

FORESTS AS A CONSIDERATION IN COMMUNITY PLANNING

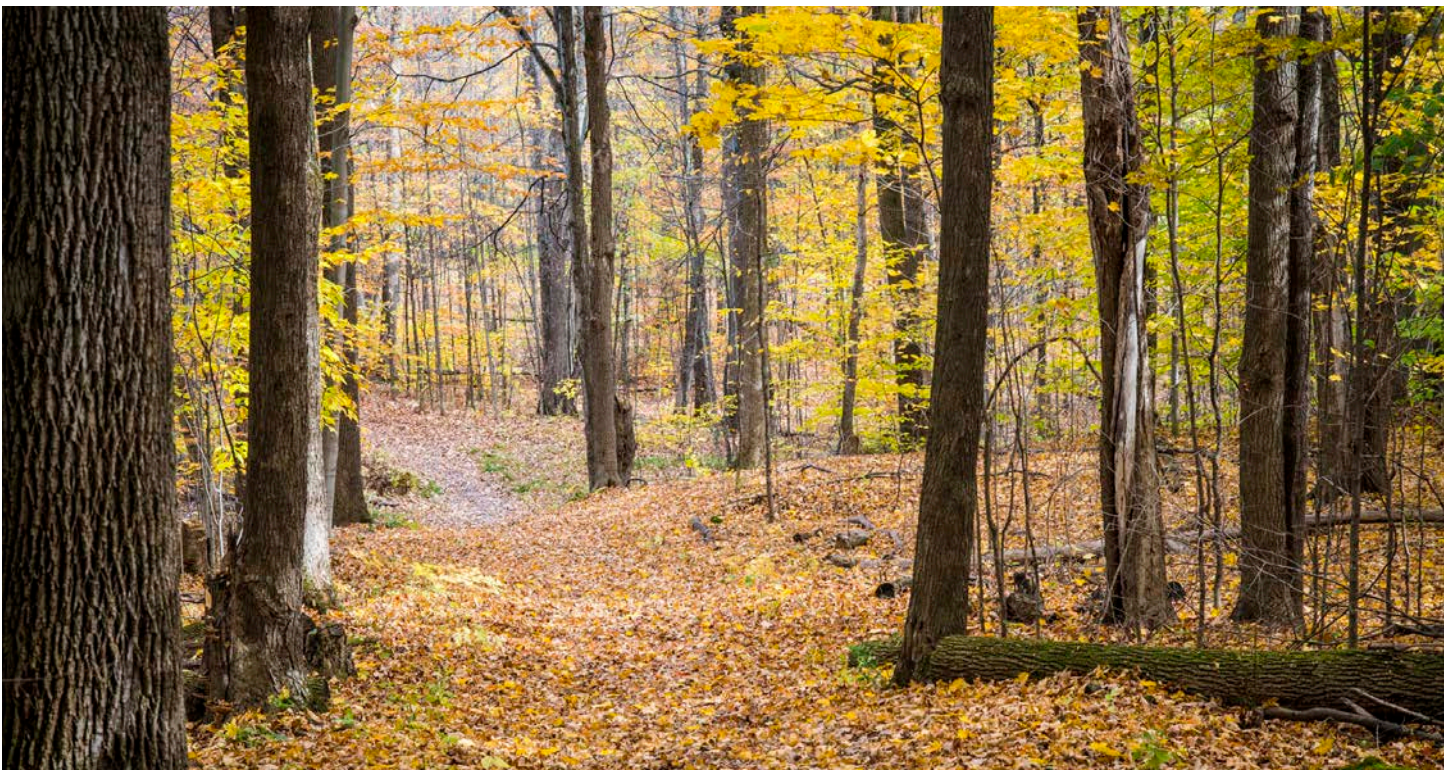
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AN OVERVIEW OF INDIANA FORESTS

Forestland occupies approximately one-fifth of the landscape in Indiana, nearly 4.9 million acres, and can be found in both rural and urban areas as well as the interface between the two. Forests represent an important resource in Indiana with significant ecologic, economic and societal benefits to individuals, communities and business. Forest cover is important to many species of Indiana wildlife and is critical habitat for some species, including federally endangered species such as the Indiana bat. Forests provide significant personal and public recreation value. They also provide additional environmental services including soil erosion control, soil building, windbreaks, shading, production of clean water vapor, buffering of stream courses and drainage areas, moderation of storm water discharge, reduction of noise, light, water and air pollution, visual screening and aesthetic value. Forests are a natural reservoir of biological diversity and sequester carbon dioxide in woody plants and forest soils. Flowering trees, shrubs and forbs in forests are an important resource for pollinators.

