

# Southeastern Wisconsin **Regional Planning Commission**



## **Geneva Lake Recreational Use**

Geneva Lake Management Plan Focus Group Meeting  
Lake Geneva, WI  
May 21, 2024



The background of the slide is a photograph of a large body of water, likely a lake, with a dense line of green trees on the far shore under a clear, bright blue sky. The water in the foreground shows gentle ripples and some sunlight reflecting off its surface.

# Overview

**Geneva Lake Management Plan Update**

**Recreational Use History**

**2023 Lake User Survey**

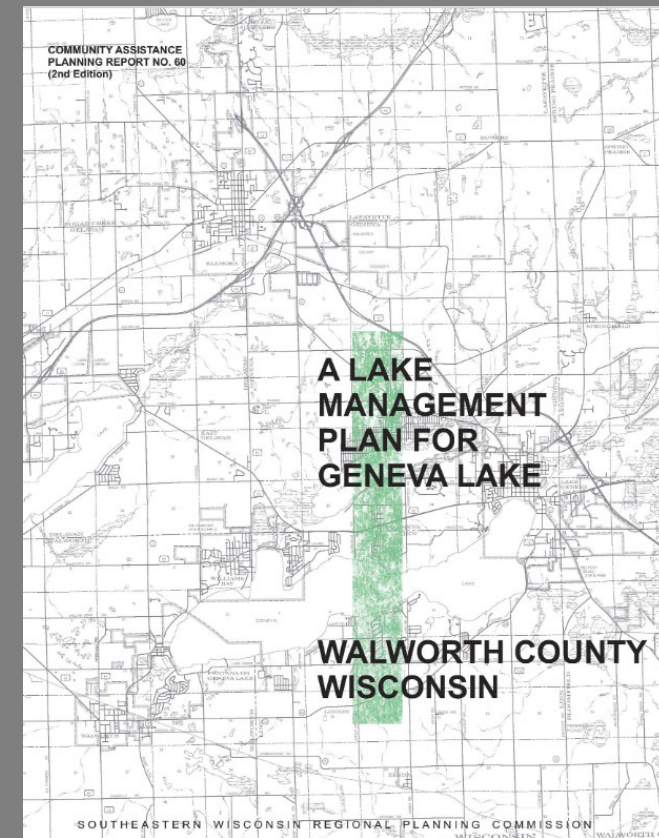
**2023 Boat Surveys**

**Lake Carrying Capacity**



# Geneva Lake Management Plan Update

- Comprehensive lake management plan that covers wide range of topics
  - Water quality, watershed characterization, aquatic plants, recreational use, fisheries, etc.
  - Update from 2008 plan
- Plan development
  - Partially funded by WDNR Surface Water Grant
  - Collaboration with GLC, GLEA, Water Alliance for Geneva Lake, Walworth County, WDNR and other partners
- Feedback from residents and other stakeholders
  - 2023 kickoff meeting and lake user survey
  - 2024 focus group meetings





# Long History of Water Recreation

- Resort town for Chicago families as early as 1860s<sup>1</sup>
  - Many summer homes built following 1871 Chicago Fire
- Geneva Lake ranked fourth-most visited inland lake in WI in 1989
  - Highest feeling of crowding reported in WI
- Multiple businesses that directly serve Geneva Lake users
  - Marinas, fishing guides, historical tours, paddle sport rentals, etc.
- Tourism economic in Walworth County valued at \$887 million in 2022<sup>2</sup>
  - Lake Geneva Region generated 70.5% of County's taxes from visitor spending in 2022<sup>3</sup>

<sup>1</sup>City of Lake Geneva, *History*. <https://www.cityoflakegeneva.gov/322/History>

<sup>2</sup>Wisconsin Department of Tourism, County Spreadsheet

<sup>3</sup>Lake Geneva Regional News, *Klett, Goodwin talk up record tourism economy in Walworth County*, September 2023



# Increasing Recreational Use Pressure

- Increasing demand for water recreation
  - Increase in boat sales during pandemic
  - Many different uses competing for space
    - Sailing, paddling, waterskiing, fishing, pleasure cruising, wake-boarding, etc.
- Larger and new types of boats
  - Boat hulls and horsepower are increasing
  - Wake-boarding boats generating larger waves





# Recreational Use as Part of Management Plan

- 2023 Kickoff Meeting
  - “Boating activity” identified as third-most important issue after water quality and invasives
- 2023 Lake User Survey
  - Sent to 1,000 households with lake access and another 1,000 households in watershed
  - Multiple questions characterizing recreational uses and concerns regarding use
- 2023-2024 Active and Moored Boat Counts
  - Characterize typical boat use conditions on Lake
  - Examine whether lake “carrying capacity” is exceeded
- 2024 Focus Group Meeting
  - Opportunity to hear concerns and ideas from Lake stakeholders



