



UPDATES

1. Economic impact of the lakes
2. State of the Lakes
3. Renew the Blue Council



*Our mission is to champion our lakes
and watershed stewardship
for the benefit of all*

Healthy Waters = Thriving Community

Cultivate love for the lakes





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\$220 million

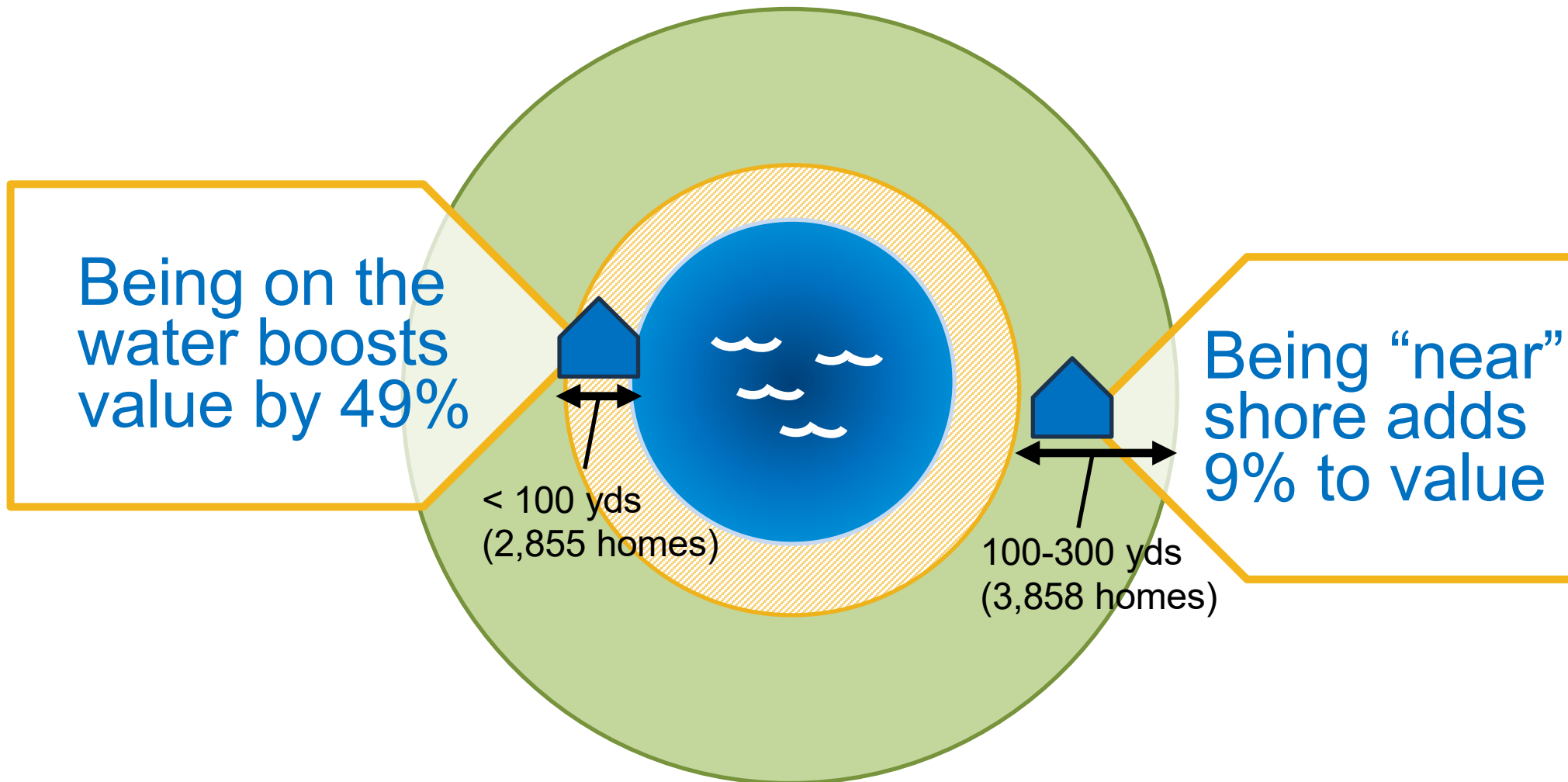
contributed annually
from the lakes

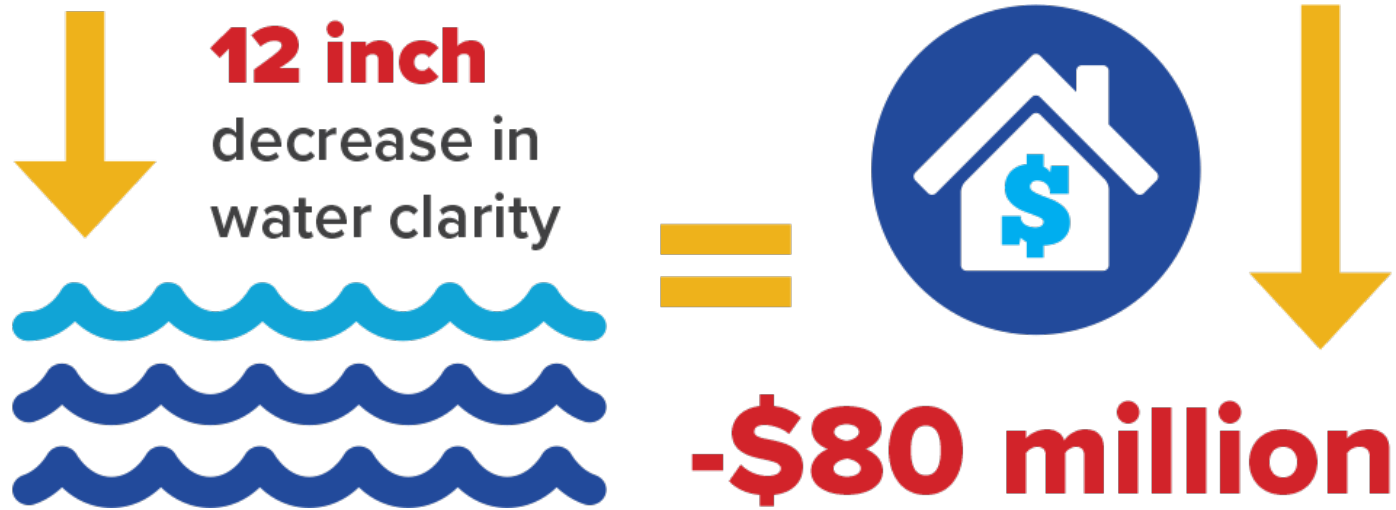
Direct: \$118 million

Indirect: \$ 53 million

Induced: \$ 49 million

Homes close to the lakes add **\$1.2 billion** in increased tax base

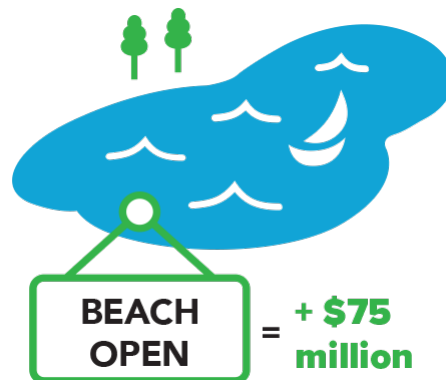






2.7 million

visits to Yahara chain of lakes



82%



of Dane County residents are
concerned about cyanobacteria blooms





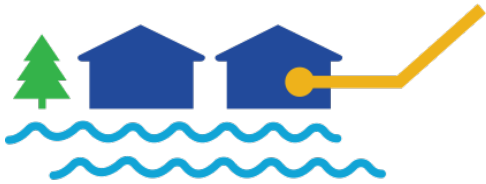
Randomized
intercept surveys

Lake users spend (on average)
\$21.11 per visit

1,800
FTE jobs
supported by
lake-user
spending



\$22.5 million •



generated annually in
property tax revenues
through the contribution of
near-shore homes.

