

2019 Division of Forestry Annual Report



INDIANA'S STATE FORESTS

158,949 acres of sustainable forest at work and play

WORKING and RESEARCH FORESTS

The Indiana DNR State Forest system is only one part of the of the broader DNR land conservation portfolio, which includes State Parks, Fish & Wildlife Areas, Reservoirs, Recreation Areas and Nature Preserves. State Forests are uniquely managed under the principle of multiple-use, multiple-benefit, providing for wood products, wildlife, recreation and the conservation of unique resources. This multiple-use system includes the sustainable management and growth of “green certified” timber. It also includes the dedication and management of unique areas and, in partnership with the State Nature Preserve system, has set aside and dedicated over 3,500 acres as State Forest preserves since December 2019. This conservation management, based on science, provides combined benefits offered by no other DNR lands in Indiana.

Owner	Acres	% Forest	Acres Forest	% Water	Acres Water	Ac. Nature Preserves
Forestry	158,949	97.0%	154,224	1.1%	1,818	3,582
Fish & Wildlife	148,765	62.2%	92,532	9.3%	13,892	3,265
Nature Preserves	21,781	77.9%	16,961	3.9%	846	15,928
Outdoor Recreation	5,322	78.1%	4,157	2.6%	138	0
State Parks	75,790	84.7%	64,193	4.4%	3,347	14,651
U.S. Army Corps of Engineers*	110,633	55.0%	60,825	34.1%	37,706	0

*Managed by DNR

STATE FOREST RESOURCE MANAGEMENT

Invasive Species Management

The Division of Forestry hired three invasive crews in 2019. Funding was made possible by the Joint Chief’s – Hoosier Hills and Highlands grant through the U.S. Forest Service. These crews worked on five state forest properties: Clark SF, Harrison-Crawford SF, Ferdinand- Pike SF, Yellowwood/ Morgan-Monroe SF and Owen-Putnam SF. Working under the guidance and direction of property staff, crews performed a variety of tasks. The most notable was their invasive species control. Exotic and invasive plant species have become one of the biggest ecological concerns facing the forests of Indiana. Crews targeted several species that included, but not limited to, bush honeysuckle, autumn olive, Oriental bittersweet, multiflora rose, burning bush, Ailanthus, Callery pear, Japanese stilt grass, and Amur cork. Combined, these three crews performed invasive species control work on approximately 998.5 acres across the State Forests they work on. Additionally, each year State Forests actively manage invasive species to promote healthy and diverse ecosystems. In 2019, the division’s total invasive species control efforts covered over 1,700 acres.

Timber Stand Improvement

Timber Stand Improvement (TSI), also known as Forest Stand Improvement, is a management tool often used after a timber harvest to complete regeneration openings and control undesirable trees not removed during the harvest. This could be non-merchantable cull trees or trees of less desire to release species like oak, hickory, or other key species to create or maintain diversity in the landscape. Timber Stand Improvement may also be conducted prior to a harvest to control vines or release the understory prior to the harvest. In 2019, State Forests completed nearly 2,500 acres of TSI.

Forest Inventories

State forests are broken into compartments, with each compartment further divided into tracts. Management occurs at the tract level. Each year properties complete tract-level assessments and develop resource management guides for a portion of the tracts available at each state forest. Each tract has a guide developed based on the tree data collected in the field, field and database reviews on wildlife, cultural resources, and soils. These guides, once complete, provide the guidance for the management of the tract over the next 15-25 years. In 2019, State Forests completed over 158,949 acres of forest inventories.

Forest Certification

Forest certification programs and audits conducted in 2019 continue to independently recognize Indiana's State Forest system as "well managed forests". Certification helps assure Indiana's State Forests are managed sustainably for the use and enjoyment of current and future generations and allows wood products from State Forests to participate in the "green certified" wood product markets.

The 158,264 acre State Forest system has been certified by the Sustainable Forestry Initiative® program and the Forest Stewardship Council® (FSC®-C012858) as "green certification" programs since 2007. Independent third-party audits are conducted annually to assess compliance with the rigorous certification standards. Audits in 2019 were conducted by Scientific Certification Systems and NSF International Strategic Registrations (NSF-ISR). The audit results found the State Forest system to be in compliance with the forest certification standards of well managed forests and issued no corrective actions.

Sustainable “green certified” wood products from State Forests in fiscal year 2018-2019 totaled 5,757,030 board feet equivalent, made up of 4.09 million board feet timber and 3,334 cords with gross revenues of \$982,621.77. These managed harvests were spread over 1,943 acres of the 158,264 acre State Forest system. Single-tree select cuts were the predominant harvest strategy. DNR Forestry sends 15 percent of timber sale proceeds to county governments to help support volunteer fire departments—this amounted to \$136,276 in FY 2018-19. The annual timber harvest prescription for the State Forest system for FY2019-20 is 10 million board feet.

Timber Sale Volume And Sale Prices the Last Ten Years			
<i>Fiscal Year</i>	<i>Timber Sale Volume (BFE)</i>	<i>Sale Prices</i>	<i>Revenue to Counties</i>
2009-2010	10,253,981	\$2,368,521	\$289,342
2010-2011	14,065,864	\$2,720,629	\$283,412
2011-2012	14,435,135	\$2,686,672	\$381,441
2012-2013	11,995,721	\$1,887,726	\$314,149
2013-2014	17,148,568	\$4,036,782	\$333,540
2014-2015	12,198,010	\$2,988,047	\$441,977
2015-2016	7,145,779	\$1,588,188	\$397,399
2016-2017	10,298,000	\$1,803,518	\$343,276
2017-2018	7,330,000	\$1,117,236	\$210,554
2018-2019	5,757,030	982,622	\$136,276
TOTAL	110,628,088	\$22,179,941	\$3,131,366

RESEARCH AND SITE CONSERVATION

Research

In 2019, DNR Forestry provided direct support to 13 research projects investigating the ecological effects of forest management on State Forests. All of this support went to researchers involved with the Hardwood Ecosystem Experiment (HEE, www.heeforeststudy.org/), a long-term project based at Morgan-Monroe and Yellowwood state forests. DNR Forestry provided support to 9 graduate/post-graduate researchers in 2019. These researchers were working on questions related to forest management and ecological impacts.

DNR Forestry-supported researchers published 10 articles in peer-reviewed scientific journals in 2019. HEE accomplishments since 2006: 69 peer-reviewed research articles, 29 theses and dissertations, and 6 peer-reviewed extension publications and technical report collections.

Research and scientific collection permits were issued for a number of projects on State Forests that were not involved with the HEE. In 2019, 18 original permits or extensions were issued for scientific research or specimen collection on State Forests.

Recent Select Hardwood Ecological Experiment (HEE) Project Summaries:

In 2019, HEE researchers working on breeding bird surveys recorded 69 species of birds, down from a high of 78 in 2010, one year after timber harvesting at the HEE study sites. As in each

of the previous annual surveys, birds associated with mature forest nesting habitat were among the most commonly detected species. Species that nest within young forest patches continue to decline across the HEE areas, likely due to forest maturation.

Research continues on bats at HEE sites and across Morgan-Monroe and Yellowwood state forests. Capture rates for some species of bats continue to mirror statewide declines due to the devastating affliction known as white-nose syndrome (WNS). Tricolored bats, Northern long-eared bats, and little brown bats have each experienced a notable drop in captures and are believed to be the species most affected by WNS in Indiana. Northern long-eared bats were once among the most abundant species captured at Morgan-Monroe and Yellowwood state forests; however, in 2019, no Northern long-eared bats were captured during summer net surveys. For the third year in a row, captures of Northern long-eared bat lagged behind those for the federally endangered Indiana bat.

Researchers found that small forest ponds are high activity sites for many bat species. These are believed to be an important habitat component for forest bats, especially on State Forests where most streams are dry during much of the summer, when bat energetic demands are high.

Researchers studying spider communities at HEE concluded their work in 2019. The project identified 177 species of spiders during the course of their study, including two species that were not previously known from Indiana. Researchers found that prescribed fire had an impact on spider abundance but not species diversity. Effects from prescribed burns appear to be short-lived, but more research is needed over longer periods of time.

Species Conservation

Indiana Bat Habitat Conservation Plan (HCP) and Bat Management Update

In 2019, DoF staff completed an updated draft of the Habitat Conservation Plan for Indiana bat on State Forests and submitted it to the U.S. Fish and Wildlife Service for review. An Environmental Assessment accompanies the plan, and this was completed by DoF staff in 2018. USFWS completed its review of the EA in 2019 and will collaborate with DoF staff to complete a final version in early 2020.

