

Wolf River Watershed

Hydrologic Unit Code: 04030202

For more information, see the USEPA "Surf Your Watershed website at cfpub.epa.gov/surf/huc.cfm?huc_code=04030202

For more information, see the Wisconsin Department of Natural Resources' "Wisconsin's Basins" website at dnr.wi.gov/org/gmu/gmu.htm.

Watershed Groups

- The University of Wisconsin-Extension — basineducation.uwex.edu/foxwolf
- Fox Wolf Watershed Alliance — www.fwwa.org
- Lake Michigan Forum — www.lkmichiganforum.org
- Wolf River Basin — dnr.wi.gov/org/gmu/wolf/basinreport.htm
- Dan Helf, Wolf River Basin Water Team Leader — Daniel.Helf@dnr.state.wi.us

Watershed Overview

- The Wolf Basin's general topography can be characterized by rolling hills, plain meadows, lush and forested wetlands, numerous lakes and small tributaries. Vegetation consists primarily of hardwood forests mixed with large amounts of hemlock, northern white-cedar swamp, and hardwood-conifer swamp.
- The Wolf River originates with a discharge from Pine Lake located in Forest County. The river flows south for about 203 miles until it reaches Lake Poygan. At that point it becomes part of the Winnebago Lake

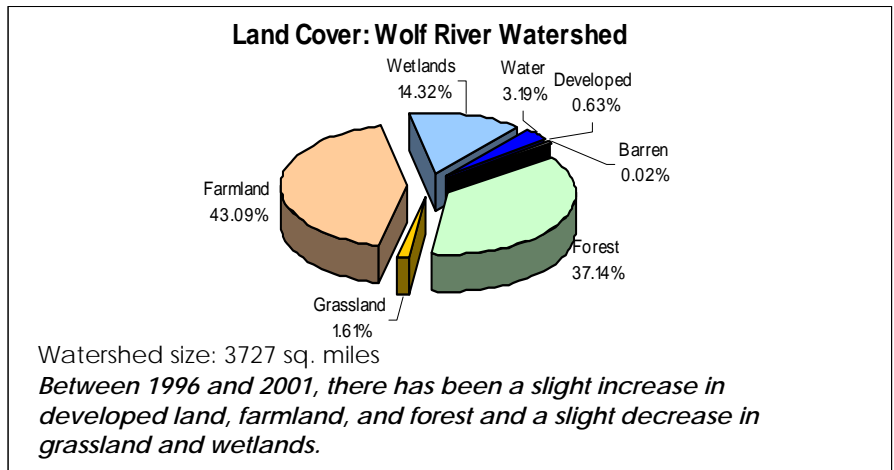
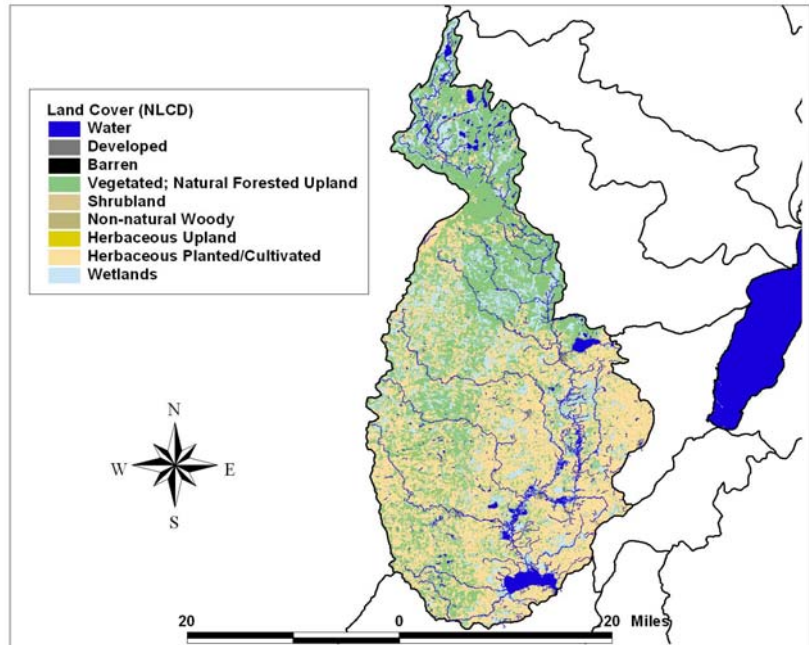


