

Michigan Department of Natural Resources

Forest Resources Division

Fiscal Year 2021

ACCOMPLISHMENTS

REPORT

Michigan.gov/Forestry

2021 HIGHLIGHTS

Innovation was a key word for the Michigan Department of Natural Resources Forest Resources Division during 2021. As restrictions related to the COVID-19 pandemic began to ease, FRD staff worked hard to return normal operations.

Michigan became the first state to enter the market in the sale of carbon offset credits from public lands with a pilot project in the Pigeon River Country State Forest. Work is progressing to develop solar energy projects on two former mining sites on state forest land.

The 10-year Forest Action Plan, which assesses and makes management recommendations for all of Michigan's privately, commercially and publicly owned forest land, received final approval. The document offers a roadmap for managing the state's nearly 20 million acres of public and private forests, including strategies to adapt to a changing climate.

More than 100 FRD staff and contractors were trained in 2021 on a new timber cruising protocol, which will provide more accurate estimates of timber volume for DNR sales. That same year, more than 56,000 acres of timber sale work across state forests, game areas and federal lands was accomplished.

The forest health team continued to work hand in hand with federal and local governments to identify and eradicate the hemlock woolly adelgid in west Michigan, while a new threat, the balsam woolly adelgid, was confirmed in west Michigan's Kent County for the first time. Spotted lanternfly and Asian longhorned beetle, present in nearby states, are top priorities on invasive species watchlists but have not yet been detected in Michigan forests.

Fire staff battled 274 wildland fires burning 2,379 acres of land. Significant fires included the 378-acre Colfax Fire and 130-acre Miller Drop Zone Fire, both in the northern Lower Peninsula. Staffers conducted prescribed burns on 5,100 acres to renew the landscape, setting back invasive plants and improving wildlife habitat.

Read on for a deeper dive into individual programs and initiatives.



NEW INITIATIVES PROGRESS

Forest carbon credits sold to DTE energy

The nearly 110,000-acre Pigeon River Country State Forest is now home to a pilot project to sell carbon credits to help Michigan industry offset greenhouse gas emissions. Utility DTE Energy is the first purchaser of the credits.

Funds generated from carbon credit sales will be reinvested into DNR funds to support tree planting, wildlife habitat improvements and other forest management activities. The Pigeon River Country is home to Michigan's elk herd and is a key recreation spot.

The carbon pilot project, in partnership with Anew Climate LLC is registered with the American Carbon Registry using the Improved Forest Management methodology for working forests. Credits are independently verified and sold on voluntary markets. The project is the first in the nation to sell carbon credits from public lands and was featured in a video at the 2021 United Nations climate change summit in Glasgow, Scotland.



