

Wisconsin Department of Natural Resources

2026 Water Clarity Report

The Winnebago System

Introduction and Objectives

Water clarity is one of the strongest predictors of lake sturgeon harvest in the Winnebago System during the spearing season. It is ultimately water clarity that determines where in the water column speakers suspend their decoys. During years with water clarity 12 feet or greater on Lake Winnebago, the pre-set harvest caps are often reached prior to the full 16-day season causing shorter seasons.

Ice conditions are one of the main drivers of water clarity during the sturgeon spearing season. Shifting ice, snow covered ice, date the lake freezes over, thawing and refreezing events are all factors in water clarity under the ice.

Our objectives are to assess:

- 1) Average water clarity around Lake Winnebago prior to the sturgeon spearing season
- 2) How average water clarity effects the total Lake Winnebago harvest of Lake Sturgeon during the Winnebago spear fishery.

Survey Method

- Water clarity is taken around Lake Winnebago through the ice using a secchi disk.
- **Average Water Clarity-** Two measurements are taken for each location. The first when the secchi disk disappears when lowered through the ice hold and the second when the secchi disk reappears when being raised from the bottom. Both measurements are averaged together.
- Reading locations are dictated by both access and safety of travel conditions.
- Readings were taken the week of January 26th for 2026.

Water Clarity Summary

Figure 1. Water Clarity for Lake Winnebago. Stars indicate sample sites (stated in Table 1 in the appendix). The top value of the label is the water clarity at that site in feet with the bottom value being the depth at that location in feet. X's indicate sturgeon spearing registration stations. Exact values can be found in Table 1 in the appendix.

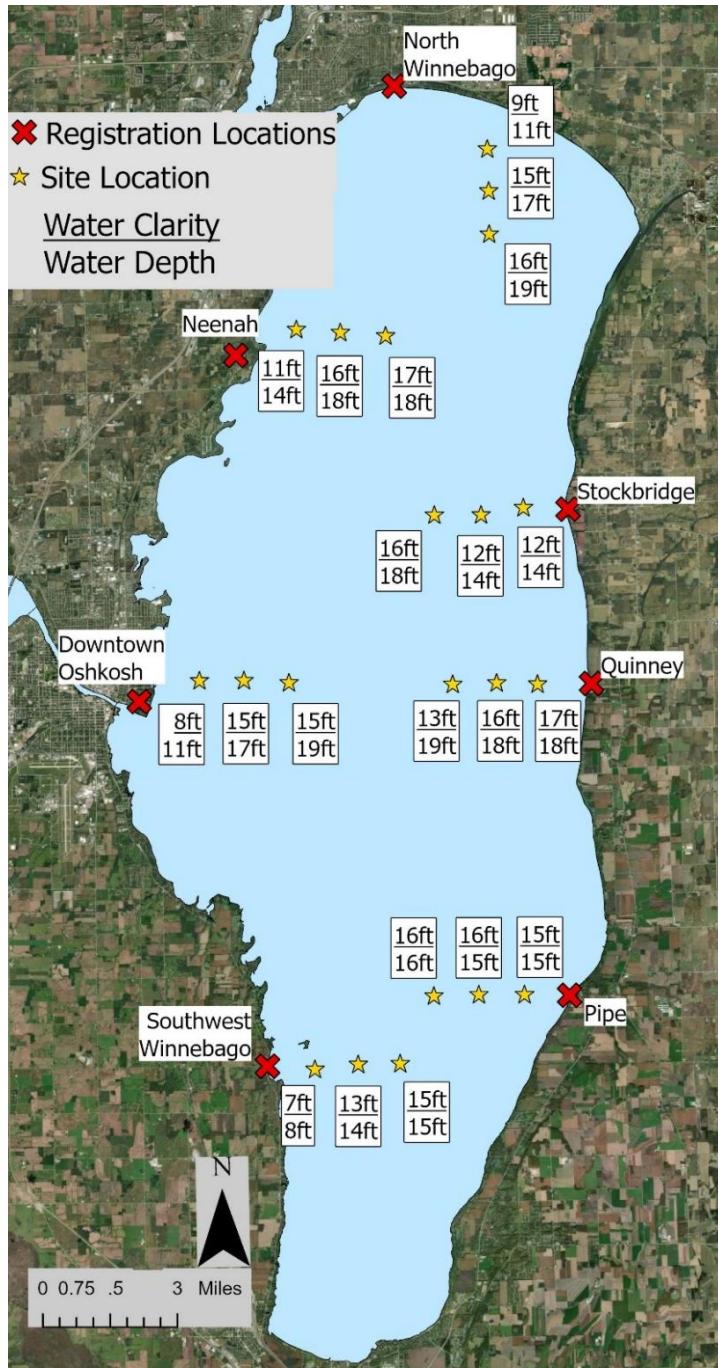
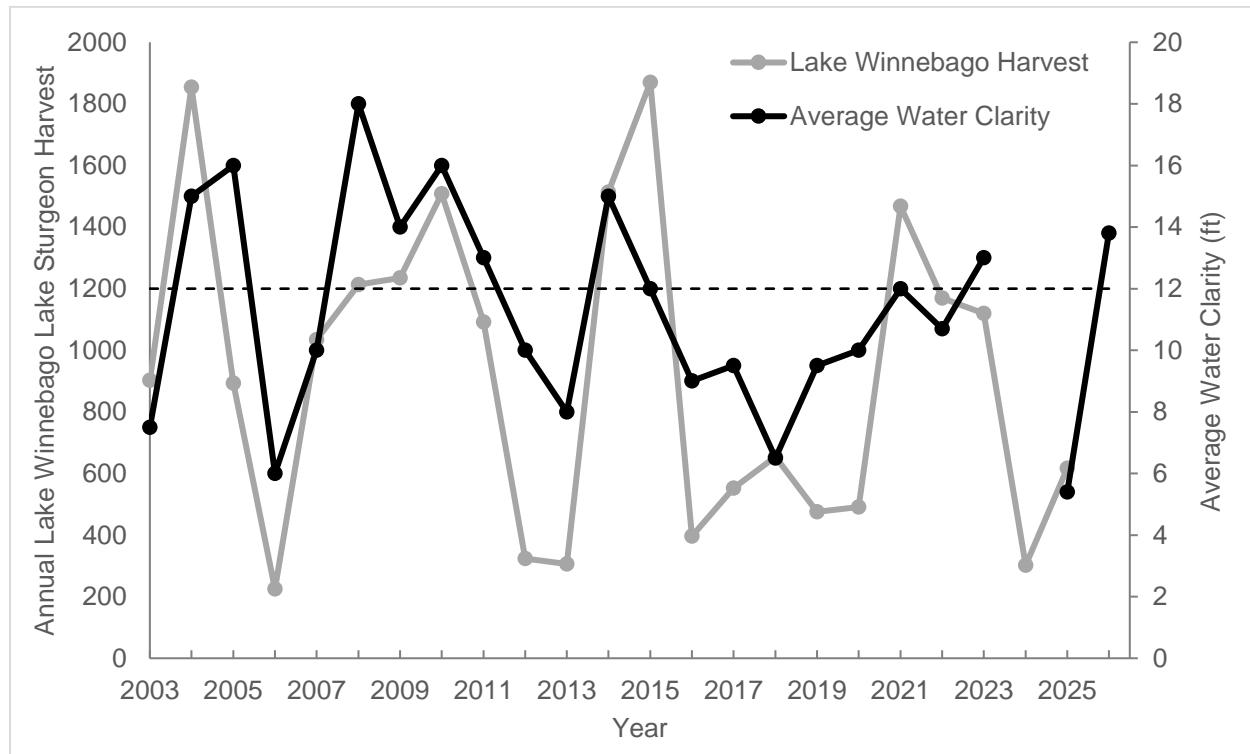


