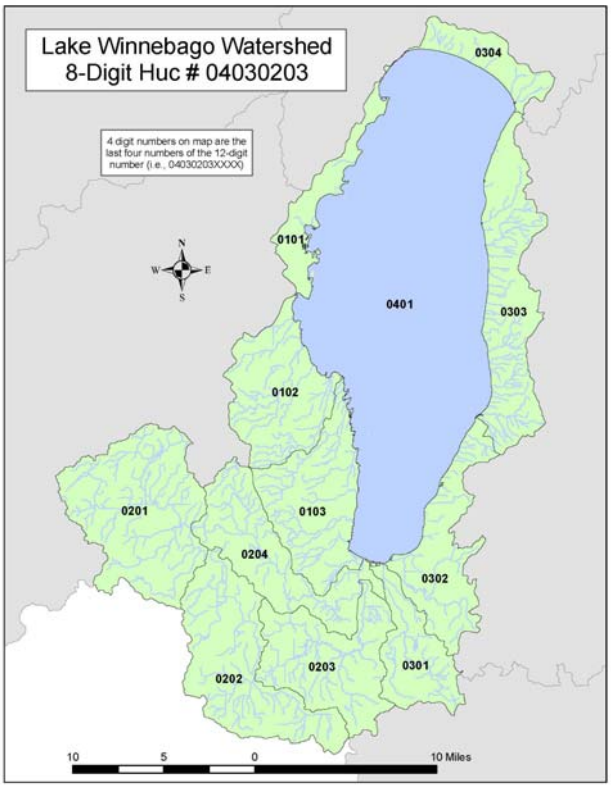
Lake Winnebago Watershed

Hydrologic Unit Code: 04030203

For more information, see the USEPA "Surf Your Watershed" website at cfpub.epa.gov/surf/huc.cfm?huc_code=04030203

The Wisconsin DNR manages the Lake Winnebago watershed as part of the Upper Fox River basin management area. For more information, see the Wisconsin Department of Natural Resources' "Wisconsin's Basins" website at dnr.wi.gov/org/gmu/gmu.html



Watershed Contacts

- **The University of Wisconsin-Extension — basineducation.uwex.edu/foxwolf**
- **Fox Wolf Watershed Alliance — www.fwwa.org**
- **Lake Michigan Forum — www.lkmichiganforum.org**
- **Fond du Lac County Land & Water Conservation Department — www.co.fond-du-lac.wi.us/dept/landcon/landcon.html**
- **Fond du Lac River Priority Watershed Project — www.wclwcd.org/fdl.htm**
- **Winnebago County Land & Water Conservation Department — www.wclwcd.org**
- **Rob McLennan, the Upper Fox River Water Basin Team Leader — Robin.McLennan@dnr.state.wi.us**

Subwatersheds of the Lake Winnebago Watershed

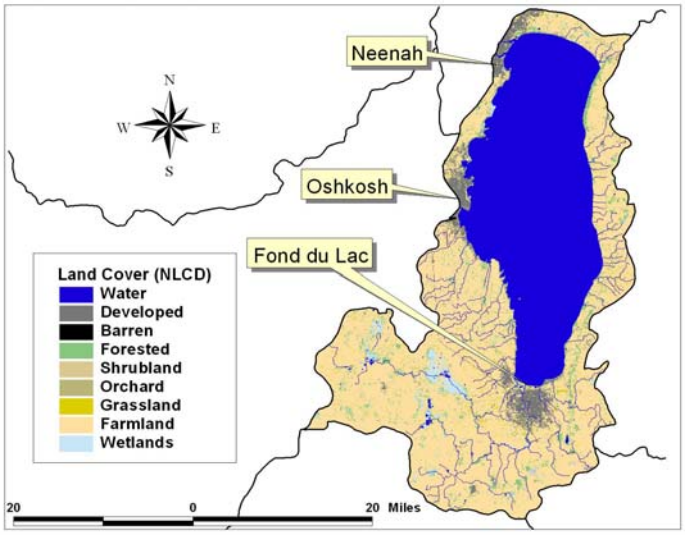
0101 City of Oshkosh-Lake Winnebago
0102 Willow Harbor-Lake Winnebago
0103 Van Dyne Creek-Lake Winnebago
0201 Village of Rosendale-Fond Du Lac River
0202 Sevenmile Creek-East Branch of the Fond Du Lac River
0203 Parsons Creek-East Branch of the Fond Du Lac River
0204 Eldorado Marsh-Fond Du Lac River
0301 De Neveu Creek
0302 Taycheedah Creek
0303 Pipe Creek-Lake Winnebago
0304 City of Utowana Beach-Lake Winnebago
0401 Lake Winnebago

