

Old-Growth Forest Initiative

Managing for Old-Growth Forest

By its nature, logging may seem incompatible with protection of old-growth forests. Current research is seeking to identify forest management strategies which could help to enhance old-growth forest characteristics on previously-timbered sites.

A good forest management plan, developed by a professional forester, will have a long-term view that includes the protection of soil, water, wetlands, riparian areas, aesthetic quality, recreational opportunities, natural communities and fish and wildlife resources. A forester with experience can help guide you in selecting stands that are best able to transition to, or continue to, support mature to old-growth.

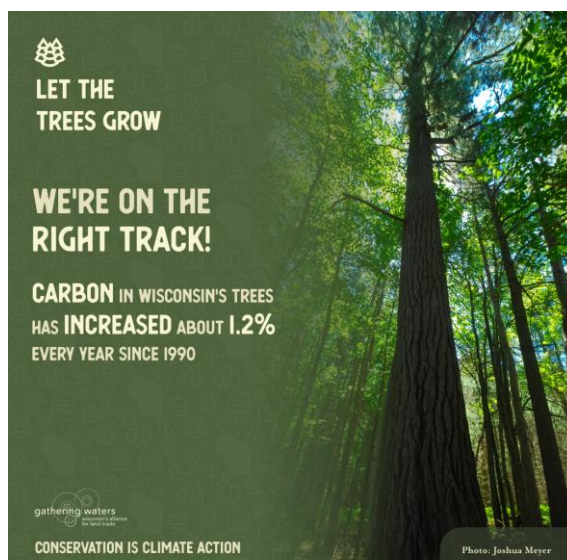
If you are concerned about climate change, know that forests with older trees tend to store more carbon overall than younger trees (but younger trees can sequester CO₂ from the atmosphere at higher rates than old trees). A growing tree is a carbon sponge. Old-growth forests are carbon storehouses.

Forests are vulnerable to a changing climate and will require changes in management practices to continue storing more carbon. Maintaining a diversity of tree species is key to helping forests adapt to climate change; loss of species and declining diversity indicates a forest is vulnerable to climate change. (See our [Climate Conservation Solutions Initiative](#) for more information.)

There are several other well-known practices that could be applied to forests, regardless of age or ownership. Among them: selecting site-adapted species to optimize growing space; thinning trees for optimal growth; extending the time between cuts or deciding not to cut. An important management strategy to prevent is “high-grading” of the forest where only the best trees are cut and the poorest quality trees are left.

There are some challenges to managing for old-growth forest on private lands.

The [Managed Forest Law \(MFL\) Program](#) can be an impediment to landowners interested in managing their forest for old-growth characteristics. The MFL program provides property tax incentives that help landowners keep their forest lands intact.



The program requires active timber management on 85% of the enrolled property. Landowners with old-growth forest sites (that are not actively managed) are therefore not able to take advantage of the low property tax rates offered through MFL. Unless a landowner has large, contiguous managed forested areas also enrolled, old-growth forest sites may not be eligible to participate in the state's MFL program. If a property is large and diverse enough, particular forested stands can be managed for old-growth.

The [Wisconsin Young Forest Partnership](#) (WYFP), in which federal and state agencies, organizations, timber companies and private landowners have joined forces to bring more young forest to the state. The program has a primary focus on regenerating aspen stands through shorter rotation clear cutting. These young aspen forests particularly benefit game species such as white-tailed deer, snowshoe hare, ruffed grouse and woodcock. Non-game species such as golden-winged warblers also nest in early successional forest stands.



Deer browse on white pine.
By Ron Eckstein

White-tailed deer thrive in cutover edge habitats, so there has been pressure to cut forests regularly in order to increase deer numbers, resulting in less old-growth forest habitat and an overabundance of deer in the northwoods. While these young forests serve a purpose, they are now too common in the northwoods. Paper industries thrive on aspen pulp, so public and industrial lands continue to be managed for aspen. With fire suppression and rotational clear-cut aspen management, pineries and other forest types that once dominated parts of the northwoods have not been allowed to re-establish.

A major factor in the management of old-growth forests is **white-tailed deer**. In northern Wisconsin, the high numbers of deer greatly affect forest composition, and in some places, they create "ecological deserts." They graze mostly on herbaceous plants in the warm seasons, and in winter they depend on woody browse to survive. Our native orchids and lilies, and young eastern hemlock, white cedar and Canada yew are favored by deer, so their survival and growth rates are extremely low. Studies have estimated that 60 – 80% loss of native species in old-growth stands is due to high deer population.



At the [Holmboe Conifer Forest](#), NWLT has deer enclosure areas to combat herbivory and promote hemlock growth. These fences help to keep deer out of areas where regeneration is occurring, or is very likely to occur. By preventing saplings from getting mowed over by deer, more trees may reach maturity, then produce more cones and seeds.

Installing deer exclosure (fenced) areas around young growth helps seedlings and saplings survive and grow to heights where deer can no longer browse them to death. Also, allowing hunting on private lands will help keep the deer population in-check.

Conclusion

Through the Old-Growth Forest Initiative, NWLT is not taking sides regarding timber harvesting. Rather, we are encouraging private landowners to consider their own objectives and what strategies might be most appropriate for the type of forest habitats they own and manage.

Rare old-growth forests, renewing young forests and selective management for high-quality northern hardwood and conifer saw timber are all options and opportunities for private landowners to help protect the diversity of the northwoods.



A Forest County privately-owned conservation easement with soils that can support old-growth forests.

Resources on Managing Old-Growth Forests:

[Restoring Old-Growth Characteristics by UMass Extension](#)

“[Our Living Ancestors: The History and Ecology of Old-growth Forests in Wisconsin and Where to Find Them](#)” by John Bates includes a manual for private landowners (p. 310).

[Managed Old-Growth Silvicultural Study by Wisconsin DNR](#)



NORTHWOODS
LAND TRUST

The Northwoods Land Trust’s (NWLT) [Old-Growth Forest Initiative](#) identifies and protects old-growth forest habitat in the northwoods of Wisconsin in partnership with landowners and other organizations and provides educational materials to encourage private landowners to manage for old-growth forest habitat and protect some of these last remaining relics.