

A photograph of a forest floor covered in white trillium flowers. Sunlight filters through the trees in the background, creating a bright starburst effect.

FOREST RESOURCES DIVISION
ACCOMPLISHMENTS REPORT

FISCAL YEAR 2013





THE MISSION of the Forest Resources Division is to manage, protect and provide for the sustainable use of Michigan's forest resources.

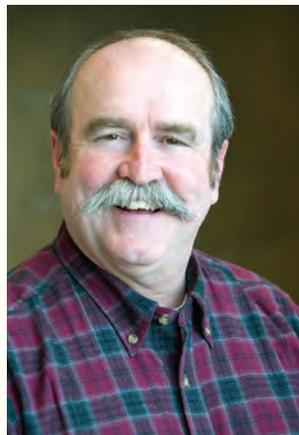
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Cover photo by Tom Haxby, Forest Resources Division inventory and planning specialist

WELCOME



Dear Michigan Citizens,

The Department of Natural Resources' Forest Resources Division (FRD) works every day to ensure that Michigan's public forest lands are sustainably managed and protected for economic, recreational, environmental and cultural benefit of all Michigan citizens.

Michigan's 4 million acres of world-class state forests – one of the nation's largest dedicated acreages – provide more than 900,000 cords per year of certified wood, a resource vital to the state's thriving forest products industry. The forest products industry generates \$14 billion annually for Michigan and sustains nearly 78,000 jobs.

Michigan's forests and other land-based industries play a crucial role in supporting our state's regional and rural economic health.

In addition to meeting the needs of the forest products industry, our state's healthy and well-managed public forest system provides critical wildlife habitat and a place for recreation and reflection.

The work of the FRD staff isn't limited to these accomplishments. The professional and sustainable work of the Fire, Forest Stewardship, Commercial Forest, Urban and Community Forestry, Forest Health, Resource Assessment, Land Use and Trespass programs has been instrumental in preserving and protecting Michigan's top-notch natural resources.

This report highlights FRD's diverse accomplishments during fiscal year 2013 (Oct. 1, 2012-Sept. 30, 2013). It serves as a guide for each program's major accomplishments. While it would be difficult to showcase all of the work FRD staff has accomplished during this past fiscal year, we hope folks will see how our efforts – along with help from countless partners – continue to positively influence Michigan's natural and cultural resources.

Thank you for your interest in our state's forest resources.

A handwritten signature in black ink that reads "Keith Creagh". The signature is written in a cursive, flowing style.

Keith Creagh
Director
Michigan Department of Natural Resources

A handwritten signature in black ink that reads "William O'Neill". The signature is written in a cursive, flowing style.

Bill O'Neill
Chief and State Forester
Forest Resources Division

COLLABORATIONS & PARTNERSHIPS

Two bodies – the Timber Advisory Council (TAC) and the Forest Management Advisory Committee (FMAC) – are among the many partners that give their time and talent to help Michigan sustainably manage its public forest land. The TAC provides advice and counsel to the governor, the DNR, the Michigan Economic Development Corporation and the Michigan Department of Agriculture & Rural Development on policies, procedures, issues and concerns related to state timber management.

TAC Members

- J.R. Richardson, Chair
- Jerry Grossman
- Charlie Becker
- Margaret Minerick
- Jon Lamy
- Jessica Turino-Kernohan
- Gary Melow
- Rich Bowman
- Mike McCuiston
- Larry Leefers
- Brad Homeier

Members of the FMAC – ranging from timber producers to university representatives to environmental interests – are appointed by the DNR director to assist the department in evaluating and sustainably balancing the environmental, social and economic opportunities and challenges surrounding forest management.

FMAC Members

- Bill Botti, Chair
- Lauri Kay Elbing
- Daniel Keathley
- William Manson Jr.
- Gary Melow
- Scott Robbins
- Marvin Roberson
- Terry Sharik
- Stephen Shine
- Amy Trotter
- Warren Suchovsky
- Andy Henriksen
- Leslie Auriemmo



At approximately 20 million acres, Michigan ranks 11th in forested acres and fourth in the U.S. for most timberland (forests available for timber harvest). The Great Lakes State ranks first in the northeastern U.S.



*Photo by Tom Haxby, Forest Resources Division
inventory and planning specialist*

Cooperatively Managing Michigan's State Forests

Public lands in Michigan benefit the economy by supporting the forest products industry, providing wildlife habitat, offering outlets for a multitude of outdoor recreation opportunities and many other uses.