Forests contribute directly to economic growth through the forest products and outdoor recreation industries. Outdoor recreation in Indiana accounts for an estimated \$15.7 billion in consumer spending annually. Hiking, camping, boating, wildlife watching, fishing, hunting and other outdoor activities draw native Hoosiers and people from around the nation and world to Indiana localities. Those visitors in turn purchase supplies, equipment and services in those communities. Outdoor recreation opportunities such as bike, foot or horse trails, parks and public camping and fishing may provide an advantage when competing for new businesses and employees. The positive aesthetic qualities of trees and forests may also attract businesses and visitors to communities.

The forest products industry is a leader in employment and value-added in the agricultural sector and one of the top manufacturing industries in the state. Timber sales provide income to landowners from land that might not be well suited to other agricultural uses. That same timber may be transformed from the tree to a finished product, in a furniture or cabinet showroom for example, completely by Indiana companies, and might be shipped to a number of locations around the world. Indiana was approximately 85 percent forest cover just prior to European settlement, and reached a low ebb in



forest cover of perhaps 5 to 7 percent in the late 19th and early 20th centuries. Area of forest cover has grown since due to abandonment of marginal agricultural lands, including crop, hay and pasture lands, which has regrown to tree cover. Tree planting has added acres to Indiana forests as well.

Forests may also lose ground to land development such as housing, roads, utilities and conversion to crops, water bodies and other uses. Forests in urban areas and at the urban-rural interface are particularly vulnerable to conversion, reduction or fragmentation as land values and competing uses increase. The general trend across the state over the past few decades has been an increase in forest acres, but localities might see forest decline from the previously mentioned sources. Projections from the Indiana DNR Division of Forestry and the U.S. Forest Service suggest we can anticipate declines in Indiana forested area over the next four decades, with the quantity lost influenced by the level of population and economic growth.

Eighty-four percent of Indiana forestland is held by private interests, including families, farms and corporations. Family forest owners hold the majority of this land, an estimated 3.6 million acres. The balance is owned by corporations and other private groups including conservation organizations and Native American tribes. Public forests account for 16 percent of the total and include federal (8 percent), state (7.5 percent) and local (1 percent) government. Hoosier National Forest, U.S. Fish and Wildlife Service and Department of Defense properties are significant federal ownerships. Indiana Department of Natural Resources (DNR) properties including state forests, parks and fish and wildlife areas are representative state ownerships.

Forestland owned by private entities may be held and used for a wide range of goals. Many landowner surveys indicate quality-of-life objectives such as recreation, family legacy and passing property to the next generation are highly rated goals. Conservation objectives like wildlife habitat, biological diversity and forest health are also common goals. Owners may also value economic objectives such as land investment and timber harvesting to generate income. Leasing recreation opportunities has also emerged as an income source. Hunting rights are probably the most common recreation lease, but a variety of other activities may be

provided through leases. Some owners may use forests to produce products such as maple syrup or ginseng. Selling timber represents an important source of occasional income for forest owners and an important resource supply chain for the forest products industry.

FOREST MANAGEMENT

Appropriate forest management activities including vine control, thinning, invasive species control and timber harvesting have been demonstrated to improve forest health and wildlife habitat diversity, in addition to improving the production and quality of wood products, which are one of the most environmentally friendly building materials available. Providing landowners the opportunity to produce income from their forests creates incentives to retain forestland. Active forest management can help landowners accomplish their ownership goals. Active forest management also addresses significant threats to forest health from invasive plants, insects and diseases by managing the impact and spread of these forest health threats.

