

Wisconsin Natural Resources magazine

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Coming to grips with growth

Swamped by a building boom, the shores of northern Wisconsin's lakes and rivers are losing habitat -- and the very essence of the north itself.

JIM BISHOP, JR.

A problem acknowledged || Private protection, public benefit Disappearing in development's wake ||
Zoning
Responsibility lies at the shore

Tucked away amid the gently rolling hills of oak and jack pine, 68-acre Sunfish Lake is hardly noticed by most people in Washburn County. But in the current rush for lakeshore property, this water body, like many in the north, was noticed by developers.

With all of the best sites on Sunfish already sprouting seasonal and permanent homes, developers went to work on the "marginal" lands -- sites with steep slopes, adjacent to large bogs or wetlands, shallow weedy bays, poor access, or terrain that blocks a view or access to the water.

In one instance, a large cabin was built atop a hill 200 feet from shore. Nearly every tree was cut to give the owner a lake view. A mechanical weed cutter was used to cut back aquatic plants that blocked access to the property from the water. The cutter operator was later fined for scouring the lake bottom rather than just trimming a path through the plants that are so valuable and necessary to fish and wildlife.

The Sunfish story is repeated again and again on northern Wisconsin's 12,400 lakes. In a report examining the region's lakes and shorelines, the Department of Natural Resources found that since 1960 about two-thirds of undeveloped lakes 10 acres or larger have been developed. The average number of shoreland dwellings on all lakes has more than doubled in that time. The report estimates if this trend continues, all undeveloped lakes not in public ownership could be developed within the next 20 years.

Vilas and Oneida counties contain one of the highest concentrations of lakes in the world, and they are part of this trend. In 1990, Vilas County issued 1,102 zoning permits. Five years later, 2,049 permits went through the zoning office, many of these approved for new building sites.

Home starts in Oneida County jumped from 328 in 1995 to 351 in 1996. Housing starts dipped slightly in 1997 to 338, but 184 of these were new homes on lake, pond, or river sites.

"We are currently looking at a new home start every day," said Steve Osterman, Oneida County zoning administrator, "and about 50 percent of these are for homes along lakes and rivers." Riverfront properties are becoming more popular, he added, as the good home sites on lakes are taken. The average lot size for an Oneida County lake home in 1997 was 3.3 acres while on a river the lot size increased to 14.4 acres still good-sized, but lots continue to get smaller over time.

New construction encroaching on shoreland habitat. © Robert Korth

As more marginal properties are developed, buyers are seeking new ways of getting to the water. Vilas County requests for permits to construct boardwalks or elevated piers over wetlands have never been higher. Others want to open sloughs or widen channels from small ponds or lakes into larger nearby

waterways. And more requests to fill and alter wetlands are now coming into the zoning administrator's office.

Since even marginal lands are selling at a premium, property values have skyrocketed. In 1994, according to the Wisconsin Taxpayers Alliance, seven of 10 counties with the largest rise in property taxes were in southern Wisconsin. Two years later, all top ten counties with fastest rising rates were north of an east-west line through Green Bay.

A problem acknowledged

The rising tide of development has not gone unnoticed by local citizens and government officials. Concern over the loss of upland green areas, loss of scenic beauty, damage to shore habitat for fish and wildlife, and degradation of water quality have prompted action from the grassroots to state government.

In 1993, DNR Secretary George Meyer started a Northern Initiative project to examine how the department's work affected northern Wisconsin. He asked both residents and visitors to identify the region's top resource issues. Three primary concerns emerged: the quickening pace of change in the north, and the impact of shoreline development, and the threat to the traditional lakes and forestry economy.

In addressing the shoreline issue, a special Northern Initiatives Team suggested four courses of action in its report, Northern Wisconsin's Lakes and Shorelands:

Expand public information and education efforts about the environmental, social and economic importance of lakes;

Target assistance to owners of ecologically, important undeveloped lakes and shorelands who are interested in voluntary conservation measures;

Provide technical and financial assistance to local municipalities, upon request, to develop and adopt enhanced shoreland zoning ordinances;

Assist local governments and private conservation organizations in acquiring ecologically-important lakes and shorelands.

