

Forests are the lungs of our land, purifying the air, and giving fresh strength to our people.

Franklin D. Roosevelt



MAY THE FORESTS BE WITH YOU!

utting our own spin on the famous line from Star Wars, we acknowledge the power of the forests in Maine as a force behind our State's economy, our recreation, and our livelihood.

The forests touch our lives daily with the everyday objects we use, the homes we live in, where we recreate, and the beauty of our landscape.

This publication was written to help understand and promote respect for the forest industry, its people, and its efforts to maintain tradition and balance between environmental health, economic values, and the recreational needs of Maine residents and our visitors who enjoy what Maine has to offer.









SUSTAINABLE FORESTRY

ustainable forestry means that trees are not harvested faster than they can grow back. Beyond that, it means that forest management is aimed at producing high-quality pulpwood and timber, protecting or enhancing habitat for wildlife, and ensuring water quality is protected for future generations to enjoy. In 2015, growth of Maine forests exceeded harvest by 55 percent. Forest management in Maine consists of more than just building roads, cutting trees, and getting them to the mills. Protecting water quality, managing the plants, fish, and wildlife are all part of the equation that makes the private lands of Maine so unique, valuable, and beautiful.

What's so special about Maine's forests?

The State of Maine is in a position to be a significant player in the 21st century global forest and wood products economy.

- ☐ Maine's forests are healthy, and are privately owned.
- Wood is the most environmentally sound material on earth sustainable, greenhouse-gas friendly, highly versatile, grown with relatively little effort, and produced and stored in the form of forests that provide clean water and air, bio-diversity, wildlife habitat, and beautiful places for recreation and tourism opportunities.
- ☐ Maine has a wide variety of hardwood and softwood tree species with different product potentials.
- ☐ The demand for wood products, including various kinds of paper and wood-based innovations, will rise as human population and standards of living increase.



- ☐ Cross-Laminated Timber (CLT) panels; tall wood buildings; high-tech paper, panel, and packaging materials; wood-derived chemicals; bioenergy; insulation; and nanomaterials all promise a new revolution in the wood products markets.
- ☐ Our state is a day's drive from a market with 70 million of the wealthiest people on the planet, has access to ports near major ocean shipping lanes, and has a diverse and highly integrated wood processing and transportation system.



What happens to Maine's wood?

In 2014 (most recent year for data), 459 million cubic feet of wood were harvested from the state's forests. This harvest converted to:

- □ Pulpwood for paper, tissue and packaging (50%)
- ☐ Sawlogs for lumber (27.5%)
- ☐ Biomass for electricity (19.9%)
- ☐ Firewood/pellets to heat homes (2.6%)

Sustainable forestry's economic impact

- ☐ International: In 2018, Maine exported \$551 million in forest products.
- ☐ The 2016 forest economy estimated an impact of \$8.5 billion in Maine.
- ☐ The direct employment in the forest products industry of 16,551 jobs supports an additional 22,405 jobs in Maine, for a total of 38,956 jobs associated with the forest products industry. This represents 1 in 20 Maine jobs.
- ☐ The total economic impact of Maine's forest products industry provides an estimated \$278.4 million in state and local taxes.
- ☐ Globally, paper/paperboard is still a growth industry, increasing 1.7 % annually, according to industry analyst Brian McClay of Montreal.
- ☐ In terms of economic impact of forestry-related businesses by state, Maine leads the nation at 20.4%, the next highest impact states are Arkansas at 16.7%, and Mississippi at 14.9%.

Innovation and diversity in business

- ☐ Building on the University of Maine's expertise in bio-based composites, a new research collaboration between UMaine and the Department of Energy's Oak Ridge National Laboratory will advance efforts using wood products in 3D printing creating a new market for Maine's forest products industry.
- □ New uses for wood brings opportunity to Maine. People have been using wood forever, and Maine foresters are using ingenious ways to make new wood sourced products. Maine could consider producing new products now and in the future.
- □ Cross-Laminated Timber (CLT) is being used to construct ever higher tall buildings around the world. It's an engineered wood product that is well-suited for buildings between 6-18 stories. CLT facilities have announced that they will be opening in Maine.
- Nanocellulose consists of incredibly light and strong fibers that can be used in a variety of applications, from coatings for packaging papers to high performance textiles and medical products.



The 17.6 million-acre expanse known as the Maine Woods is the largest stretch of nearly unfragmented forest in the Eastern United States. It is the largest intact temperate broadleaf and mixed forest in the nation and one of the best examples in the entire world.

