



# Did you know...?

Your lake is classified as a  
High Quality Water!

## What is High Quality Water?

The State of Wisconsin Department of Natural Resources (WDNR) published a report in 2022 that identified high-quality waters (streams, rivers, lakes, and wetlands). Less than 15% of lakes in Wisconsin were designated as of high quality. High Quality Waters (HQWs) are lakes, streams, and rivers that have at least two of the following attributes: unique or rare resource, attaining state water quality standards, and/or good-to-excellent biotic integrity.<sup>1</sup> The goals of these designations are to bring attention and funding to protect high-quality waters, since historically the focus has been on restoring impaired waters.

First published in 1997, the Southeastern Wisconsin Regional Planning Commission (Commission) has identified the most significant remaining natural areas in the region through its Regional Natural Areas plan.<sup>2</sup> The Commission is updating this plan and has developed a ranking system for waterbodies that while similar to the WDNR's, utilizes additional criteria. The Commission's ranking system scores lakes based on morphology and classification, water quality, macrophytes, shoreline buffer, connectivity, fisheries & natural heritage inventory listings.

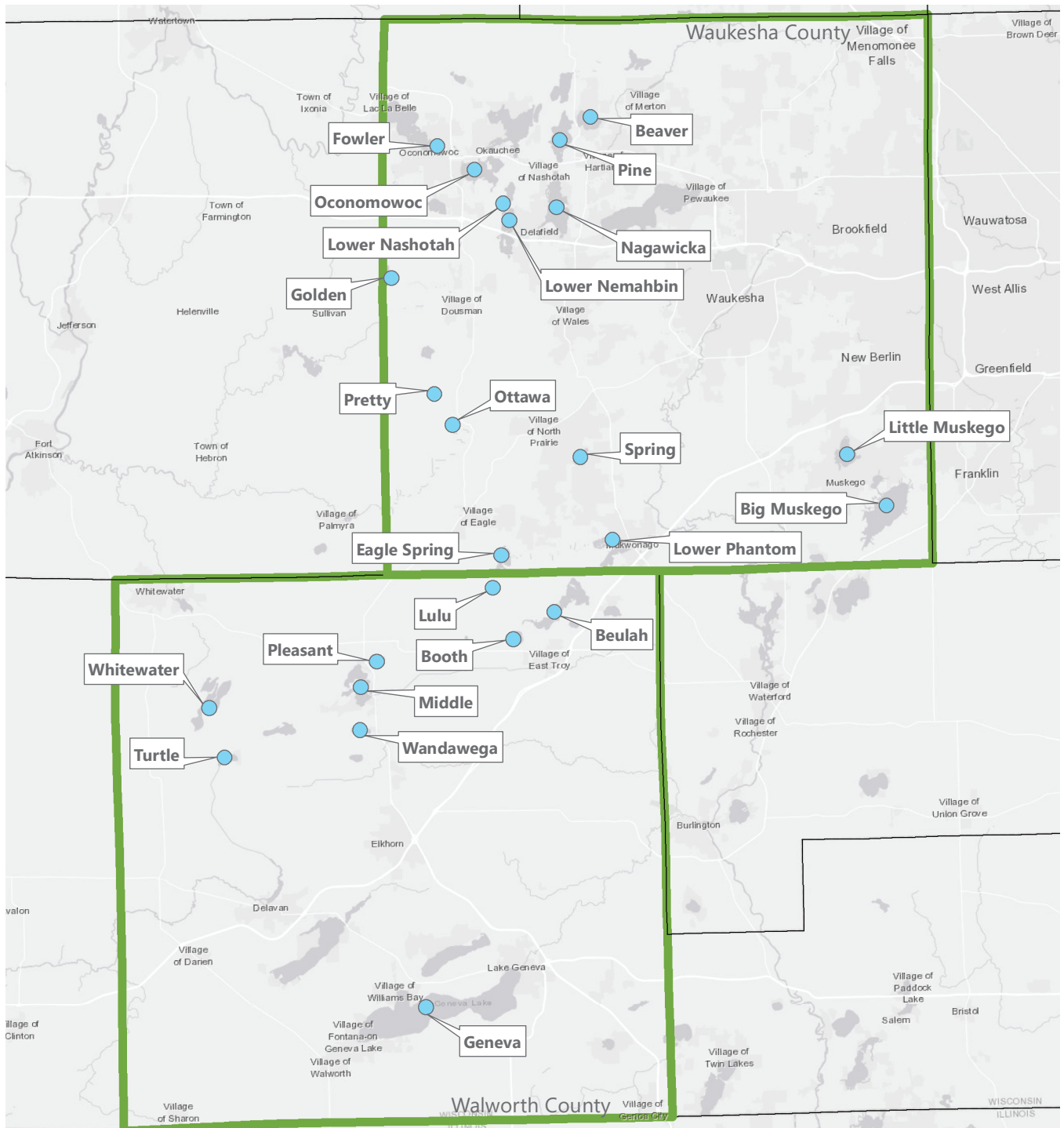
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<sup>1</sup> Marti, A.M., L.A. Beringer, and P.J. Toshner. 2022. *Modeling and Identification of Watersheds (Healthy Watersheds) and Water Bodies (High-Quality Waters) for Water Resources Protection Purposes in Wisconsin*. Technical Report. EGAD # TBD. WDNR

<sup>2</sup> SEWRPC Planning Report No. 42, *A Regional Natural Areas and Critical Species Habitat Protection and Management Plan for Southeastern Wisconsin*, September 1997.