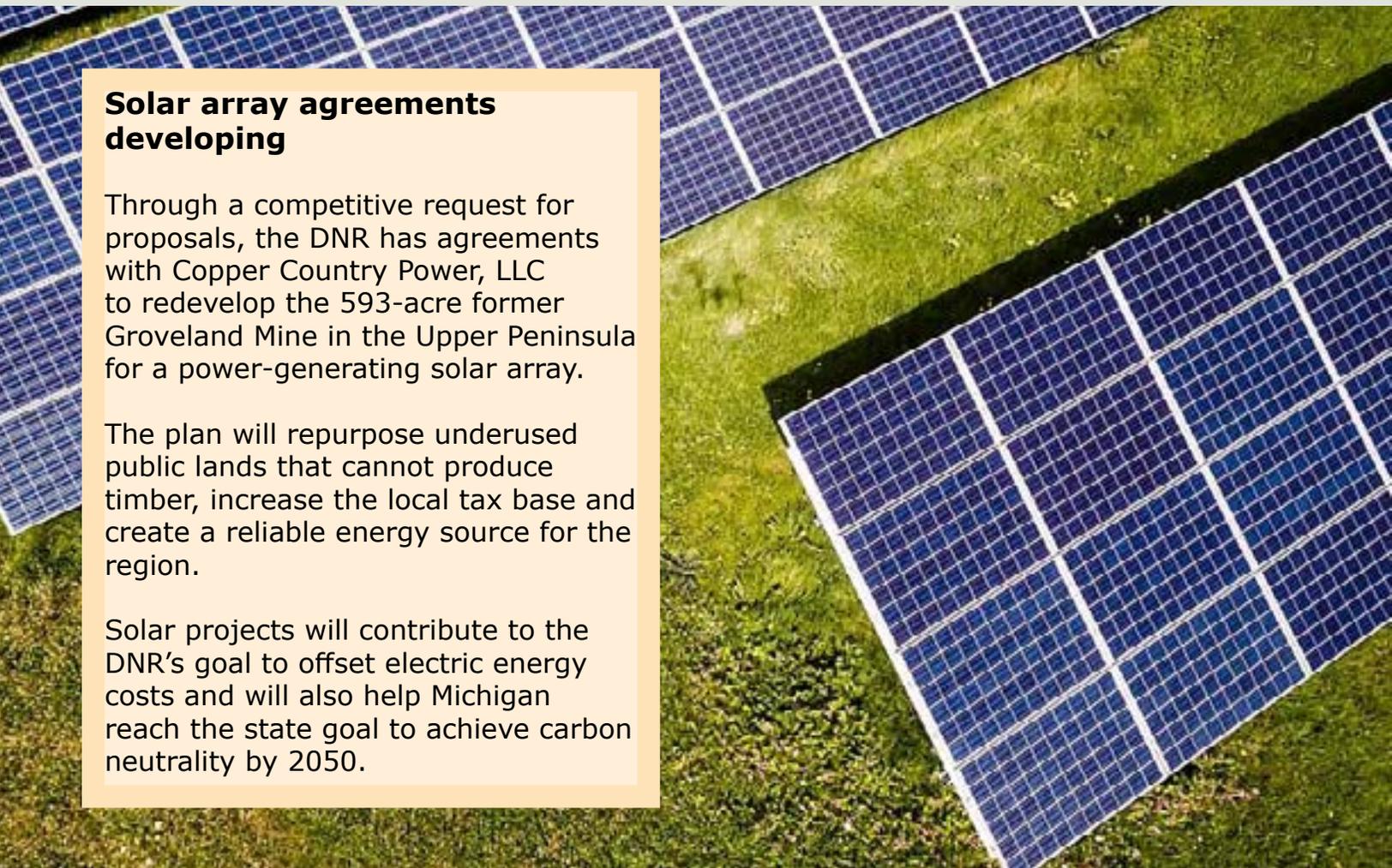
An elk from the Pigeon River Country State Forest.

Solar array agreements developing

Through a competitive request for proposals, the DNR has agreements with Copper Country Power, LLC to redevelop the 593-acre former Groveland Mine in the Upper Peninsula for a power-generating solar array.

The plan will repurpose underused public lands that cannot produce timber, increase the local tax base and create a reliable energy source for the region.

Solar projects will contribute to the DNR's goal to offset electric energy costs and will also help Michigan reach the state goal to achieve carbon neutrality by 2050.



WILDFIRE PROTECTION AND PREVENTION

DNR fire management staff responded to 274 fires in 2021, an increase from 203 in 2020 and 227 in 2019.. These wildfires burned nearly 2,379 acres.