# 2023 Lake User Survey

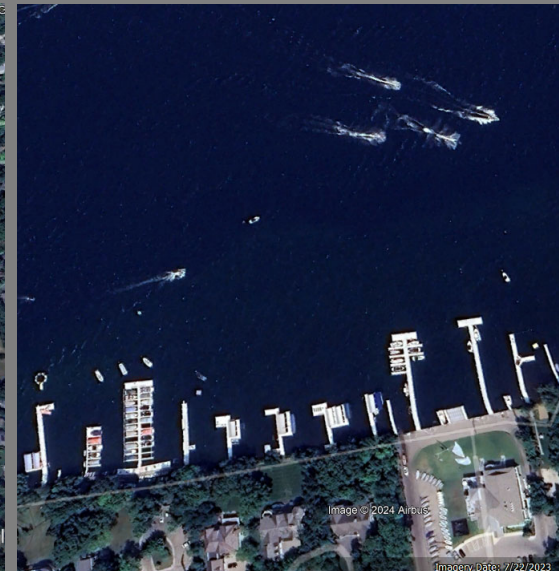
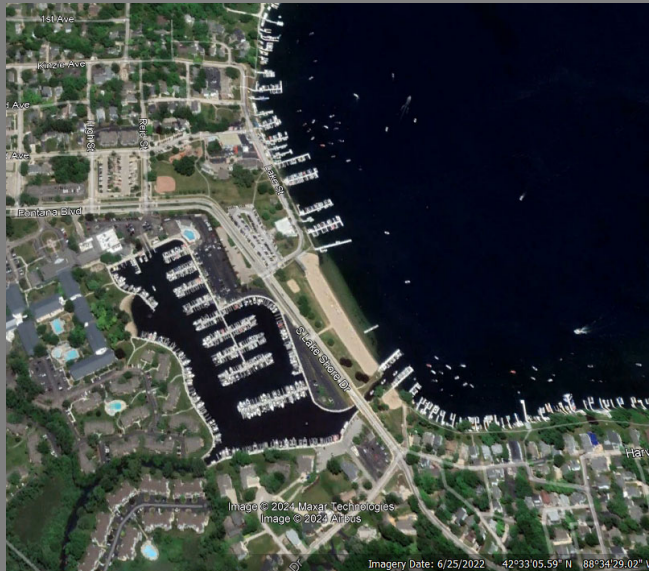
- 2,000 surveys mailed out (1,000 riparians and 1,000 watershed residents)
  - 274 responses (more from riparians than watershed residents)
- Survey respondents participate in variety of recreational uses of Lake
  - Swimming, pleasure cruising, and paddling most common summer active uses
  - Ice fishing, snorkeling, and wake boarding least common summer active uses
  - 81% of respondents recreate on Lake or shoreline at least weekly
  - Nearly half of respondents use motorboats on Lake at least weekly





# 2023 Lake User Survey

- Opinions on boat traffic and use conflicts
  - Traffic more of concern on weekends than weekdays
    - 34% of respondents either won't boat on Lake or regularly/frequently change boating plans on weekdays
    - 65% of respondents either won't boat on Lake or regularly/frequently change boating plans on weekends
  - Public launches and nearshore areas by launches are areas with most use conflict
  - 70% of respondents think commercial marinas are right size to support use





# 2023 Lake User Survey

- Opinions on boater activity
  - 70% of respondents consider most other boaters to be “courteous and law-abiding”
  - Survey respondents were “concerned” about following:
    - Excessive boat wakes (70%)
    - Not following ordinances (70%)
    - Poor boating behavior (67%)
    - Noise (65%)
- Boating regulation enforcement identified by 46% of respondents as one of their top three management priorities
  - Third behind invasive species management (55%) and water quality monitoring (50%)
- Increased boat launch fees ranked highest among potential fundraising options for lake management (selected by 38% of respondents)





# 2023 Boating Surveys

- Survey funded by GLC as part of lake management plan update
- Geneva Lake surveyed seven times in summer 2023
  - Utilized drone to get a snapshot survey
  - Reviewed video and categorized boat types and activities
    - Powerboats, fishing boats, personal watercraft, canoes/kayaks, etc.
    - High speed, low speed, fishing, etc.
- Surveyed the number of moored boats four times between June and August
  - Did not distinguish between different types of boats
  - GLEA also conducted a moored boat survey on August 2nd





