

CEDARBURG BOG

A Planning Tool for Migratory Bird Conservation along Lake Michigan



County

Ozaukee

Ecological Landscape

Southeast Glacial Plains

Site Owner

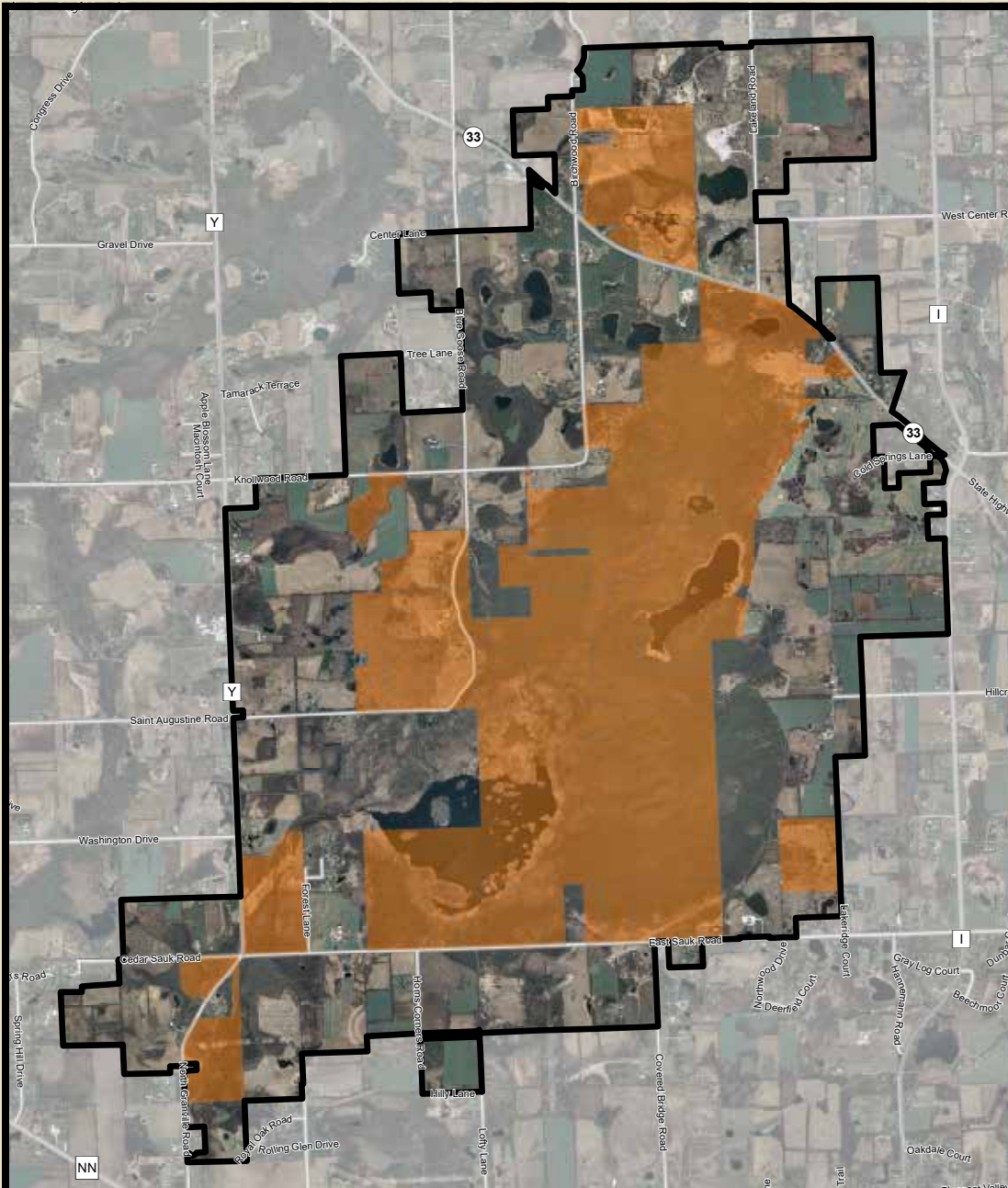
- Wisconsin DNR
- University of Wisconsin
- Ozaukee Washington Land Trust
- Private Ownership
- Milwaukee Metropolitan Sewage District
- The Nature Conservancy
- Ozaukee County