Forest and wildland fire risks should also be considered as a part of forest management. The large and fast-moving fires seen in the western U.S. are not common



occurrences in Indiana, but the wildfire experiences of communities like Gatlinburg and Pigeon Forge, Tennessee, in 2016 serve as a warning that weather conditions, forest fuels and building proximity to combustible vegetation can combine to produce dangers to life and property in the eastern U.S. as well. Homeowners and communities can access guidance

for making their properties and communities more wildfire-resistant through the National Fire Protection Association Firewise USA program and their local fire prevention authorities. The Indiana DNR Division of Forestry also offers assistance to rural and volunteer fire departments (see <https://www.in.gov/dnr/forestry/2874.htm>).

Forest landowners have access to professional forest management advice and assistance through professional foresters working for agencies including the Indiana DNR Division of Forestry and private sources such as consulting foresters and wood products industry foresters. DNR district foresters work with landowners to provide advice and assistance with forest management. Contact information for the local district foresters can be found at www.in.gov/dnr/forestry/4750.htm.

Private consulting foresters can provide a wide variety of services to landowners on a fee basis. Industrial foresters work for wood using industries and often buy timber from landowners for those industries. They may also offer additional forest management services. Consulting and industrial foresters can be located at www.findindianaforester.org. Landowners have good access to timber markets through professional foresters and a thriving primary wood products industry across the state. Several companies have also emerged to assist landowners with leasing recreation opportunities such as hunting, as well as buying and selling recreational properties.

Eligible landowners may have access to cost-sharing and technical service programs through the USDA Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA). Several programs, including the USDA Conservation Reserve Program and NRCS Environmental Quality Incentive Program, can assist landowners with costs to install practices such as wildlife habitat development and improvement, reforestation tree plantings, invasive plant control and soil erosion control practices. Most Indiana counties have a USDA Service Center office where details of the programs and application forms can be accessed. You can locate your local center at www.nrcs.usda.gov/wps/portal/nrcs/in/home/.

Managed forestland may receive some incentives in the property tax code. Forestland being managed

to produce timber products is normally considered agricultural land for tax assessment purposes, is referred to as woodland for land type and is generally assessed at 20 percent of the value of comparable cropland. Land may also be voluntarily entered into the Classified Forest and Wildlands Program, administered by the Indiana DNR Division of Forestry. Lands entered into the program are assessed at a much-reduced rate, providing incentives for landowners to retain and manage their forestland. Additional information on the Classified Forest and Wildlands Program can be obtained from the Indiana Division of Forestry at www.in.gov/dnr/forestry/.

Timber harvesting on public and private lands might upset some community members who consider this activity visually unpleasant or environmentally damaging. As stated previously, well-managed harvesting can improve long-term forest health and productivity, enhance habitat for some wildlife



and provide income for landowners and resources for businesses and industry. Using the services of a professional forester to manage the sale of timber can reduce the risk of unnecessary damage and improve forest conditions following the harvest. Indiana also requires buyers of standing timber to be licensed and bonded. The state maintains a list of licensed timber buyers to provide some protection to landowners from timber theft and dubious business practices. The forest products industry sponsored this law to prevent bad actors from damaging the ability to legally manage and harvest timber in the state. You can learn more about the Licensed Timber Buyers law and access the list of licensed buyers at www.in.gov/dnr/forestry/2846.htm.

Forests in Indiana have naturally regenerated on millions of acres abandoned from cropping, grazing and haying over the past several decades. Forests subject to harvesting or natural disasters like tornados, ice storms or fires also generally return to trees from the seed and seedlings found in forest soils. Replanting seedlings in current forest areas is normally not required to produce new tree growth, but planting and protection from damaging agents like deer browsing and aggressive weed growth can encourage quicker recovery of forest trees.

Protection from soil erosion and water quality degradation are important considerations when harvesting timber. Most erosion from a timber harvesting operation occurs from logging trails, roads, stream crossings and landings or loading areas. The Indiana DNR Division of Forestry has developed a set of best management practices designed to protect soil and water quality during and following timber-harvesting operations. These guidelines are voluntary on a statewide basis, but can be included as required in a timber sale contract. The guidelines are available at www.in.gov/dnr/forestry/2871.htm.