# 2023 Boating Survey Results

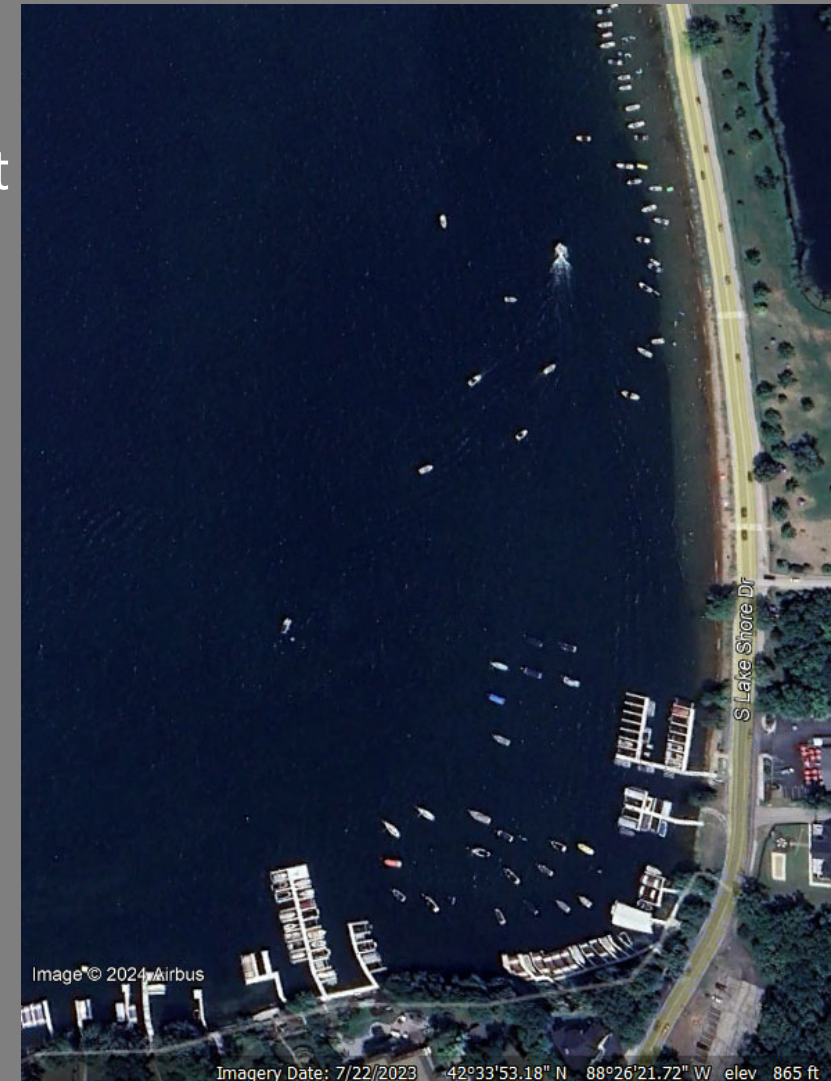
Date	Day of Week	Power Boats	Sailboats	PWC	Fishing	Paddling	Other	Total
6/12/2023	Monday	9	23		13		5	50
7/1/2023	Saturday	68		7	21	7	1	104
7/4/2023	Tuesday (July 4 <sup>th</sup> )	194	1	6	20	7		228
7/19/2023	Wednesday	94	8	21	7	10	2	142
8/11/2023	Friday	68	3	5	9	3		88
8/15/2023	Tuesday	16	1	0	10	2		29
8/19/2023	Saturday (Venetian Fest)	123	78	4	40	6		251

- Total boat counts lower than most previous surveys, which had averages of:
  - 74 boats on weekdays and 186 boats on weekends in 1960s
  - 494 boats in 1977 (650 boats on July 4<sup>th</sup>)
  - 647 boats in 1988 (1,120 boats on July 4<sup>th</sup>)
  - 394 boats in 2003 (512 boats on July 4<sup>th</sup>)
- Also counted 308 boats on July 22<sup>nd</sup> using aerial imagery from Google Earth