The Forest Resources Division works to ensure the 4 million acres of state forest land are sustainably managed to meet the needs of present and future generations.

Regional Forest Planning

In 2013, the DNR director approved three regional forest management plans, one each for the western Upper Peninsula, eastern Upper Peninsula and the northern Lower Peninsula. The plans provide direction for management of the 4 million acres of state forest, including direction for management of forest cover types for timber production and habitat improvement for a variety of wildlife species. The plans also consider many other values including, but not limited to, recreation, protected areas, uncommon species, aquatic resources, and socioeconomic values. The first timber harvesting under direction of these plans will occur in 2016.

Forest Inventory

Forest inventory is an important function in the sustainable management of Michigan's state forest resources and provides important information for decision-making. Each year, DNR staff collects forest data on one-tenth of the state forest, which is divided into compartments. In 2013, 235 compartments totaling 415,555 acres were inventoried. Using the forestry data, and other information, forest treatments such as timber harvests and maintenance of wildlife habitat, are proposed. These treatments are carried out the year after inventory is complete.

Each forest management unit then conducts an "open house" to present this information and to solicit public comments regarding individual compartment plans and proposed forest treatments. In fiscal year 2013, of the acres that were inventoried, 61,407 acres were prescribed for timber harvest. Work is scheduled to begin after Oct. 1, 2014.

Forest Certification

The Michigan forest certification audit was a recertification audit for the Sustainable Forestry Initiative (SFI) certificate and a surveillance audit for the Forest Stewardship Council (FSC) certificate. The third party audits were conducted in the Sault Ste. Marie, Pigeon River Country, Grayling and Roscommon forest management units.

A new certificate of registration was issued from SFI for the period of 2013-2016, and the current FSC certificate (in effect for 2010-2015) was continued for 2014, serving as recognition of Michigan's well-managed state forest land.

Certification of Michigan's state forest system maintains markets for many Michigan wood products and assures that such products originate from well-managed forests.



3.9 million acres of Michigan's state-managed forests are certified.



GOVERNOR'S 2013 FOREST PRODUCTS SUMMIT

The Governor's 2013 Forest Products Summit brought together about 150 representatives from industry, government, the financial sector and academia to stimulate conversations for growing the state's forest products industry.

Plans for the summit emerged from Gov. Rick Snyder's Special Message on Energy and the Environment, which focused on improving Michigan's rural economies. The forest products industry has the opportunity to sustainably lead in land-based economic development.

The summit resulted in specific goals to grow Michigan's forest products industry, including:

- Increasing the forest products economy from \$14 billion to \$20 billion.
- Increasing the export of value-added forest products by 50 percent.
- Increasing forest products-related careers by 10 percent.
- Encouraging regionally based industry development.
- Increasing the timber supply from the U.S. Forest Service's three federal forests in Michigan.
- Looking at utilization of biomass for energy, heat and products.

By continuing to work with its partners to best protect the resources that benefit local communities and foster regional economic prosperity, FRD will maintain world-class state forest lands that provide quality outdoor recreation opportunities to enhance the quality of life for residents and visitors alike.



Timber Management

Michigan's state forests provide a consistent supply of wood to help support and maintain a diverse forest products industry that annually contributes an estimated \$14 billion to Michigan's economy. In 2013, the industry included 274 mills, 1,207 manufacturers and 590 logging contractors. The state forest provides about 20 percent of the raw material for these operations.

Timber Harvesting

Timber harvesting provides wood fiber for the forest products industry and presents an opportunity to manage land for specific wildlife habitat. The DNR works with many contractors, consultants and other stakeholders to manage a stable forest land base.

In fiscal year 2013, the DNR issued 619 timber sale contracts that have a term of one to three years. Additionally, FRD staff prepared 64,015 acres of timber sales for more than 942,000 cords of wood. Of the 64,015 acres, over 10,000 included ash trees that were being salvaged from the impact of emerald ash borer.

The state received \$38 million in timber sale revenue in fiscal year 2013.