Maine has 39 commercial tree species including aspen, birch, red and sugar maple, several types of oak, white and red pine, spruce, balsam fir, and others (39% soft wood; 61% hard wood).

Maine has about 4 million acres of conserved lands. That's more acres than the combined total of the Yellowstone (2.2 million) and Everglades (1.5 million) National Parks.

Maine is 90.7% (15.9 million acres) private forest land, which is the nation's largest percentage.

The state's forest products industry had an \$8.5 billion economic impact in 2016.

Maine forest landowners are unique for providing public use of their properties for recreational activities, while other states severely restrict access to private lands.

8.3 million acres are certified to highest environmental standards by SFI (Sustainable Forest Initiative) or FSC (Forest Stewardship Council), and ATFS (American Tree Farm System). That is the highest percentage of forest certification of any state in the country.

Growth in the forest industry

- ☐ The former pulp mill in Old Town, closed in 2015, re-opened in August with 130 full-time employees under the ownership of China's ND (Nine Dragons) Paper. ND Paper also owns the Rumford Mill and recently invested \$111 million, sustaining 650 jobs and adding 50 more employees.
- □ Verso Corporation announced plans in 2018 to do a \$17 million upgrade of a paper machine at its Androscoggin Mill in Jay. This will bring back an estimated 120 jobs and enable the company to restart its manufacturing of packaging products.
- ☐ Woodlands invested \$150 million to make tissue at its Baileyville Mill.

- ☐ Sappi invested \$165 million to upgrade a paper machine at its Somerset Mill in Skowhegan.
- ☐ A \$12 million expansion at Pleasant River Lumber's sawmill in Dover-Foxcroft.
- ☐ A \$30 million biomass plant investment at Athens Energy, Athens, Maine.
- ☐ A \$36 million biomass plant investment at Robbins Lumber Company in Searsmont.
- ☐ The announcement that two Cross-Laminated Timber (CLT) plants will soon be built in Maine.
- ☐ The University of Maine partnership with Oak Ridge National Laboratory on wood-based 3-D printing.
- □ Go Lab, Inc. finalized repurposing the Madison Mill to manufacture insulation products out of wood products. The company will be hiring about 125 people, giving new life to an old mill.

Maine's long history of logging

nown fondly as *The Pine Tree State*, Maine has a long, rich history in forest products industries. This history began in the early 17th century when English explorers first cut trees on Monhegan Island. Its first official sawmill was built in 1634 in the small town of South Berwick. Fifty years later, the Maine region had 24 fully operational sawmills, shipping primarily soft wood (pine). Soft wood was easier to float down streams during the spring floods.

The Act of 1729 passed by England reserved to the Crown all pines measuring 24 inches or more in diameter to supply the demand for ship masts. Colonists who relied on lumbering to make money were angered that so many of the good trees were shipped to England. They were unable to use these trees for their settlements, thus resentment toward England grew quickly. Crown tree marking would be one of the major grievances against England in the American Revolution. This changed in 1776 when the American colonies declared independence from England, bringing an end to England's mast lumber demand.



Loading timber onto ships in Bangor, ca. 1890. Photo courtesy of Penobscot Marine Museum.

By 1830, Bangor was the world's largest lumber shipping port. The demands of the industry made this small village a booming lumber town in four short years, with the population expanding from 2,800 to 8,000. By the mid-1800's, the majority of sawmills in Maine were concentrated in Bangor, Orono, Old Town, Milford, and Bradley. Sources suggest that Maine's booming lumber days declined in the 1880s when readily accessible timber had disappeared.

Because the rivers made transporting logs from the forests to the mills relatively easy, Maine's lumber industry grew