Once the USFWS has completed its review of the updated HCP draft, the plan will be made available for public review and comment, likely in 2020. The HCP is a necessary component in the application for an Incidental Take Permit, which is issued by USFWS and authorizes limited incidental “take” of Indiana bats during regular State Forest management activities. The HCP will direct the DoF’s Indiana bat conservation program for State Forests over the next 20 years and includes strategies to minimize risk of incidental take on State Forests, programs to increase awareness of Indiana bat conservation on privately owned forest in Indiana, measures to fully mitigate the impacts of unavoidable incidental take, and a monitoring program designed to evaluate the effectiveness of impact minimization measures and mitigation activities. Once approved, this HCP and the accompanying Incidental Take Permit will be among the first ever granted to a state forest management agency for the conservation of the Indiana bat. The DoF takes great pride in its leadership role on this important issue and believes its HCP will serve as a model for other forest management agencies to follow.

The DoF continues to manage the federally threatened Northern long-eared bat on State Forests under guidance provided by the USFWS and conservation measures detailed in its final 4(d) rule

for the species. By following this guidance, the DoF can fully avoid prohibited incidental take of Northern long-eared bats, as specified by the 4(d) ruling. A key conservation measure is avoidance of known maternity roosts during summertime management activities; to date, 184 Northern long-eared bat maternity roosts have been identified on Morgan-Monroe and Yellowwood state forests.

In 2019, 3 new Indiana bat maternity roosts were discovered by Indiana State University bat researchers working at Morgan-Monroe and Yellowwood state forests as part of the Hardwood Ecosystem Experiment (HEE, www.heeforeststudy.org/). This brings the total of known Indiana bat roosts on State Forests to 77, with most (60) known to support Indiana bat maternity colonies. Maternity roosts are particularly important to Indiana bats because they are the location where pups are born in summer and raised during their first few flightless weeks. As with Northern-long eared bat maternity roosts on State Forests, Indiana bat maternity roosts are protected from disturbance on State Forests during management activities.

2019 provided a third year of summer bat activity monitoring at Morgan-Monroe State Forest. Since 2013, DoF staff have periodically monitored bat activity using ultrasonic acoustic detectors at 40 locations across the property. After the 2019 survey, declines in activity were noted among two species, Northern long-eared bat and tricolored bat. Both species were once commonly detected at Morgan-Monroe and other State Forest properties; however, statewide declines due to the devastating bat disease white-nose syndrome (dnr.IN.gov/batdisease) have reduced the activity of these species significantly since it was first detected in Indiana in 2011.

Cave Entrance Surveys at Harrison-Crawford State Forest

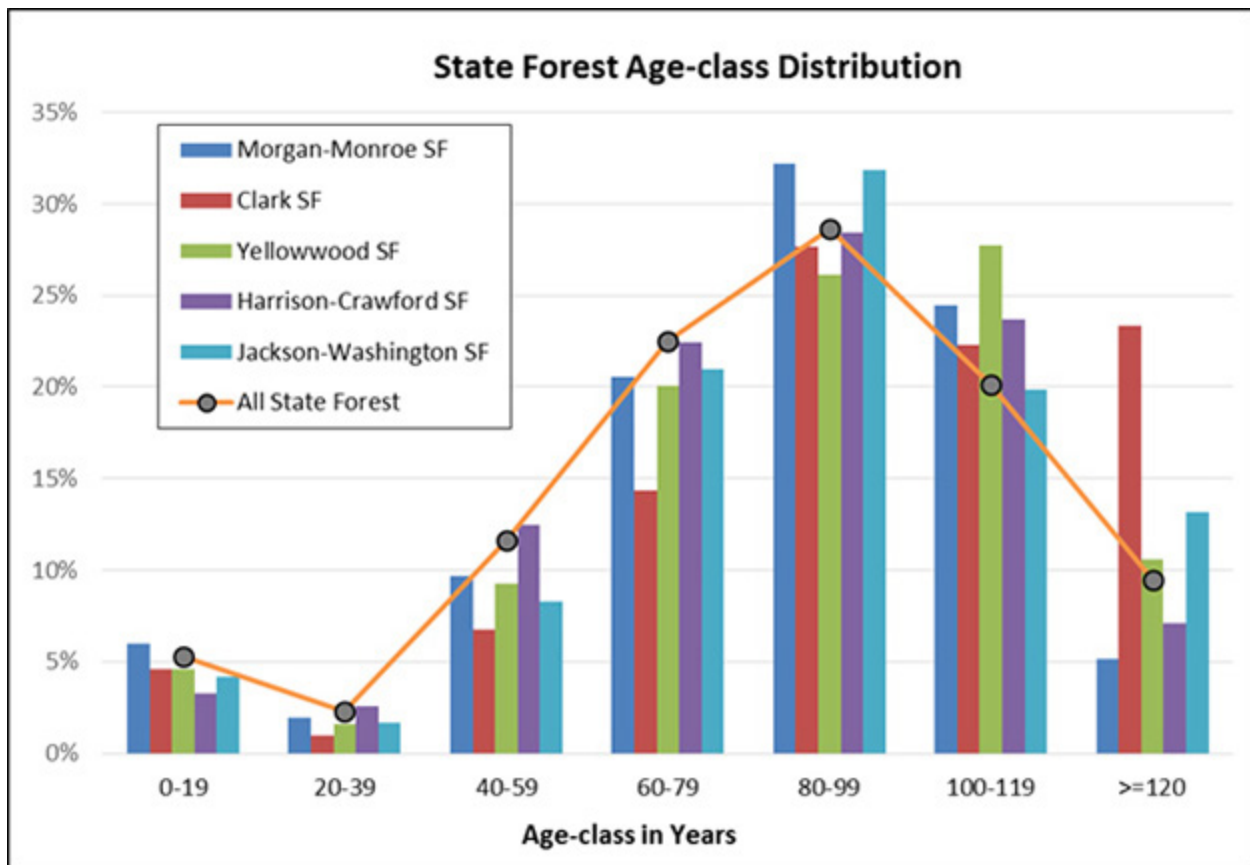
Caves and other karst features are important habitats for many species on State Forests. Harrison-Crawford State Forest features hundreds of known and named caves, many of which provide habitat for threatened and endangered species, such as federally listed bats (Indiana bat, Northern long-eared bat, and gray bat) and lesser-known species such as the state endangered Hoosier cavefish.

In 2019, DoF staff initiated a field assessment of hundreds of cave and sinkhole entrances across Harrison-Crawford State Forest. Mapping entrance locations will help aid property staff as they plan for forest management activities. Entrance surveys document issues that may affect cave-dwelling communities, such as entrance collapse, downed trees blocking entrances, or evidence of unauthorized entry and vandalism. Surveyors are also collecting data to help evaluate conditions inside caves without even entering them. Such conditions include entrance size, temperature, and evidence and direction of airflow. In addition to hundreds of known caves, surveyors have identified several new caves and significant karst features. To date, more than 140 caves and other karst features have been visited as part of this project, and surveyors expect to visit dozens more in 2020.

State Forest Habitat Spotlight: Forest Age

Forest age, or more specifically, its successional stage, is a handy way to generalize forest habitat. Older forest in an advanced successional stage provides habitat for many State Forest species. At the other end of the spectrum, young forest (sometimes referred to as early-successional forest) also provides habitat for a wide range of species. For many species, including some of our most imperiled, a mix of both young and mature forest is required throughout their annual life cycle. The DoF strives to provide a diverse selection of healthy habitats for all native species of plants and animals; for this reason, the DoF seeks to balance the availability of older and younger forest communities on State Forest properties.

State Forest forestlands are annually inventoried through the Continuous Forest Inventory program, providing an opportunity to monitor general habitat conditions. Stand-age is one of the many forest variables estimated during these inventories. The figure below shows the proportion of all State Forests and five of the largest properties within 20-year age classes. The five properties shown represent 77% of the forestland under DoF ownership. Data were collected from 2014-2018. As the figure illustrates, most forestland on State Forests is in mature forest, with the largest proportion in the 80- to 99-year age-class, and 58% of all forestland at least 80 years old. At Yellowwood State Forest, the largest proportion of this property is in the 100-119 year age-class. The total amount of young forest lags behind the proportion of older forest (at least 120 years old) by nearly half. At properties such as Clark and Jackson-Washington state forests, the proportion of older forest greatly exceeds young forest availability.