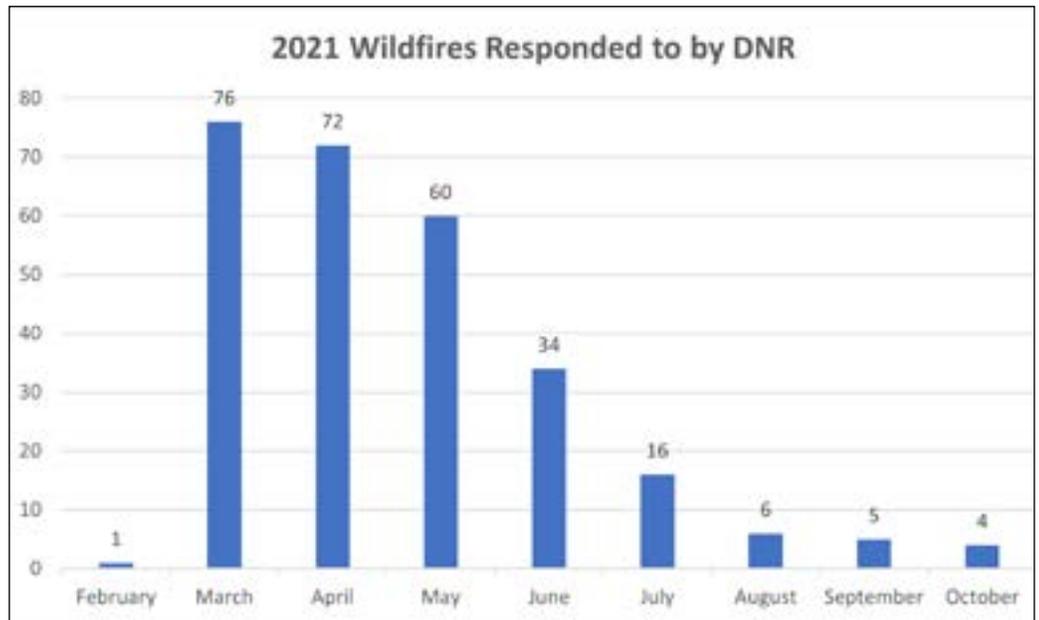
Significant fires include the 378-acre Colfax Fire and 130-acre Miller Drop Zone Fire, both in the northern Lower Peninsula.

Multiple DNR units and partners responded to the Superior Cedar Products Fire in Carney, which resulted in a state of emergency declaration

in Menominee County. DNR crews also aided federal partners on the 5,600-acre Brittle Fire that started on federal lands April 23 in the Huron-Manistee National Forest. DNR crews took seven tractor plows and six engines to the scene; two DNR staffers helped in management.

Fire staff conducted 57 prescribed burns on 5,100 acres during 2021, setting back invasive species, improving habitat for wildlife and reducing buildup of woody debris that could fuel wildfire.

DNR staff completed 105 out-of-state assignments, including a few virtual assignments assisting with logistics and planning. Four engines were taken out of state during 2021, with 33 DNR staffers rotating in to crew them. Locations included California, Colorado, Idaho, Minnesota, Montana, Oregon, Pennsylvania, Washington, Washington D.C. and Manitoba, Canada. Incident management teams, who are qualified to serve on many types of natural disasters and emergencies, helped set up a medical site in January at the presidential inauguration in Washington, D.C. DNR staffers also assisted with logistics to roll out the COVID-19 vaccinations at Detroit's Ford Field in spring 2021.



Staffers monitor the progress of a prescribed burn.