The Department of Natural Resources also studied the need to acquire ecologically significant lakefronts for public use. This past year Stewardship funds were used to purchase the Willow Flowage in Oneida County. A total of 8,720 acres of land and water will now be held in public trust for all generations. The northern boundary of this wild area also contains the state's largest wolf pack.

Large purchases such as this are the exception rather than the rule. It's often up to private individuals or groups to secure sensitive lake lands from the bulldozer's bite.

Private protection, public benefit

Loss of upland wildlife habitat concerned the Clark family, owners of land adjacent to Alabama Lake in Polk County. The lake's fishery is considered "limited" due to the occasional freeze out, and up until 1994 it had been largely overlooked by developers. But migrating birds, deer, coyotes and other wildlife used the lake and the surrounding shoreland, which contained eagle nests and heron rookeries. When Otter Point -- a 12-acre finger of wild land on the west shore -- was sold to a developer, the Clark family stepped in.

"Persistence paid off," said Chris Clark, who along with her husband and an anonymous donor bought easements that prevent development on Otter Point. She said the Polk County Board was ready to give the go-ahead to the developers when a friend came up with the \$40,000 to purchase the easements.

Since that time the Clarks have worked with neighboring landowners to set aside half of the land around the lake in conservation easements, with help from the Wisconsin Farmland Conservancy, Ducks Unlimited and Prairie Restoration.

If the lake is protected it will be one of the few remaining undeveloped waters in the area. With Minneapolis-St. Paul so near, land on lakes in Polk and Burnett counties is a desirable commodity.

"Many people are purchasing seasonal homes, changing them into permanent dwellings and commuting from the Twin Cities," said Bruce Swanson, a northern basin unit supervisor who has been with the Northern Initiatives program since its start. "The natural beauty that drew people to the area is being gobbled up and residents are demanding some type of slowdown."

Disappearing in development's wake

Part of what attracts people to a lake or river is lost when native plants and animals founder after development. A recent study by the Sigurd Olson Institute and the Department of Natural Resources documents the loss.

During the summer of 1997, researchers surveyed several dozen undeveloped and developed lakes in Vilas, Oneida, and Forest counties, measuring the relative abundance and variety of frogs, birds, plants, trees and animals. Researchers discovered the fishery was the real loser in the end.

"We found that on developed lakes, people are clearing away shoreline plants and aquatic vegetation vital to sustaining the food chain for fish," said department wildlife toxicologist Mike Meyer, one of the study's authors.

Frogs feel the pinch of
lakeshore development.

© Don Blegen

Shrubs covered 64 percent of the shoreline on undeveloped lakes and only 16 percent on developed lakes. So too, trees with leafy canopies covered 35 percent of the shoreland on undeveloped lakes versus 22 percent on developed lakes. The loss of aquatic plants and woody debris means spawning fish, juvenile fish and fry have less food; less overhead protection from big fish, birds, and other predators; and fewer territories suitable for nesting.

When studying frogs, researchers found that undeveloped lakes averaged one frog for every 126 feet of lakeshore, compared to one for every 220 feet on developed lakes and one frog for every 470 feet on very densely developed lakes. "It was unsettling to go from the din of a full chorus of frogs and toads on an undeveloped lake to a developed lake only two miles away that was absolutely silent," Meyer relates.

The research indicated the current Wisconsin Shoreland Zoning Program permits habitat to be altered intensely enough to change the bird communities associated with northern lakes. Grackles, blue jays, robins, and catbirds are replacing warblers, creepers and thrushes along northern shores.

Zoning and other shoreland controls

Several steps could minimize shoreline damage. Better support for understaffed and underfunded county zoning offices would increase the enforcement of buffer zones. To better meet state goals to protect natural beauty, control erosion, reduce the flow of nutrients and sediments, and protect fish and aquatic life, the state could review the ambiguous language in regulations that allow vegetation cutting. New lakes protection programs, like the Oneida County Lake Classification System, address these issues, and other counties are similarly examining their zoning controls.

The cottages keep on getting bigger every year.
© Robert C. Bergstrom

In Iron County, development pressures prompted the county board to put a six-month moratorium halting construction and subdivision of lakefront property. That step provided time to develop better regulations. A new ordinance, passed by the board in February, covers lakefront property of less than 60 acres, and condominium development.