- \$1.6 million
state personal income tax

- \$0.7 million
state business income tax

- \$6.0 million
state and local taxes

- \$4.9 million
local taxes from
lake-related business activity

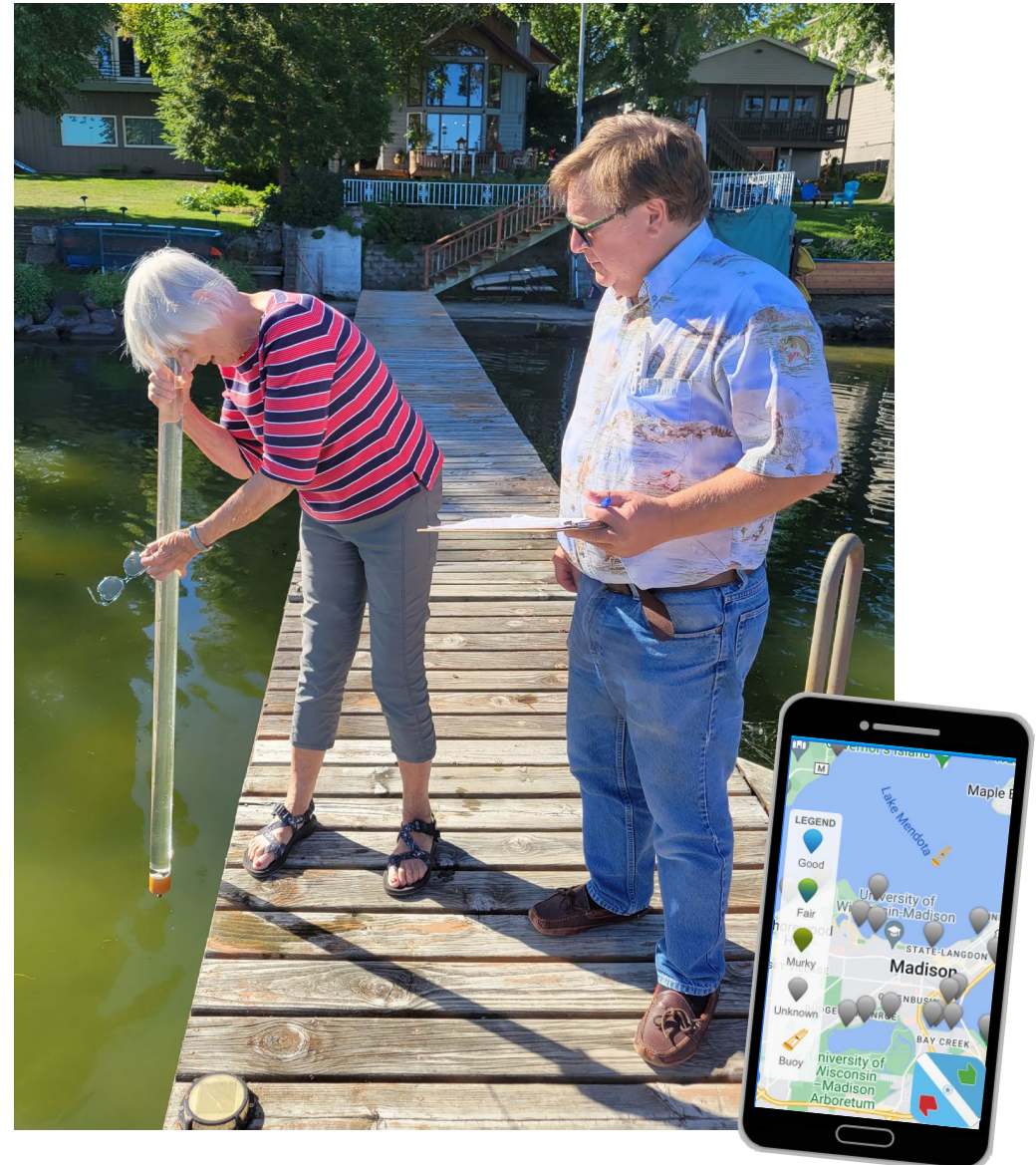