State Forest Nature Preserves

In partnership with the Division of Nature Preserves, the State Forest system participates in identifying the unique and special places on the State Forest system and formally sets those areas apart as State Dedicated Nature Preserves. The preserves on the State Forest system are managed in partnership with the Division of Nature Preserves to conserve and protect those special features and natural communities that set these areas apart from the rest of the forest. These preserves range in size from 10 acre protecting important cave habitats to over 700 acres conserving barren and related communities.

State Forest Natures Preserves		
Property	Preserve Name	Acres
Clark State Forest	White Oak	143.1
Clark State Forest	Virginia Pine-Chestnut Oak	23.6
Clark State Forest	Alum Cave	142
Clark State Forest	Outbrook Ravine	518.57
Harrison-Crawford State Forest	Post Oak-Cedar	266
Harrison-Crawford State Forest	Scout Mountain	40
Harrison-Crawford State Forest	Leavenworth Barrens	761.28
Harrison-Crawford State Forest	Batwing Cave	10
Harrison-Crawford State Forest	Deam's Bluff	258.86
Harrison-Crawford State Forest	Blue River Gravel Wash Barrens	78
Harrison-Crawford State Forest	Greenbrier Knob	144.2
Harrison-Crawford State Forest	County Line Glades	84.6
Jackson-Washington State Forest	Indian Bitter	35
Jackson-Washington State Forest	Knobstone Glades	60
Martin State Forest State Forest	Henshaw Bend	77
Martin State Forest State Forest	Tank Spring	60
Morgan-Monroe State Forest	Scout Ridge	14.5
Morgan-Monroe State Forest	Sweedy Hollow	150.1
Morgan-Monroe State Forest	Low Gap	320
Morgan-Monroe State Forest	Ravinia Seep Springs	52.4
Owen-Putnam State Forest	Pleasant Grove Valley	64.2
Owen-Putnam State Forest	Jordan Creek Seep Spring	46.72
Yellowwood State Forest	Crooked Creek	35
Yellowwood State Forest	Miller Ridge	30.6
Yellowwood State Forest	Lucas Hollow	42.78
Total		3,458.51

STATE FOREST RECREATION



There are 14 state forests and 2 state recreation areas (SRAs) providing recreation opportunities within the Division of Forestry. Facilities include three gated properties and over 158,000 acres of land and water to enjoy and explore. The Division of Forestry offers significant recreation opportunities across its lands, contributing to the DNR portfolio of recreation. Division of Forestry recreation revenue was \$1.4 million in fiscal year 2019. This figure is expected to increase as recreation opportunities improve through new and enhanced facilities.

State Forest Recreation Opportunities

- 19 Family Campgrounds (650 sites)
- 6 Equestrian Campgrounds (200 sites)
- 55 Rent-A-Camp Cabins
- 2 Family Lodges
- 435 Miles of Hiking Trails*
- 97 Miles Bike Trails**
- 231 Miles Horse Trails***
- 140+ Lakes
- 3 Backcountry Style Trails
- 1 Shooting Range
- 2 Archery Ranges
- 2 Forest Education Centers
- 3 Swimming Beaches
- 30 Picnic Shelters

* includes hike, bike and horse trails because hikers can hike all trails

** includes bike, hike/bike, and horse/bike trails

*** includes horse and horse/bike trails

Camping

State Forest properties offer a variety of camping options. From primitive to modern, there is something for almost everyone. Traditional primitive campsites can be found at many of the state forest properties. More modern style campsites, such as full hookup, electric, and comfort stations, etc., can be found at Starve Hollow and Deam Lake SRAs.

Draper Cabin at Morgan-Monroe State Forest offers users a historic primitive-style overnight cabin experience. Also located at Morgan-Monroe State Forest is a more modern style cabin to accommodate families or small groups. Covered Bridge State Forest offers a similar cabin. These more modern cabins have the following amenities: bathrooms, kitchen, washer and drier, TVs, beds and linens.

In recent years the addition of Rent-a-Camp Cabins at Deam Lake SRA, Starve Hollow SRA and Greene-Sullivan State Forest have added another option for those seeking an overnight stay in something other than a tent. These cabins have electricity, heat and air, a small table, a porch, a bedframe and bunk beds for kids (beds require guest to bring air mattress and linens).

Deam Lake, Starve Hollow, Greene-Sullivan, Covered Bridge Retreat, and cabins at Morgan-Monroe can be reserved at camp.IN.gov. Many of the state forest properties offer reservations on shelters through the forest office or the online reservation system.



Draper Cabin at Morgan-Monroe



Rent-A-Camp Cabins



Starve Hollow lake front electric site



Covered Bridge

Campground improvements continue at Clark State Forest and Greene-Sullivan State Forest, and planning at Yellowwood State Forest is underway. Some are anticipated to come on line in 2020-2021 with modern restrooms and improved camping facilities. State forests will also continue to offer primitive camping experiences.

Trails

After a comprehensive trail assessment on nearly 100 miles of recreation and management trails at Harrison-Crawford State Forest, a two-person DNR crew was established. Much like the DNR-funded Knobtsone Trail two-person crew, this crew will be dedicated to the maintenance and improvement of the trail system at Harrison-Crawford State Forest. Specialized equipment was purchased to assist these efforts.

Efforts to improve recreation and safety at Morgan-Monroe State Forest were achieved in 2019 with the completion of a 5.3-mile paved hike/bike trail. This trail parallels Main Forest Road, providing a scenic, safe alternative to those who have used the winding road in the past.



DNR trail crew performing hand work



DNR trail crew utilizing specialized equipment

Forestry trail crews and property staff work hard across all properties to maintain and improve trails. Groups like ITRA, Friends of Clark-Deam Horse Trails and others have assisted in various ways and continue to assist with trail maintenance and improvement efforts.

Learn to Hunt Program on State Forests

In 2019, two State Forests participated in DNR's Learn to Hunt (L2H) program (on.IN.gov/learn2hunt) during the 2019 deer season. A total of 10 program participants received training on hunting fundamentals and were paired with veteran hunting mentors to hunt areas at Morgan-Monroe and Yellowwood state forests. Based on the interest and success experienced in 2019, plans for future participation in the L2H program are currently underway.

STATE FOREST COMMUNITY INVOLVEMENT

State Forests hosted 38 special events in 2019 with an estimated 6,834 participants. These events generated \$7,499.00 in property revenue. Events ranged from weddings to organized events by individuals and groups. There included organized endurance races, trail runs, and equestrian events as well as fundraisers like polar plunges.

In 2019, The Clif Bar Baking Company and Division of Forestry teamed up to plant tree seedlings at Morgan-Monroe State Forest. Members of the Indiana Pacers and Fever joined Clif Bar on one of the plantings. Two separate plantings were accomplished as part of forestation efforts on the state forest. This team effort planted nearly 3,000 red and white oak tree seedlings by hand, using tree planting bars.

Volunteer efforts on the state forest continue to expand, ranging from one-time projects to long-term efforts by individuals and groups. Campground hosting has become popular across the DNR. Many DNR properties have benefited by this program, especially Forestry properties.

Campground host opportunities can be found at: on.IN.gov/DNRCampgroundHost or by contacting a state forest or state recreation area directly.

Each year individuals and groups periodically assist Forestry staff with trail maintenance and improvements. Examples include hiking groups like the Hoosier Hikers Council assisting with trail maintenance and the installation of a trail side shelter at Morgan-Monroe State Forest and horse groups like Friends of Clark Deam Horse Trails who carried out trail improvements and did a fundraiser. Other volunteer efforts included improvements to facilities and structures. For example, volunteer efforts at Ferdinand-Pike State Forest reached 700 man hours replacing siding and painting among other things in 2019. Across all Forestry properties there is some level of involvement by local or specialty groups like beagle clubs, horse riders, hikers, bike riders, trail runners, schools and churches.

STATE FOREST FACILITY IMPROVEMENTS

The Division of Forestry has many buildings and structures across the State Forests. Many were built in the 1930s and 1940s. Repair, renovation and updating is an ongoing part of State Forest operations, with many facilities receiving facelifts and some new construction in 2019. State Forest facility improvements and construction projects rely heavily on in-house labor, skills, and wood materials. This has kept costs down and allowed significant accomplishments to occur over the last several years. The downside to this is projects often take a little longer to complete. Partnerships with the Indiana Department of Correction have been instrumental in assisting with these accomplishments as has valued assistance from many volunteers.