Washburn County is rewriting its shoreland zoning rules to protect the public interest and the water resources.

According to zoning administrator Craig Conroy, all the lakes in Washburn County are being evaluated and placed in three classes of potential development -- maximum, moderate and minimum -- based on their need for protection and existing development patterns. The county has 968 lakes of which 209 are larger than 10 acres.

The classification system recognizes that all lakes are not created equal. About two-thirds of the county's lakes are round, while the remainder are long or spider-shaped. Lakes with more shoreline and a smaller volume of water may have more homes -- and more water quality problems.

The classification system also weighs the value of scenery and aesthetics to property owners. Their top four concerns? Habitat protection, water quality, shoreline development, and fishing.

Under Washburn's new system, highly vulnerable lake resources are separated from those less vulnerable, or those with little to gain from changed land uses. The system takes into account a lake's surface area, type (whether seepage, spring or drainage), watershed area, shoreline development, and existing density of structures.

Currently most of the north's counties are in the process of reclassifying their lakes.

Oneida County is revamping its 25-year-old shoreline zoning ordinance. Since December 1996, a nine-person committee has met 50 times to discuss issues such as lot size, square footage, tree cutting, the ordinary high water mark, and inspections.

"Our emphasis is protecting the land," said Steve Osterman, county zoning administrator. "Our goal is to put rules in place to prevent shoreline degradation." But, as Oneida County discovered, some folks just don't know about local requirements to protect shorelines.

When Oneida County surveyed realtors and contractors, it discovered these people who manage property every day were unfamiliar with the county's Shoreland Protection Ordinance. Likewise, property owners correctly answered only 17 percent of the questions about local ordinances. More than 75 percent of these lake property owners had never previously owned lake frontage. The need for more education is clear.

In addressing shoreline tree cutting, Oneida County wanted to use guidelines in a DNR handbook on Best Management Practices for shorelands which recommends a no-cut zone 50 to 100 feet from the shore. That concept concerned the timber industry, though their organizations embrace the idea that good shoreland management is compatible with quality forest management.

"The Michigan-Wisconsin Timber Producers Association voiced concern because it would take timber out of production," Osterman said. He added the ordinance committee might have to work out a different system recognizing the needs of the timber interests.

Oneida County is also considering a mitigation program. If a structure cannot comply with the zoning code, the landowner would have to do some extra work to protect the shoreline. "This may mean no cutting of grass near the water's edge to provide near shore animals with habitat. Or on steep slopes diverting water runoff sideways rather than letting it run straight down," Osterman said.

Other counties are also considering adopting mitigation practices. Langlade County has a mitigation clause in its code while Burnett and Douglas counties are focusing on restoring buffer strips on overdeveloped lakes.

Responsibility lies at the shore

In the end, it comes down to the owners of lake or river property to determine the environmental health of the system. John Haack, a long-time water regulation and zoning specialist for the Department of Natural Resources in Spooner and now a University of Wisconsin-Extension Water Resources Educator, said that it is often difficult for shoreland owners to understand the significance of alterations they make along their 150 feet of shore.

"From a lake property owner's perspective, removing the shoreline vegetation and cleaning up the lake by removing logs often seems insignificant and desirable," Haack said. By taking a broader look, however, a person can't help but recognize that the cumulative changes are altering both physical and biological characteristics of our northern waterways.

Haack puts some of the blame on what he calls the "urban yard ethic." People who have lived most of their lives in cities or suburbs often try to reestablish park-like settings in wild areas. Lawns are planted and chemically treated to hinder weeds and insects, beaches are cleared of debris, and trees are cut for a better view -- all of which have detrimental effects on the water and wildlife that attracted the urban dwellers to the lake or river in the first place.

"Nearshore areas are vital for the living communities in every lake and stream" Haack said. "If we agree that sustaining and protecting fisheries, wildlife, water quality, and the natural scenic beauty that lured us to these lakes are important, then we need to make wise choices about developing these resources today."

As officials and some private landowners have found, the choices are difficult. However, the benefits for present lake users and future generations are worth the effort. As Haack explains: "The price of restoring damaged lakes and watersheds far exceeds the cost of protecting resources. Wise development choices and responsible land stewardship make a difference."

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