 **\$35.7 million**



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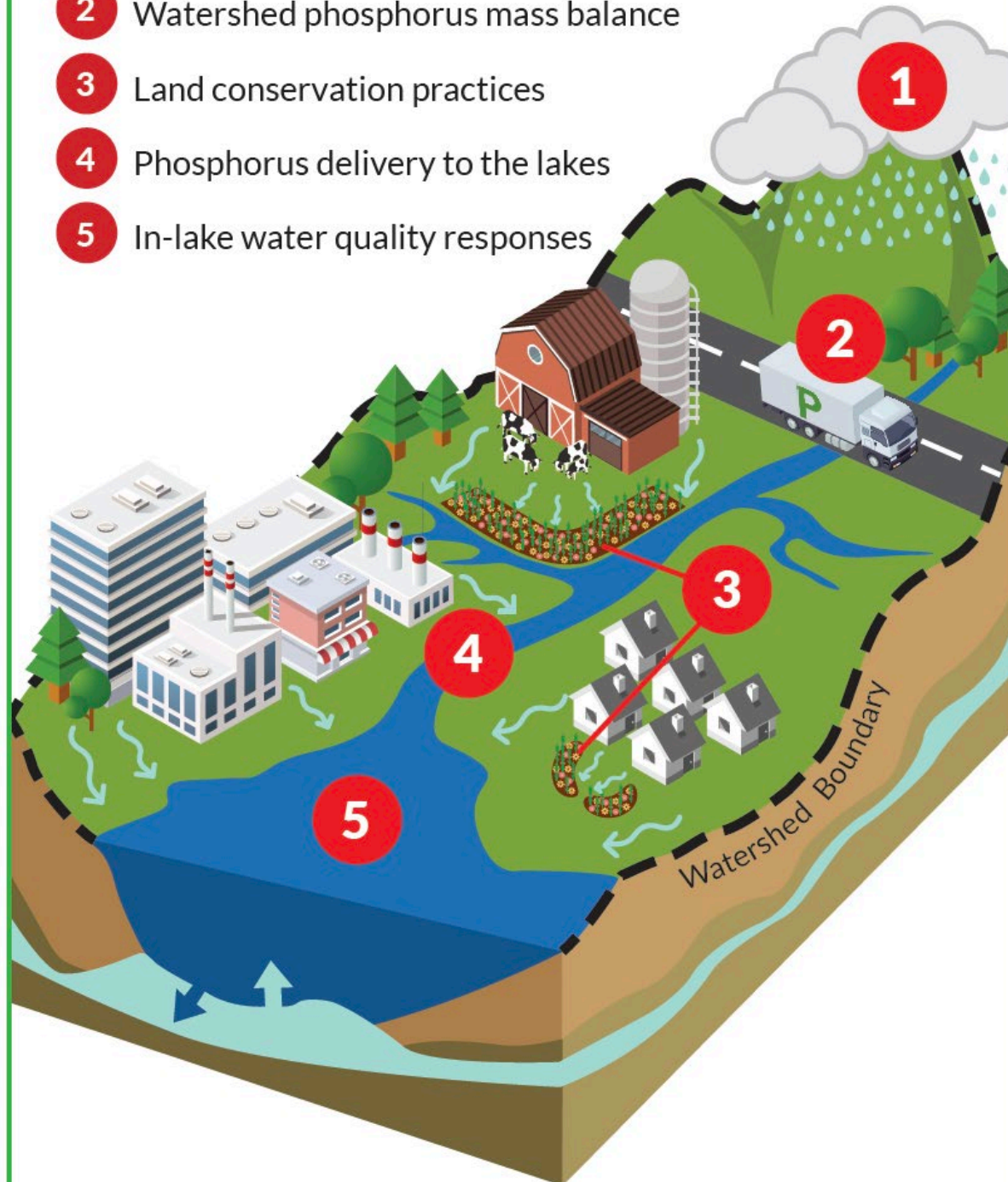
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Nurture and guide stewardship