Renovation efforts in 2019 included ongoing and new construction. These projects ranged from outside structures like bridges and playgrounds to buildings both interior and exterior. Projects like the new comfort stations already in progress at Clark State Forest and Greene-Sullivan State Forest continued to make progress, while others were started or completed.

Pike State Forest staff worked to complete exterior renovations while retaining the historic appearance of structure and improving overall appearance and efficiency of the building (see Figure 1). Harrison-Crawford State Forest completed interior efforts to improve the overall office appearance (see Figure 2). Both interior and exterior renovation projects give staff the platform to use their skills and showcase the beauty of wood projects. State Forest renovation projects utilize wood products whether for both interiors and exteriors. Exterior projects often require the removal of deteriorating and weathered material and replacement with new.

Many of the structures built in the 1930s or 1940s do not provide adequate space to meet the needs of today's vehicles and equipment for storage or care. In some state forests, structures are added where renovations are not feasible to meet these needs. For example, in 2019 the construction of a 7-bay garage and storage facility at Jackson-Washington State Forest commenced (see Figure 3). Property staff, with the assistance from Department of Correction offenders, will complete this project in 2020.

Many smaller projects occur each year on State Forests, too numerous to mention. Some highlights can be seen in Figures 4 – 7.



Figure 1. Ferdinand-Pike State Forest exterior renovations.



Figure 2. Harrison-Crawford State Forest interior renovations.



Figure 3. Jackson-Washington State Forest 7-bay garage and storage building.



Figure 4. Martin State Forest entrance sign.



Figure 5. New gate and signage.



Figure 6. New Accessible playground at Deam Lake.



Figure 7. Renovated fishing pier at Clark SF.

PRIVATE LANDS

The mission of the Cooperative Forest Management (CFM) section is to promote forest stewardship on Indiana's privately owned forest lands by providing forest management information and technical assistance to owners and others to ensure continued forest benefits, both tangible and intangible, for present and future generations.

The CFM budget is \$2.1 million (81% salaries/ fringe; 19% supplies and technology). Primary funding comes from state appropriations and revenue generated on State Forests. Additional funding comes from grants from the U.S. Forest Service. In 2019, the Division of Forestry received a grant from the Natural Resources Conservation Service (NRCS) for \$200,000/year for 3 years to assist with forestry practices in two NRCS conservation programs: the Environmental Quality Incentive Program (EQIP) and Conservation Stewardship Program (CSP).

The state is divided into 20 districts. Each district includes between two and 10 counties. District sizes are based on the amount of forested acreage in each county and the number of tracts in each county enrolled in the Classified Forest & Wildlands program (CFW). A district forester is assigned to each district. District foresters work one-on-one with landowners and are perceived by the public as an unbiased provider of forestry information.

CFM STAFF

Staffing continues to be a challenge for the CFM Section. Full staffing includes 20 district foresters, two assistant district foresters, two CFM staff, and an assistant state forester. At the beginning of 2019, four district forester positions (Districts 4, 10, 14 and 17) and the assistant state forester position were unfilled. During the course of the year, one district forester (District 6) and an assistant district forester resigned to pursue other career opportunities outside the state. In addition, the District 1 forester, Steve Winicker, retired. Teams of district foresters and staff are covering open districts. The District 6 position was filled before the end of the year.

Steve Winicker: Completes Career of Service

After 47 years of working for the Division of Forestry, Steve Winicker retired in July 2019. Steve began his full-time career as a timber technician at Morgan-Monroe State Forest in 1972. Two years later the direction of his career was permanently altered. He left public lands management to become a district forester. Steve spent the next 45 years working with forest landowners in north-central Indiana. Steve's dedication, willingness to share his knowledge, and his quiet dry sense of humor made him a favorite with his peers. In retirement, Steve has more time for his other love – trains. Steve serves on the Board of Directors of the Fort Wayne Railroad Historical Society. He can often be found doing maintenance on or operating the organization's Nickel Plate Road steam locomotive No. 765. All aboard!



CLASSIFIED FOREST & WILDLAND PROGRAM

The Classified Forest & Wildlands Program (CFW) is one of the nation's oldest and most successful conservation programs. The purpose of the program is to encourage private landowners to manage their property for timber, wildlife habitat and water quality. In return, the property tax on enrolled land is reduced.

Program Enrollment

The net program increase for 2019 was 361 tracts totaling 14,741 acres. CFW is a voluntary program. Landowners can withdraw or revise their amount of enrolled land at will. In 2019, a total of 48 tracts was completely withdrawn, and 161 applications were revised. A total of 1,187 acres was withdrawn. The rate of program enrollment for 2019 was significantly higher than in 2018 but still well below the record-breaking enrollments from 2004-2015 caused by property tax reform.

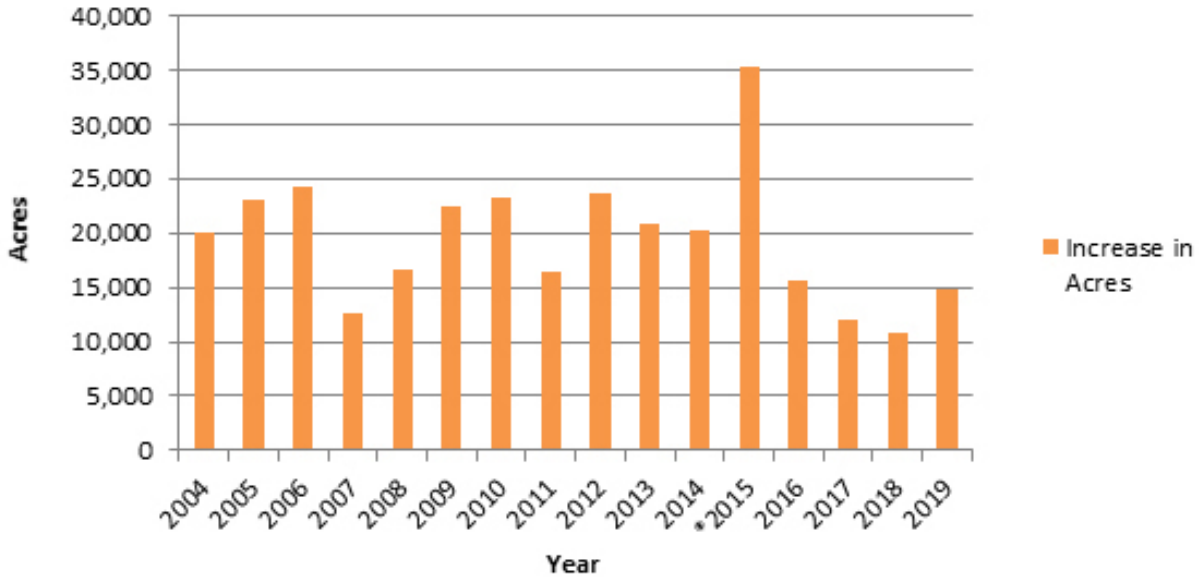
**CLASSIFIED
FOREST
AND
WILDLAND**

PRIVATE PROPERTY

**NATURAL RESOURCE
STEWARDSHIP FOR FUTURE
GENERATIONS**

DIVISION OF FORESTRY
INDIANA DEPARTMENT OF NATURAL RESOURCES

Acres Increase by Year Classified Forest & Wildlands Program



* 2015 had two enrollment periods due to change in assessment date from March 1 to January 1

The Division of Forestry has an online application, Indiana Forest Resource Management System (INFRMS, IN.gov/dnr/forestryexchange), to keep track of land enrolled in CFW. Landowners with land in the program can access the program to file their required annual report, submit completed management activities, and view maps of their property. County offices can request access to the application to review classified lands in their counties.



CFW Reinspections

CFW tracts have to be visited once every seven years by the Division of Forestry (IC 6-1.1-6-19). At the re-inspection, the district forester makes sure the land is meeting the program requirements. Landowners can walk with the forester and ask questions specific to their property. District foresters inspected 2,289 tracts totaling 114,578 acres in 2019.

Indiana Classified Forest Certified Group

Landowners with at least 10 acres of Classified forest can choose to have their land certified through the Forest Stewardship Council® (FSC®-C071226) by joining the Indiana Classified Forest Certified Group. This is a free benefit of CFW. Certification provides recognition that the forest is being managed in a way that provides forest products while protecting water, soil, plant, wildlife and special features. It also allows timber from classified forests to be sold as being FSC certified. There are approximately 480,000 acres in the certified group.