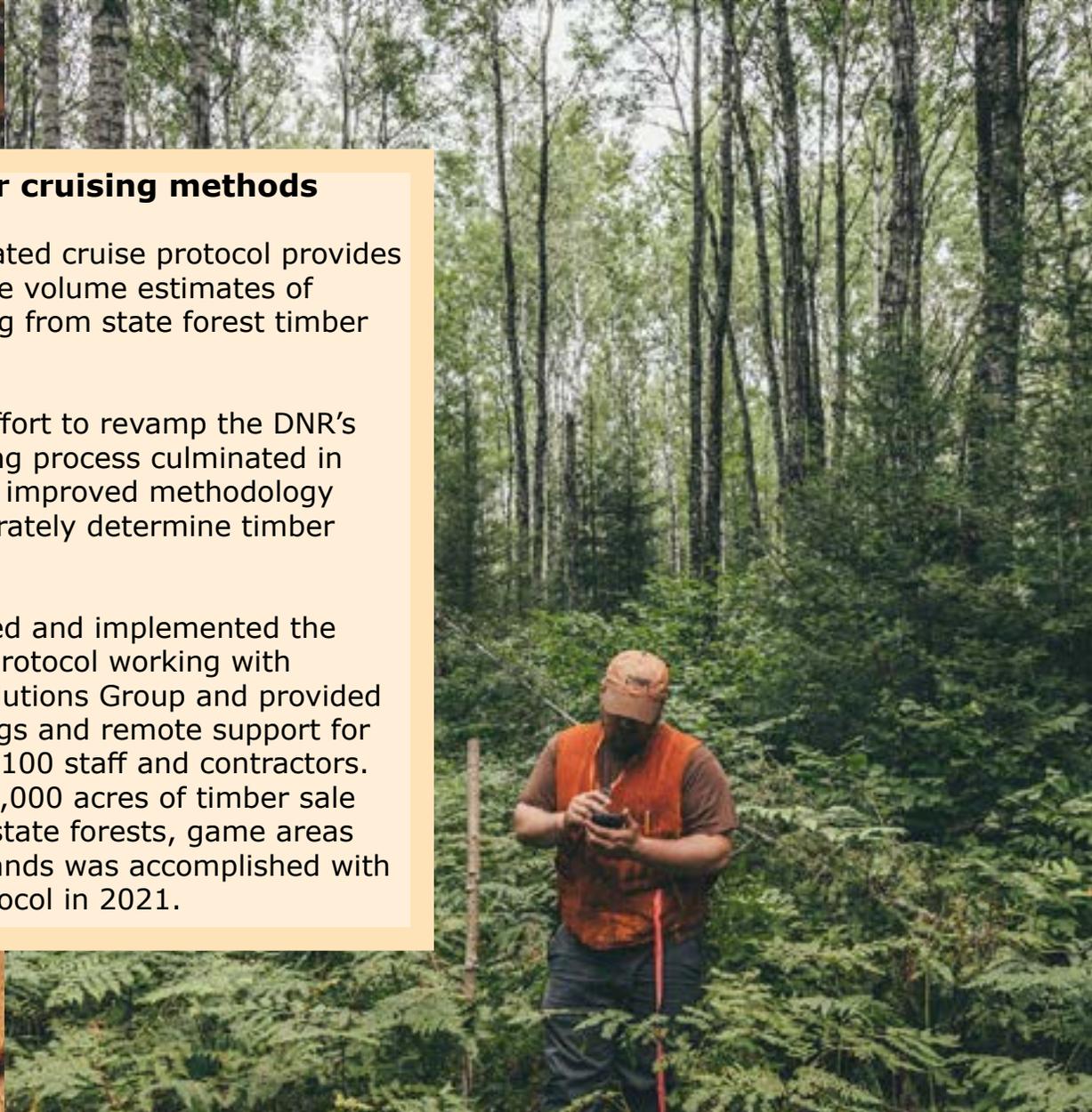


FIELD AND FOREST: HARVESTING, PLANTING AND TIMBER CRUISING

In addition to activities to encourage natural forest regeneration and regrowth on timber harvest sites, DNR staff oversaw planting of 1.5 million jack pine seedlings and 2.5 million red pine trees for a total of 4 million trees.

More than 50,000 acres were prepared for sale from the state forests during fiscal year 2020-21 with a volume of more than one million cords.

DNR staff prepared just over 6,400 acres of timber for sale on federal land under the Good Neighbor Authority program, yielding more than 123,000 cords of wood. That's a 50% increase over 2020, when harvests were reduced due to the COVID-19 pandemic, and comparable to 2019.



New timber cruising methods

A new integrated cruise protocol provides more accurate volume estimates of timber coming from state forest timber sales.

A five-year effort to revamp the DNR's timber cruising process culminated in 2021 with an improved methodology to more accurately determine timber volume.

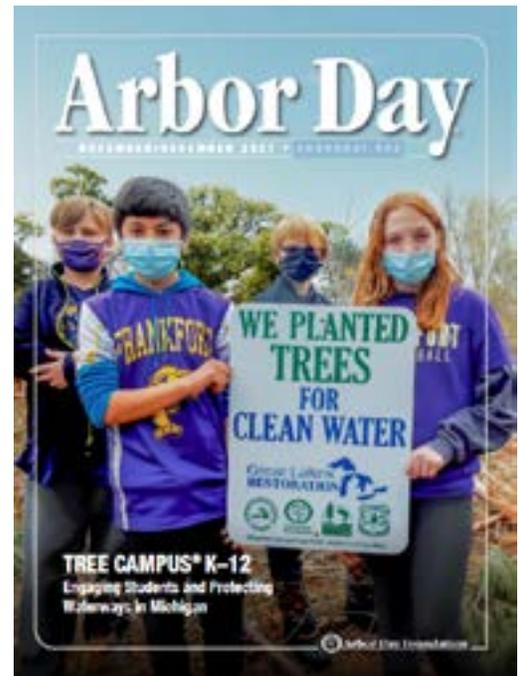
FRD developed and implemented the system and protocol working with Woodland Solutions Group and provided online trainings and remote support for training over 100 staff and contractors. More than 56,000 acres of timber sale work across state forests, game areas and federal lands was accomplished with this new protocol in 2021.