Subwatersheds of the Wolf Lake Watershed

0101 Headwaters Wolf River	0805 City of Seymour-Black Creek	1501 Holt Creek-Little Wolf River
0102 Little Rice Lake-Wolf River	0806 Village of Black Creek-Black Creek	1502 Flume Creek
0103 Upper Post Lake-Wolf River	0807 Mink Creek-Shioc River	1503 Comet Creek
0104 Metonga Lake-Swamp Creek	0901 School Section Creek-Wolf River	1504 Bradley Creek-Little Wolf River
0105 Squaw Creek-Swamp Creek	0902 Schoenick Creek	1601 Peterson Creek
0106 Spider Creek-Wolf River	0903 Navarino Marsh-Wolf River	1602 Nace Creek-South Branch of the Little Wolf River
0201 Pickerel Creek	0904 Outagamie State Wildlife Area-Wolf River	1603 North Branch of the Little Wolf River
0202 Hunting River	1001 Spranger Creek-South Branch Embarrass River	1604 Nichol Creek-South Branch of the Little Wolf River
0203 Non-Contributing-Lily River	1002 Tiger Creek-South Branch Embarrass River	1605 White Lake-South Branch of the Little Wolf River
0204 Bog Brook-Lily River	1003 Packard Creek-Middle Branch Embarrass River	1701 Whitcomb Creek
0205 East Branch of the Lily River	1004 Elmhurst Creek-Middle Branch of the Embarrass River	1702 Blake Creek
0206 Squaw Creek-Wolf River	1005 Dent Creek-Middle Branch of the Embarrass River	1703 Shaw Creek-Little Wolf River
0301 Ninemile Creek	1006 Logemanns Creek-Middle Branch Embarrass River	1704 Bear Lake-Little Wolf River
0302 Slough Gundy Rapids-Wolf River	1007 Municipality of Caroline-South Branch Embarrass River	1705 Mouse Creek-Little Wolf River
0303 Elton Creek-Evergreen River	1101 North Branch of the Pigeon River	1801 Poncho Creek-Tomorrow River
0304 McCall Creek-Evergreen River	1102 South Branch of the Pigeon River	1802 Emily Lake Non-Contributing Area
0305 White Lake Creek-Wolf River	1103 Pigeon Lake-Pigeon River	1803 Spring Creek
0401 Little West Branch of the Wolf River	1201 Strassburg Creek-North Branch of the Embarrass River	1804 Bear Creek-Waupaca River
0402 Elma Creek-West Branch of the Wolf River	1202 Pony Creek-North Branch of the Embarrass River	1805 Wolf Lake Non-Contributing Area
0403 Little West Branch Creek	1203 Mill Creek	1806 Emmons Creek
0404 Neopit Millpond 108-West Branch of the Wolf River	1204 Pine Lake-Embarrass River	1807 Radley Creek
0501 Mattoon Creek-West Branch of the Red River	1301 Township of Deer Creek-Embarrass River	1808 Crystal River
0502 Silver Creek-West Branch of the Red River	1302 Maple Creek	1809 Mud Lake-Waupaca River
0503 Moose Lake-Red River	1303 Bear Creek	1810 Weyauwega Lake-Waupaca River
0504 Miller Creek	1304 Township of Liberty-Embarrass River	1901 Potters Creek
0505 Red Lakes-Red River	1401 Town of Greenville-Bear Creek	1902 Partridge Crop Lake-Wolf River
0601 Pickerel Creek	1402 Municipality of Stephenville-Bear Creek	1903 Hatton Creek
0602 Loon Creek	1403 Village of Shiocton-Wolf River	1904 Walla Walla Creek
0603 Shawano Lake	1404 Black Otter Lake-Wolf River	1905 Mosquito Creek
0701 Dalles Creek-Wolf River		1906 Partridge Lake-Wolf River
0702 Legend Lake-Wolf River		
0801 East Branch of the Shioc River		
0802 White Lake-Shioc River		
0803 Herman Creek		
0804 Toad Creek		

system. Waters from the Winnebago system then flow into the Lower Fox River where they eventually reach the Bay of Green Bay.