AREAS OF ANALYSIS

- 1 Weather and climate drivers
- 2 Watershed phosphorus mass balance
- 3 Land conservation practices
- 4 Phosphorus delivery to the lakes
- 5 In-lake water quality responses





**Mendota, Waubesa,
Monona, Kegonsa**

Wingra

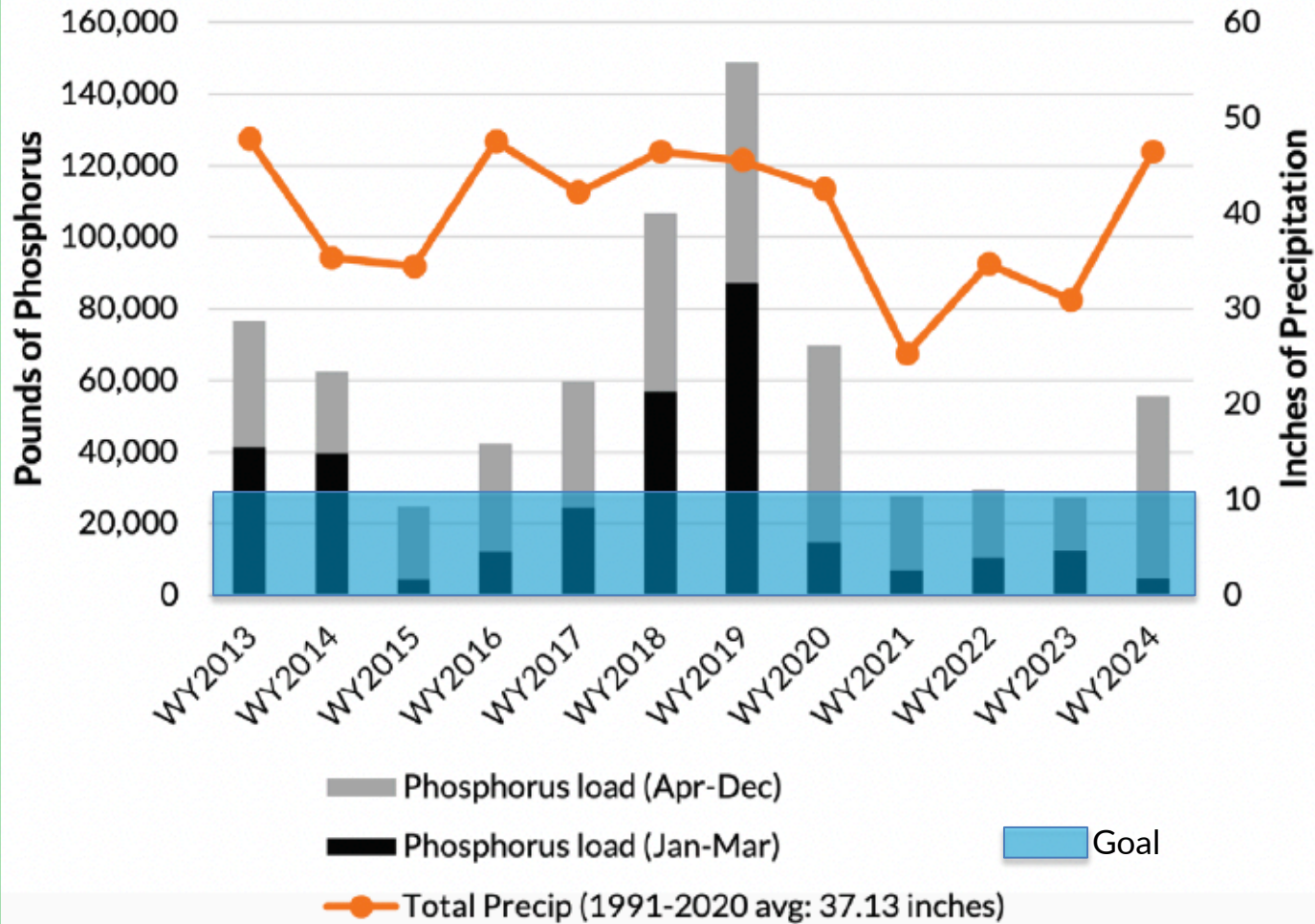
**2024
Phosphorus:**

**2024
Clarity:**

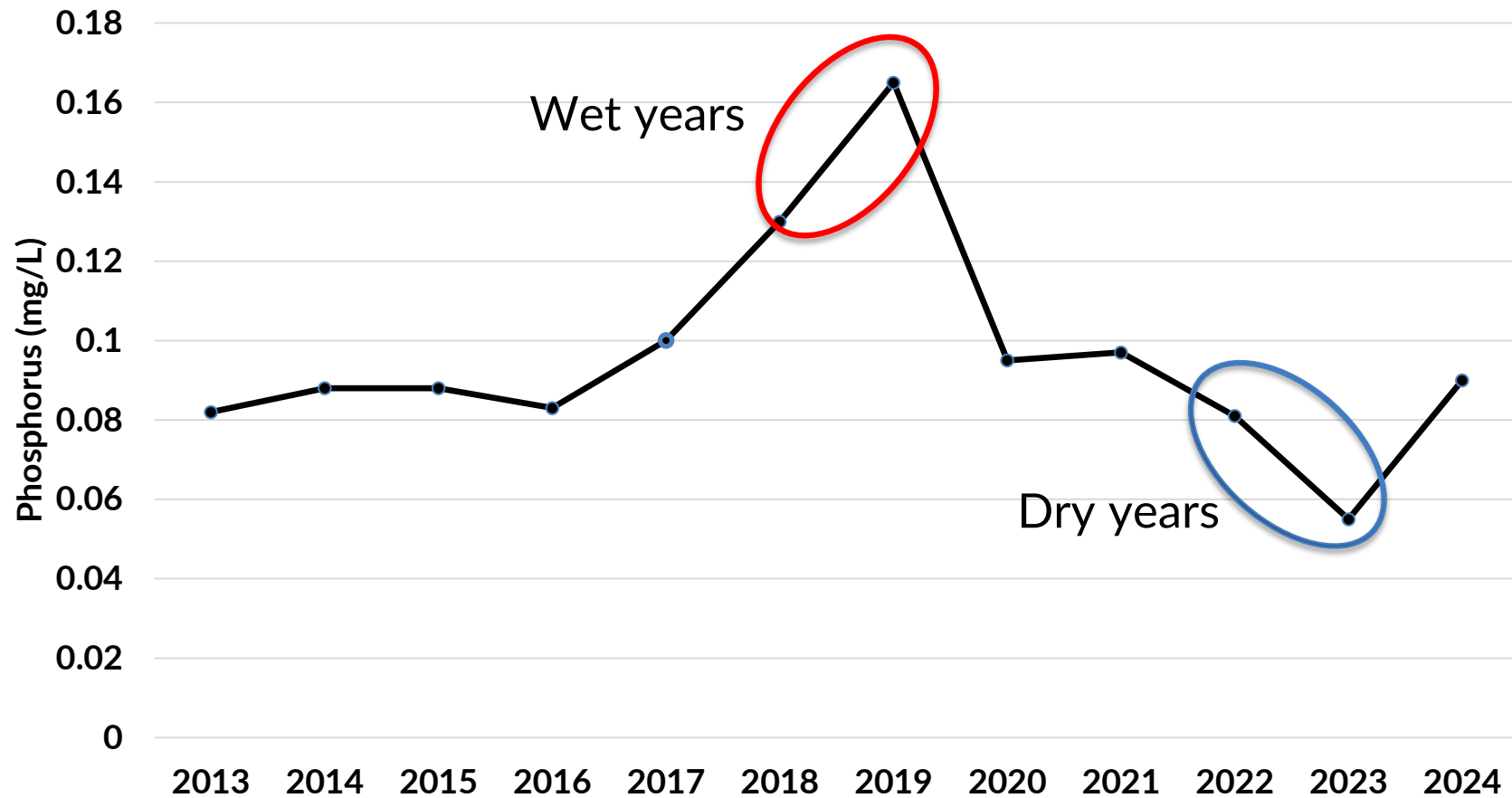
Poor	Fair	Good	Excellent
	✓		
	✓		

Poor	Fair	Good	Excellent
		✓	
		✓	