Each fall, certification auditors come to Indiana to review the program. They visit properties, talk with landowners, and review program records to determine if the Forest Stewardship Council standards are being followed. The auditors then provide a report on what is going well and areas where improvement is needed. Classified Forest FSC audit reports are available at on.IN.gov/forestry.

The 2019 certification audit was a recertification audit. This type of intensive audit occurs once every 5 years and determines if the program can keep its FSC certification. There were three audit teams, each reviewing a different portion of the state. Sixty site visits were conducted as part of the audit. The Division of Forestry maintained its group FSC for CFW lands.

The audit report identifies areas for improvement: review of timber sales on certified lands, ensuring protection of cultural sites during management activities, identification of High Conservation Value Forest in management plans, and tracking of pesticide application on certified lands by third parties (example: herbicide application under powerline by utility company).

District foresters visit timber harvests (pre-harvest, active harvest, post-harvest) occurring on certified classified forests. The purpose of the visits is to ensure that harvest is occurring in a manner that will have the least long-term impact to the property. In 2019, district foresters made 324 timber harvest inspections.

General CFM Assists and Referrals

District foresters not only work with CFW landowners, but also provide forestry assistance and education to the general public and refer landowners to private-sector foresters for services not provided by the Division of Forestry. In 2019, district foresters were involved with 115 outreach events (field days, Breakfast with the Forester, etc.). Over 4,000 people participated in the events.

District foresters are excellent sources of information, but are limited in the hands-on services they can provide. District foresters direct landowners to professional foresters who can provide those services. In 2019, district foresters made over 2,100 referrals to private professional foresters.

District Forester Janet Eger Receives National Recognition

Janet Eger received one of Forestry's highest honors, the 2019 Society of American Foresters' Presidential Field Forester Award. The award is a recognition of Janet's dedication to and leadership in the field of forestry. Janet began her career with the Division of Forestry in 1981, working on State Forests. In 1993, she took a promotion to become a district forester. Janet's district covers Lawrence and Orange counties. During her career, Janet has worked with thousands of landowners, students and members of the general public. She shared with them the importance of forests and how forests can be managed to meet a variety of goals (forest health, timber, wildlife habitat, water quality, recreation, and aesthetics).



FOREST HEALTH

For the forest health report, please click on this link:

on.IN.gov/forestry

FOREST RESOURCE INFORMATION

The Forest Resource Information (FRI) program consists of the forest inventory program manager, licensed timber buyers program manager, forest products specialist, and a hardwoods program manager that is shared with the Indiana State Department of Agriculture. The FRI program is frequently looked to as the “go to” program area for a wide variety of information including but not limited to forest product marketing, utilization, sawmill and logging efficiency, Best Management Practices (BMPs), forest management and chain of custody industry certification, biomass related information, Forest Inventory and Analysis, and forest resource and industry data, both domestically and overseas.

In 2019, our program provided 2,400 technical assists to a variety of customers on the topics mentioned previously. The FRI program prides itself in answering the many requests within one or two days of the initial request. The FRI program manages a Forest Stewardship Council Chain of Custody group membership consisting of 68 small to medium size forest product companies. This program provides an opportunity for small businesses to offer an FSC certified product at an economical cost compared to being certified on their own. Our program conducted 25 internal audits and assisted our certifying body (Scientific Certification Systems) in conducting 8 external audits.

The FRI program also provides chainsaw training for the entire DNR. The training focuses on safety as the number one goal and provides excellent hands-on training. The training consists of two sessions. Level 1 focuses on the use of personal protective equipment (PPEs), saw maintenance, and hands on training for bucking/limbing, springpoles, and an introduction to the open face bore cutting method. Level 2 reviews the previous training and provides training on the actual felling of a tree—each participant fells a tree during Level 2.

According to DNR Safety and Training staff, this training is by far one of the most popular trainings offered through the DNR. In 2019, 56 DNR professionals attended the training. Our program also coordinates logger training for logging professionals. The FRI program also coordinated industry tours for natural resource organizations and the general public. We also provide market/pricing information through PowerPoint presentations sponsored by other natural resource organizations. Over 120 contacts were made through these tours and presentations. Our program has several reports posted on our Division website.

The Indiana Hardwood Report 2018 Year in Review
on.IN.gov/forestry

2019 Indiana Forest Products Price Report and Trend Analysis
on.IN.gov/forestry

2019 Indiana Maple Syrup Report
on.IN.gov/forestry

The Forest Resources Information (FRI)-Inventory Section concluded its 12th year of the Continuous Forest Inventory (CFI) program in 2019. CFI, which closely resembles the U.S. Department of Agriculture Forest Inventory & Analysis (FIA) program, provides an up-close view and valuable, timely, and current data regarding the forest resource on State Forest properties. Data was collected from 790 plots. The latest property report can be found at on.IN.gov/forestry. A similar inventory program coordinated by FRI concluded its 8th year on private lands enrolled in the Classified Forest & Wildlands program. These 652 plots are measured in identical fashion to the property plots. Findings can be found at on.IN.gov/forestry.

In addition to these two CFI systems, state employee field staff collected forest inventory data from 169 FIA plots across the state on all ownership classes. Collected annually, the information provides an excellent picture of the entire forest resource in Indiana. Some highlights from this research show Indiana has an estimated 4.883 million acres of forestland, 2.16 billion live trees or 442 trees/forested acre on average, and net volume 10.94 billion cubic feet or an average of 2,241 cubic feet/forested acre. An interactive map showing data can be found at <https://public.tableau.com/views/NRS-FIAAnnualReport/ForestIntroduction?:showVizHome=no> while the latest full 5-year analytical report can be found at on.IN.gov/forestry.

Graduate students from Purdue FNR and IU SPEA are using CFI data for research papers and classroom projects. We also have cooperative research projects going on at both schools, with regard to using new technologies in application to gathering plot data, and expanding to include soils data for carbon estimates.

Indiana State Department of Agriculture's (ISDA) Hardwood Economic Development Program Manager, a shared position with the Indiana Division of Forestry worked in conjunction with the American Hardwood Export Council (AHEC), attended multiple international trade shows. In 2019 over 300 trade leads were generated from attendance at trade shows in participation with the Hardwood States Export Group in growing and emerging markets including China, India, Mexico, United Arab Emirates and Vietnam. These trade leads are directed via email and/or visits to Indiana's primary hardwood exporting companies. These efforts, since 2011, have resulted in over 2,000 qualified trade leads being collected and distributed. These leads have resulted in an increase in market share for the hardwood industry in Indiana and millions of dollars of new business and long-term customer relationships in veneer, lumber & log exports.

Moreover, the Hardwood Program Manager hosted over 13 importer companies from China, India, Taiwan, Turkey and Vietnam on site visits in Indiana, and a number of these visits resulted in first-time purchases and the beginning of new business relationships and international ties.

The Licensed Timber Buyers (LTB) program is also a part of FRI. Timber trespass and thefts are investigated by LTB staff. The investigation of timber theft takes a great deal of time. The trees need to be scaled to determine volume and then a dollar estimate is figured to estimate the value of the tree. The LTB program leader works closely with the DNR Division of Law Enforcement as a part of these investigations. In 2019, over 1,700 trees were appraised. The LTB program also oversees and administers the purchase of timber buyer licenses. In 2019 there were over 502 active timber buyers and 1,000 active agents.

In addition to administering the LTB program, staff also monitors timber sales for Best Management Practices (BMPs) application and effectiveness. BMPs are implemented after timber sales in an effort to reduce greatly or eliminate water quality issues. In 2019 the BMP monitoring looked at many areas of the harvest, and each of those areas were monitored for application and effectiveness. The end result is an overall rating for the sale with regard to BMPs. A report was completed in 2018 explaining BMPs, the monitoring process, and findings from 1996 through 2018 on our state forests. This report can be accessed through on.IN.gov/forestry. A similar report focused on Classified Forest and Wildlands is available at on.IN.gov/forestry. In 2019 a total of 51 sites were monitored for BMP application and effectiveness, 23 on State Forest properties and 28 on Classified Forests.

