

SENSITIVE NATURAL AREAS IN DNR'S CENTRAL REGION (2005)

DNR's Central Region lies at the nexus of coniferous and deciduous forests and grasslands, and abounds with wetlands, rivers, streams, and lakes. Bifurcating Central Region from northwest to southeast is the mighty Mississippi River and its outwash plains, hills, and moraines left from the last glaciation. The region's glaciated past created a wide variety of different landforms throughout the region and an abundance of different plant and animal communities. DNR's Central Region includes 9 different ecological subsections: the Mille Lacs Uplands, the Pine Moraines and Outwash Plains, the Anoka Sand Plain, the Hardwood Hills, Big Woods, Oak Savanna, St. Paul Baldwin Plains and Moraines, the St. Croix Moraine, and the Blufflands.



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Regional growth and development since European settlement have converted over 60 percent of the region's 6.5 million total acres to other types of land uses. In 2005, roughly 40 percent of the region, or about 2.7 million acres, can be characterized as sensitive natural areas. These remaining acres of sensitive aquatic and terrestrial resources, as defined by the data sets used in the mapping (see text box), are allocated almost equally between the 11-county metro area (1.3 million acres) and the 6-county non-metropolitan area (1.4 million acres). With the exception of the four natural resource clusters discussed below, remaining resources exist in the regional landscape as smaller, isolated habitat fragments that are readily affected by a wide variety of incompatible, adjacent land uses.

The Sensitive Natural Areas map for Central Region (Map 13) shows three categories of sensitive natural resources that were compiled using existing natural resource data sets of varying ages. Because some of the existing data sets are less accurate than others due to the rate of development in the region, this GIS map undoubtedly overestimates the presence of remaining sensitive natural areas. It is, however, a useful, region-wide compilation of existing data and provides guidance at the regional scale to help focus efforts on land and water conservation in fast growth areas of the region.

Habitats with the highest sensitivity to external pressures (based on Minnesota County Biological Survey data and Regionally Significant Ecological Areas, modeling by the DNR) shown in dark blue on Map 13, constitute an estimated 36 percent of the Region's remaining sensitive natural areas. These high quality habitat areas are the remnants of the region's former glorious natural heritage and deserve protection for future generations. Lower quality habitats, that still provide many important benefits, make up the remaining 64 percent of the region's sensitive natural resource base. In the "land of 10,000 lakes", it is not surprising that Sensitive Aquatic Areas, like lakes, trout streams, floodplains, and permanent wetland types, make up 22 percent of remaining sensitive areas. Sensitive Land Areas, including upland buffer zones directly adjacent to many types of sensitive water resources, steep slopes, and ephemeral wetlands, make up an estimated 42 percent of all remaining sensitive natural areas in Central Region.

ROUGHLY 40 PERCENT OF THE REGION CAN BE
CHARACTERIZED AS SENSITIVE NATURAL AREAS. ONLY
14 PERCENT OF THIS AREA IS PUBLICLY MANAGED.

Relative to other growing metropolitan regions, Central Region still retains a fair percentage of important natural habitats that provide many unseen and unacknowledged environmental, economic, and social benefits. Unfortunately, these natural habitats do attract development, which often creates detrimental external pressures such as removal of native vegetation, restrictions on natural processes like fire, or the introduction of exotic species. Only 14 percent, or about 400,000 acres (see hatched areas of Map 13), of the Region's sensitive natural areas are publicly managed by federal, state, or regional government. This means that roughly 6 percent of the total surface area of Central Region is currently available to future generations.

While sensitive resources are scattered throughout the 17-county region, DNR's mapping suggests that there are four major clusters of sensitive natural areas when measured as a percentage of a municipality's total area (Map 14). In the northern portion of DNR's Central Region lies Minnesota's second largest lake, Mille Lacs, at over 132,000 acres. Despite a long history of resort and seasonal housing development near this famous walleye fishery, this portion of the Mille Lacs Uplands area of the region still retains high quality natural resources, especially wetlands and deciduous forest patches. Whereas Mille Lacs Kathio State Park, Mille Lacs Wildlife Management Area, and the Rum River State Forest offer public protection to some of the sensitive resources in this area, there remain sensitive areas that are not in public ownership. This part of the region has seen significant population growth since 1990 (Map 1), and is projected to experience substantial growth in the next 25 years (Map 12). Unprotected sensitive natural resource areas appear to be in the path of future growth and development, largely in the form of resort development and housing development for retirement.