Tributary Phosphorus Loading to Lake Mendota Relative to Rainfall

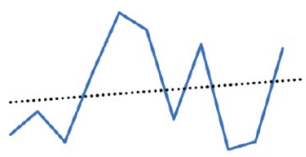
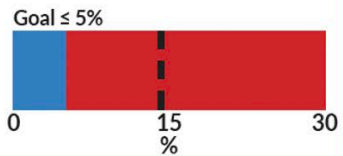


Lake Mendota Total Phosphorus at Fall Turnover



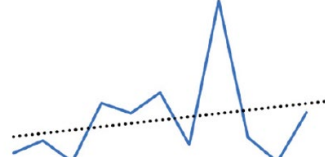
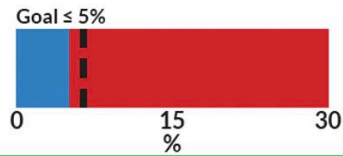
Cyanobacteria Blooms

Mendota



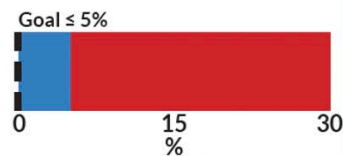
Lake Mendota

Monona



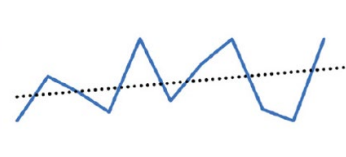
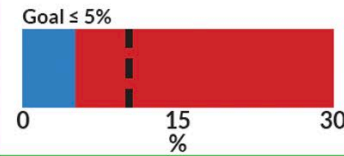
Lake Monona