URBAN FOREST VALUES AND BENEFITS

Forest areas found in urban areas provide unique opportunities and benefits, but also some planning and management challenges. Urban forests contribute benefits similar in many respects to rural forest areas, but in close proximity to higher human population and developed landscapes. Purdue Forestry and Natural Resources Extension and the Indiana Division of Forestry provide several documents on urban forests, including their benefits to communities and resources for management and planning.

PURDUE EXTENSION PUBLICATIONS

Indiana's Urban Woodlots: https://mdc.itap.purdue.edu/item.asp?Item_Number=FNR-489-W

Lumber from Urban and Construction-Site Trees: https://www.edustore.purdue.edu/item.asp?Item_Number=FNR-93-W#.VrPCssArk3c

Urban Wood and Traditional Wood: A Comparison of Properties and Uses: https://mdc.itap.purdue.edu/item.asp?Item_Number=FNR-490-W

INDIANA DIVISION OF FORESTRY PUBLICATIONS

The Indiana Division of Forestry has a Community and Urban Forestry program providing assistance to communities including education, guidance and grants: www.in.gov/dnr/forestry/2854.htm

Publications on urban forest and tree planning, management and planning: <https://www.in.gov/dnr/forestry/programs/community-and-urban-forestry/publications/>

INDIANA'S FOREST PRODUCTS INDUSTRY

Production of forest products in Indiana is a highly sustainable activity, meaning the resource is being reproduced and growing, rather than declining, over time. Indiana has been gaining forest acreage over the last few decades. Statewide forest inventories indicate our forests are growing between 2 and 2.6 times more wood annually than is lost to mortality and removed in harvesting combined. The USDA report *Forests of Indiana, 2016* (see https://www.fs.usda.gov/nrs/pubs/ru/ru_fs127.pdf) outlines trends in forest acreage and growth using a continuous forest inventory program conducted by the USDA Forest Service in cooperation with the Indiana DNR Division of Forestry. *Forests of Indiana, 2013* (see www.in.gov/dnr/forestry/files/fo-State_Private_lands_forest_inventory_update.pdf) provides a more detailed look at Indiana forest distribution and characteristics.

The growing forest acreage and increasing volume of wood available provides business opportunities for additional wood products harvesting and manufacturing in the state. An increase in tree mortality as our forest trees age suggests there may be additional opportunities to expand wood products manufacturing and employment by increased harvesting of trees to utilize the wood resource before it dies.

The wood products industry includes harvesting and primary manufacturing to produce dimensional lumber and veneer. Although no paper mills are currently located in the state, mills in neighboring states may purchase wood fiber from Indiana. Secondary industry uses primary wood products to produce industrial products such as pallets and crates, railroad ties, staves for wood barrels, wood mats for construction equipment and other construction materials. Secondary

industry also produces a wide array of consumer product such as hardwood furniture, flooring, cabinets, paneling, molding and trim, stair rails and treads, windows and doors. Wood can also be used as a primary or secondary fuel for homes and industry. Business opportunities related to wood products vary in size from a garage-based custom woodworking contractor to large production facilities producing lumber, veneer, furniture or flooring. The Indiana Forest Products Community website provides a directory and map of businesses in the wood products sector in Indiana.

The economic impact of forests and the wood products harvested from them is substantial statewide and crucial to many rural communities.

Total value of shipments of \$7 billion, 2.4 percent of Indiana's gross domestic product

- \$166 million was paid to landowners for timber
- For every \$1 paid to landowners for timber, \$41 of value was added in the production of final products

The hardwood industry employed 30,845 people

- An additional 64,908 jobs were generated in economic sectors supporting or supported by the hardwood industry



Annual wages of \$1.3 billion were paid, generating an estimated

- \$43 million in state payroll taxes
- \$20.1 million in local payroll taxes

Each acre of forest supports \$245 of hardwood wages paid annually.