A second cluster of sensitive natural areas is found in the northwestern portion of the 17-county region. Located in the Hardwood Hills ecoregion, just to the west of the Mississippi River valley, Todd and Morrison counties are characterized by sandy outwash plains, river bluffs, hardwood forests, and numerous small wetlands. Although much of this portion of the Hardwood Hills ecoregion is cultivated or in pasture, Camp Ripley is located within this resource cluster.

At 53,000 acres, Camp Ripley is, according to DNR's Minnesota County Biological Survey, one of the most important wooded habitats in Central Minnesota. Over 200 bird species, 50 mammal species, 40 fish species, 24 amphibian and reptile species, and 8 mussel species are found within its borders. Growth has been increasing around Camp Ripley, especially in the townships of Turtle Creek, Cushing, Scandia Valley, and Rosing and positive growth is anticipated through 2030. Residential development threatens the area's uplands and very sensitive water bodies because of their poor buffering capacity and unique hydrological characteristics. Current partnership efforts to buffer Camp Ripley beyond its current borders through the purchase of conservation easements from willing sellers have the potential to protect additional sensitive resources in this part of the Region.

Moving south into the Anoka Sand Plain subsection of DNR's Central Region, the map shows a broad stretch of sensitive natural areas that extends from the Mississippi River in central Sherburne County eastward to Anoka County, southern Isanti County, southwestern Chisago County, and northern Washington County. This entire area is part of a 3,000 square mile fine sand glacial outwash plain characterized by shallow lakes, wetland depressions, rare dune habitats, oak savanna, and dry prairie. Within this cluster are multiple large protected areas: the 31,000 acre Sherburne National Wildlife Refuge, the surrounding Sand Dunes State Forest, the Uncas Dunes Scientific and Natural Area, and the 23,000 acre Carlos Avery Wildlife Management Area located in Anoka and Chisago counties. Despite the fact that much of the sand plain is not easily developed because of the abundance of wetlands, growth is occurring rapidly in this area. In Anoka County alone, urbanized area increased 81 percent from 1986 (53,000 acres) to 2002 (96,000 acres). Significant population growth is projected for all of Sherburne County and areas adjacent to Interstate 35 that transects north-south through the Anoka Sand Plain.



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The fourth, less obvious cluster of sensitive natural areas is located in the vicinity of the 14,000-acre Lake Minnetonka and includes portions of Hennepin, Carver and Scott counties. As the ninth largest lake in the state (excluding border lakes), Lake Minnetonka was once the location of summer cottages for wealthy Minnesotans. Today, ringed by year-round homes, the watershed is largely urbanized. With the lake as a major recreational amenity, much of this development is high-end residential. Significant population growth is expected in nearby municipalities such as Minnetrista and Laketown townships, in part, due to the natural amenities of the area's smaller lakes, wetlands and wooded areas. This implies more fragmentation and conversion of existing sensitive natural areas that have made this portion of the region so attractive.

It is important not to dismiss portions of the region where sensitive natural areas are small, scattered, and isolated. The data underlying Map 13 show that there are nearly 500,000 acres of unprotected sensitive areas remaining in the densely populated 7-county metropolitan region and an ecological assessment, concluded in 2003 by the DNR in partnership with the Metropolitan Council, indicated that there are approximately 120,000 acres of high quality wetland and terrestrial habitats in the core region alone.⁹

As shown in Map 14 sensitive resources remaining in the 7-county core are primarily located at the fringe of the region, with many townships showing 25-50 percent of their total area covered with fragments of sensitive natural areas.