# Moored Boat Counts

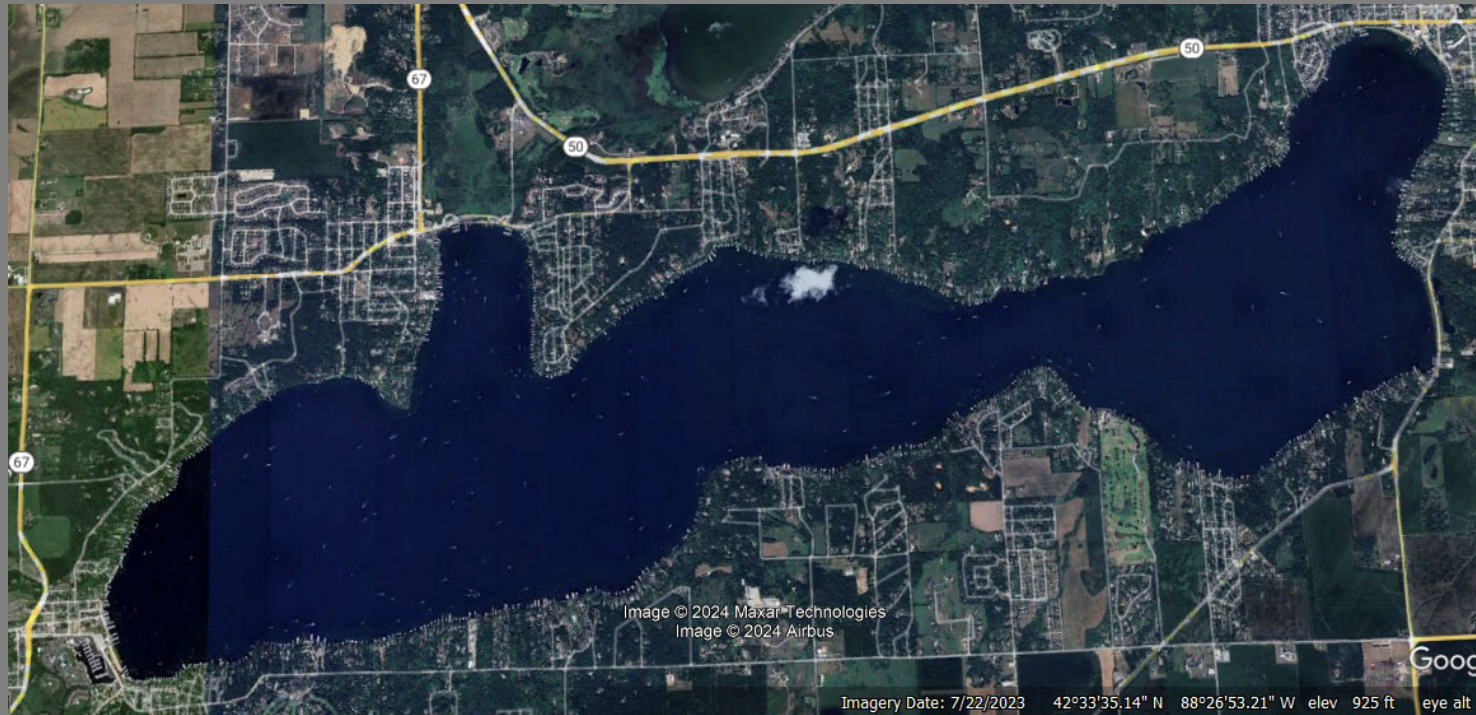
- Number of moored boats peaked in early August
  - 2,039 moored boats on June 12<sup>th</sup>
  - 2,919 on July 4<sup>th</sup>
  - 3,563 on August 2<sup>nd</sup> (GLEA survey)
  - 2,971 on August 15<sup>th</sup>
  - 2,927 on August 19<sup>th</sup>
- These counts do not reflect number of boats available for in-out service
- With in-out service boats, these numbers are roughly comparable with previous surveys in 1998 – 2003



Imagery Date: 7/22/2023 42°33'53.18" N 88°26'21.72" W elev 865 ft



# Lake "Carrying Capacity"



- Recommended maximum number of boats active on a given lake to avoid use conflict
- Calculated by determining an optimal boat density in usable acreage of lake
  - Useable acreage calculated as open water greater than 200 feet from shore
  - Assumes each boat requires 10 to 15 acres at any given time, depending on speed of boat operation
  - Assumes boats are spread uniformly across lake



# Lake "Carrying Capacity"

- Geneva Lake calculations
  - Useable acreage of 4,920 acres
  - Carrying capacity ranges between 328 boat and 492 active boats (high speed to low speed)
- Geneva Lake carrying capacity was not exceeded during 2023 surveys
  - Between 7.5% to 66% (Venetian Fest) of recommended carrying capacity
- Carrying capacity considerations
  - Acreage per active boat may be too small
    - Study used for analysis from early 2000s
    - Boat size and horsepower have increased substantially since that time
    - More area recommended for some activities, e.g. wakeboarding
  - Survey may have missed peak dates and times
  - Will be conducting surveys again in 2024 and rerunning analysis