Wingra

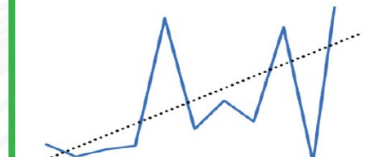
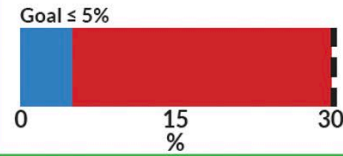


Lake Wingra

Waubesa



Lake Waubesa



Lake Kegonsa

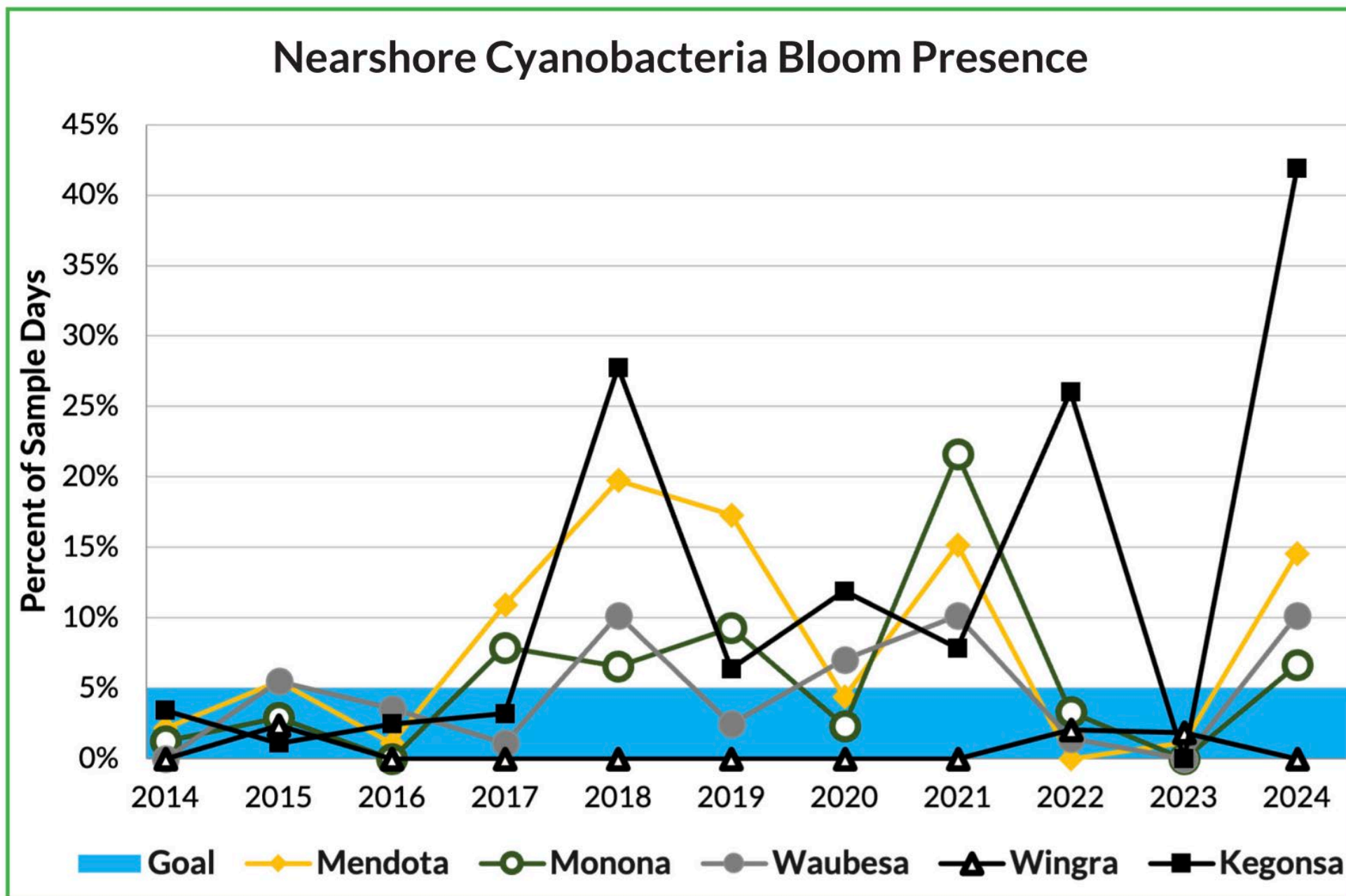


Figure 11: Percent of sampling days (Jun-Aug) when strong evidence of a cyanobacteria bloom was observed at one or more sites on each lake.

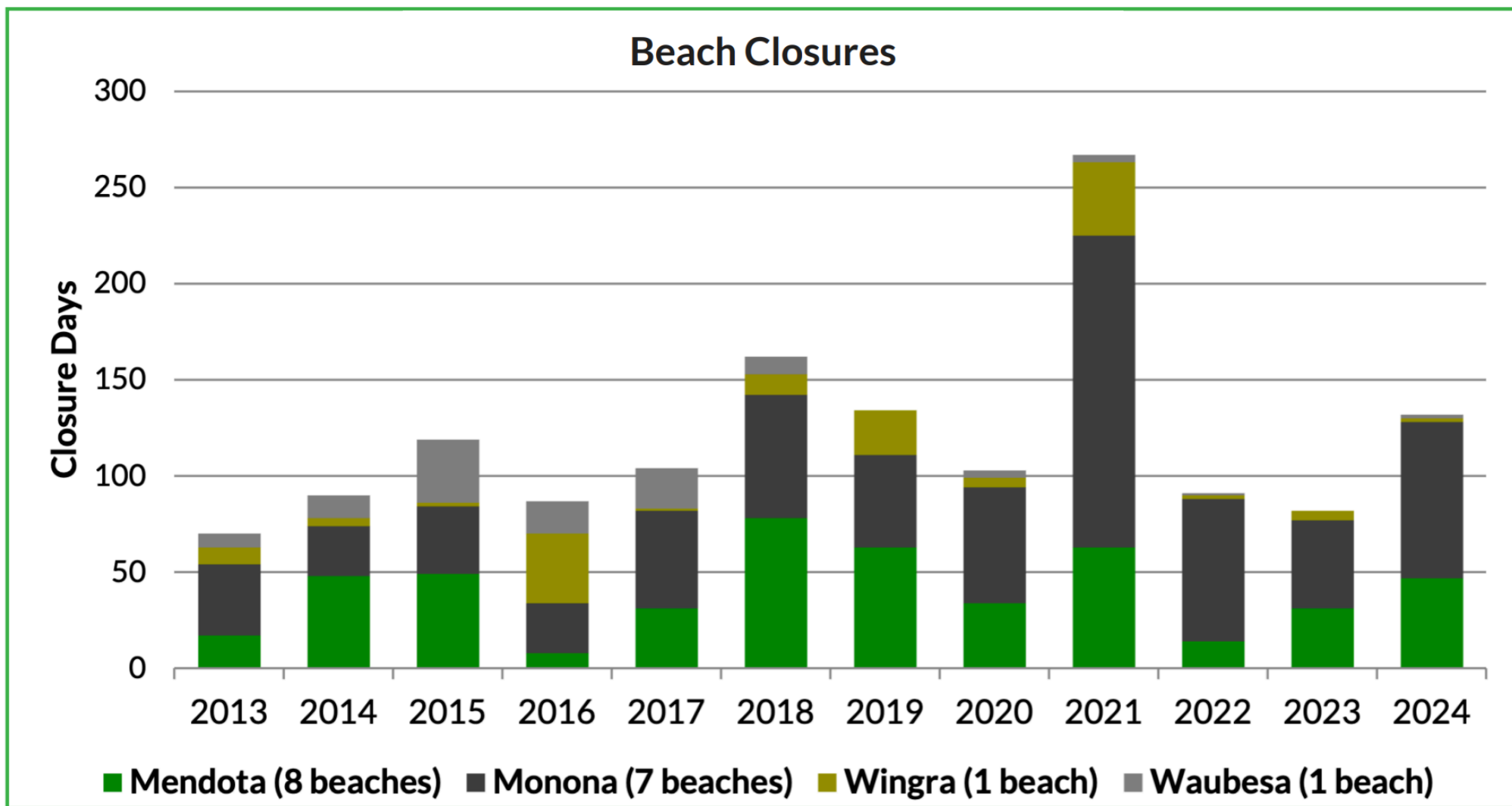


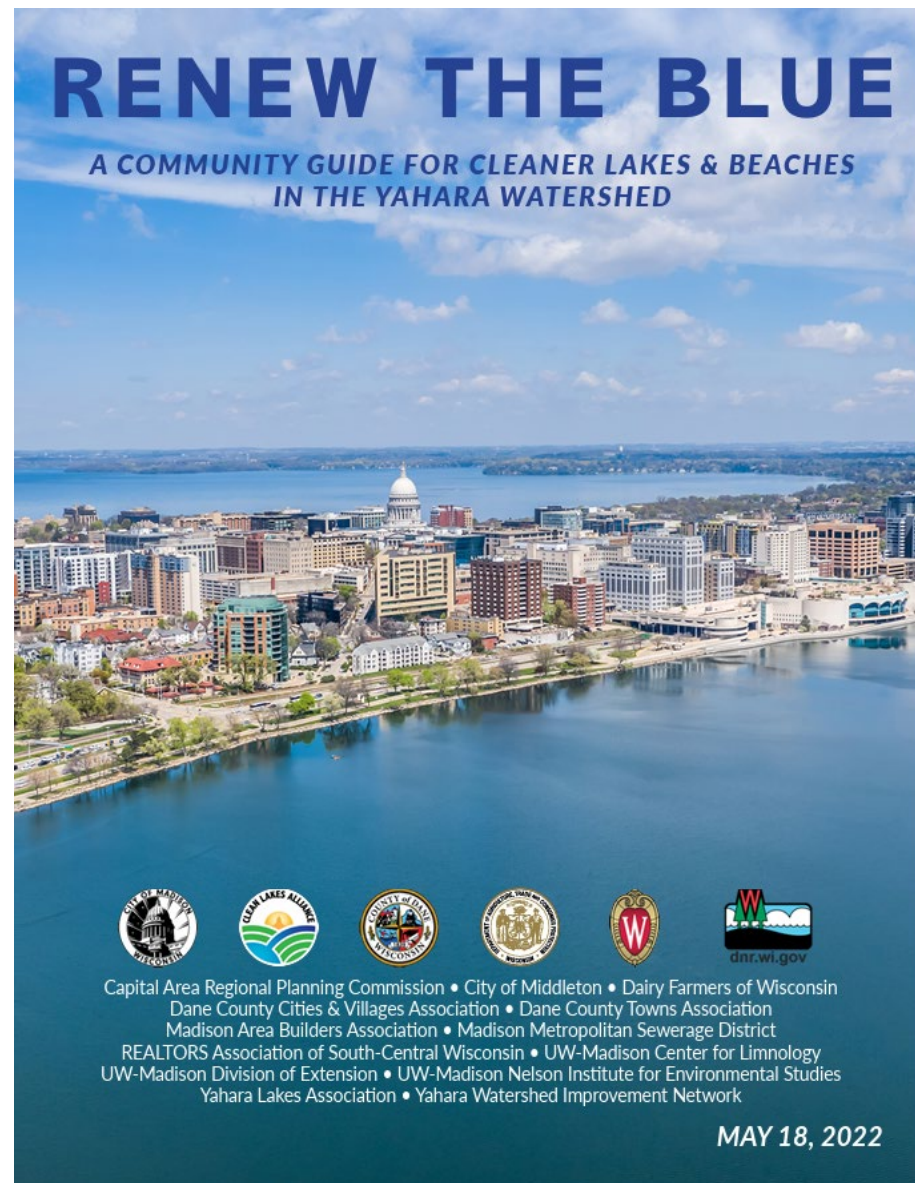
Figure 12: Beach closure days by lake. Includes beaches consistently monitored since 2013. Lake Mendota: Governor Nelson, Warner, Mendota County, James Madison, Memorial Union Pier, Marshall, Tenney (not tested in 2024), and Spring Harbor; Lake Monona: B.B. Clarke, Bernie's, Brittingham, Esther, Hudson, Olbrich, Olin; Lake Wingra: Vilas; Lake Waubesa: Goodland County; Lake Kegonsa: None. Data credit: Public Health Madison & Dane County.



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Advocate for needed solutions



Top Indirect-Impact Actions

1. **Continue to work together as Yahara CLEAN Compact members.** Maintain ongoing member meetings to collaborate on recommended actions, report progress, and coordinate around new initiatives. Ongoing collaboration should consider how actions might affect the watershed phosphorus mass balance, among other factors.

2. **Increase participation in producer-led watershed groups.** Expand farmer involvement in conservation planning and practice adoption through continued learning, information sharing, and distribution of cost-share incentives.



3. **Complete an inventory of shoreline and beach conditions.** Establish guidelines and criteria for the sustainable design, development, management, and restoration of shorelines and public beaches.

4. **Increase *E. coli* testing at public beaches.** Focus efforts on beaches shown to be most susceptible to problems. Assess *E. coli* bacteria sources at beaches with high closure rates so corrective measures can be taken.



5. **Continue to track and report progress.** Use and support the annual *State of the Lakes Report* as a means of outreaching to the community. Support continued maintenance and operation of stream-gaging stations that track changes in phosphorus loading.



**CLEAN LAKES 101
SCIENCE CAFÉ**

The Power of Poop: Digesters and the Path to Cleaner Water



*Speaker: Jessica Niekrasz