- Development within the basin is predominately along the Wolf River or its major tributaries. Communities like Shawano, Clintonville, New London, Waupaca, Weyauwega and more were developed primarily because of being located on waterways that were used by the logging industry
- The Basin includes the Northern Hills and Northeast Plains Ecological Landscapes with small portions in the Central Sand Hills, Southeast Glacial Plains and North Central Forest.
- Surface waters are a mix of cold and warm water streams with Smallmouth Bass, Walleye, Northern Pike, Panfish, Trout and Salmon. Groundwater is generally abundant, clean and used for drinking water in many of the basin's communities.
- Over 143 rare animal species live in the Wolf River Basin, including Northern Goshawk, Red-headed Woodpecker, Great Gray Owl, Barn Owl, Red-shouldered Hawk, Bald Eagle, Osprey and various butterflies, beetles, dragonflies, fish, grasshoppers, mayflies, mussels, mammals, snails, snakes and turtles.
- The basin supports 57 rare plants (known accounts), including 8 state endangered, 11 state threatened, 38 special concern and two federally listed plants species. The majority of these plants are associated with wetlands.
- Menominee, Stockbridge-Munsee Band of Mohicans, Forest County Potawatomi Community, Sokaogon Chippewa, and Mole Lake-- participate in the Wisconsin NRCS Tribal Conservation Advisory Council.
- The Nature Conservancy identified the Wolf Lake Chain, the Lower Wolf River, Oxbow lakes, and rapids reach of the mainstem Wolf River as critical ecological systems.
- Important plant communities in the Wolf River watershed include Midwest Mixed Emergent Deep Marsh, Silver Maple - Elm - (Cottonwood) Forest, and Tussock Sedge Wet Meadow.
- The Nature Conservancy identified the Wolf River as a critical migratory waterfowl stopover site.
- The Nature Conservancy identified the following critical species in the Wolf River watershed: Lake Sturgeon; American Bittern; Black Tern; Sedge Wren; Cerulean Warbler; Snuffbox; Wood Thrush; Red-headed Woodpecker; Black-and-white Warbler; Round Pigtoe; Prothonotary Warbler; Golden-winged Warbler; and Blue-winged Warbler.
- The Lower Embarrass River's large tributaries to the lower Wolf River and cool headwaters are critical ecological systems identified by the Nature Conservancy.
- Critical species in the Lower Embarrass River include the Lake Sturgeon, Snuffbox, Round Pigtoe, Pygmy Snaketail, Salamander mussel, and Western Sand Darter.



Watershed Activities

Environmental Concerns

- Loss of aquatic habitat and open land to development; pollution threats to surface and groundwater. Simplification of diverse habitat and loss of special places that support rare species.
- Water quality problems from in- place pollutants, dams, urban and agricultural runoff.
- Preserve of biodiversity and protect endangered and threatened species.
- Protection of large contiguous blocks of forests, grassland and wetland that serve as habitat for mammals, birds, and amphibians and provide a large self-sustaining ecosystem for all to enjoy.
- Invasive exotic nuisance species: Purple Loosestrife, Gypsy Moths, Zebra Mussels, Eurasian Water Milfoil, Garlic Mustard

(uplands), and others.

- Monitoring wildlife populations, water quality, and ecosystem function is needed to determine the status and trends of resources in the basin.

Basin Priorities

Wolf Basin Partners identified the following areas as highest basin priorities:

- Water Pollution
- Loss of Shoreline Habitat
- Hunting/ Fishing/ Trapping and Recreational Uses
- Inventory of Resources

Wisconsin DNR's Wolf Team has also identified priorities to guide work:

- Preservation and protection of wetlands
- The presence and spread of exotic species
- Pressures on Natural Resources from development
- Promoting sound land use and "smart growth" or comprehensive planning

Waterbody Name	Impairment
Arbutus Lake	Mercury Fish Consumption Advisory
Bear Creek	Degraded Habitat, Sediment
Big Hills Lake	Mercury Fish Consumption Advisory
Cloverleaf Chain of Lakes	Mercury Fish Consumption Advisory
Collins Lake	Mercury Fish Consumption Advisory
Columbia Lake	Mercury Fish Consumption Advisory
Deep Hole Lake	Mercury Fish Consumption Advisory
Kusel Lake	Mercury Fish Consumption Advisory
Little Sand Lake	Mercury Fish Consumption Advisory
Mayflower Lake	Mercury Fish Consumption Advisory
Pages Slough (L. Poygan)	Degraded Habitat, Eutrophication, Phosphorous, Sediment, Turbidity
Poygan Lake	Dissolved Oxygen, PCB Fish Consumption Advisory, Phosphorous, Sediment
Rat River *	Dissolved Oxygen, Phosphorous
Roberts Lake	Mercury Fish Consumption Advisory
Shawano Lake	Mercury Fish Consumption Advisory
Winneconne Lake	Dissolved Oxygen, Eutrophication, Mercury Fish Consumption Advisory, Phosphorous, Sediment
Wolf River Below Shawano Dam Down To State Hwy 156	Mercury Fish Consumption Advisory, PCB Fish Consumption Advisory
Wolf River from Shawano Dam to Lake Poygan	PCB Fish Consumption Advisory

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)

