

The News Journal



SEEING TREES AS SUSTAINABLE

Harvesting part of plan to save cypress swamp, Delaware's forests

By Molly Murray

The Great Cypress Swamp once covered as much as 60,000 acres in Delaware and nearby Maryland.

Today the great swamp totals about 12,000 acres.

But even at its diminished size, it remains among the largest contiguous forests left on the Delmarva Peninsula.

From the air, there is a massive swath of green among the puzzle pieces of farmland that connect southern Sussex County and nearby Worcester County, Md.

"The only thing people have here is land and beauty,"

Pete Martin said more than two decades ago. "And beauty doesn't give them any money."

These days, Martin has another take on making beauty pay: With artful harvesting, the trees can help sustain efforts to restore the massive forest.

"The swamp is a work in progress," said Martin, swamp manager for Delaware Wild

Lands, the conservation organization that owns and manages some 11,000 acres that remain of the swamp.

Delaware Wild Lands has embraced sustainable forestry and has started to selectively harvest some of its trees -- mostly mature loblolly pines -- and investing the money in reforestation and other projects at the massive holding near Gumboro.

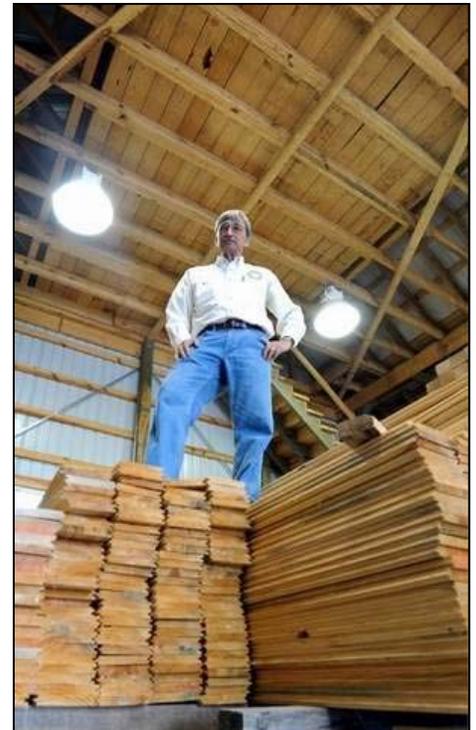
Though Delaware Wild Lands is a leader in sustainable forestry, the state is taking up the cause.

Forests still cover about 27 percent of the state, said Sam Topper, state forest conservationist.

"It's still a large part of Delaware," he said.

Delaware Wild Lands is part of a growing group of landowners that practice sustainable forestry. The nonprofit's initiative differs from some other sustainable forest operations because they have been through an audit and are certified by the Sustainable Forestry Initiative, a nonprofit organization that recognizes sustainable forest management that promotes water quality, biodiversity, wildlife habitats and critical forest areas.

The initiative estimates that 10 percent of forests worldwide are certified as sustainable. State forestry



officials are moving toward sustainable management but they haven't been through an audit that would lead to certification. Maryland took sustainable forestry a step further in 2009 with the passage of a Sustainable Forestry Act that created a Sustainable Forestry Council.

Three generations of landowners reshaped the Great Cypress Swamp. They rerouted rivers, cut down trees and drained the land. A series of natural and man-made fires, starting in 1782, further changed the landscape.

One of those fires, in 1782, burned for months, destroying at least 3,000 acres of bald cypress in a scene that was "grand and terrific, the whole city of Philadelphia in flames would give you but a faint idea of this tremendous conflagration," according to an account that appeared 15 years later in the American Universal Magazine.

The forest was so dense people got lost there. The last bear known in Delaware was reportedly killed in the swamp in the early 1900s.

In 2000, A. Scott Andres, a senior scientist and hydrologist with the Delaware Geological Survey, released findings that disclosed a unique formation at the swamp.

In geologic time, the swamp isn't that old.

It formed about 22,000 years ago in a fresh-water, cold-climate marsh and boreal forested swamp.

Organic matter started building up and a cold wind blew in silt, clay and sand from nearby dunes and surrounding high ground. More sediment washed in with runoff from streams.

Thin sheets of sand likely spread during times when the land thawed.

Conditions began to change about 10,000 years ago as the climate warmed, forming a temperate-forested swamp, bog and flood plain.

There was more erosion and movement of organic-rich sediment to the fresh-water swamp. Today, it's considered the northernmost Southern forest on the East Coast.

In the 1938 book "Delaware: A Guide to the First State," the swamp was described as the great "Delaware Everglade."

The swamp once included massive stands of bald cypress -- trees that were harvested and turned into shingles, buckets and siding. Those trees have been largely depleted by woodsman, who then moved on to the stands of Atlantic white cedar. Farmers drained the bogs to create farmland.

By the time preservation efforts took hold, there was plenty to do.

Over the years, Martin has tried to replant bald cypress stands within the swamp. What he found was that other trees -- pines and sweet gums -- beat out the once-common native cypress.

As part of the sustainable initiative, Wild Lands is now trying to re-establish Atlantic white cedar.

The efforts are part of a comprehensive approach to forest management on the property.

The first project, in the summer of 2006, was a harvest of 52 acres designed to demonstrate four different harvesting strategies: standard thinning, 50 percent to 60 percent harvest, 80 percent harvest and an eight-acre clear-cut. In the sections of partial cutting, they retained uncut "habitat islands."

Profits from the timber sales are reinvested in restoration projects, habitat enhancement projects, as well as replanting and property maintenance activities.

"It's a renewable resource," State Forester Mike Valenti said. "There's a lot you can do if you manage your forests."

The pines in lower Delaware and the hardwoods farther north make Delaware's forests unusual.

"There are a lot of healthy forests left in the state," Valenti said.

Some of the softwoods go to wood chips and pulp and some to lumber.

In Kent and New Castle counties, hardwoods dominate the forests and some trees produce lumber that is high-quality, furniture-grade, he said.

But one concern among state forestry officials is that few large lumber mills remain in Delaware to buy the wood. One large sawmill just outside Seaford in nearby Maryland closed in recent years.

Valenti said the state owns some 18,000 acres of forestland and has been selectively harvesting small amounts of timber to help offset its operating expenses.

Another concern, he said, is that although there is a lot of forestland remaining in Delaware, about a third of it is not high-quality timber. At Blackbird State Forest, for instance, there is a stand of white pine that isn't of especially high quality, he said.

The state recently rejected bids to harvest it because the profit was too low.

Meanwhile, at the Cypress Swamp, Martin periodically checks on his new plantings of Atlantic white cedar.

Tiny pine and gum seedlings are starting to poke through the dark soil.

He reaches down and plucks out the competition.

The cedars don't even reach his knees.

"With this," he said, "there's no such thing as instant gratification."