Basis for Designation

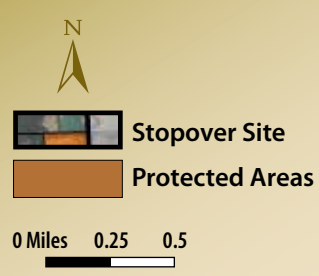
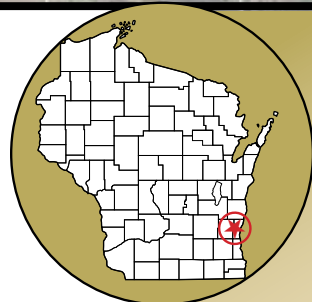
- >10,000 Landbirds Annually
- State and National Recognition

Threats

- Invasive Species
- Emerald Ash Borer
- Habitat Fragmentation
- Watershed Development
- Deer Herbivory
- Agricultural Runoff
- Climate Change



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Site Description

Cedarburg Bog is one of the largest and most diverse wetlands in southern Wisconsin. The bog supports natural communities more commonly found in northern Wisconsin, including large expanses of white cedar-tamarack swamp and the southernmost string bog in North America. Its 2,000 acres of protected land also contain deep and shallow bog lakes, submerged and emergent aquatic communities, a small stream, deep and shallow marshes, sedge meadow communities, shrub-carrs, and swamp and upland hardwoods. Cedarburg Bog is located within a highly developed matrix of residential and agricultural properties.

This site encompasses Cedarburg Bog, Cedarburg Beech Woods, and Sapa Spruce Bog State Natural Areas, the University of Wisconsin-Milwaukee Field Station, and Ozaukee Washington Land Trust properties. Cedarburg Bog is designated a National Natural Landmark by the U.S. Department of Interior, Wetland Gem by the Wisconsin Wetlands Association, Important Bird Area by the Wisconsin Bird Conservation Initiative, State Natural Area by the Wisconsin Department of Natural Resources, Natural Area of Countywide or Regional Significance by the Southeastern Wisconsin Regional Planning Commission, and Conservation Opportunity Area of Regional Significance by the Wisconsin Wildlife Action Plan.

Stopover Importance

Cedarburg Bog qualifies as a **Priority Stopover Site** because of its recognition in state and national conservation plans and high relative abundance of migratory birds. More than 10,000 landbirds and 1,000 waterfowl are estimated to use Cedarburg Bog during spring and fall migrations. A recent study documented 189 migratory species using Cedarburg Bog, including 40 Species of Greatest Conservation Need.

Cedarburg Bog contains numerous resources that are essential for birds migrating in the southern Lake Michigan basin. Its aquatic features support a large insect prey base, which helps replenish the energy reserves of migrants. Dense shrubby understory found throughout the site provides protection from weather and predators. Finally, the diversity of habitats, including hardwoods, conifers, shrub thickets, and meadows, provide structural complexity and a rich assortment of foraging opportunities.

Conservation Opportunities

Cedarburg Bog is fortunate to have high engagement in its management and protection efforts by partners such as Friends of the Cedarburg Bog, Wisconsin Department of Natural Resources, UW-Milwaukee Field Station, The Nature Conservancy, Ozaukee Washington Land Trust, and Ozaukee County Parks and Planning Department. Coordination between these groups will be essential to achieve the protection goals and stewardship resources required for this site. The Northern Kettle Moraine Region Master Plan recommends the project boundary and acquisition goal of Cedarburg Bog State Natural Area be expanded by a total of 699 acres and 250 acres, respectively.