Indiana is a leading producer of:

- Wood office furniture
- Manufactured homes
- Wood stock-line kitchen cabinets
- Wooden caskets and coffins
- Hardwood plywood-based products

Indiana Statutes Affecting Forestry

Forest management activities are protected, much like agricultural practices, from nuisance suits related to generally accepted forestry management practices or changes in operations, including:

- A change in the ownership or size of the forestry operation
- Enrollment in a government forestry conservation program
- Use of new forestry technology
- A visual change due to removal of timber or vegetation
- Normal noise from forestry equipment
- Removal of timber or vegetation from a forest adjoining the locality
- The proper application of pesticides and fertilizers

This protection is provided under what are commonly called "right to farm" or "right to practice forestry" statutes. Indiana Codes §§ 32-30-6-1 to 32-30-6-1.5, 32-30-6-9, 32-30-6-11 provide the details of this protected status.

Some additional laws and regulations that may impact forest management or timber harvesting include the previously mentioned Classified Forest Act (IC 6-1.1-6) and Licensed Timber Buyers Law (IC 25-36.5-1-18). The Indiana Flood Control Act governs activities and construction occurring in floodway areas. Stream crossings or leaving logging debris in regulated streams or floodways may fall under this act. Additional information on each of these acts can be found here. Wetland regulations may also impact forestlands that contain wetlands. One example is a list of best management practice requirements for building a road in wetlands for forest management purposes. Information on the requirement and the list of practices is located at <https://www.in.gov/dnr/forestry/files/BMP.pdf>.

Clearing forests or wetlands for agricultural production may have impacts on eligibility for USDA agriculture support programs. Consultation with the USDA Natural

Resources Conservation Service or Farm Service Agency in the county is recommended for those participating in USDA agriculture programs prior to conversion of wetlands or forestland.

FORESTS AND COMPREHENSIVE PLANNING

Forests are important parts of the natural, agricultural, commercial and societal landscape of Indiana. Retention and sustainable management of forests creates an opportunity to continually produce the many benefits forests provide. Unfortunately, forests are regarded by some people as underutilized areas best converted to other uses. The multiple benefits outlined here provide evidence of the value forests bring to communities and motivation to maintain and manage forests as part of the landscape. Because of their potential to produce multiple benefits for individuals and communities, forests may fit into several areas of planning, including natural and recreational areas, agriculture production



(timber), environmental benefits and services, sources for industrial production and aesthetic values, to name a few. For many communities around Indiana, forestlands are primarily private lands, so consideration of the private property rights and opportunities for forest landowners should be an important part of planning considerations. Other communities have significant public forest holdings in their areas, providing opportunities for communication and cooperation with the public agencies holding those forests. Recognizing and outlining the current contributions and future benefits related to forests in your community comprehensive planning can encourage leaders and citizens to value forests as a part of the community.

ADDITIONAL RESOURCES

Purdue University Department of Forestry and Natural Resources: <https://ag.purdue.edu/department/fnr/>

Indiana DNR Division of Forestry: www.in.gov/dnr/forestry/

Indiana USDA Natural Resources Conservation Service: www.nrcs.usda.gov/wps/portal/nrcs/in/home/

Federal requirements for forest roads in wetlands: <https://www.in.gov/dnr/forestry/files/BMP.pdf>

Forestry best management practices: www.in.gov/dnr/forestry/2871.htm

Licensed timber buyers: www.in.gov/dnr/forestry/2846.htm

DNR district foresters: www.in.gov/dnr/forestry/4750.htm

Directory of private professional foresters: <http://www.findindianaforester.org/>

Summary of state and local forestry regulations in Indiana affecting timber harvesting: <https://www.in.gov/dnr/forestry/files/BMP.pdf>

The Indiana Forest Products Community

Indiana's Hardwood Industry: Its Economic Impact: www.in.gov/dnr/forestry/files/fo-Hrdwd_Imp_2016.pdf

State Comprehensive Outdoor Recreation Plan: <https://www.in.gov/dnr/state-parks/recreation/planning/scorp/>

Economic Impact of Indiana Outdoor Recreation: <https://outdoorindustry.org/resource/indiana-outdoor-recreation-economy-report/>

Indiana Forests 2013 and Beyond: www.in.gov/dnr/forestry/files/fo-State_Private_Lands_forest_inventory_update.pdf

National Fire Protection Association, Firewise USA <https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA>