills which also

own forest land. This small acreage has been included in the “miscellaneous corporate” category.

Wisconsin cities and villages cover 2 million acres, almost 6 percent of the state’s total land area.

Number of Private Owners and Parcel Size

According to the 2019 Forest Inventory Analysis (FIA) and 2013 National Woodland Owners Survey (NWOS), approximately 414,000 private forest landowners hold an estimated 11.8 million acres of forest land. When comparing these figures to previous inventories, it shows that the number of private forest landowners is increasing, but the acreage of private forest land may have plateaued.

Survey Unit	Acres of Private Forest Land		
	Year 2009	Year 2014	Year 2019
Northeastern	2,718,000	2,769,000	2,735,000
Northwestern	3,374,000	3,346,000	3,360,000
Central	2,565,000	2,619,000	2,576,000
Southwestern	2,004,000	2,050,000	2,040,000
Southeastern	1,036,000	1,151,000	1,102,000
State Total	11,689,000	11,935,000	11,813,000

PARCEL SIZE (ACRES)	# OWNERS (THOUSANDS)					# ACRES (THOUSANDS)				
	1997	2006	2013	2018	CHANGE (2013 – 2018)	1997	2006	2013	2018	CHANGE (2013 – 2018)
1 – 9	92	176	208	189	-19	339	529	764	680	-84
10 – 19	40	46	52	36	-16	518	574	636	507	-129
20 – 49	69	66	76	61	-15	2157	2021	2393	1907	-486
50 – 99	37	33	33	33	-	2290	2308	2291	2315	24
100 – 199	17	14	16	17	1	2111	1836	2113	2164	51
200 – 499	7	5	4	6	2	1569	1322	1145	1496	351
500 – 999	1	<1	<1	<1	<1	435	203	356	434	78
1,000 – 4,999	<1	<1	<1	<1	<1	316	132	76	107	31
>5,000	<1	<1	<1	<1	-	1077	108	-	70	-

(From [2020 State Forest Action Plan](#): Number of Owners & Acres by Parcel Size. (Butler et al., 2016; U.S. Forest Service, 2017)

Privately-owned Forest Land Average Parcel Size (Acres). Source: USDA FIA & NWOS Data; 2006 & 2013

OWNERSHIP	YEAR		
	1997	2006	2013
PRIVATE FOREST	41	30	29
NON-INDUSTRIAL PRIVATE FOREST	37	28	26

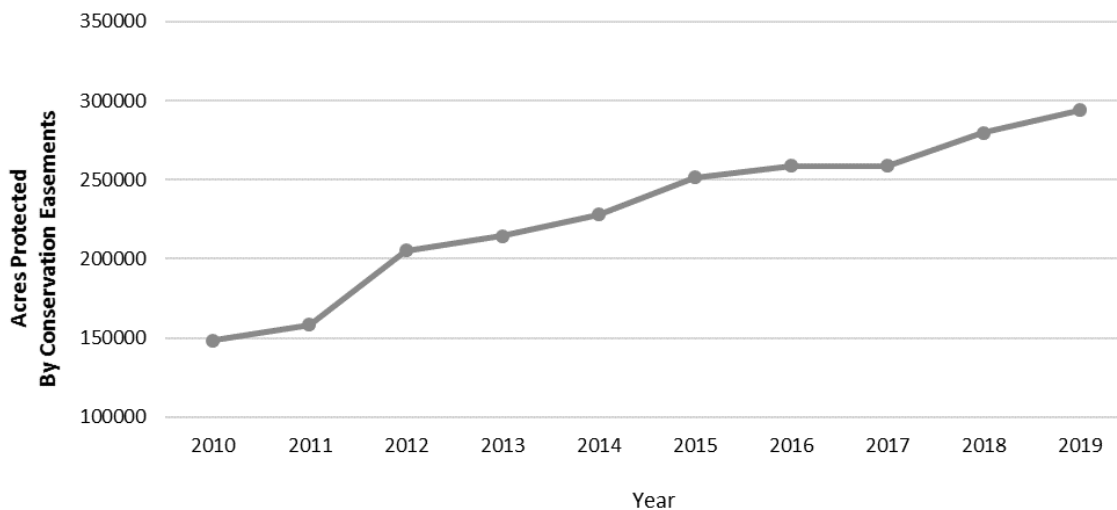
The most recent NWOS data has focused on landowners who own 10 or more acres. In total, about 153,000 owners hold 9 million acres. The 20-49 acre size class has 40% of the landowners and 21% of the individual “family forest” acreage. The 10-19 acre size class has 24% of the landowners and 6% of the acreage. For family forest owners with 10 or more acres, the average parcel is 48.8 acres which has changed very little from previous NWOS surveys

Forest Industry Ownership

Forest industry and other companies own 12% of Wisconsin’s forests. A growing trend in forest industry ownership is the transferring of woodland as global corporations realign or divest their land holdings. Lands once held by paper companies and sawmills are increasingly held by Timberland Investment Management Organizations (TIMO) and Real Estate Investment Trusts (REIT). These ownership types typically sell portions of their land base to supplement timber income and capitalize on higher return on investment opportunities. Forest industry and investor groups now hold 624,430 acres in Wisconsin’s Forest Tax Law programs. Only 3.5% of that land is closed to public access.

To help maintain the integrity and traditional uses of industrial and other private forestlands, the federal Forest Legacy Program (FLP) and the state Knowles-Nelson Stewardship Fund identify and protect environmentally important private forestlands threatened by conversion and promote the use of conservation easements to maintain outdoor recreation opportunities, wood products and wildlife habitat.

Recent purchases of working forest conservation easements using funds from the state Knowles-Nelson Stewardship Fund protected 14,350 acres of privately held timberland. Lands under a working forest conservation easement, remain in private ownership, on the tax rolls, are available for the sustainable production of forest products and a variety of recreational uses and cannot be developed. In Wisconsin, working forest conservation easements now protect over 290,000 acres; conservation values protected include critical wildlife habitat, lakes, rivers, and wetlands, along with providing public access for recreation activities.



A recent study on the economic contributions of land protected by conservation easements through the federal Forest Legacy Program suggests working forests conserved through the FLP contribute substantially to rural economies. For example, for every 1,000 acres of FLP land protected by a conservation easement in northern Wisconsin & Michigan's Upper Peninsula, the average annual value-added contribution is estimated to be \$126,912 and \$14,607 for timber and recreation, respectively (Murray, Catanzaro, Markowski-Lindsay, Butler, & Eichman, 2018).

Demographics of Wisconsin Individual Private Forest Landowners

Information about the demographics, interests and management actions of family forest landowners in Wisconsin comes from the 2018 National Woodland Owner Survey (NWOS), which provides a snapshot of landowners who own 10 or more acres.

Forty-five percent of family forests in the U.S. are owned by individuals over the age of 65; almost half of the nations' family forest owners will be deciding the future of their land (i.e. sell, convert to another use, parcel, conserve). Wisconsin forest landowners are not unique to this impending trend toward intergenerational transfer of ownership. The average age of family forest owners in Wisconsin is 61 years with 41 percent of the family forest land owned by those who are at least 65 years of age. As landowners age, the manner in which they transfer their land to the next generation will, at least in part, determine the future of Wisconsin's forests and how they are managed. Nearly 60 percent of Wisconsin forest landowners identify the opportunity to leave a legacy for their family as a reason for owning the land (U.S. Forest Service, 2017)

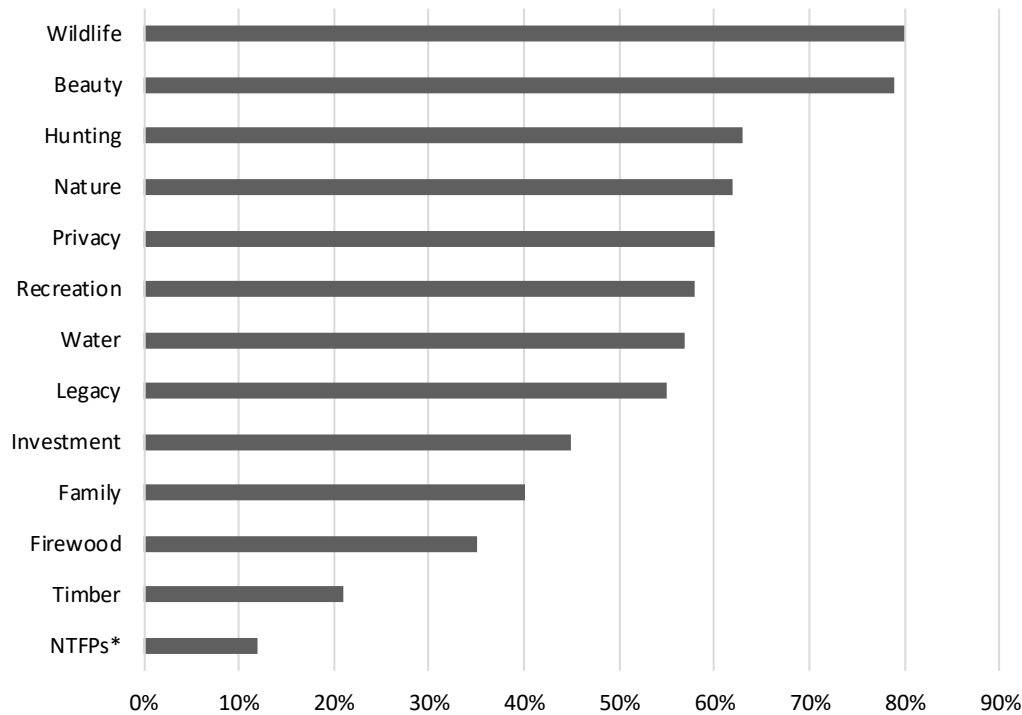
As Wisconsin's forest landowner demographics change, the values of new owners and how they may use their land and the management decisions they may make are also likely to change. For example, a shift toward more landowners coming from urban backgrounds and, conversely, fewer landowners from rural farming backgrounds suggests an accompanying shift from traditional land-use practices to uses focused more on amenity values such as recreation and viewing wildlife. Broad and perhaps far-reaching implications for the future management of Wisconsin's forests can be drawn from the NWOS data:

- Lack of knowledge or experience with land management decisions
- Unfamiliarity with resources and services available to assist with decision making
- Government mistrust
- Conflicting management goals and objectives

Reasons for Owning Forestland

Private forest landowner's value and own land for many reasons, including wildlife, recreation, aesthetics, hunting and privacy. Owning land for timber management tends not to rank very high as a reason for owning land, and many do not participate in traditional forest management activities or assistance programs. With roughly 17 percent of family forest landowners having a written forest management plan to guide their land management decisions, there are significant opportunities to help family forest landowners increase their engagement and stewardship of their lands through targeted outreach, marketing and increased use of social media platforms.

Wisconsin family forest landowners: reasons for owning land



*Non-traditional forest products
(Butler et al., 2018; in process)

Timber Harvesting

Although many individual owners hold forestland for uses other than producing forest products, 88% of family forest owners have cut and/or removed trees for sale or personal use within the last five years, and nearly the same percentage intend to cut and/or remove trees in the next five years. These landowners hold over 7.7 million acres of forestland.

Forest Management Advice and Sources

Twenty-two percent of family forest owners have received advice or information about managing their forestland in the last 5 years. Landowners who receive advice utilized the state forestry agency, university extension services and private consulting foresters, compared with 2% from a federal agency. Forty-six percent received advice from a private consultant and 26% from a family member or friend. Fourteen percent received advice from another landowner and 4% received advice from others.

The most recent NWOS data suggests family forest owners prefer to receive advice or information from written materials such as brochures or publications, followed by talking to someone, having someone visit their land, and email. Only 19% of family forest owners say they do not need or want advice or information.

Thirty-five percent of family forest owners who harvested timber consulted with a forester on the harvest.

Private Forest Management Assistance 2019 and 2020				
	WDNR Foresters		Cooperating Foresters	
	Number	Acres	Number	Acres
Comprehensive Managed Forest Law or Stewardship Plans	252	15,588	3,174	225,909
Number of Initial (New) Contacts	4,035		4,462	
Total Technical Service Contacts	7,261		9,660	

University of Wisconsin-Extension and non-profit educational organizations including Wisconsin Woodland Owners Association, Wisconsin Tree Farm Committee and Wisconsin Family Forests provide a variety of learning opportunities for private forest owners and others interested in managing Wisconsin’s woodlands. Through field days, meetings, workshops and various partnerships these organizations help foster and encourage the wise use and management of Wisconsin's woodlands.

Concerns for Their Forests

The top five issues that family forest landowners are most concerned about for their woodlands are high property taxes (87%), trespassing or poaching (77%), keeping the land intact for future generations (78%), misuse of their forest, such as dumping (69%), and unwanted insects or diseases (67%).

5. Success of incentives to stimulate the development of forest resources

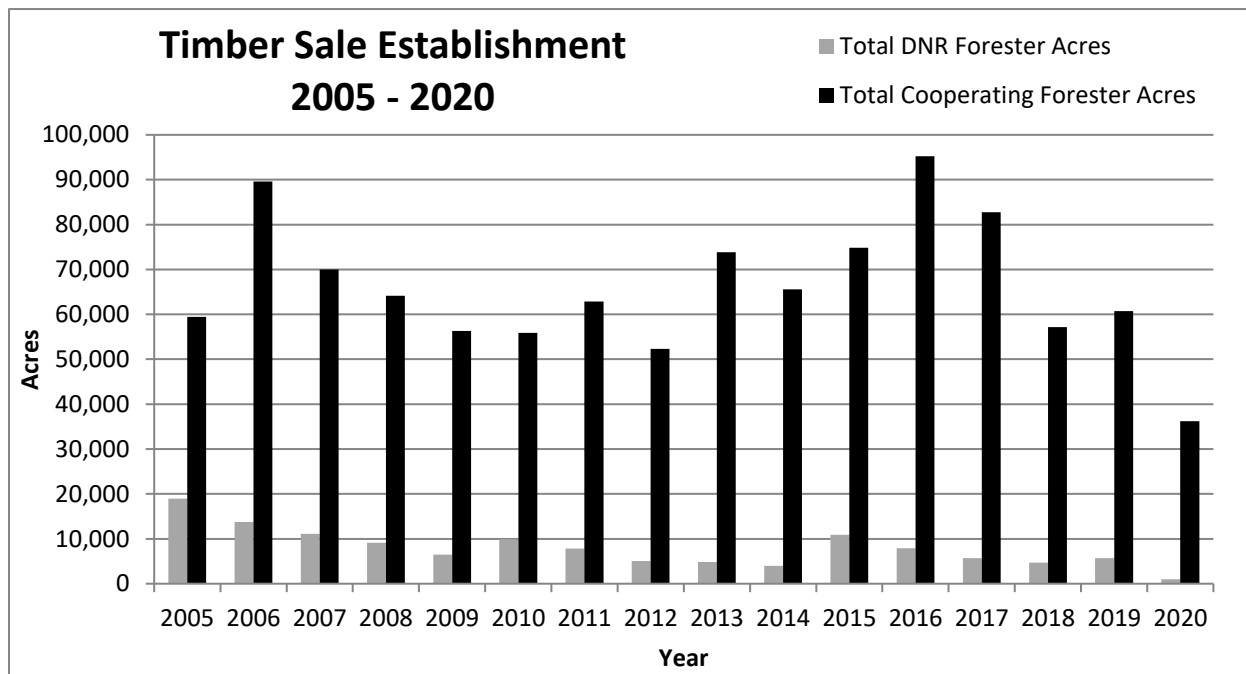
Technical Assistance

Wisconsin Department of Natural Resources integrated service foresters are located in nearly every county of the state and provide professional planning and technical advice to Wisconsin’s non-industrial private forest owners. Throughout 2019 and 2020, WDNR integrated service foresters conducted outreach to landowners who have not received professional forestry assistance, educated woodland owners about forest management, built relationships with woodland owners and partners, and connected woodland owners to the resources they need to implement forest management activities.

Established in 1989, the Cooperating Forester program is a cooperative effort between the WDNR and private-sector consulting foresters aimed at encouraging the practice of sustainable forestry on private forestlands in Wisconsin through a referral process; the WWDNR refers landowner requests for forestry assistance to Cooperating Foresters. There are currently over 200 private consulting firms and businesses participating in the Cooperating Forester program in Wisconsin.

Consulting foresters are independent contractors who make their living by charging a fee for the work they do. Private consulting foresters and industrial foresters voluntarily apply to participate and must adhere to the terms and conditions in a Cooperating Forester Agreement. Cooperating Foresters are listed online on the Forestry Assistance Locator on the WDNR website (go to WDNR.wi.gov and enter

keywords ‘forestry assistance locator’). To maintain Cooperating Forester status, Cooperators must acquire a minimum of ten hours of continuing education and report accomplishments (e.g. management plans, timber sale establishment, etc.) each fiscal year with the WWDNR.



Forest Tax Law Programs

Private forest landowners are encouraged to sustainably manage their woodlands through two property tax incentive programs, the Managed Forest Law (MFL) and the Forest Crop Law (FCL). The FCL program closed to new enrollments in 1985 after the Wisconsin State Legislature enacted the MFL program.

The MFL program is widely recognized as a model program for addressing landowners’ interests while promoting the public benefits of sustainable forestry. It provides landowners with a significant property tax reduction. Lands entered into MFL are required to have written management plans that landowners must follow. Management plans address harvesting and thinning timber, tree planting, erosion control and wildlife and aesthetic management. Plans must be prepared either by a Certified Plan Writer (CPW) or a WWDNR Forester if CPW services are unavailable. The CPW program has been very successful with 208 CPWs in 2021, with 6 new CPWs certified in 2019 and another 23 CPWs in 2020.

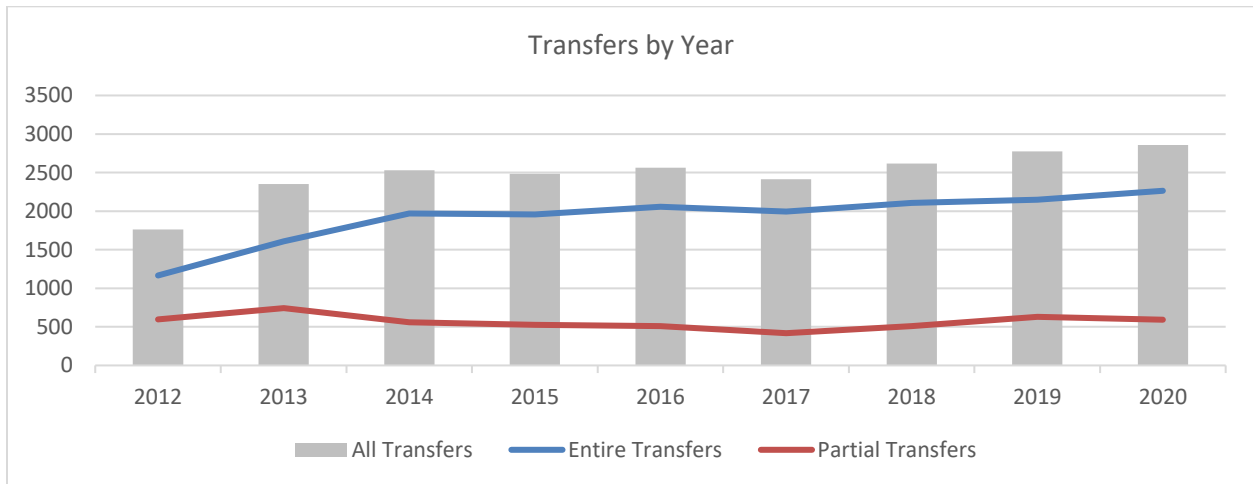
The MFL program continues to grow each year. As of 2021, the program includes 50,806 MFL entries covering 3,475,333 acres. Of those lands, 29.4% (1,021,865, acres) are open to public access. There are 433 entries in the FCL program comprising 49,604 acres. All lands in FCL are open to public hunting and fishing.

The number and acres of MFL withdrawals (voluntary, involuntary, and exempt) are as follows:

Effective Date	# of withdrawals	Acres
January 1, 2013	221	8,959
January 1, 2014	311	14,589
January 1, 2015	280	11,843
January 1, 2016	278	13,102
January 1, 2017	284	10,590
January 1, 2018	328	7,598
January 1, 2019	334	9,753
January 1, 2020	280	9,962
January 1, 2021	192	8,978

The number of MFL Transfers (partial and entire) are as follows:

Transfer Year	Entire Transfers	Partial Transfers	Total
2012	1,166	598	1,764
2013	1,607	743	2,350
2014	1,971	558	2,529
2015	1,958	526	2,484
2016	2,055	510	2,565
2017	1,996	418	2,414
2018	2,107	508	2,615
2019	2,147	628	2,775
2020	2,264	594	2,858



On January 1 annually, additional acres of new mandatory practices become available for loggers and contractors. These mandatory practices are largely commercial timber harvests and thinnings; however, they may also include tree planting, release, site preparation and other practices to ensure that trees are healthy and actively growing. WDNR and Cooperating Foresters, loggers, and landowners work together to complete these mandatory management practices. The following chart shows the number of mandatory practices and acreage by year and the date the practice was originally scheduled for completion:

Year	Beginning Practices and Acreage		Remaining Practices and Acreage in 2019	
	Number	Acreage	Number	Acreage
Pre-2008*	9,639	129,502	15	179
2008	3,321	49,772	2	19
2009	2,210	31,502	5	24
2010	6,236	98,283	15	330
2011	3,023	50,459	5	102
2012	4,009	58,180	12	113
2013	4,312	65,344	31	338
2014	4,428	69,043	32	609
2015	7,130	117,810	27	294
2016	4,515	74,374	33	556
2017	5,635	77,550	72	1,043
2018	7,016	99,248	146	2,334
2019	5,674	85,060	604	9,848
2020	12,817	202,386	2,723	44,503
2021**	7,081	114,232	-	-

Wisconsin Forest Landowner Grant Program

The Wisconsin Forest Landowner Grant Program (WFLGP) encourages private forest landowners to manage their lands in a manner that benefits the state’s forest resources and the people of the state. WFLGP provides technical assistance and cost sharing to private landowners to protect and enhance their forested lands, and to protect the water resources. The program allows qualified landowners to be reimbursed up to 50% of the eligible costs of eligible practices incurred by the landowner up to the predetermined component “not-to-exceed” rates

The state appropriation for WFLGP was \$1,087,900 each fiscal year. Maximum cost share is \$10,000 per landowner per year. The table below does not cover all practices cost-shared but shows some of the more common practices for which there were 1,600 cost-shared in 2017 and 2018.

Wisconsin Forest Landowner Grant Program				
Number of practices and dollars encumbered by practice for fiscal years 2019 and 2020				
<i>(Dollars are based on the estimated cost of reimbursement (50% of practice cost) at the time the application was approved and not actual amounts paid out to landowners.)</i>				
Practice	Fiscal Year 2019		Fiscal Year 2020	
	# of grants awarded	Dollars	# of grants awarded	Dollars
Stewardship plans and revisions	150	\$ 77,440	100	\$ 53,941
Undesirable species control	220	\$ 733,639	246	\$ 666,495
Site preparation	133	\$ 169,843	124	\$ 132,866
Tree plantings	106	\$ 170,857	97	\$ 151,275
Crop tree release	20	\$ 18,019	35	\$ 43,563

Exclusion fencing	21	\$ 33,337	16	\$ 34,142
Seedling protection	11	\$ 6,952	7	\$ 14,311
Pruning	1	\$ 250	16	\$ 17,036
Direct seeding	3	\$ 1,875	2	\$ 890
Erosion control	12	\$ 6,924	7	\$ 1,889
Total	677	\$1,219,135	650	\$1,116,407

Environmental Quality Incentive Program (EQIP)

The Environmental Quality Incentive Program (EQIP), a federal program administered by the Natural Resources Conservation Service (NRCS), provides up to 75% cost share and can cover practices to be implemented over a 10-year period. Financial assistance is available for forestry practices such as conservation activity plans, tree planting, forest stand improvement, forest trails and landings and erosion control.

EQIP practices in 2019 and 2020 on forest land in Wisconsin.				
EQIP Practices	2019		2020	
	# contracts	Dollars	# contracts	Dollars
Forest Management Plans	216	\$359,927	248	\$382,176
Forest Stand Improvement	56	\$271,503	73	\$296,603
Tree/Shrub Site Preparation	31	\$33,645	32	\$28,958
Tree/Shrub Establishment	57	\$ 171,140	70	\$189,906
Forest Trails and Landings	19	\$53,143	7	\$23,826
Tree/Shrub Pruning	3	\$5,249	3	\$3,255

Urban Forestry Grants

The Urban Forestry grant program provides 50-50 cost-share funds to Wisconsin cities, villages, towns, counties, tribal governments, and 501(c) (3) nonprofit organizations to improve their ability to manage the community urban forest resource. A total of \$ 959,761.28 was awarded for priority projects in 2019 and 2020. Priorities in 2019 and 2020 included consideration of a canopy approach, directing efforts to both public and private trees, and emerald ash borer (EAB) preparation (conducting inventories, assessing community impact of EAB, developing EAB readiness plans, removing high risk ash, planting a diversity of non-ash species and providing EAB staff training or public outreach).

The Urban Forestry grant program was oversubscribed in both of the last two years. In 2019 \$196,079.91, approximately 27% of eligible requests went unmet. In 2020 \$313,519.08, approximately, 43% of eligible requests went unmet.

Grant funds are strategically disseminated based on levels of need. Applicants self-select for Regular or Start Up funding. The Regular grant (maximum \$25,000 award) assists communities in advancing their urban forestry management. The Start Up grant (maximum \$5,000 award) targets new or less developed urban forestry programs. Of the 99 proposed projects submitted in the last two years, the department awarded 28 Start Up grants and 46 Regular grants.

In the event of a declared State of Emergency, the Department of Natural Resources Urban Forestry Grant program allots 20% of its available annual funds to aid communities, non-profits, and tribes. The Department of Natural Resources Urban Forestry Catastrophic Storm Grant program funds tree repair, removal or replacement within urban areas following a catastrophic storm event for which the governor has declared a State of Emergency under s. 323.10, Wis. Stats. A catastrophic storm means damage to urban forests caused by snow, ice, hail, wind or tornado. Catastrophic storm does not include insect infestation or disease, forest fire, drought or water saturation due to flooding.

In July of 2019, a State of Emergency was declared due to storm damage. Fifteen communities submitted funding requests for a total amount of \$593,975. These communities shared \$104,900 of the 2020 state grant dollars to assist with the storm damage sustained during the State of Emergency proclaimed in Executive Order #35. The grants do not require a dollar-for-dollar match and typically may range from \$4,000 to \$50,000. The catastrophic storm reserve amount of \$104,900 was deducted from 2020 regular and startup grant awards.

In January 2020, the Joint Finance Committee of the Wisconsin Legislature approved the Department's request to seek supplemental funding in support of the UF Catastrophic Storm Grant Program. An additional one-time transfer of \$489,100 in FY 2019-20 from the department's forestry – forestry emergency reserve appropriation was approved to fully fund all 15 communities funding requests.

6. Possible economic opportunities that may result from improved forest-product marketing and increased business dealing in or use of forest products

Market growth for Wisconsin forest products could have significant economic opportunities in the state. These opportunities include job creation, business retention and growth, carbon storage benefits and captured value in underutilized forest resources. Furthermore, strong, diverse forest product markets are closely tied to healthy, well-managed forests. The development of new products and markets hold promise as viable opportunities for economic growth, yet it is important to not lose sight of traditional or established products and industries. Bio-refining, emerging applications for nanocellulose, and growth in specialty and packaging grade papers show promise for the pulp and paper mills in the state. In addition, a close examination of waste streams suggests economic opportunities for the production and marketing of chemical and fiber byproducts.

Another area of economic growth is the expansion of wood product markets. Mass timber products (e.g. cross-laminated timber), thermally modified wood, and engineered wood products present opportunities for sawmills and wood manufacturers in Wisconsin to diversify their product offerings. In addition, the commercial availability of these products in the marketplace may lead to greater carbon storage and cost-savings for Wisconsin citizens and businesses involved in residential and commercial construction.

Promotional efforts to showcase the unique attributes of Wisconsin's forest resources are needed to expand the state's value-added wood and paper products into wider markets across the state and region. For example, the marketing of Wisconsin's forests as sustainable and certified serves to differentiate Wisconsin products in both domestic and international markets. These qualities also stand to attract new businesses looking for a stable supply of quality raw materials for production of their products.

Consideration should also be given to ensure established uses of forest resources such as for pulp and paper products, wood fuels, furniture, millwork, and pallets remain viable and even grow. The expansion of thermal wood energy systems across the state presents opportunities for schools, businesses and forest products firms to access affordable fuels while also creating markets for low or no-value waste streams. In addition, many companies operate a global scale. Increased access international markets for forest products can strengthen Wisconsin's economy by also fostering market diversification and growth. Given the recent volatility in exports, continued efforts by WDNR and WDATCP staff, along with other forestry experts outside these agencies, are needed to assist producers in navigating the exporting process while also assisting the industry in taking advantage of emerging forest products and technologies. These efforts have been successful in past years and should continue to gain more momentum in the foreseeable future.

7. Recommendations for increasing the economic development of the forestry industry and employment in the forestry industry

Economic development efforts in the forestry industry should focus on supporting both existing and new forest businesses while also identifying opportunities to grow markets and incorporate new technologies into the sector. By expanding economic opportunities, the forestry industry could expect an increase in employment through business growth when supported by efforts to recruit and retain skilled workers across the industry.

Wisconsin's business climate is strong for new and existing industries seeking a stable, high quality supply of forest raw materials, including those sourcing third-party certified products. Market growth for forest products has a net benefit on the entire forestry supply chain, from landowners, forest managers, loggers, trucking firms, and mills. The adoption of new products and technologies across the state's industry presents an opportunity for economic growth. Market growth for forest biochemicals, urban wood, wood energy, mass timber, and other innovative building materials would have a positive impact on the state's economy and would also create new job opportunities. The growth of carbon markets and alternative forest products also present value-added opportunities for businesses and forest landowners alike. To stimulate these efforts, greater research and development is needed to investigate the potential for adoption and expansion in Wisconsin. Furthermore, businesses need access to affordable capital and financial incentives to overcome the cost of entry into many of these emerging markets.

Furthermore, over the past two decades, global market growth for hardwood products has led to an increase in exports by Wisconsin producers. The scale of these markets and the diversity of products demanded is an important market for Wisconsin wood products. However, recent demand shifts caused by global economic pressures and trade policies have caused volatility and uncertainty for hardwood exports. Continued efforts to assist industry with export assistance and market identification are highly recommended. In addition, Wisconsin's forestry industry would benefit from unified efforts to bring consumers, design professionals and producers together to foster awareness of the environmental, social, and economic benefits of locally produced Wisconsin forest products. This educational effort can increase the market share of Wisconsin products both domestically and abroad.