# HQWs in Southeastern Wisconsin

## Lakes Designated as a High Quality Waters in Waukesha and Walworth Counties



 Waukesha and Walworth County Boundaries

 Designated High Quality Water Lakes



0 8,750 17,500 35,000 Feet

Source: SEWRPC and WDNR

# High Quality Waters Within Walworth and Waukesha Counties

There are a variety of types of HQWs in Southeastern Wisconsin. This lake “type” is determined using WDNR Natural Community model which categorizes lakes based on surface area, stratification status, hydrology, and watershed size. Headwater lakes are lakes with a watershed less than 4 square miles and lowland lakes are lakes with watershed greater than 4 square miles.

Two-Story	Seepage	Deep Headwater	Deep Lowland	Shallow Lowland/Reservoir
Geneva	Pretty	Golden	Lulu	Eagle Spring
Fowler	Spring	Beaver	Middle	Lower Phantom
Oconomowoc	Booth	Ottawa	Whitewater	Big Muskego
Nagawicka	Wandawega	Pleasant	Little Muskego	
Beulah		Turtle		
Nemahbin				
Lower Nashotah				
Pine				

## Lake Type – Two-Story Lakes

Your lake is considered a Two-Story lake. According to Wisconsin Legislature a *two-story fishery lake* is “a lake greater than 5 acres in size that is typically stratified in the summer, with the potential for an oxygenated hypolimnion, that has documentation at any time since 1975 of a population of cold-water fish species such as cisco, whitefish, or trout that is sustained through natural reproduction or long-term active stocking with year-to-year survival.” (Wisconsin State Legislature Code NR 102.03(6s))

Two-story lakes can have varying major water sources, but they often have high groundwater contribution. These deep and often large lakes are given the name “two-story” due to unique oxythermal characteristics. In Southeastern Wisconsin, two-story lakes have intense urban development in their watersheds and along their shorelines. This is often due to them being a very desirable lake type to live on since they are generally deep with clear waters. Many designated two-story lakes no longer support cisco populations in Southeastern Wisconsin due to warming lake temperatures and excessive nutrient pollution which both can cause low dissolved oxygen concentrations.

Natural Community	Stratification Status	Hydrology
<b>Lakes/Reservoirs &lt;10 acres</b>		
Small	Variable	Any
<b>Lakes/Reservoirs &gt;10 acres</b>		
Shallow Seepage	Mixed	Seepage
Shallow Headwater		Headwater Drainage
Shallow Lowland		Lowland Drainage
Deep Seepage	Stratified	Seepage
Deep Headwater		Headwater Drainage
Deep Lowland		Lowland Drainage
<b>Other Classification (any size)</b>		
Spring Ponds	Variable	Spring Hydrology
Two-Story Fishery Lakes	Stratified	Any
Impounded Flowing Waters	Variable	Headwater or Lowland Drainage

# We Need Your Input!

In spring of 2023 the Commission received four WDNR Surface Water Education Grants. The Commission's grant projects aim to establish a network of well-informed stakeholders from WDNR-identified high-quality lakes within Walworth and Waukesha Counties. The Commission will provide a toolkit and a practice-based workshop to inform and train stakeholders on lake data inventory, best management practices (BMPs), and funding as well as to form connections and inspire protection of these lakes. There are 34 lakes, 24 streams and 105 wetlands in Southeastern Wisconsin that are listed as High Quality Waters, of which 24 lakes are in Walworth and Waukesha Counties.

The Commission's main goals across the grants are to:

- Collect information about WDNR-identified high-quality lakes in Walworth and Waukesha Counties and active stakeholder organizations affiliated with these lakes.
- Educate stakeholders on how to collect information about lake conditions and management. Facilitate learning and communication between similar lake type network members through a practice-based workshop.
- Publish a best management practice toolkit for each lake type.

The Commission is asking that representatives from the stakeholder groups participate in interviews as a chance for the Commission to collect information on how lake groups manage their lakes and discuss topics of concern or interest. The interview questions are included in a document separate document. The Commission asks that if you are unable or unwilling to meet with them to go over the questions that you respond via email to answers as many of the interview questions as possible.

Additionally, the Commission is in the process of planning a full-day workshop that will give stakeholders a chance to network with other High Quality Water lakes within their lake type. The date and time of the workshop is yet to be scheduled but will occur in Spring 2025 and will require registration for headcounts. The interviews will serve as a starting point for curating a workshop that will best suit the needs and wants of stakeholder groups of High Quality Waters.