Niekrasz Consulting*

Photo courtesy Dane County

**September 9th
4:00-5:00 p.m.
The East Side Club**

Top Direct-Impact Actions

1. Build additional manure-processing capacity. Support farmers in using existing manure-processing facilities or to build their own on-farm systems. Pilot a manure-collection and processing program targeting the critical January-March period with the highest overall phosphorus loading.

2. Increase the ability to handle and transport manure. Use composting and other processing techniques to allow for improved timing and targeting of applications. Minimize chemical fertilizer use by substituting with composted manure or other sources of crop nutrients generated within the watershed.

3. Increase farmland acres guided by a nutrient management plan. Use plans to improve operational decision-making, ensure the most efficient use of costly nutrient inputs, and reduce the risk of phosphorus loss.

4. Increase farmland acres under no-till (or reduced tillage) and continuous living cover. Limit soil disturbance and maintain a living root in the soil with cover/forage crops, harvestable buffer strips, overwintering hay, etc. to build better soil health and reduce erosion.

5. Increase municipal street-cleaning miles and frequency during fall. Regularly remove leaf litter from streets to prevent rainwater-leached phosphorus from entering storm sewer systems.

6. Protect internally drained lands and wetlands. Use closed depressions (accounting for an estimated 41% of the watershed) to naturally retain and absorb runoff. Maintain and restore wetland function to achieve similar benefits.

7. Increase green-infrastructure installations in parks, new developments, and on existing residential and commercial properties. Incorporate nature-based solutions such as rain gardens, bioswales, infiltration trenches, and permeable pavement to capture, absorb, and filter runoff. Use tools such as stormwater utility credits, rate adjustments, and recognitions to reward action.