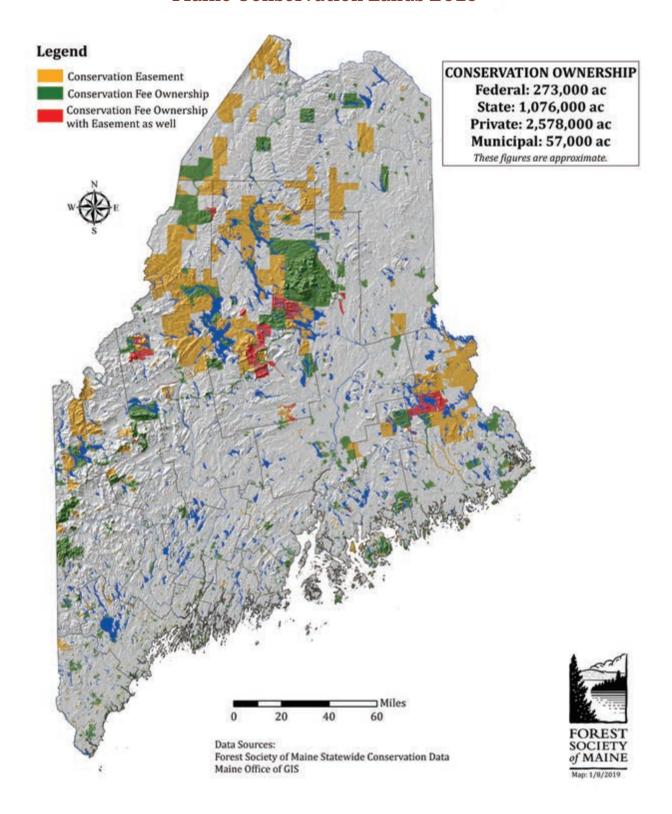
up around the Androscoggin, Kennebec, and Penobscot Rivers. Logging was still an important part of Maine's economy, but as logging moved west, many of Maine's boomtowns faded.

Logging was mechanized in the 20th century, and specific species of trees were overharvested in record numbers. Maine was trying to compete with logging companies in Canada and the northwest. Regulations passed later in the 20th century have reversed deforestation effects, and Maine's current logging industry has become dedicated to sustainability.

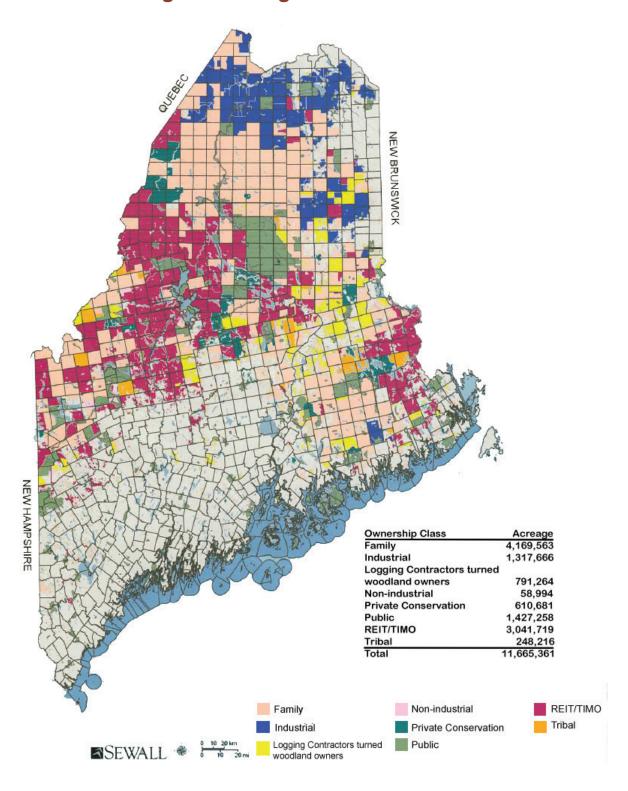
Maine forestry is unique compared to other states because of its commitment to sustainability. Maine's outstanding forest management practices by committed private landowners who care deeply about their properties is exemplary. As a result, we can boast about the outcomes of their hard work and dedication to keeping Maine beautiful.

Today, Maine is 90.7% covered by one of the most advanced, productive, sustainable, and beautiful resources imaginable—our forests. Our dedication to conservation and protecting the land is second to none, thanks to the private landowners who are the heroes of Maine's forests.

Maine Conservation Lands 2019



General Categories of Large Landowners in Maine 2019



Recreation on private lands



ecreational activities, including those that rely on Maine's forests, contribute significantly to the state's economy. Outdoor enthusiasts benefit from what Maine has to offer; from our unique supply of Professional (registered) Maine Guides to our vast array of hunting and fishing camps and lodges. The demand for outdoor recreational products and supplies from this outdoor tourism industry is a driving force for economic prosperity right here in Maine.

In September 2019, Maine Outdoor Brands published a report assessing the outdoor recreation industry nationwide. The report states that **Maine's outdoor recreation economy is the third highest in the nation** relative to state GDP, just behind Hawaii with 271 days of sun, and Montana.