Reforestation Efforts

Reforestation is a vital part of the DNR's mission. When natural regeneration is not adequate, the division will plant seedlings to help ensure healthy forests for the future. Reforestation efforts in fiscal year 2013 included:

- Planting a total of 6,828,860 seedlings on 6,770 acres of state forest land.
- Growing (by FRD's Wyman Nursery staff) 5,081,500 seedlings that were used in the spring 2013 planting effort.
- Preparing nearly 5,580 acres for planting in spring 2014.
- Replanting approximately 1,200 acres in the area affected by the 2012 Duck Lake fire.
- Donors contributed over \$85,000 in support of state forest reforestation efforts, including funds received from the National Arbor Day Foundation, A. Finkl & Sons, the Treecycler Program and two private donors to the State Forest Family Memorial program.

Through collaborative work with the Forest Resources and Wildlife divisions, 2.3 million jack pine seedlings were grown for planting of 1,860 acres of Kirtland's warbler habitat.



Forest Health

The Forest Health Program (FHP) is a collaboration of the DNR's Forest Resources and Wildlife divisions, Michigan State University, Michigan Technological University and the U.S. Forest Service's Northeastern Area State & Private Forestry Unit.

In fiscal year 2013, the FHP:

- Provided training and technical support to volunteers and DNR staff to assist them in facilitating an ongoing survey pertaining to the Asian longhorned beetle (ALB) – a destructive wood-boring pest threatening maple and other hardwoods. The survey consisted of inspections of specifically targeted campgrounds and campsites with visitors who had zip codes that matched confirmed out-of- state ALB outbreaks.
- Worked with Michigan Technological University to survey hardwood stands on state forest lands containing beech and ash from a pool of more than 30,000 acres of upland hardwoods to identify stands for additional salvage harvests. Following the survey, FRD staff prepared more than 10,000 acres of new salvage harvests, and reviewed more than 16,000 acres of existing sales to include salvage of additional ash and beech trees.
- Continued to work in cooperation with Michigan Technological University and Michigan State University to confirm oak wilt pockets in Menominee and Iron counties. Using a vibratory plow, FRD staff plowed approximately 36,150 feet of line isolating 116 acres of infected oaks by cutting root grafts to prevent the spread of oak wilt to adjacent stands.
- Trained field staff in the use of a forest health and invasive plant reporting application for field data recorders to simplify reporting of forest health problems.
- Continued to monitor hemlock woolly adelgid (HWA) in cooperation with the Michigan Department of Agriculture & Rural Development. Healthy trees in the immediate vicinity of an initial infestation at New Buffalo received treatments with an insecticide to ensure eradication of HWA in the affected area.

The DNR works with other state and federal agencies and universities to prevent, evaluate and manage the occurrence and impacts of both native and exotic forest insects and diseases.





In fiscal year 2013, the DNR's Resource Assessment Unit redesigned Mi-HUNT – an interactive mapping tool showcasing 10 million acres of land open to public hunting – to make it compatible with mobile devices for easy use in the field.

Resource Assessment

The Resource Assessment Unit (RAU) provides geographic information systems (GIS) and digital mapping support to the DNR and others in state government. A robust network of natural resources information is made available to all DNR staff, as well as other subscribers throughout state government. This data gives DNR land managers access to information which enables sound natural resources management decisions that benefit all citizens.

In fiscal year 2013, the RAU:

- Provided GIS and mapping support for the DNR's Parks and Recreation Division trail program and Minerals Management programs.
- Provided mapping support for the Farmland Preservation Program at Michigan Department of Agriculture & Rural Development.
- Led in the development of a technology-rich database to track and store facility management information for 852 DNR buildings.
- Acquired new leaf-off aerial imagery for several Michigan counties to assist in the quality control review of the imagery that was collected under a statewide county-cooperative agreement.



The Fire Program

The DNR has a nationally recognized wildfire program that is charged with protecting state forest resources and private land. FRD staff responds to an average of 500 wildfires yearly.

In fiscal year 2013, the DNR Fire Program:

- Took suppression action on 262 fires totaling 740 acres. These efforts are credited with saving 515 structures.
- Performed 40 prescribed burns – the skillful application of fire – on 2,450 acres which benefited wildlife habitat, controlled invasive species, reduced hazardous fuels and promoted forest regeneration.
- Filled 25 requests for wildfire incident managers as well as one hand crew and three staffed fire engines on out-of-state fire assignments. The opportunity to assist other states and federal agencies allows FRD staff to improve their skills and maintain high-level qualifications – all used in managing Michigan fires.
- Provided nearly 1,000 hours of specialized wildfire training to local firefighters and cooperators. Instructional efforts from FRD staff assists fire departments in acquiring vital skills that better prepare them to respond to wildfire threats throughout their communities.
- Awarded 117 fire assistance grants worth more than \$271,000 through the federal Volunteer Fire Assistance grant program to help volunteer fire departments purchase safety, communications and suppression equipment.
- Obtained excess federal equipment – including fire trucks, road graders, vehicles and a warehouse forklift – worth nearly \$3 million through the Federal Excess Personal Property program and the Department of Defense Firefighter Property Program for use within the DNR and by local fire departments.
- Completed adaptation of a grapple skidder by the DNR's Forest Fire Experiment Station to carry water, plow line and monitor fire activity with a camera – advancing the department's wildfire suppression capabilities.
- Spent more than 1,000 hours on fire prevention messaging and activities across the state that reached over 100,000 people of all ages.
- Delivered 6,500 radio and television fire prevention ads across Michigan, which had the potential to reach more than 1 million people.



In fiscal year 2013, the Harsens Island fire in St. Clair County burned 100 acres. DNR staff, 14 additional fire departments and 60 firefighters worked to extinguish the fire. Because the fire burned in a wetland, access and suppression were difficult. During suppression efforts, firefighters protected two homes and held the fire between two roads.



Photo by Neil Harri, Forest Resources Division pilot

Air Operations

Five pilots make up the DNR's air operations team. The pilots' services are used within FRD, but also by other DNR divisions, universities and outside agencies.

- **Fire Detection:** There are five detection patterns in the Lower Peninsula and three in the Upper Peninsula. These flights are used to locate wildfires and provide intelligence over a wildfire during suppression actions. This is the pilots' primary mission in the spring, summer and fall. In fiscal year 2013, DNR pilots flew 580 hours for the fire program.
- **Forest Health:** Aircraft are used to locate defoliation, helping to determine the cause and size of an infected area for mapping purposes. In fiscal year 2013, pilots performed 100 hours of aerial surveys covering 17 million acres of forested land.
- **Wildlife Division:** In fiscal year 2013, pilots performed 350 hours of radio collar flights to track wolf, elk, bear and moose. They also flew 150 hours of survey flights to count moose, elk, waterfowl and feral pigs to determine populations and establish hunting quotas. As a part of a nine-year predator/prey study, does and their fawns – along with their predators – were collared. As the collars went into mortality mode, the aircraft reported them to Wildlife personnel who checked them to determine which predator was the cause of death. This was part of a project in cooperation with the DNR, Mississippi State University and Safari Club International. Pilots flew 260 hours of predator/prey flights in fiscal year 2013.
- **Law Enforcement Division:** In addition to helping conservation officers locate illegal off-road vehicle activity and nighttime flights patrolling for spotlight use during prohibited hours, the DNR pilots spent 25 hours flying search-and-rescue flights in fiscal year 2013.
- **Other Agencies:** In fiscal year 2013, DNR pilots flew 280 hours to locate more than 800 eagle nests statewide to determine which nests are active by counting successful hatches.



Private Lands Forestry

Families and individuals own the largest proportion of Michigan's forests – 62 percent or approximately 12 million acres. These lands provide public benefits like clean air and water, wildlife habitat, outdoor recreation and a large portion of the state's wood supply.



In the past 20 years, the Forest Stewardship Program has helped private landowners prepare more than 5,000 Forest Stewardship plans for 756,000 acres of private forest land in Michigan. The plans have been developed in 82 counties.

Forest Stewardship Program

The DNR's Forest Stewardship Program is one of several programs that promote sustainable forest management on family forest land. In fiscal year 2013, DNR staff partnered with private sector foresters to provide professional planning and technical assistance to help 223 landowners develop Forest Stewardship plans covering 33,224 acres.

Commercial Forest Program

The Commercial Forest (CF) program provides a property tax incentive for private landowners to retain and manage forest land for long-term timber production. In fiscal year 2013, the DNR approved an additional 6,474 acres for the CF program. Over 1,800 landowners have 2,227,450 acres currently listed in the program.



In addition to supporting the forest products industry, Commercial Forest land also is open to the public for hunting and fishing, providing an additional 2.2 million acres for these activities.