The forestry industry relies on a safe and efficient transportation infrastructure to deliver forest products to market. A cost-competitive supply chain allows Wisconsin businesses to compete at a global scale. Therefore, continued maintenance, along with modern improvements to Wisconsin's transportation infrastructure, are necessary for forest industry retention and growth. Similarly,

affordable and reliable access to trucking, rail, and intermodal services will allow Wisconsin forest businesses to access both domestic and international markets.

Recommendations:

- Expand opportunities for companies to access capital and incentives along with rural prosperity efforts
- Support hardwood product utilization and exports with state assistance
- Unify purchasers and suppliers to create awareness of the environmental benefits of utilizing Wisconsin grown forest products
- Promote the use of Wisconsin forest products in private and public new building and remodeling
- Maintain and improve transportation infrastructure for the forest supply chain
- Support the Council’s and stakeholder’s efforts to engage in the U.S. EDA Regional Economic Diversification Summit (REDS)
- Strengthen workforce training for the industry. Consider what the state can do to bolster existing college-industry partnerships and/or to expand them to additional locations in the state.

8. The effect of state and local governmental laws and policy on forest management and the location of markets for forest products

2019-2020 Legislation

<http://www.legis.state.wi.us/>

Below is a summary of two bills that were passed into law during the 2019-2020 legislative session that relate to forestry. A list of those bills that did not pass is also included below.

Session	Assembly Bills Proposed	Assembly Bills Passed into law	Senate Bills Proposed	Senate Bills Passed into law
2005-06	23	11	4	1
2007-08	9	1	6	1
2009-10	25	5	15	4
2011-12	13	1	10	6
2013-14	18	6	16	6
2015-16	7	1	5	1
2017-18	6	1	6	1
2019-2020	3	2	3	2

The following was passed into law:

Wisconsin [Act 73](#).

relating to: signs informing about Lyme disease in state parks, state trails, state recreational areas, and state forests and making an appropriation

Wisconsin [Act 74](#).

relating to: making insect repellent available for sale in state parks and state forests

Senate bills that did not pass:

[SB867](#) - Managed Forest Land Program changes

Assembly bills that did not pass:

[AB856](#) – Managed Forest Land Program changes

9. Recommendations as to staffing and funding needs for forestry programs and other conservation programs related to forestry that are conducted by the state to support and enhance the development of forest resources.

Wisconsin's forests face urgent new challenges that threaten jobs as well as the health and productivity of one of the state's greatest natural assets. The effects of a changing climate are altering how our forests grow and develop and are forcing disruptions in how we manage forests. A globally changing economy and the Coronavirus pandemic have also created urgent challenges to the economic viability of our forestry sector.

- Prices for hardwood sawtimber, one of our staple forest products, have been depressed since the downturn of 2008. Weak markets limit the return on investment for forest and mill owners alike.
- The prices and demand within our hardwood and softwood pulp sectors have been increasingly unstable in recent years due to shifting global demands, forcing more risk and uncertainty down to loggers and forest owners.
- The recent closure of the Verso paper mills in Wisconsin Rapids (and Duluth, Minnesota) eliminated what had been a large and stable outlet for pulpwood for over a century. In addition to the direct loss of over 900 jobs at the Wisconsin Rapids mill and over 200 jobs at the Duluth mill, this is creating severe impacts to the hundreds of loggers and truckers, local and county budgets with the loss of timber revenue and thousands of family forest owners all around Wisconsin who now lack markets for their wood.

The funding for forestry programs in the Wisconsin State Budget are investments that support stable and productive forests in both rural areas and in our cities. We need to maintain the essential investments in forestry programs that will help address threats to forests, and which directly or indirectly benefit every Wisconsin resident and visitor

The current GPR allocation to the Forestry Account within the Conservation Fund supports public safety and forestry-related programs including **the following critical functions**.

- Grants and Aids to local units of governments
- Forest management activities on public lands
- Wildland fire control operations and support for rural fire departments
- Supporting family forest owners Managed Forest Law
- Forest nurseries, forest health and forest conservation activities

- Forest recreation, campgrounds, trails, and forest facilities
- Support for community tree programs
- Debt service for Knowles-Nelson Stewardship
- Support for the Division of Forestry to continue its engagement in the Good Neighbor Authority

Council on Forestry Recommends the following as budget priorities:

- Maintain the current law provision that directs “an amount equal to 0.1697 mills for each dollar of the assessed valuation of the property in the state to be transferred from the general fund to the conservation fund for the purpose of acquiring, preserving and developing the forests of the state and for other specified forestry purposes”. In 2017, legislators promised to maintain forestry funding from GPR when the budget committee voted to end the forestry mill tax.
- Maintain funding for Forestry Program appropriations at a minimum of current levels for critical forestry program functions listed above.

In addition to maintaining the current levels of funding as described above, increase spending authority from the Forestry SEG account, for functions the council has identified below to further enhance the forest industry and sustainable forestry in Wisconsin, as follows:

- Increase spending authority by \$500,000 to improve management of private forests through the Wisconsin Forest Landowner Grant Program (WFLGP) to support reforestation, storm clean up, and other activities to improve forest health, sustainability and productivity. Reforestation is an important strategy to meet Wisconsin’s goals to address climate and forestry funding can help drive success in that effort.
- Create statutory authority to provide \$400,000 to increase forest-based employment for youth and adult workers in transition. A Wisconsin Conservation Corps – 2021, a restoration of the popular and successful 1980’s era program, could be funded in part from forestry fund allocations provided that significant portion of funds was directed to forest-related conservation activities such as reforestation, forest stream improvement, forest recreation, etc.
- Create a \$250,000 forest-related economic development fund ensuring that grants and loans for facility upgrades, new technologies, and mill diversification and conversion are made available to mill owners and other forestry related businesses.
- Fund a part time limited-term employee within the Department of Forestry (similar to the Urban Forestry Council Liaison). Position would facilitate implementation of Council on Forestry actions; promote and market council initiatives; coordinate and facilitate quarterly council meetings; support council recruitment, appointments, orientation, and training.

10. Recommendations as to the need to increase the public's knowledge and awareness of forestry issues

Wisconsin’s forestry community recognizes the need to increase the public’s forestry knowledge and awareness to have an informed electorate that understands and supports sustainable forestry in Wisconsin. Following are some endeavors undertaken by members of Wisconsin’s Forestry Community during 2019-2020 to address that need:

- **America’s Forests with Chuck Leavell:** The Wisconsin forestry community worked with the producers of the television series “America’s Forests with Chuck Leavell” to produce two Wisconsin episodes that premiered in October 2020 during Forest Products Week. Leavell (a Georgia tree farmer, national forestry advocate and keyboardist/musical director with the Rolling Stones) showcased Wisconsin’s sustainable forestry work in these two episodes (<https://www.americasforestswithchuckleavell.com/episodes/>).
- **Log-a-Load events:** The Great Lakes Timber Professionals coordinated multiple Log-a-Load-For-Kids events during the biennium. At the events, thousands of school children get to see logging equipment in action and participate in other educational activities as the loggers donate their time and the value of a load of logs to the Children’s Miracle Network.
- **Smokey’s 75th birthday:** With people being the cause of most wildfires in Wisconsin, Smokey Bear’s message of “Only You Can Prevent Wildfires” is as relevant today as when this fire prevention icon was created in 1944 (<https://www.youtube.com/watch?v=DAaYgy1hqGs>). Residents throughout the state joined in the 2019 celebration of Smokey Bear’s 75th birthday. Highlights included an August 9th birthday party at the 2019 Wisconsin State Fair and a partnership with the nonprofit Box of Balloons to provide a Smokey birthday box to underprivileged young children in fire prone areas of the state on their birthday.
- **K-12 forestry education:** The Wisconsin Center for Environmental Education in UW-Stevens Point’s College of Natural Resources continues to administer LEAF (Wisconsin’s K-12 forestry education program), Wisconsin’s school forest program, and Project Learning Tree with funding from the Wisconsin Department of Natural Resources – Division of Forestry.

Among the online virtual programming LEAF added in 2020 was a series of lectures presented by WDNR program specialists to introduce Wisconsin educators to various forestry program areas.

- **Forest Exploration Center:** The nonprofit Forest Exploration Center continues to develop forestry education opportunities on the 67-acre property owned by the Wisconsin Department of Natural Resources in Wauwatosa (Milwaukee County). During this biennium they completed an accessible trail in the property, allowing a broader range of visitors to enjoy the property.
- **Trees For Tomorrow:** Trees For Tomorrow in Eagle River has been educating students about Wisconsin forestry since 1944 and has reached hundreds of thousands of students at their accredited school over the years.
- **North American Forest Partnership:** Members of Wisconsin’s forestry community supported and participated in a national coalition called the North American Forest Partnership. This diverse partnership shares a commitment of sharing the story of sustainable forestry. Their original content and forestry messages reach more than a million people monthly via the #forestproud social media platforms.
- **Connecting with 20,000 Landowners:** In 2018, the Chief State Forester of the Wisconsin WDNR adopted the Wisconsin Private Forestry Advisory Committee’s (WPFAC) [recommendations](#) that encouraged the professional forestry community of partners to collaborate toward a 5-year goal of connecting with 20,000 new non-industrial private forest (NIPF) landowners. Using the average ownership size of 50 acres. These 20,000 landowners – with the help of their foresters – will bring the next million acres into sustainable forestry in Wisconsin. A property visit was

selected as the metric. This formative moment, when a landowner walks their property with a forester, creates a higher likelihood that the landowner will feel confident to implement sustainable forestry activities on their property. Since July 1, 2018 the forestry community is more than [one-third of the way toward reaching the goal](#), with WDNR and [Cooperating Foresters](#) completing 7,670 property visits.

While hundreds of landowners find forestry services each year, the majority of landowners remain unaware or need prompting to engage a natural resource professional. The innovation in this work is strategic promotion and partnership. Landowner outreach in fiscal years 2019 and 2020 included, in part, promotion through My Wisconsin Woods, a partnership of the Wisconsin WDNR and the Aldo Leopold Foundation. These promotions were designed to speak to the landowners' interests, values and motivations. A broadcast media campaign in fiscal year 2019 included advertisements on television, radio, newspaper, internet, and billboard, successfully reaching approximately 70,000 landowners. Simultaneously, a direct mail campaign targeted 10,000 landowners resulting in hundreds of property visit requests – results which surpassed previous mail-only outreach campaigns. Other strategic partnerships, including University of Wisconsin-Madison Division of Extension and Wisconsin Young Forest Partnership resulted in direct mail campaigns that connected unengaged landowners with foresters. All in all, in FY19 and FY20, the forestry community reached approximately 128,000 landowners through their outreach efforts.