- ☐ Outdoor recreation makes up 4.8% of Maine's economy, more than DOUBLE the national average.
- ☐ Outdoor recreation supports 40,000 jobs in Maine, 6.4% of employment.
- ☐ In terms of economic impact, boating and fishing were the largest conventional outdoor recreation activities think of all the lakes in Maine sequestered among our forest lands.



☐ Maine forests are home to 6,000 ponds and lakes, 6 major rivers, and 32,000 miles of streams.



than 10 acres.

- ☐ Maine is the centerpiece of the Northern Appalachians Ecoregion, the largest temperate forest in this hemisphere and hosts a higher diversity of mammalian carnivores of any place east of the Mississippi river including the only breeding population of Canada lynx.
- ☐ Maine is the last stronghold of eastern brook trout and holds the last populations of Atlantic salmon, as well as breeding habitat for a hundred million migratory birds.
- ☐ Maine is also unique in the guaranteed rights of "fishing, fowling and navigation", dating back to the Massachusetts Colonial Ordinance of 1641. Maine's Great Ponds Act states "for Great Ponds lying in common…it shall be free for any man to fish and fowl there", providing the public right to cross private property on foot to access any natural freshwater body greater

☐ Finally, Maine's landowner liability law is one of the strongest in the nation, protecting landowners from responsibility and liability for injuries.



When you combine outdoor recreation with forest products you get more than 10 percent of the jobs in Maine.

The most recent analysis from the U.S. Fish and Wildlife Service and U.S. Census Bureau shows that in a single year, 1.1 million residents and visitors participated in wildlife-related recreation in Maine. Of these, 341,000 fished, 181,000 hunted, and 838,000 participated in wildlife-watching activities.

There are about 14,000 miles of snowmobile trails that

cover the State from Sanford to Allagash. A 6,000-mile all-terrain vehicle trail system is attempting to

provide a comparable recreation footprint/pathway. About 95% of those trails are on private land. In addition, there are more than 200 boat launch sites on conserved land.

Protecting our forests

ecreationists need to always be aware that whatever they are doing is secondary to the primary management goals of any particular piece of land. For example, that beautiful snowmobile trail through the

forest is likely a tote road that could be opened at any time to accommodate a logging operation.

Check your vehicles and boats! ATV operators can unwittingly spread crop diseases between potato fields, and boat owners may unknowingly bring an invasive plant to a lake, pond or river.

Clean up after yourself! There's a cost to landowners for providing recreational access to their property, and, at the very least, land users should do whatever they can to mitigate those costs. Observe the usage rules a landowner has on their land.



That beautiful old pine might make a great support for a tree stand, but it may eventually be headed to the mill where its value could be greatly diminished by screws that have been driven into it.

Talk to your Federal and State legislators to encourage their support for sustainable forestry in Maine.

Teach your children about the values of Maine's forests.

Get involved! Learn about the laws before you take off on

your snowmobile, ATV, or boat. Educate others. You're most likely on someone's land—treat it like it was your land. And enjoy it!

More information about Maine forests

Maine Land Conservation Assistance Network

https://www.mainelandcan.org/

Biobased Maine

https://biobasedmaine.org/

Maine Forest Products Council

https://maineforest.org/

FOR/Maine

https://formaine.org/ foresteconomy@mdf.org

Forests for Maine's Future

http://www.forestsformainesfuture.org/

Maine Department of Agriculture, Conservation and Forestry

https://www.maine.gov/dacf/mfs/

Maine Woodland Owners Association

https://mainewoodlandowners.org/

Publication Sources

- Maine Forest Products Council publications
- FOR/Maine
- US Fish and Wildlife Service and Census Bureau
- Maine Outdoor Brands
- National Alliance of Forest Owners
- Wood Splitters Online



Land Conservation Assistance Network (LandCAN)

The Land Conservation Assistance Network (LandCAN) is the nation's leading internet platform with encyclopedic conservation information for landowners. There is a compelling need to assist and advocate for private landowners on conservation applications so that they can make informed, sustainable decisions about their land. Private landowners own 71% of the lower 48 states; LandCAN is the leading service provider for this market. We address conservation needs of farmers, ranchers, forest owners and private landowners who manage land and wildlife habitat across the United States.

Our mission is to promote the protection of endangered species, farms, forests, wetlands, and other open spaces, by empowering landowners to make smart, sustainable decisions about their land.



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