FOREST STEWARDSHIP

The Forest Stewardship Program focused its 2021 efforts on outreach and education in schools, working to help 12 schools create plans for school forests or scout camps and educate youth on the importance of healthy trees by promoting the Project Learning Tree curriculum. The program also provided funds to support 20 educational Wheels to Woods field trips for 1,265 people, bringing kids to experience local forests or forest products companies.

The Forest Stewardship Program helped to plant 110,000 trees at 10 Michigan school forests to protect water quality. Awards of \$254,000 from the USDA Forest Service and \$50,000 from the Arbor Day Foundation supported the effort.

Additionally, the program helped 268 landowners create or update management plans involving more than 60,000 acres of forest land. Projects ranged from timber harvests to planting trees to managing and improving wildlife habitat.



Student tree planting featured in the Arbor Day Foundation magazine.



DNR air operations fleet, including planes and drones.

ROSCOMMON AIRPORT TAKES OFF WITH NEW RUNWAY

For more than 50 years, the runway at the DNR's airport in Roscommon has been the path to the sky for fire spotters, wildlife biologists, forest health specialists and other conservation staff requiring a view from above.

In 2021, the runway at the DNR's airport in Roscommon was replaced to keep pilots safe and prevent damage to aircraft. A 4-inch-thick asphalt surface was laid down over 6 inches of aggregate, which used recycled material pulverized from the old runway. Runway lighting was upgraded to energy-saving LED lights and updated to meet Federal Aviation Administration standards. The total project cost was about \$1.3 million.

A family picks out a tree at the tree giveaway in Detroit.



URBAN AND COMMUNITY FORESTRY

A record 128 communities with Tree City USA status and a downtown Detroit tree giveaway sponsored in part by the Detroit Pistons – check and check.

The Urban and Community Forestry program helped 126 communities achieve Tree City USA designation in 2021. It's estimated that 35% of Michigan residents now live in a Tree City.

Grants totaling \$117,200 were awarded to support tree planting, care and technology in 11 communities. Additionally, 1,768 shade trees were planted through a utility-sponsored partnership grant with DTE Energy Foundation and ReLeaf Michigan.

Work to highlight urban forestry heritage progressed with the completion of phase 1 restoration on the roof of the historic sawmill at Belle Isle Park in Detroit.

FOREST HEALTH

In 2021, a key forest health issue was defoliation by spongy moths, formerly known as gypsy moths, that caused consternation for homeowners across the state in an outbreak that left some tree trunks ringed with hungry caterpillars. The forest health team aerially surveyed an estimated 24 million acres, mapped 1.2 million acres of defoliation and provided information to hundreds of landowners. Aerial surveys also detected other forest health issues.

DNR specialists continue to work with federal and local governments and communities to find and treat the hemlock woolly adelgid in five west Michigan counties. This year, an updated statewide strategy helped spur quick mobilization to eradicate the pest from a single infested tree discovered in a sixth county. Intensive monitoring of the area has not uncovered more activity, and surveys will continue.

Collaboration with partners is making a difference, with local Cooperative Invasive Species Management Area groups fighting effective battles against invasive plants and hemlock woolly adelgid.

Surveys of red pine stands for Heterobasidion root disease, a destructive fungal disease affecting conifer trees, resulted in several new detections. Continued monitoring and protection of high-risk stands will help ensure healthy red pine resources into the future.

Forest health experts are asking residents to keep an eye out for the spotted lanternfly. Its core infestation is in Pennsylvania, spilling into Ohio and Indiana. The destructive insect is a major nuisance to landowners and could be devastating to grapevines and hops. The black-and-white, woodboring Asian longhorned beetle also is present in Ohio and poses a threat to maple trees. These insects were not detected in Michigan during 2021.

Oak wilt disease inspection.