Cedarburg Bog was categorized as a **Full-service Hotel** site where all necessary resources (food, water, shelter) are relatively abundant and available for quick refueling. Land managers should reduce deer herbivory to allow

for better cedar regeneration. Land protection efforts should seek to acquire parcels that restrict nutrient and sediment input from surrounding development, expand wetland complexes, protect structurally diverse forests, connect habitat corridors, especially those with north-south configuration, and buffer the site from encroachment by non-compatible uses. Future land acquisitions should prioritize the following habitat attributes for migratory birds:

- Mixed emergent wetlands (ephemeral and permanent) >40 acres with >2.5 acres of open water
- Open water and/or emergent wetland >5 acres and <0.5 miles from another wetland
- Ephemeral wetlands of various sizes (1-10 acres) in agricultural fields and pastured land
- Undeveloped or natural cover within 660 ft of lakes and wetlands where there is high insect productivity (especially midges and caterpillars)
- Undeveloped or natural cover with diverse habitat structure vertical and horizontal)
- Undeveloped or natural cover with woody species that bloom through the spring migration period (oak, willow, elm, and others) or fruit throughout fall migration

Sources

eBird. 2012. *eBird: An online database of bird distribution and abundance [web application]*. eBird, Ithaca, New York. Available: <http://www.ebird.org>. (October 3, 2018).

Grvels, K.M., S.W. Matteson, S. Eichhorst, and K. Kreitinger. 2011. Protecting Bird Migration Stopover Habitat in the Western Great Lakes: Final Report. Wisconsin Department of Natural Resources, Endangered Resources Program.

Hart, D. and J. Kline. 2013. Identification of contributing areas for groundwater supply to Cedarburg Bog to protect critical habitat. Final Report to Wisconsin Coastal Management Program. 82 pp.

Piaskowski, V.D., J.M. O'Donnell, and G.A. Meyer. 2017. Bird use of the Cedarburg Bog Important Bird Area during spring and fall migration. *Passenger Pigeon* 79(2): 139-161.

Southeastern Wisconsin Regional Planning Commission. 1997. Planning Report No. 42. A Regional Natural Areas and Critical Species Habitat and Management Plan for Southeastern Wisconsin.

University of Wisconsin-Milwaukee Field Station. 2018. *Cedarburg Bog*. Available: <https://uwm.edu/field-station/about/natural-areas/cedarburg-bog/> (October 3, 2018)

University of Wisconsin-Milwaukee Field Station. 2018. *Species Lists*. Available: <https://uwm.edu/field-station/research/data/> (October 3, 2018)

Wisconsin Department of Natural Resources. 2005. *Wisconsin naturally: a guide to 150 great State Natural Areas*. 184pp. Wisconsin Department of Natural Resources, PUB-ER-115 2005, Madison.

Wisconsin Department of Natural Resources. 2007. *Important Bird Areas of Wisconsin: Critical Sites for the Conservation and Management of Wisconsin's Birds*. 240 pp. Wisconsin Department of Natural Resources, PUB-WM-475-2007, Madison.

Wisconsin Department of Natural Resources. 2010. *Rapid Ecological Assessment for the Wildlife, Fishery, and State Natural Areas of the Northern Kettle Moraine Region*. Wisconsin Department of Natural Resources, PUBL ER-822 2010, Madison.

Wisconsin Department of Natural Resources. 2015. *The ecological landscapes of Wisconsin: An assessment of ecological resources and a guide to planning sustainable management*. Wisconsin Department of Natural Resources, PUB-SS-1131 2015, Madison.

Wisconsin Department of Natural Resources. 2016. *Northern Kettle Moraine Region Wildlife, Fish and Natural Areas Master Plan and Environmental Analysis*. Wisconsin Department of Natural Resources, DNR PUB LF-068, Madison.

Wisconsin Wetlands Association. 2009. *Wetland Gems: Cedarburg Bog*. Available: <http://wisconsinwetlands.org/wp-content/uploads/2015/06/Cedarburg-Bog.pdf> (October 5, 2018).



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