Professional logger training is also coordinated through the FRI program. We secured a grant that allowed us to offer cutter training and BMP training to professional loggers and natural resource professionals at no cost. The cutter training program offers several levels of training (increased degrees of difficulty and additional information) as well as BMP training. As a part of the FSC® forest management program (all State Forests and a large percentage of Classified Forestland), loggers must have taken Cutter 1 training, BMP training, and first aid as a minimum requirement to harvest timber on these lands. This is an excellent training program and although we are biased, we feel it is one of the best logger training programs in the nation. In 2019, 16 logger training sessions were coordinated with 165 attendees. The end result of these trainings is a safer and more efficient logger.

FIRE

Fire Headquarters is located at Morgan-Monroe State Forest. The primary program focus for Fire Headquarters is wildland fire prevention and fire suppression for the State of Indiana, prescribed burning on State grounds, as well as fire training. Our other program areas include Federal Excess Personal Property, State Fire Assistance, and Volunteer Fire Assistance. We also continue our cooperative work with Indiana's rural and volunteer fire departments, providing training for fire personnel, managing our grant assistance program, and providing wildland fire prevention education throughout the state.

Other duties include constructing the Morgan-Monroe State Forest trailside shelter, coordination of the Rental Cabin Project for State Forest properties, cutting hazard trees along property roadways, campgrounds and shelter houses (compounded by Emerald Ash Borer infestation), cutting, skidding and hauling 250,000 board feet of timber for local projects, and logging/road construction/maintenance on all State Forest properties.

FIRE SEASON WEATHER CONDITIONS

The spring of 2019 was drier than the previous year's spring and brought more opportunities to perform prescribed burning, but also increased the chances of potential wildfire occurrence.

The month of October brought moisture, which proceeded throughout the fall. Prescribed burns were accomplished between rainfalls mainly in grasses and light fuels. Very few days were conducive to burning in the woodlands due to the need for longer drying periods.

The overall national weather conditions were wetter than normal for the most part of the country. However, there was still a number of states that were in dire need of assistance in regard to wildfire control efforts. Indiana assisted in national mobility by sending qualified resources to Alaska, Kentucky, Puerto Rico, and California.

FIRE OPERATIONS

Spring prescribed fire activity was increased this year due to the extra manpower from an Americorps crew from Iowa that helped prepare local sites and perform prescribed burns. Different parcels could be burned on the same "good" burn day at the same time due to having more personnel and the ability to "split" crews up at various locations. The fall brought moist conditions and provided few opportunities to initiate prescribed burning.

FIRE SUPPRESSION OPERATIONS

Fire Headquarters staff responded to 3 spring wildfires for 8 acres in Lawrence, Morgan, and Crawford counties. There were no personnel injuries or losses of equipment. Fire Headquarters mobilized a 1 – 20 person Type 2IA (initial attack) hand crew to Alaska, and 7 single resources to Alaska, California, Kentucky, and Puerto Rico. The State of Indiana was able to re-cooperate \$111,865.69 from the federal government for national mobility aid.

PRESCRIBED FIRE MANAGEMENT

Fire Headquarters initiated or was involved with 15 prescribed fires managing 766 acres. There were few days available in the fall to burn due to wetter conditions and longer drying periods needed to cure shaded and protected fuels.

TRAINING AND PERSONNEL MANAGEMENT

Fire Headquarters staff presently tracks the training, experience and qualifications for 2,467 wildland fire-qualified personnel in Indiana within the Incident Qualification System. In 2019, staff conducted 45 classes ranging from one to five days long that provided instruction to 1,012 students. Many of the students were affiliated with rural volunteer fire departments or with the DNR.

FEDERAL EXCESS PROPERTY PROGRAM

The Federal Excess Personal Property (FEPP) and the Firefighter Property Program (FFP) enable DNR Forestry to screen and acquire excess federal property for distribution and service. While these particular programs provide rural departments with four-wheel-drive vehicles that are typically used as brush rigs, many other items essential to rural fire protection (i.e., generators, tankers, pumps, etc.) are also available.

Acquisition value of just under \$1.8 million in items was obtained and distributed to rural fire departments across the state.

A large quantity of consumable items, including small tools, disposable (“one-time-use”) items, and miscellaneous equipment also were acquired and distributed to the rural fire service.



VOLUNTEER FIRE ASSISTANCE GRANTS

The Volunteer Fire Assistance (VFA) program, formerly called the Rural Community Fire Protection program, is a federally funded matching grant program. VFA is a cooperative program between Indiana DNR Forestry, the U.S. Department of Agriculture Forest Service, and state and private forestry partners.

VFA is a matching grant program created to assist in organizing, training and equipping rural and volunteer fire departments. Grants are matched 50/50 up to a maximum of \$5,000.

Rural departments and city departments with a population base of less than 10,000 may apply for a VFA grant. Interested departments must complete an application and return it by March 1 of each year. Applications received after March 1 are considered for the next year's grant cycle. Certain restrictions apply to grant funds.

In FY 2019, 71 rural and volunteer fire departments in Indiana had projects approved to fulfill a total funding request of \$297,761.

FIRE PREVENTION

Fire danger in Indiana was low to moderate during most of the 2019 fire season; however, the Western states experienced major devastating losses of life and property. Past incidents tell us that awareness increases greatly during high fire activity.

The Ad Council continues its campaign through billboards, newspapers, television and radio advertising. The goal is not only to create fire safety awareness, but also to maintain it when conditions and circumstances are good—not just when things go wrong.

Our vast and unique partnerships over the years have been key to our successes, which in the past have included high-profile events and personnel by combining wildfire safety messages in the form of posters, trading cards, calendars and other forms of marketing.

The need to heighten public awareness about wildland fire has led DNR Forestry to adopt innovative methods to keep citizens and the fire-response community educated and informed. Through webinars and education, precisely targeted fire-prevention, safety and informational topics can be distributed. DNR Forestry continues to be involved in communities by presenting Smokey's Wildfire Prevention message to local schools, county fairs, safety fairs, youth groups, the Indiana State Fair, and Riley Children's Hospital.

Smokey Bear appeared numerous times across Indiana with over 10,000 people attending the Fire Prevention Programs, parades, fairs, and state property events. The program's success is largely due to partnerships with other agencies and units of government, both public and private. One of the goals is providing co-operators, fire departments, and DNR properties the tools to expand our message.

Five special programs were presented, reaching 3,000 citizens. One successful education program on fire safety and burn prevention is through a partnership with McAxe & The Fire Crew™ and special guest Kasey the Fire & Life Safety Dog™. The group comprises professional firefighters and public safety personnel who use an energetic blend of music, comedy and audience participation to deliver fire safety tips for inside and outside of the home, here in Indiana and across the country.

We had 32 Non-Government Organization contacts, each with a minimum of 18 participants.

Smokey Bear's image comes in different forms. The iconic Smokey Bear costume, an inflatable walk-about (an individual gets inside the costume and controls movements from within), stand-alone 13- and 8-foot inflatables, Smokey Bear robot (a remote-controlled miniature Smokey in a firetruck with red lights, sirens and squirting water), and 6-foot cardboard cutouts are all part of the toolkit. Having these options enhances and reinforces the fire-prevention message that has been instrumental in teaching wildfire safety to tens of thousands of Hoosier children.

Wildfire Prevention methods, materials, approach and delivery have evolved over the years and will continue with changes in culture, technology, educational mandates and human behavior. Since 1944, Smokey Bear has taught millions of Americans just like you about their role in preventing wildfires.



NURSERY

The year 2019 saw various accomplishments within the Nursery Section. Approximately 2.4 million seedlings of 50 different species and age classes were raised from seed on 22 acres of prepared seedbed area and made available for sale to Indiana residents. Seed to grow these seedlings was obtained from several different sources, and approximately 800,000 seeds were collected from our own managed seed orchards. All seeds procured and sown for production came from sources known to grow well throughout Indiana. Approximately 3.5 million seeds were sown to produce this year's inventory. The vast majority of seed is sown in the fall of the year. This requires seedbeds to be protected from the extreme cold temperatures as well as from animal predation.



All seedlings sold throughout Indiana are shipped from the 2 nursery locations, Vallonia and Jasper-Pulaski. All stock is raised at the Vallonia location and transported to the Jasper-Pulaski nursery for orders to be planted in the northern portion of Indiana. Approximately 800,000 seedlings were shipped to the northern facility. All seedlings were transported in a timely and safe manner for the convenience of the customers in northern Indiana. The additional inventory was picked up or shipped via UPS from the Vallonia location. All seedlings must be harvested, properly packaged and ready for customer pickup in late February or March.



