

Governor's Clean Water Initiative: Shoreland Rules Update Project Article Number 11

DNR NEWS

Fall 2005

Your Lake, Our Lakes: Loss of ducks with development

By Paul Radomski and Russ Schultz

Hunters and bird watchers are wondering what is happening to duck populations. There appears to be fewer ducks nesting in the local area and fewer migrating ducks stopping over. This year, Minnesota's breeding duck population was the lowest since the drought years of the 1980s, according to annual aerial survey data. The duck hunting harvest was down 23% last year.

So, why are there fewer ducks? Loss of habitat and reduced quality of remaining habitat are probably large factors.

Migrating ducks, in recent years, have seemed to find Minnesota waters less hospitable than in the past. This may be, at least in part, because today our waters generally have more disturbances from motorized watercraft, less aquatic vegetation, and fewer invertebrates for ducks to eat.

Nesting ducks need quality places to raise their young. Minnesota once had vast areas of high quality wetland/grassland duck nesting habitat. Development has largely reduced those quality duck rearing areas. Our vast prairies and associated wetlands are gone. And, with the loss of wetlands and prairies has come the loss of ducks.

Shallow lakes across Minnesota play an important role as well. These shallow lakes have an abundance of aquatic plants and invertebrates, which makes them valuable to ducks and other wildlife. However, these aquatic plant communities are vulnerable to shoreline activities.

Lakeshore development in the forested region of the state has also resulted in a loss of duck habitat. Many north central Minnesota clear water lakes are extensively developed, leading to fewer wood ducks, hooded mergansers, and ring-necked ducks.

And the few remaining pockets of undeveloped shoreline both in the prairie and forested areas of the state are under increased pressure for development. Given that realization, some citizens are advocating for higher development standards for lakes, especially on shallow lakes that offer quality duck habitat. Higher development standards could include larger lot sizes, larger lot widths, and greater structure setbacks from the water. Such standards could help preserve significant natural resources, including those valuable to ducks.

In addition to better duck habitat, the higher standards would help protect water quality. Shallow lakes especially are sensitive to the addition of nutrients like phosphorus – a chemical that can lead to algae blooms.

Wild rice often is found in these shallow lakes, and it is important food and cover for waterfowl broods and migrating ducks. Wild rice lakes also have important social and cultural value for many Minnesotans.

Beltrami County has led an effort to develop science-based criteria that could be used to identify special-protection lakes and ponds. The criteria include: percentage of lakeshore fringed with wetlands, maximum depth, percent of surface area less than 15 feet in depth, percent of lake covered with floating-leaf or emergent plants, presence of wild rice, documented endangered, threatened and special concern species in shoreland areas, and presence of special or unique fish or wildlife habitat, and others.

Beltrami County's work is an example of doing something positive about a known and difficult problem. Others are encouraged by their example.

Governor Pawlenty's Clean Water Initiative pilot project in the north central lakes area is bringing people together to create an alternative set of shoreland development standards in the lakes area. Citizens working on the project have been discussing the value of adding a special protection lake class and allowing bays within some lakes to be classified as natural environment. The updated standards adopted through this project will give local governments an alternative for local ordinances.

Details of the Shoreland Rules Update project are online at www.dnr.state.mn.us/waters (Click on the Governor's Clean Water Initiative link). Email comments to shorelandupdate@dnr.state.mn.us .

Paul Radomski, research scientist, and Russ Schultz, hydrologist, both work at the DNR at the Brainerd area office.

#####