Figure 2. Lake Winnebago average water clarity (black series; right y-axis) and total annual spear harvest (grey series; left y-axis). Dashed lined represents the 12-foot clarity threshold. Exact values can be found in Table 2 in the appendix.



- The average water clarity around Lake Winnebago was 13.8 feet with an average depth of 15.6 ft that was checked around the lake. There were many areas where the water was clear all the way to the bottom (Figure 1).
- January of 2026 has been cold, but there has not been a lot of snow. Snow usually insulates the ice and prevents sunlight from penetrating into the water column. But reports around the lake is that the ice isn't clear but instead opaque and white. This is likely blocking sunlight from causing a large algal bloom.
- Water clarity readings were not conducted on the Upriver Lakes. Their shallower depths generally mean that water clarity is not as much of a factor when predicting Upriver Lake season length or success.
- In general, years with water clarity greater than 12 feet tends to lead to higher harvest season (Figure 2). Though ice conditions are also a factor. The last time water clarity was over an average of 12 ft was in 2023 but the ice conditions were not as well set up as the 2026 is setting up to be.
- The last time the Lake Winnebago season closed early was 2015 when the season lasted 8 days.

- Water clarity was extremely poor in 2025 due likely due to large algal blooms from sunlight. This likely had a direct effect on the low harvest last year.
- As always, check with the local fishing clubs for information on ice condition.

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Appendix

Table 1. Water Clarity Information on Lake Winnebago for 2026

Site	Mile	Water Depth (ft)	Water Clarity (ft)
Northern Winnebago	1	11	9
Northern Winnebago	2	17	15
Northern Winnebago	3	19	16
Stockbridge	1	14	12
Stockbridge	2	14	12
Stockbridge	3	18	16
Quinney	1	18	17
Quinney	2	18	16
Quinney	3	19	13
Pipe	1	15	15
Pipe	2	15	16
Pipe	3	16	16
Wendt's	1	8	7
Wendt's	2	14	13
Wendt's	3	15	15
Merritt St.	1	11	8
Merritt St.	2	17	15
Merritt St.	3	19	15
Neenah	1	14	11
Neenah	2	18	16
Neenah	3	18	17

Table 2. Water Clarity verse Lake Winnebago Sturgeon Harvest Information

Year	Average Water Clarity (ft)	Lake Winnebago Sturgeon Harvest
2003	7.5	902
2004	15	1854
2005	16	893
2006	6	225
2007	10	1034
2008	18	1213
2009	14	1235
2010	16	1508
2011	13	1091
2012	10	324
2013	8	306
2014	15	1513
2015	12	1870
2016	9	396
2017	9.5	552
2018	6.5	654
2019	9.5	475
2020	10	491
2021	12	1468
2022	10.7	1169
2023	13	1120
2024	N\A	302
2025	5.4	617
2026	13.8	No Data Available Yet