Fallow seedling production area is sown to a cover crop to help retain and build up organic matter for future use. With a total of 120 acres under irrigation, many acres are fallow between crops. In 2019, 40 acres of corn and soybeans were planted and harvested with an additional 42 acres sown to winter wheat. These cover crops help hold the soils in place and build up important organic materials that the soil needs to maintain proper nutrient levels.



The Vallonia Nursery has cared for several trees grown from the original parent tree, a horsechestnut cited in the book “The Diary of Anne Frank”. These trees have historical significance and have been planted in several well-known locations. This year a tree specimen was dug up and transported to New York City, where it was planted at the United Nations Building in the Peace Garden. This work is done in association with the National Anne Frank Foundation in New York City.



Each year every 3rd grade student and any school that wishes to participate is able to receive a free seedling to plant on Arbor Day, which is celebrated on the last Friday of April. The Nursery Section supplied 40,000 seedlings for all schools and 3rd grade students who requested a seedling to plant. All trees are shipped from the nursery to the schools in time for Arbor Day celebrations. New online capabilities allowed each school to electronically send their specific Arbor Day seedling order. This was the first year this feature was available. An additional 7,000 seedlings were shipped in response to SB-690, which allows each senator and legislator to receive 100 free seedlings for use in each district. All seedlings were shipped in the spring for planting.

Seedlings were grown for various agencies (USFS, HTIRC, Purdue University, and the University of Minnesota) for a number of different research studies. Seeds were sown and grown for 1 year, then lifted and transplanted in various locations in early spring. Nearly 20,000 seedlings are grown for these specific projects from year to year.

Tours of a working nursery are conducted at various times throughout the year for a variety of groups. From those for college professors to elementary school groups, several informative, hands-on learning opportunities are presented to fit the varying audiences to show how seedlings are raised for production for customers throughout Indiana.



This past summer the DOF nursery section was featured in an article in Outdoor Indiana magazine. This article told some history of the nursery and described the day to day operations involved to produce high-quality seedlings. Pictures were taken over an entire year to show the different seasons involved with nursery production.

The USFS was updating and reprinting The Nurserymen's Guide, which was originally written in the late 1950s to early 1960s. A chapter on seed sowing

practices was written and provided for the new manual. Printing of the new manual is expected to be completed by early 2020 for wide distribution for those interested. It has been a long process to finally see this manual come to print.

State Fair exhibits included printed order forms for handouts to those interested in purchasing seedlings. This year, for the first time, potted trees were made available for the Natural Resources Foundation fundraiser. Several species were provided for customers to choose from.

Meeting with customers to listen to concerns and desires for developing specific stock types are critical to meeting consumer needs. A meeting was held with those who are involved with planting seedlings on harsh harvested coalmine sites to learn what seedlings would work best for them in terms of seedling size, root development and, ultimately, survivability. A variety of cultural practices can be implemented during the growing season to alter certain aspects of tree growth to meet these criteria.

We assisted the USFS with a 5-year review of the State of Missouri nursery program. Recommendations are given to increase efficiencies within their program. These meetings are help participants learn various techniques used in daily operations that can then be used to better the Indiana nursery program.



To help save money on heating costs, outdoor wood furnaces are used to heat all facilities inhabited by nursery personnel. A great deal of wood is needed to heat these buildings over the winter. Wood is hauled and stockpiled during the summer for use in these wood furnaces. Wood remnants are used from log yards and from closed-out timber sales, cleaning up piles of unused cut-off pieces left from logs being hauled to the mill. This serves a couple of purposes. One is as a heat source during the winter. The other is cleaning up piles of unused materials that otherwise would be left to decay in the woods after a timber sale.

With approximately 120 acres of seedbed area under irrigation and miles of below-ground piping, it is essential that this system be winterized properly to ensure piping is not damaged by freezing temperatures. A large air compressor is used to blow out the entire system prior to cold temperatures. A new motor was installed on the air compressor to allow the air to build up to a pressure that can adequately handle this large underground piping system. Proper winterization can prevent problems when irrigation is needed for growing the nursery stock.



COMMUNITY & URBAN FORESTRY

OVERVIEW

In 2019 the program continued to provide direct technical assistance or educational programs for 120 unique cities and towns, serving the approximately 3.1 million Hoosiers who live in the communities receiving technical/financial assistance and educational programs. Assists are only counted once per community, following federal reporting definitions. Continued assistance within the same community is tracked but not reported as a metric. The Community & Urban Forestry (CUF) program consists of the Program Coordinator, Outreach Coordinator and an intermittent Grants Administrator.

Annual programming includes: Tree City USA application review and awards, attendance at Arbor Day events across the state, moderator for both the DNR Division of Forestry and The Indiana Community Tree Stewards Facebook pages, presentations for green industry and nontraditional audiences upon invitation, Indiana Community Tree Steward training programs, grants management, and responding to municipal and homeowner questions. The following are unique or notable program events from 2019.

GRANTS PROGRAMS, CONTRACTS AND SPNSORSHIPS

In 2019, CUF awarded a total of \$120,715 in subgrants to communities and not for profit organizations across the state. Subgrants were awarded to nine communities and other groups in Indiana for community tree inventories and management planning, tree planting and education programs.

The Indiana Arborist Association (IAA) was awarded a \$10,000 professional services contract. This contract funded the addition of a full day of urban forestry focused content provided at the rate of \$75 to the traditionally 2.25-day conference. This made the attendance of volunteers, tree board members, non-arborist municipal staff and other nontraditional partners feasible. The first day of the conference had 140 attendees per session and over 450 in total attendance to the full conference. CUF was identified as the sessions sponsor for all education programming. The only costs passed on to participants were those like food and refreshments that could not be covered by federal grant funds. In addition, this funding allowed for more national level speakers for the duration of the IAA conference, which has tracks for Agency Institution and Municipal, Utility, Professional Practice and general sessions. This also supported one ISA Certified Arborist Prep Course and two Proctored exam opportunities that led to the Town of Remington's Parks Director becoming ISA Certified.

The Indiana Arborist Association was provided a \$5,000 sponsorship. The sponsorship facilitated discounted prices for attendees of one Arbor Master training program, one ISA Certified Arborist prep course/exam and one Tree Risk Assessment Qualification TRAQ training. Attendees were a range of municipal, institutional and commercial.

INDIANA TOLL ROAD AUTHORITY PARTNERSHIP

The Indiana Toll Road Authority (ITRA) manages the major toll road in northern Indiana on contract with the state. This year the CUF program was contacted by ITRA about guidance on planting adjacent to the toll road. This contact led the training of 22 ITRA staff, 15 NIPSCO employees and contractors and 120 high school and middle school students on how to properly plant and mulch 2-year-old tree seedlings. These seedlings were made possible due to a Great Lakes Restoration Initiative (GLRI) project grant. A total of 283 trees were planted in the spring of 2019 as part of this project 141 on ITRA/State of Indiana property I-90 corridor near Granger, IN, and 142 at Trine State Recreation Area next to the Indiana Toll Road, near Fremont, IN. The survival rate will be documented in spring 2020.

URBAN FOREST SYMPOSIUM

DNR CUF hosted the second Indiana Urban Forest Symposium in September 2019. The two-day event hosted utility arborists, municipal foresters, tree board members, professional arborists, and university staff from across the state to learn about, form and share information about urban forestry in Indiana. Sarah Mincey from IU Bloomington presented to the group on upcoming research that requires community cooperation, and NIPSCO presented on changes in vegetation management in utility easements. The second day of this program was the first meeting of the reestablishing Urban Forestry Advisory to the state program. A total of 60 individuals attended this event.

SALUTING BRANCHES

The Community and Urban Forestry Program staff helped to coordinate the Indiana site for the National Saluting Branches day of service at the Indiana Veterans Home (IVH) and cemetery in West Lafayette. In 2019 the program grew to 151 participants. Professional arborists and volunteers from across the state provided an estimated \$120,000 in tree care and removal services on September 18, 2019. Crews worked to reduce the number of dead and dying trees on the site that posed the greatest risk to onsite residents, staff and visitors. A total of total of 33 whole trees were removed and 42 stumps ground in one day. Additionally, 50 trees were inventoried, and 20 trees were identified and assessed at a level 2 inspection. Plant health care treatments were administered to 8 trees on site, including EAB treatment and root collar excavation and treatment for nutrient deficiencies.