Watershed Overview

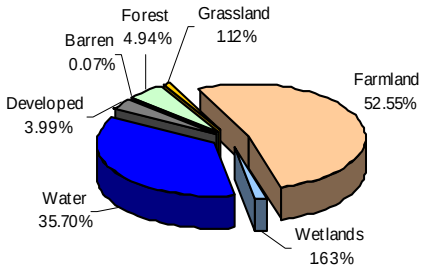
- The Lake Winnebago watershed covers over 581 square miles.
- Over 200 square miles of the watershed are lakes, the largest being Lake Winnebago.
- The watershed is located between the Upper and Lower Fox Rivers in Wisconsin.
- The watershed is primarily glacial plain.
- The watershed is above a sandstone aquifer.
- The Niagra Escarpment, a bedrock ridge, forms the eastern boundary of the Lake Winnebago watershed.
- Menasha, Oshkosh, and Fond du Lac, Wisconsin are the primary urbanized areas located in the watershed.
- High Cliff State Park is a 1,145 acre state park located in Calumet County.
- A Glacial Habitat Restoration Area (GHRA) is located in the watershed in Winnebago and Fond du Lac counties. The GHRA is an area where the state is restoring a patchwork of grasslands and wetlands over a large rural landscape so that wildlife can thrive side-by-side with agriculture.
- The basin hosts resident and migratory neo-tropical songbirds in its open grassland/ agricultural habitat.

Watershed Activities

- Numerous urban stormwater outfalls discharge to Lake Winnebago from portions of the Cities of Oshkosh, Neenah, and Menasha. Storm event runoff from commercial, industrial, and residential construction sites and from plat developments in rapidly developing sections of Oshkosh, Neenah, and Menasha are also nonpoint source pollution problems.
- Water quality modeling done by Northeast Wisconsin Waters of Tomorrow (NEWWT) have indicated this watershed to be a major contributor of phosphorus and suspended solids to Lake Winnebago.
- Critical animal waste and soil erosion problems are intensified by the steep slopes along the Niagara escarpment.
- Average soil loss in all of Calumet County is estimated to be 2.7 tons per acre. These factors accelerate nutrient and sediment delivery to Lake Winnebago. Both the Winnebago Comprehensive Management Plan and the Lower Green Bay Remedial Action Plan identified this watershed as a high priority for the control of nonpoint sources of pollution.
- The eastern portion of the watershed was selected as a nonpoint source priority watershed project in 1989. The primary goals of this watershed project are to reduce Phosphorus and sediment loading to Lake Winnebago and decrease the loading of heavy metals from urban nonpoint sources.
- Lake Winnebago specific fisheries priorities include:



Land Cover: Lake Winnebago Watershed



Watershed size: 581 sq. miles

Between 1996 and 2001, there has been a slight increase in developed land, grassland, and wetlands and a slight decrease in farmland and forest.

- ◊ Continue the Lake Winnebago Fisheries Community Assessment through trawling, seining, shocking, and netting to characterize the Lake Winnebago fish community and assess year-class strength.
- ◊ Continue lake sturgeon management in the Winnebago-Fox-Wolf System. Conduct population and harvest assessments; continue public involvement and education; work closely with the Winnebago Citizens Sturgeon Advisory Committee; pursue Upper Fox River long term sturgeon spawning stock rehabilitation, spawning, and nursery habitat protection and enhancement; cooperate with other regional, statewide, national, and international sturgeon management and research programs; and prepare the annual Winnebago System Sturgeon Management report, direct sturgeon registration, and determine harvest cap for the annual sturgeon spearing season.

Impaired 303(d) Waters

Waterbody Name	Impairment
Campground Creek	Degraded Habitat, Dissolved Oxygen, Sediment, Temperature
Deneveu Creek	Degraded Habitat Sediment
Fond Du Lac River	Aquatic Toxicity, PCB Fish Consumption Advisory, Metals (Other Than Mercury)
Fox River, Oshkosh	Aquatic Toxicity
Fox River, Lower Seg 1 (1)	Phosphorus Dissolved Oxygen PCB Fish Consumption Advisory
Lake Winnebago	Phosphorus Dissolved Oxygen Eutrophication Mercury Fish Consumption Advisory PCB Fish Consumption Advisory Sediment
Mosher Creek	Degraded Habitat Sediment
Parsons Creek	Aquatic Toxicity, Degraded Habitat, Nutrients, Sediment

Data Sources. Land cover map and percentages: National Land Cover database, 1992 (edc.usgs.gov/products/landcover/nlcd.html; Land use change: NOAA Coastal Change Analysis Program, 1996 and 2001 (www.csc.noaa.gov/crs/lca/ccap.html); Total Maximum Daily Load (TMDL) Impaired Waters: Surf Your Watershed (www.epa.gov/surf)