Urban and Community Forestry

This program promotes management of trees and forests in urban areas throughout the state by providing technical, educational and financial assistance. During fiscal year 2013, this assistance, made possible through the USDA Forest Service, helped:

- Award 71 cost-share grants to communities and partners.
- Reach people living in 250 participating communities with total populations of more than 5 million.
- Plant 3,331 trees in urban and community areas.
- Facilitate 19,113 hours of volunteer contribution valued at nearly \$290,000.
- Develop one community forestry management plan.
- Adopt eight community tree ordinances.

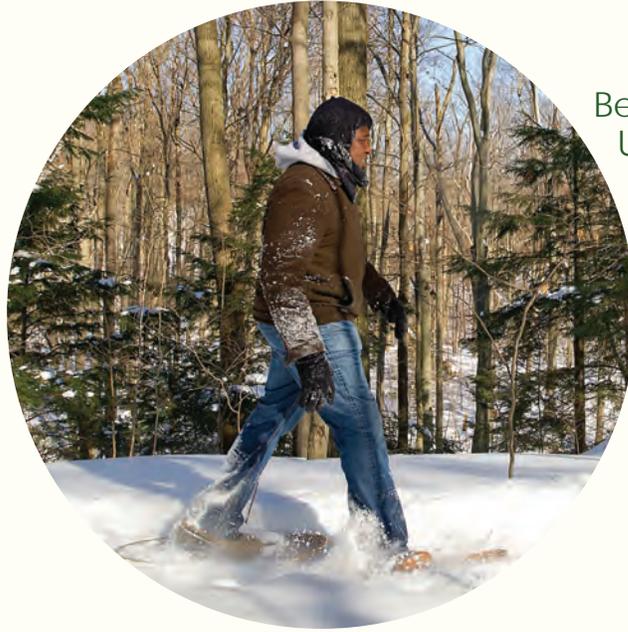
In preparation for the DNR's transition to managing Belle Isle Park in Detroit, the Urban Community Forestry program led the DNR's effort to assess and identify hazardous tree conditions on the island and plan for their eventual removal.

In fiscal year 2013, 126 communities were certified through the Arbor Day Foundation's Tree City USA program. Certified communities range in size from Detroit (pop. 713,777) to Richland (pop. 725). Currently, 28 percent of Michigan residents live in a Tree City USA community.



Ensuring Access to State Forest Land

State forest lands contribute to Michigan's overall recreation package for residents and visitors alike. The Forest Resources Division manages Michigan's land to ensure public access is available for hunting, fishing, hiking, camping, cross country skiing, equestrian use, birding and other forest uses.



Between the U.S. Forest Service and DNR, Michigan has approximately 7 million acres of public forest land.

Keeping Public Land Public

FRD currently has almost 400 pending encroachments on public land that keep this land from public use. In fiscal year 2013, FRD:

- Resolved over 100 trespasses, returning those lands to public use and closed 15 additional structural trespass cases by working with private landowners to resolve their barn, garage, home and camp trespasses.
- Assisted in the resolution of 15 trespasses on property acquired with federal assistance or license fees.
- Freed up additional river frontage on the Au Sable and Manistee rivers, now available for the public to enjoy.
- The DNR obtained Natural Resource Trust Fund grants to demolish unsafe and abandoned structures on state-managed lands, some of which were acquired by the state to resolve trespass cases. In fiscal year 2013, FRD demolished 96 structures at 51 sites. Structure removal not only restored state land for habitat needs and recreational use, the work also eliminated potentially dangerous structures.



The Forest Resources Division works with approximately 1,400 volunteers annually through the Adopt-a-Forest Program to collaborate to keep public forest land free of illegal trash and debris dumping.

Volunteers cleaned up more than 1,300 cubic yards of trash from public land in fiscal year 2013.



Key Acquisitions for Fiscal Year 2013 Included:

- The Crisp Point property in Luce and Chippewa counties (see photo above). This 3,810-acre parcel in the eastern Upper Peninsula is adjacent to state forest land on two sides and the Northern Great Lakes Forest project (a working forest conservation easement held by the state). It contains over 2½ miles of Lake Superior shoreline and habitat for several wildlife species. This acquisition was made possible through a federal Forest Legacy Program grant and a private donation.
- The purchase of a 480-acre parcel in Cheboygan County. This property contains more than a mile of Pigeon River frontage. It is adjacent to state forest land on two sides and is directly adjacent to the Pigeon River Country State Forest.
- The Big Trout Lake property in Chippewa County. At 540 acres, this parcel provides access to Big Trout Lake, Ziegler Lake and Albany Creek, which is a trout stream that offers brook trout, steelhead and salmon fishing opportunities.

The Pigeon River Property and Big Trout Lake Property were funded through grants from the Michigan Natural Resources Trust Fund.

The acquisition of these parcels will result in approximately 4,800-plus acres of timber that will now be managed for wildlife habitat enhancement and the timber resource to grow and sustain the forest products industry in Michigan.

Transactions on State Forest Land

Land consolidation is key for the DNR as an agency and is especially critical for FRD. Consolidated public ownership benefits both public users and FRD land management staff. Large blocks of public land allow for a range of recreation uses – off-road vehicle and snowmobile trails, hunting and trapping, hiking and wildlife viewing – and offer significant land-management efficiencies. In fiscal year 2013, FRD (with assistance from the DNR's Real Estate Services) completed 33 land disposals, three land exchanges and 21 acquisitions.

Land Use Activities

Land use staff coordinates a variety of recreational and land use-related activities on state forest land each year. For fiscal year 2013, staff issued more than 330 use permits for a variety of activities, including well site development for oil and gas production, wedding ceremonies, dog sled races, cross country running races and equestrian rides.

Land Surveying

FRD's survey staff is responsible for establishing boundary surveys that benefit timber sales, protect public land from trespassing, and assist other DNR divisions. In fiscal year 2013, FRD survey staff:

- Completed 153 land survey projects for the DNR, of which:
 - 100 surveys were in support of FRD timber harvest.
 - 44 surveys were completed under the Encroachment Resolution Initiative to resolve historic encroachments.
 - 9 surveys were completed to facilitate construction design and road easements, or to support the activities of other DNR divisions.
- Established and monumented a total of 668 new property corners and rehabilitated an additional 566 existing property corners.

Pigeon River Country

In fiscal year 2013, DNR staff, partnering with Huron Pines and other conservation groups:

- Oversaw the removal of Saunders Dam on the Black River in Otsego County, which reconnected 8 miles of cold-water fish habitat and completed restoration of a 517-acre land acquisition at the Pigeon River Country State Forest.
- Completed an erosion-control project at the Sinkhole Lakes that repaired erosion on steep slopes and established more sustainable access routes to water.



In fiscal year 2013, 45 organizations, in addition to many dedicated individuals (including the group above), volunteered or spent time working in the Pigeon River Country.



Forest Resources Division Funding

The Forest Resources Division (FRD) continues to look for ways to create a more balanced funding structure. The division currently derives most of its funding from the Forest Development Fund (FDF), which is primarily comprised of the revenue generated from the sale of timber harvested from publicly-owned state-managed forests. Revenue to the FDF often fluctuates due to its dependence on timber sales, which are highly volatile. FDF represented 77 percent of FRD's budget in fiscal year (FY) 2013. The division also utilizes important contributions from various other sources. FRD received \$3.5 million from the state's general fund in FY 2013, which equated to 8 percent of the division's budget. The remaining budget was comprised of allocations from the federal government, donations from private entities and state restricted funds.

Moving forward, FRD will continue to actively seek potential investment opportunities that will help grow a vibrant forest products industry, protect forest resources, and provide access to safe and enjoyable recreation opportunities within Michigan's 4-million acres of world-class state forest land.

DID YOU KNOW?

The forest products industry generates \$14 billion annually for Michigan and sustains nearly 78,000 jobs.



An average 6 million seedlings are planted on about 6,000 acres of state forest land each year.



In 2013, the DNR partnered with Verso Paper Corporation, the Michigan Forest Products Council and the Michigan Natural Features Inventory to identify and map vernal pools



on state forest land in the Upper Peninsula. Vernal pools are small, temporary bodies of water that form in shallow depressions primarily in forested areas. The pools provide food, water and/or habitat for a number of animal and plant species, including several endangered, threatened or rare species in Michigan. The research is ongoing.



The DNR works with approximately 2,600 Project Learning Tree instructors to reach kids from preschool to 12th grade across the state. The environmental education program provides instruction and materials to promote interactive and hands-on learning.

Learn more about Forest Resources Division and Michigan's forests at
www.michigan.gov/forestry



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The Michigan Department of Natural Resources is committed to the conservation, protection, management, use and enjoyment of the state's natural and cultural resources for current and future generations.