Climbing arborists provided necessary pruning on trees in high-traffic areas and in the Veterans Cemetery to improve safety for visitors and maintain the vitality of large mature trees on site. Volunteers with the groups, West Lafayette Tree Friends, Tree Lafayette and Indiana Rolling Thunder, led by ISA certified arborists and municipal foresters, mulched the POW/MIA grove of 50 native upland hardwood trees to represent the 50 Vietnam veterans still listed as POW/MIA. They planted 9 new trees on site. They then continued to existing trees to correct improper mulching and to mulch un-mulched trees needing mechanical damage protection. A total of 100 trees were mulched.

Wood from dead oak, maple and ash trees collected in 2018 for a future use is now dried and being used in the construction of chairs and tables inside the Indiana Veterans Home using specifications unique to the needs of mobility challenged residents and for use in occupational therapy. This project will return parts of these large trees back to the site in a meaningful way. Municipal forestry staff from Remington, Lafayette, West Lafayette and Indianapolis participated in this event.

The Vietnam POW MIA Remembrance Grove was dedicated this year with help from Indiana Rolling Thunder, the POW/MIA remembrance group in Indiana. A full roll call ceremony was held with the group's help to start the day. Participating arborists placed climbing helmets with each veteran's name on it by one of the trees as they were called and identified as "Still missing sir". This allowed us to convey the weight and enormity of the continued Hoosier loss, and the grove will grow with more stewards personally tied to each tree than possibly any other urban tree planting in the state.

INDIANA TREE CLIMBING COMPETITION

In October 2019, the CUF program participated in the IAA Tree Climbing competition, helping coordinate the small arbor fair with an urban forestry and entomology booth staffed by DNR staff as well as a kids climb. Twenty-one children participated in the kids climb. Each family received a copy of the children's book produced by the U.S. Forest Service "Why Would Anyone Would Cut a Tree Down?" Along with additional activities this year, the Arbor Fair had the Lorax photo op booth, an Ask an Arborist booth, Arbor Rangers, a local children's learning program, children's coloring activities, and tree service vendors on site to answer tree-related questions.

Motivation for participation in this event included growing exposure for the CUF program as well as promoting the field of Arboriculture as a career path to young children. Awards for the competition were made from urban wood used from downed trees in Bloomington and Westfield, IN. This was the second year that Indiana had women compete at the state level, with four competitors. Tree Stewards volunteered to help with the competition preparations (via young tree structural pruning) and with events as timers, and with providing basic interpretation of the event to park visitors. Municipal forestry staff from Indianapolis, and Porter County participated/ volunteered in this event.

EDUCATION/INFORMATION SECTION

INDIANA PROJECT LEARNING TREE

2019 marked the 35th year of Project Learning Tree in Indiana. Eleven workshops were held across the state for a total of 167 participants. An additional 31 educators were trained through the National PLT online workshops. As a result of these numbers, materials were developed and a marketing plan created for an Indiana online portal through National PLT. This will enable Indiana PLT to share in the revenue from the online workshops.

One new facilitator was trained in 2019. Four facilitators retired.

Through a partnership with the Society of American Foresters, an online PLT workshop was developed for natural resource professionals.

Indiana PLT exhibited at the annual Hoosier Association of Science Teachers conference and did a presentation on the Teaching with i-Tree unit. This unit helps middle and high school students discover and analyze the many ecosystem benefits that trees provide. Indiana PLT also participated in the Indiana STEM Education Conference, IHLA, Division of Forestry annual meeting, Indiana SAF spring and winter meetings, the Hoosier Hardwood Expo, Indiana State Fair, JA JobSpark, the Environmental Education Association of Indiana annual conference, two Master Naturalist classes, and a Junior Master Naturalist class.

NATURAL RESOURCES TEACHER INSTITUTE

After five years of conducting the Natural Resources Teacher Institute with participants asking for more at the end of the session, a reunion of past participants was held in 2019. The site was moved to Ross Camp in Tippecanoe County. Twenty past participants (out of a total of 68) spent the week learning “more”. Many of the sessions were focused on Purdue Forestry and Natural Resources, including more tree and shrub identification with Sally Weeks, field tours of the Ward Wilkins property and Cunningham Forest, the Wood Lab, the Hardwood Tree Improvement and Regeneration Center, research at Martell Forest, field techniques at Purdue Wildlife Area, training in The Leopold Education Project, and presentations on The Study of Nature and the Cornell Ornithology Lab. As participants completed the week, they still asked for more. We will look at hosting at least one weekend session annually for past participants, focusing on a specific topic of interest to them.



INVITATION TO CONSERVATION (I2C)

Invitation to Conservation will be a department-wide initiative focused on getting more people out to DNR properties, participating in various outdoor activities. In anticipation of this initiative going operational in 2020, eight pilot programs were scheduled at various State Forest properties. The following were scheduled:

- Fridays in the Forest: The Birds of Morgan-Monroe State Forest, Jeff Reigel, April 19
- Fridays in the Forest: Young Forests, Morgan-Monroe State Forest, Lenny Farlee, May 7
- Fridays in the Forest: Tree Identification, Salamonie River State Forest, June 21
- Fridays in the Forest: Project Learning Tree: Teach about Indiana Forests, June 28
- Fridays in the Forest: The Yellowwood Backcountry Harvest: One Year Later, Jack Seifert, August 16
- Fridays in the Forest: Archaeology, Owen-Putnam State Forest, September 13
- National Public Lands Day: Greene-Sullivan State Forest, September 28
- Fridays in the Forest: Grow Three Million, Vallonia State Tree Nursery, October 18

Of these eight programs, three had no participants. The best attended program was the Yellowwood Backcountry Harvest program with 15 participants.

In addition, newly designated Mentor Hunting Areas were established in Morgan-Monroe, Yellowwood and Clark state forests.



STATE FOREST SIGNAGE

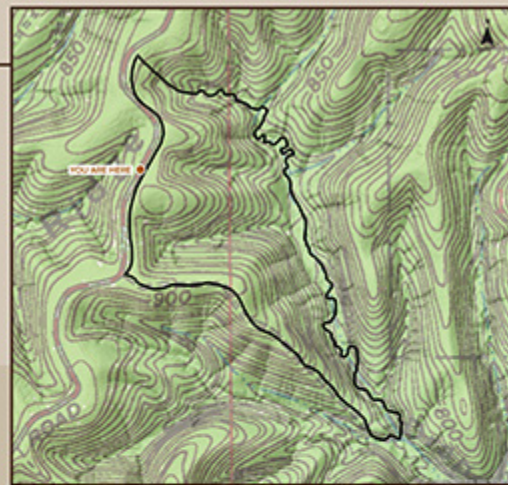
Thirty-nine signs were designed and manufactured for the State Forests in 2019. Each property received a “Benefits of Forest Management” sign. Several forests received “Young Forest Demonstration Area” and “Pine Conversion” signs. A sign was designed for the storm damage/salvage area at Yellowwood State Forest to inform hikers where a trail traverses this opening. Two signs were designed for the Knobstone Trail – one at the Delaney Park terminus in Jackson-Washington and one at the Jackson Road Trailhead describing the 2012 tornado damage. Fourteen tract signs were designed for the new Hike-Bike Trail at Morgan-Monroe State Forest detailing the history and management of the tracts adjacent to the trail.

COMPARTMENT 06 • TRACT 12

- 66 Acres
- Mixed hardwoods with oak-hickory component and pine plantation.
- Acquired by the State of Indiana in 1930.
- Much of this tract was abandoned, eroded farmland when acquired.

PAST MANAGEMENT

- 1932: Red pine planting, 2 acres
- 1976: Forest resource inventory
- 1990: Wind event
- 1991: Timber salvage marking and harvest (approx. 187 trees; 41,429 board feet)
- 2014: Forest resource inventory
- 2015: Forest resource management guide



FUTURE MANAGEMENT

- 2030: Forest resource inventory and management guide

MORGAN-MONROE STATE FOREST

IN.GOV/DNR/FORESTRY
DNR Indiana Department
of Natural Resources

NATIONAL FFA FORESTRY CAREER DEVELOPMENT EVENT

On a cold and rainy/snowy Halloween day, the Division of Forestry hosted the 2019 National FFA Forestry Career Development Event (CDE) at Morgan-Monroe State Forest. Thirty-nine teams from across the U.S. participated in the individual practicums, which included Tree Identification, Timber Cruising for Volume, Chainsaw Practicum, and Forest Disorders. Each team also worked together in the Team Problem in which they answered questions based on all practicum areas at several stations. Several DoF staff assisted with the event.

